**Internal Learning Partnerships: A Study of Collaboration in a High-Performing Rural School**

by

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## Abstract

Over the past decades, schools' academic success has been a major focus in the Department of Education beginning with the No Child Left Behind Act (2001) up to the current education reform, Every Student Succeeds Act (2015). The prominent factor in the establishment of the schools' academic success is collaboration. Collaboration is the ability to work together to reach and achieve a common goal. Collaboration has become a vital factor in education as have the establishment of internal and external learning partnerships. Learning partnerships are becoming more prominent in schools today. Internal learning partnerships are partnerships developed and established within an organization (Fullan, 2000). The participants build respectable relationships and trust, identify common goals, and develop and implement learning plans that are beneficial for the organization.

This mixed-method case study was conducted to examine the levels of collaboration and internal learning partnerships within a high-performing rural intermediate school. This study focused on a partnership model by Reames and Kochan (2021) by viewing the key components of the model (relational factors, operational processes, and organizational structures). The purpose was to identify the extent of collaboration and internal partnerships through interviews and by analyzing network ties among the individuals within the school. This study was conducted within one rural high-performing school within one school semester during a worldwide COVID-19 pandemic. Data were collected through electronic surveys and video-chat interviews. Surveys were emailed to all teachers and administrators although responses were not received by all. Out of thirty-one individuals within the network, sixteen responded to the survey.

In this school, each grade level was identified as a community. The results of this study revealed that collaborative ties were strong throughout the entire network, especially in designated communities. Internal partnerships existed through various committees, departments, and celebrations. The key central actors in this study were the principal and counselor, which was a unique aspect. Furthermore, the findings supported the Reames and Kochan (2021) partnership model by identifying positive and effective characteristics under each component of the model.

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# Chapter 1: Introduction

## Background

Decades of school reformers at the national and state levels have aimed to improve student outcomes by adjusting multiple variables including school leaders, school curriculum, student assessments, teacher preparation, and instructional practices. Brimelow (1986) believed that public education was not effective and so reform was needed to serve as a positive reinforcement for the economic and social interests of the nation. After many reform efforts, the No Child Left Behind Act (2001) was established under the Bush administration. This act placed great emphasis on student achievement by assessing school performance with an implication of school accountability (www2.ed.gov/nclb). Race to the Top (2009), one such reform effort, is a part of the American Recovery and Reinvestment Act of 2009. This act provided what other efforts did not; this initiative assessed teacher quality by student performance as well as school leader accountability. The Race to the Top assessment program also provided competitive grants for state and K-12 school districts (oese.ed.gov/offices).

President Obama's administration enacted the most current education reform act in 2015, the Every Student Succeeds Act (www.ed.gov/essa). This innovative reform is an update to the No Child Left Behind Act and a revised endorsement of the Elementary and Secondary Education Act of 1965. This act focuses more on students' successful preparedness for college and careers regardless of their demographics (ethnicity, economic status, funding, and location), intervention opportunities for students who are continuous low performers, strategies to close achievement gaps, and promotion of excellent pre-kindergarten programs (www.ed.gov/essa).

In addition, ESSA provides states more flexibility in three areas. The three areas include the selection of student assessments, indicators for Adequate Yearly Progress (AYP) Report, and

focus on teacher effectiveness and quality (www.ed.gov/essa). While national and state reform efforts permeate throughout our educational history, researchers conclude that the most recent efforts have aimed to improve "instructional quality and student learning through an increased focus on collaborative practices in schools" (Moolenaar et al., 2012, p. 251).

School accountability has been on the rise with standardized assessments as its main priority. The Southern Regional Education Board (SREB) works closely with specific states to help achieve accountability. SREB is an organization that has partnered with sixteen states to provide research and recommendations which aim to improve the quality of education. This organization collects, analyzes, and reports accountability data. They publish reports that disaggregate the performance indicators by state. While each state may have different measurable indicators for accountability, some states' indicators are standardized test scores and graduation rates. Standardized testing is a common trend nationwide, and its scores are the primary measure for school quality.

SREB conducted a small study on effective teaching communities to identify commonalities on high-needs high-performing schools (Gandha & Baxter, 2016). Data were collected from schools in one participating state. Some of the common characteristics displayed among the schools were strong teacher compassion, administration, staff and student collaboration, school culture, shared common goals, high student expectations, teachers' self-reflection and self-evaluation, and planned grade level and staff meetings. In their study, two schools shared the importance of parental engagement, communication, and teachers' willingness to work with and instruct parents. Also, one high-performing school shared the importance of students reflecting upon and evaluating their own data. SREB has encouraged the importance of collaboration to improve and enhance student learning and school improvement.

### *Impact of Partnerships and Collaboration*

According to Grobe (1990), the term partnership became popular in the late 1970s. "Partnerships are strategic relationships among organizations that retain substantial independence" (Berliner, 1997, p. 2). Partnerships have expanded in the wake of an era of high accountability. While partnerships with schools and other agencies have existed for decades, the need for a collaborative partnership that impacts teaching and learning has emerged. According to Barnett et al. (2010), not all partnerships are collaborative. In the past, schools have been working with organizations (businesses/agencies) to assist in the funding of programs, equipment, and incentives for students (Grobe, 1990; McCord, 2002). Continually, schools were looking for financial support from external partnerships to assist in the development and/or initiation of programs (Russell & Flynn, 2000).

The Regional Laboratory for Educational Improvement (1986) characterized successful partnerships as the following:

> …an exchange of ideas, knowledge, and resources. Partners form a mutually rewarding relationship with the purpose of improving some aspect of education. The relationship must be based on the identification and acceptance of compatible goals and strategies. In addition, the partners should respect the differences in each other's culture and style, striving to apply the best of both worlds to achieve established goals. (p. 5)

Learning partnerships have a process for establishing and implementing a successful relationship. Trubowtiz (1986) offers eight stages in the development of a successful partnership. Those stages are (1) hostility and skepticism, (2) trust, (3) period of truce, (4) mixed approval, (5) acceptance, (6) regression, (7) renewal, and (8) continuing progress. "… it is possible to

reach a plateau at any of the stages we have identified" (Trubowitz, 1986, p. 19). Themes of the developments of learning partnerships include individuals communicating, making decisions, and working together which portrays collaboration (Damore & Murray, 2009; Tschannen-Moran, 2001; Uline et al. 1998). Under Trubowtiz's model, the term collaboration was not identified but has now been identified and studied in current studies as a key factor in creating an effective learning partnership (Trubowtiz, 1986).

Barnett et al. (2010) established a framework that described the following four types of learning partnerships: vendor model, collaborative model, symbiotic partnership model, and spin-off model. The models range from basic (characterized by lacking intentional collaboration) to complex (characterized by in-depth, extensive collaboration). This framework can be utlized by various organizations and in different dimensions. A majority of all learning partnerships fall under one of the four models described by the figure above. Collaboration is the nexus for partnership development.

Most recently, Reames and Kochan (2021) created a learning partnership model that identified three major components (relational factors, organizational structures, and operational processes) with collaboration identified as the main factor that ties the components together. The purpose of the model was to narrow down and identify key areas that establish and assist in the sustainability of an effective learning partnership. The three major components revolve around each other to build and develop a strong connectedness between each component to produce a successful community of practice for leaders and schools. The relational factor component involves the level of ties and personal relationships between the individuals with the learning partnership such as trust, support, communication, and social and professional ties. The organizations' and schools' policies, procedures, and requirements that establish the regular

effectiveness of the learning partnership are under the organizational structure component. The operational processes component involves the evaluations, reflections, and resources that maintain the functionality of the learning partnership. This model offered educational leaders and schools a more direct strategy through collaboration in establishing learning partnerships. Collaboration is the linchpin for establishing schools with a growth mindset. These types of schools tend to be high-performing and student-centered.

Universities have learning partnerships with other organizations to better prepare effective school leaders. Some examples of the organizations that universities partner with are the University Council for Educational Administration (UCEA), the National Council for Professors of Educational Administration (NCPEA), the American Educational Research Association (AERA), and the Interstate School Leaders Licensure Consortium (ISLLC). These organizations develop teacher standards, provide empirical research studies, and offer seminars and trainings to assist in the preparation of future educational professionals. Internal learning partnerships are organizations that collaborate and work with each other to develop appropriate and effective goals, visions, objectives, and standards. Internal learning partners are individuals or groups that work together within the same building. These partners establish and build relationships with each other to enhance the purpose and structure of the organization. Some essential focuses of these educational internal learning partnerships are developing effective school leaders and teachers, improving the educational process through research, and increasing student achievement.

### *Collaboration*

Over the last three decades, schools in the United States have been under pressure to improve student learning by making collaboration more prominent (Goddard et al., 2007).

According to Beabout (2010), “only with collaboration can significant improvements begin” (p. 26). Researchers have stated that changing the culture of the school and the classroom from that of isolation to one of collaboration is an avenue for school improvement. Some schools, however, struggle with change and continue to operate in their normal routines (Pounder, 1998). In the past, traditional classroom teaching was done in isolation where teachers relied solely on their previous training without the benefit of communicating and receiving feedback from their peers. Consequently, teachers were separated from their peers both physically and intellectually (Lortie, 1975) and protective of individual teaching space (Richardson, 2003). School settings are being transformed into a more inclusive environment which includes teacher collaboration, professional learning communities, and the enhancement of student learning. While there is scarce evidence of the relationship between teacher collaboration and student achievement, researchers imply that as teachers collaborate professionally, the collaboration improves the teacher and ultimately improves student outcomes (Moolenaar et al., 2012).

According to Mattessich et al. (2001), collaboration is defined as “a mutually beneficial and well-defined relationship entered into by two or more organizations to achieve common goals” (p. 4). “Working together on shared tasks to produce jointly-created work that is more than the sum of its disparate parts” is identified as true collaboration (Agosto et al., 2013, p. 2).

**Purpose of the Study**

The present case study aims to examine a high performing rural elementary school in southeastern Alabama to understand the extent of internal learning partnerships through collaboration in accordance with the schools’ state report card grade. According to the National Center for Educational Statistics’ (NCES) 2018-2019 census, there were approximately 27,000 rural schools in the United States and 1538 in Alabama (www.nces.ed.gov). “Approximately, 51

million rural residents rely upon rural schools to shape and structure their increasingly diverse communities; their economics, their politics, and their social interactions are fueled by these schools" (Tieken, 2014, p. 7). Although urban schools are identified by their locations within a city and/or state, it is not clear if they have similar challenges as do rural schools (Tieken, 2014). State and national departments of education identified most rural schools' accountability as low performing, but there are some high-performing rural schools, and they are worth studying regarding their collaboration and internal learning partnerships.

Research studies show that rural schools have advantages such as small school population, educational culture, level of training, teacher experience, and safe environments as well as disadvantages including higher levels of inequality, residential turnover, and physical and social interaction and limited economic opportunities and other educational resources (Beck, 2005). In rural school settings, these characteristics affect student learning positively and negatively. Educators in rural school environments experience more pressure than other schools due to the goal of achieving one hundred percent academic excellence (Barley & Beesley, 2007). The achievement goal of one hundred percent for every student was an objective of the NCLB Act of 2001. The federal government believed that every school in the nation could earn one hundred percent academic excellence in core subject areas regardless of their cultural background.

Low performing schools are becoming more prevalent in education because of educational reforms and individual states' accountability. "States customarily categorize schools as "low performing' or "failing" by virtue of persistently subpar scores on standardized tests, sometimes along with low graduation and high dropout rate" (Editorial Projects in Education

Research Center, 2004). In low performing schools, teachers and school leaders are more concerned for student learning than the parents (Elmore, 2006; Redding & Walberg, 2012).

Contrary to low performing schools, high performing schools are few in number. In some high performing schools, the concern with student learning is resolved by the students and their parents (Elmore, 2006). Parents and students are more engaged and motivated to enhance student learning by encouraging tutoring, targeted study sessions, attention to school assignments, and practices at home. There are some factors that have been characterized in high performing schools, such as high student expectations, alignment with curriculum, use of student data, positive teacher relationships, collaboration, community involvement, support for the administrative staff, and professional development (Corallo & McDonald, 2001; Elmore, 2006; Barley & Beesley, 2007).

In some states, high performing schools are rewarded based on their performance on assessments such as being eligible to receive money from grants, relief from certain identified mandates and other resources (Beck, 2005). Some schools do not make the percentile and are punished based on ethnic and student barriers. Most of the schools that are in this category are rural. There are some high-performing rural schools, but a majority of rural schools are identified as low-performing. Beck suggests that if all schools are measured based on common factors (not tax, minority percentage, residential mobility, and socioeconomic levels), then rural schools would have a better success rate.

**Significance of Study**

Educational institutions are seeking answers on how to improve school cultures and student achievement within them. Creating partnerships in which stakeholders work together has been one avenue for enhancing school cultures, collaboration, trust, and student learning. There

has been research conducted in elementary schools regarding collaboration and student achievement and collaboration and trust (Goddard et al., 2007; Tschannen-Moran, 2001). This research will expand research on the development of internal learning partnerships at the intermediate school. It should be of interest to school officials, administrators, teachers, school personnel, and community stakeholders who are seeking to foster student achievement as it will provide information about the value of collaboration through internal learning partnerships. It should also be of value to others who are seeking to conduct similar research.

**Research Questions**

1a. What is the centrality of collaborative partnerships in a high performing rural intermediate school? (SNA)

1b. What is the density of collaborative partnerships in a high performing rural intermediate school? (SNA)

2. To what extent do faculty and administration collaborate in a rural school? (Frequency table)
3. What are the a) relational factors, b) organizational structures, and c) operational processes identified in the school's internal learning partnership?

**Assumptions**

- Participants answered honestly and to the best of their ability.
- Collaboration in rural elementary schools existed and had a positive impact on student achievement.
- Achievement data used are accurate measures of student growth.

**Limitations**

The following are the limitations of this study:

- Lack of research about partnerships and collaboration and its relation to student achievement.
- Population size – if enough responses were collected per individual schools to make the study generalizable in the state of Alabama.
- Each participant was to complete a survey for responses to be counted in the data.
- Generalizability of findings may not be appropriate beyond Alabama.
- Generalizability may be dependent upon the percent of respondents.
- The study included one rural intermediate school in Southeastern Alabama.
- The study was conducted during a world-wide pandemic.

**Definition of Terms**

- Centrality: A characteristic of the node's position within the network structure (Borgatti et al., 2013).
- Collaboration: "involves working together to address common concerns with specific agenda for action" (Wasonga et al., 2011, p. 1036); "interorganizational, cooperating, decentralization of decision making, inclusion of others, collection of knowledge and expertise, involvement of external and internal partners having equal voice and focus on a common goal" (Tschannen-Moran, 1998, p. 309).
- Density: "The number of ties in the network, expressed as a proportion of the total number possible" (Borgatti et al., 2013, p.150).
- Every Student Success Act (ESSA): An educational reform signed in 2015 that established an equal educational opportunity for all students with an emphasis on school accountability and teacher quality (www.ed.gov/essa).

- External partners: Individuals who are related/connected to the organization but work outside of the structure of the organization.
- Internal Learning Partnerships: deep collaborative learning and efforts that emphasize a common goal inside one organization (Saltiel, 1998).
- Partners: Individuals who are within and directly related to the organization.
- No Child Left Behind (NCLB): An educational reform established in 2001 under the Bush administration to focus on closing the gap of student achievement through accountability and flexibility (www2.ed.gov/nclb).
- Partnerships: "are strategic relationships among organizations that retain substantial independence" (Berliner, 1997, p. 2).
- Professional Learning Communities: "A systematic process in which teachers work together to analyze and improve classroom practice" (DuFour, 2004, p. 3).
- Social Network Analysis (SNA) – "a systematic approach used to quantify and visualize the ties and overall structures of formal and informal networks" (Daly et al., 2010, p. 360).

## Chapter 2: Literature Review

Successful schools have positive climates, cultures, and academic success. In these types of schools, there are strong positive relationships among administrators, faculty, staff, and stakeholders such as students, parents, and community members. Continuous improvement is a strong focus of the school. Schools that are continuously improving have clear visions and missions (Barnhardt, 2016) and are often referred to as learning organizations (Senge, 2017). In schools with strong professional learning communities, students have positive attitudes, and there are usually fewer behavior problems because there are positive school structures that support continuous improvement and rigorous curriculum. The success of these schools comes from the development of collaboration between teachers, administrators, students, and other stakeholders (Goddard et al., 2007).

Some researchers consider these collaborations to be an integral part of the partnerships that exist in these positive school cultures. Furthermore, the research also suggests partnerships within the learning organization can be defined as internal partnerships (Kochan & Mullen, 2003; Kochan et al., 2020).

### Partnerships: Internal and External Partnerships Identified

Partnerships have been increasing across multiple disciplines such as business, industry, and education. Over recent decades, there has been increasing demand for partnership arrangements in education (Goduto et al., 2008; Hudson, 2016; Salas-Morera et al., 2012). Researchers have found partnerships to be one of the strategies used to improve student learning and build positive relationships between schools and universities (Kochan & Kunkel, 1998). Currently, a majority of established educational partnerships are between two universities or between universities and K-12 school systems. While the term partnership implies different levels of relationships in different contexts, the United States has been using the term

*partnership* with a broad meaning implying arrangements with schools or districts, internships, teacher trainings, universities improvements, and business agreements (Coburn & Penuel, 2016).

Trubowitz (1986) established eight stages to enhance the development of a successful partnership. The stages were (1) hostility and skepticism, (2) trust, (3) period of truce, (4) mixed approval, (5) acceptance, (6) regression, (7) renewal, and (8) continuing progress. Trubowitz believed that beneficial progression through each stage would ensure an effective partnership between two or more organizations. Each stage provided vital implementation steps that needed to be carried through each stage of the development process. Specifically, at Stage 1 Hostility/Skepticism, there are often unresolved issues and negative perceptions particularly if there were prior interactions between organizations. At stage 2 Lack of Trust, there is a need to develop confidence in the process, the people, and partnership. It is exemplified by mutual respect for expertise, experience, and ideas. At stage 3 Truce, the tension lessons and perceptions are improved as organizations continue to work together. At stage 4 Mixed Approval, partners on both sides experience a sense of reward for various reasons. Approval and respect are often documented and considered a success. At stage 5 Acceptance, characterized as "a period of stability" (p. 20), those who are committed to the partnership are welcomed and embraced, and those who are not are weeded out. ".. a time in which professors and public-school staff see the mutual benefits of collaboration" (p. 20). At stage 6 Regression, the initial vision is revisited with new suggestions postponed. The current changes are evaluated. At stage 7 Renewal, a rekindled enthusiasm also known as the stage of transfusion. At stage 8 Continuing Process, the partnership becomes sustainable. The establishment of the partnership should have a forward movement with changes and improvements. These stages need to be established at the beginning of building a partnership between two or more organizations (Trubowitz, 1986).

Barnett, et al. (2010) stated “partnerships are based in people, values and the interactive processes between humans and organizations” (p.14). Partnership is “an alliance of resources and expertise between organizations aimed at achieving a mutually desired outcome” (Barnett, et al., 2010, p. 14). In education, established partnerships are based on the willingness to work together, assisting teachers to improve practice and clearly define roles (Brady, 2002; Chou, 2012). They are formed with one or more organizations, which play an active role for a true partnership to be established and/or exist. The commitment of involvement, a shared goal, and communication are essential to successful partnerships.

The purpose of partnerships in schools is to provide solutions for improving learning, teaching and student achievement, to develop a richer and more extensive program, and to change individuals’ mindsets, attitudes and behaviors (Coburn & Penuel, 2016; Cohen, 2011; Goduto et al., 2008). Partnerships offer “equal participation, long-term commitment, mutual support and open communication” (Kochan & Kunkel, 1998, p. 325). Furthermore, goals and visions of partnerships are unable to be achieved without the development of a partnership (Saltiel, 1998). The failure of many partnerships is largely due to the lack of understanding of the meaning and purpose of the partnership. For example, New Jersey-National Council for Professors of Educational Administration (NJ-NCPEA) had a collaborative learning community that included colleges and universities in New Jersey. The community’s goal was to revise the preparation programs for education and their leaders using the New Jersey professional standards and Interstate School Leaders Licensure Consortium (ISLLC). During the revision process, the community participants recognized that they were reinventing the same program. Upon this realization, they concluded that to improve the preparation programs, a partnership with K-12

practitioners needed to be developed, and it would help with the overlapping of services and work toward the singular goal to revise the preparation program (Goduto et al., 2008).

According to Brady (2002), the purpose of partnerships between schools and universities is "fostering collaboration in the development of criteria, processes and procedures for the accreditation of those schools providing professional experience for student teachers and the definition of respective roles in the induction of teachers" (p. 1). This purpose was designed to develop partnerships for education preparation programs. Considering the main purposes of establishing a school-university partnership, the development of building relationships, trust, and networking between schools/universities and individuals also became important factors. A positive outcome of this type of partnership can be successful.

Grobe (1990) identifies factors that associate with the development of a successful partnership. These factors were top-level leadership grounded in community needs, effective public relations, clear roles and responsibilities, racial and ethnic involvement for urban areas, strategic planning, effective management and staffing, shared-decision making/interagency ownership, shared credit/recognition, appropriate well-times resources, technical assistance, formal agreements, actions/frequent success, patience/vigilance/increased involvement, and local ownership (as cited in Barnett et al., 2010, p. 16). These factors contributed to the establishment of a successful partnership.

***Key Principles to Succession of Partnerships***

Some principles have been identified to assist in the succession and effectiveness of partnerships. Knight (2011) identified the following seven principles to a partnership approach: (1) equality, (2) choice, (3) voice, (4) reflection, (5) dialogue, (6) praxis, and (7) reciprocity. These principles are at the heart of professional learning in an impact school and suggest that the

partnership can be within the school between teachers, administrators, and students. An impact school structure is when teachers and students strive for their personal bests (Knight, 2013). Impact schools are represented by four factors that involve professional learning and support for the teachers. Four factors designed to benefit teachers were showing respect, providing a clear goal for consistent growth, supporting the implementation of new instructional strategies, and increasing knowledge of impactful teaching strategies that promote overall positive behavior and learning (Knight, 2013). Professional learning offers learning and potential growth in a workplace where administrators and teachers review student data and learn through reflection and experiences (Stewart, 2014).

Equality is a key factor in any partnership. This principle emphasizes that partners are equal by deciding, discussing, and communicating together. Partners recognize that both groups/organizations have equivalent roles and responsibilities in the development and success of the desired partnership. No partner has more privileges, honors, or decision-making than the other partner in most cases. Under the principle of choice, partners have the ability to make their own choices and make decisions collaboratively. Knight (2011) explains the following:

> Partners each have a right to say no. Saying no is the fundamental way we have of differentiating ourselves. To take away my right to say no is to claim sovereignty over me… If we cannot say no, then saying yes has no meaning. (pp. 30-31)

The lack of motivation, resistance, and too many choices that produce bad decisions are often the result of being denied the opportunity to make choices within a partnership (Pink, 2009; Schein, 2010; Schwartz, 2004).

Voice is another critical component of partnerships. Partners have identified that their thoughts, expertise, and opinions are important to the success of a partnership. The ability for

each partner to be able to voice his or her own opinion, methods, procedures, goals, and actions makes the standing partnership a viable one. "A primary benefit of a partnership is that everyone gets a chance to learn from others because others share what they know" (Knight, 2011, p. 34). During the process of sharing, other partners need to set aside personal opinions and feelings from disrupting the process. This is to ensure that no one voice dominates the other and that every voice is appreciated and heard. When individuals' opinions are not heard within an organization, it validates the belief that the leadership has no trust in them. In schools, some administrators believe that teachers are not capable of thinking for themselves. In this setting, the teachers are micro-managed, given a script to follow, and have no autonomy in their classrooms (Berry & Eckert, 2012; Hallam et al., 2015).

Reflection is the next principle and significant factor to the success of educational partnerships because it directs the flow of a partnership. Under the principle of reflection, respect needs to be apparent within the profession. Partners need to be able to accept and reject an individual's opinion about the shared goal. In a partnership, partners also need to reflect on steps that have been taken to identify if those steps were beneficial or disadvantageous. Knight (2011) recognized reflection occurring in the following three ways: "Looking back, looking at, looking ahead" (p. 37).

After reflection, dialogue is the next principle in this partnership approach. Dialogue is a way of communicating. The ability to listen and take heed to what partners are stating just as vital as the ability to understand them. Partners need to demonstrate humility within a partnership. Knight (2011) indicates that "humility means that we are more concerned with getting things right than being right" (p. 39). The demonstration of humility assists the

organization to recognize that the focus is on the goal of the partnership instead of individual or organizational gain.

A partnership has to be in place for praxis to be achieved, the next principle in Knight's partnership approach. "Praxis describes the act of applying new ideas to our own lives," (Knight, 2011, p. 43). Praxis includes learning, reflecting, and acting. It addresses the present stage of an organization's partnership in and out and accompanied it to its goal stage. Praxis is empowered when exploring, restructuring, and re-creating is taking place within a partnership. Partners are re-designing, re-setting, restricting goals, missions, and plans to better improve student learning (Knight, 2011).

The final principle is reciprocity. Knight (2011) defines reciprocity as "the belief that each learning interaction is an opportunity for everyone to learn" (p. 44). Although some partnerships may focus on benefitting one of the organizations within the partnership, both partners gain some benefit from the partnership. Through true interaction with partners, organizations should learn something new throughout the partnership process.

Stephens and Boldt (2004) identified the following four questions that need a response before the establishment of a partnership:

1. Who will be partners?
2. How will each of us simultaneously renew ourselves and help others renew themselves?
3. What will each partner contribute?
4. What does each partner receive? What would have to happen for each partner to feel that the compensation for what he or she contributes is adequate? (p. 704)

These four guiding questions help to facilitate knowledge and to understand what the individual partners' gains, roles, and responsibilities are within a partnership.

Another quality that promotes successful partnership is the development and sustainment of mutual relationships with identified and accepted purposes, goals, and strategies from all parties (Barnett, et. al, 2010) and "the purpose of the partnership must be clearly defined by all the participants involved" (Goduto et al., 2008, p. 350). Some other elements of partnerships are "shared goal or purpose; trust, respect, and loyalty; personality traits and qualities that are complementary; respect for each other, synergy between partners, and a valued relationship" (Saltiel, 1998, p. 8). In effective partnerships stakeholders have a strong sense of ownership of the partnership within their organizations (Briggs, 2010).

## Types of Partnerships

Partnerships have been uniquely recognized in various forms by several researchers based on their own unique perception. Although there are many forms, for the purpose of this study, the focus areas are educational, collaborative, and internal partnerships.

### *Educational partnerships: Internal and External*

Educational partnerships have increased over the past years due to educational reforms. Chou (2012) stated that "an educational partnership is a form of educational outsourcing that has become a mainstream in higher education" (p. 86). Briggs (2010) described educational partnerships as a variety of working arrangements that includes many organizations, groups, and individuals collaboratively working together to reach a mutual purpose and goal. According to Gurlui (2015), "collaboration of educational agents in an educational partnership is top priority of the educational policies aimed at increasing the quality of education" and improving schools

(p. 607). The development of "partnerships with other schools are a viable way to increase opportunities for their students" (Rose, 2012, p. 84).

Researchers have discovered that educational partnerships are identified by the differences between cooperation, coordination, and collaboration (Intriligator, 1992; Meehan et al., 2002; Weiland & Akerson, 2013). Intriligator (1992) lists and discusses the following three steps to the development of a partnership: cooperation, coordination, and collaboration. The short-term relationship between the three is cooperation. Partnerships are defined as cooperative when a small task/goal is completed. In this relationship, each partner can complete their portion of the goal without intertwining with one another. This is the opposite of coordination. During coordination, the partners roles and responsibilities intertwine while reaching the identified goal. In this step, individual partnerships' knowledge displays a major role in the success of the task being completed. The goal would not be successful without the coordination of the two partnerships working together. Another type of partnership is a collaborative one. Collaboration involves a long-term relationship between two partners. Within collaboration, partners need to engage with each other more often than in coordination.

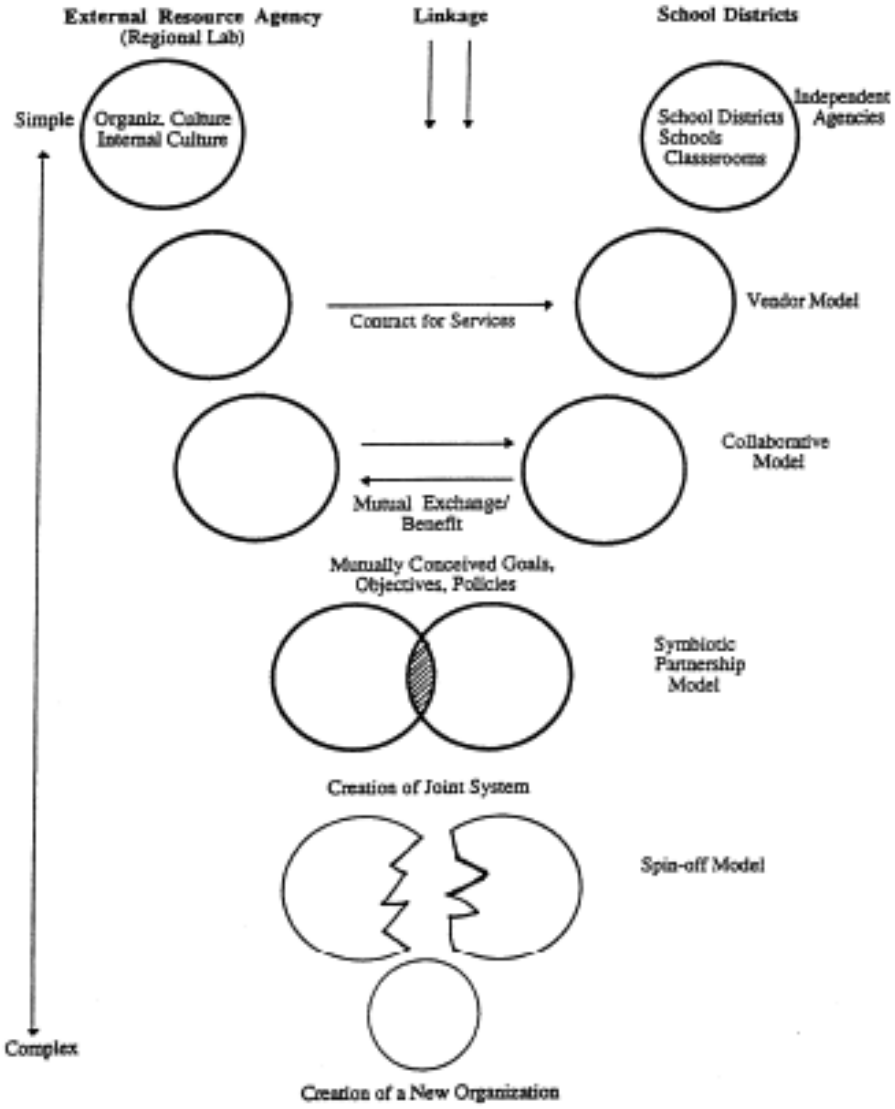
According to Korach et al., (2012), a majority of school university partnerships are either limited or coordinated partnerships. Hora and Miller (2011) described the following three categories of partnerships: limited, coordinated, and collaborative. Limited partnerships are when one organization leads and directs the roles and responsibilities of the other organization or the other partnered group. Coordinated partnerships are when each individual partner develops and implements their own plans to reach the identified partnered goal and vision. Collaborative partnerships are when the organizations work together to accomplish the partnership goal. It involves more risk-taking, exchanging, networking, and committing with partners to accomplish

the goal. “Collaboration is a distinct form of partnership” (Barnett et. al., 2010, p. 17) and has been identified as the dominant factor of interdependence (Intriligator, 1992).

Similar to other researchers, Barnett et al. (2010) identified different types of educational partnerships. This group organized partnerships in the following four ways: vendor model, collaborative model, symbiotic partnership model. and spin-off model.

**Figure 1**

*Types of Educational Partnerships (Barnett et al., 2010)*



These models are tiered from simple to complex. Barnett's model begins with an organization (external company) and an independent agency (e.g., institution) that are established and working to improve the quality of their stakeholders. The vendor model develops the collaboration between the two agencies where the independent agency receives resources from the organization without building a connected relationship. The collaborative model develops a connected relationship where the two organizations establish goals, trust, and interdependence and discuss agreeable benefits. The symbiotic partnership is where both parties benefit from the partnership. Both organizations have agreed upon a common vision, have established roles, have mutual trust, and recognize benefits of the partnership. Furthermore, a new chain or committee is established to focus on the development and execution of the common vision. Finally, the spin-off model is the most complex and successful. The spin-off model is the creation of a new organization that evolves from the original partnership and continues to develop and implement the common vision that enhances the improvement of the organizations.

In higher-education, universities have recognized that partnerships with school systems could assist with school improvement by establishing high quality educational programs for interested teachers and administration. In a research study conducted in New Jersey, university officials in the education leadership department recognized their challenges in developing effective school leaders (Goduto et al., 2008). The establishment of a partnership between K-12 schools and universities identified a collaborative process to help develop a better educational leadership program.

The Holmes Partnership, initially called the Holmes Group, is one of the viable educational partnerships. This organization was developed to build relationships between schools and universities to better improve the profession of teaching. This group has gone through

several structural changes over the past two decades. Currently, the Holmes Partnership has partnered with several different educational organizations such as the American Association of College of Teacher Education (AACTE), the National Education Association (NEA), the American Federation of Teachers (AFT), the National Board for Professional Teaching Standards (NBPTS), the American Association of School Administrators (AASA), the National Policy Board for Educational Administration (NPBEA), and the National Staff Development Council (NSCD) to improve the quality of the teaching profession. Along with partnerships with these organizations, the Holmes Partnership has developed six principal goals for professional educators. The following principal goals were created for the development of effective educators and the improvement of student learning:

- Goal 1: High Quality Professional Preparation
- Goal 2: Simultaneous Renewal
- Goal 3: Equity, Diversity and Cultural Competence
- Goal 4: Scholarly Inquiry and Programs of Research
- Goal 5: Faculty Development
- Goal 6: Policy Initiation (www1.udel.edu).

Turley and Stevens (2015) conducted a study on the partnership between Rice University and Houston Independent School District (HISD). HISD was the largest school district in Texas. The purpose of this study was to improve knowledge and encourage the development of future and existing partnerships. Each organization identified one representative as the leader in the partnership (e.g., school district-assistant superintendent, university-professor of sociology, etc.). The researchers involved in this study researched and identified problem areas for the school district and suggested researched programs that would assist HISD in academic improvement

and increased graduation rate. Project GRAD was implemented to improve the graduation rate and enrollment in colleges, and Reasoning Mind was used to increase academic achievement. Reasoning Mind focused on increasing middle school mathematics schools. Overall, the partnership between these two organizations displayed the development of trusting relationships, communication with stakeholders, and a joint research structure.

### *Collaborative Partnerships: Internal and External*

Collaborative partnerships are being identified more and more in education due the increase of collaboration within schools among teachers, students, and school officials. Wildavsky (1986) expresses that collaborative partnerships are for "the participants to make use of each other's talents to do what they either could not have done at all or as well alone" (p. 237). Regarding collaborative learning partnerships, Saltiel (1998) notes that it is "the interaction of the collaborators who work together that becomes valued and potentiates the learning" (p. 6). The partnership creates a strong relationship that is built on mutual goals.

Saltiel (1998) stated that "collaborative partners in learning help each other to achieve what they never could have done on their own" (p. 5). Some characteristics of collaborative partners are generosity, the ability to give and follow instructions, and visibility of project progression (Wildavsky, 1986). "Collaboration works best when partners/team members share a common mission, have clear goals, define operating guidelines, provide mutual support, and work in an atmosphere of trust, respect, and affection" (Baldwin & Austin, 1995, p. 55).

Korach et al. (2012) developed two models: coordinated and collaborative. Both models displayed three key components (cognitive, practical, and moral apprenticeships) for university's education preparation programs. Shulman (2005) identified the three key components as the following:

> A cognitive apprenticeship wherein one learns to think like a professional, a practical apprenticeship where one learns to perform like a professional, and a moral apprenticeship where one learns to think and act in a responsible and ethical manner that integrates across all three domains. (p. 3)

The coordinated model demonstrates the connection between the universities and school district personnel within the preparation program. Under this model, the aspiring teachers and educational leaders should go through a process of critical thinking and reflection of their morals, abilities, confidence, and responsibility. The collaborative model incorporates the third space theory along with the three key components of the coordinated model. Zeichner (2010) used third space to describe ¨an equal and more dialectical relationship between academic and practitioner knowledge¨ (p. 92). Third space offers educational leaders and faculty members of universities and school districts a strategy to develop and implement practices for establishing a positive learning environment for aspiring teachers and educational leaders. The theory places both universities and school district officials on the same side. Both models are geared to improve educational leaders and teachers through university's preparation programs, student learning, and relationships within the community. This model does not speak to the need for collaborative internal partnerships within an organization.

**Figure 2**

*Coordinated Model*

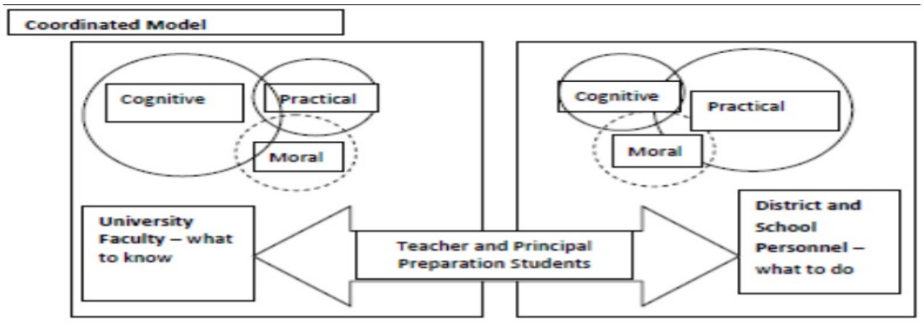
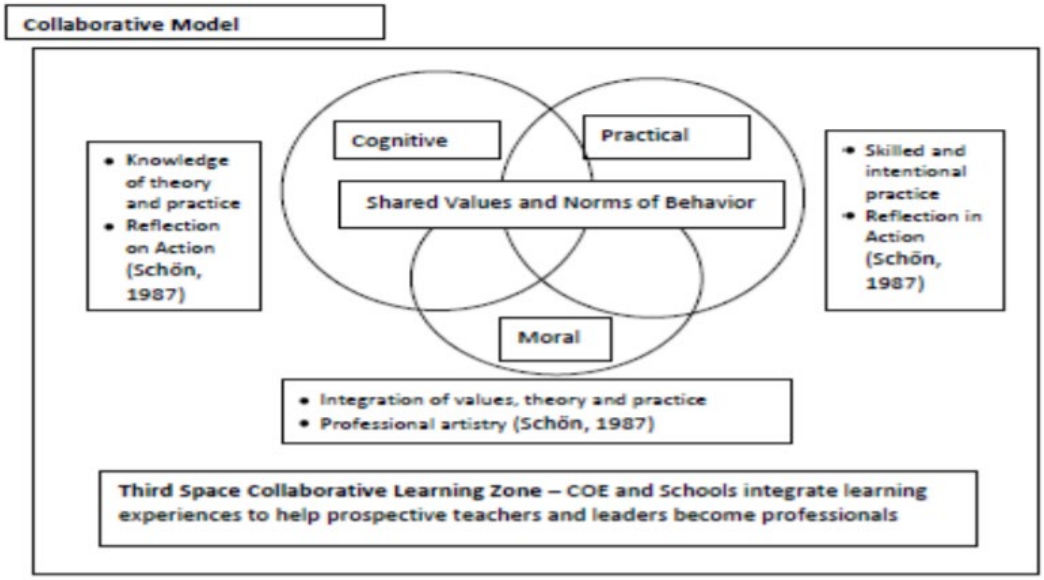


**Figure 3**

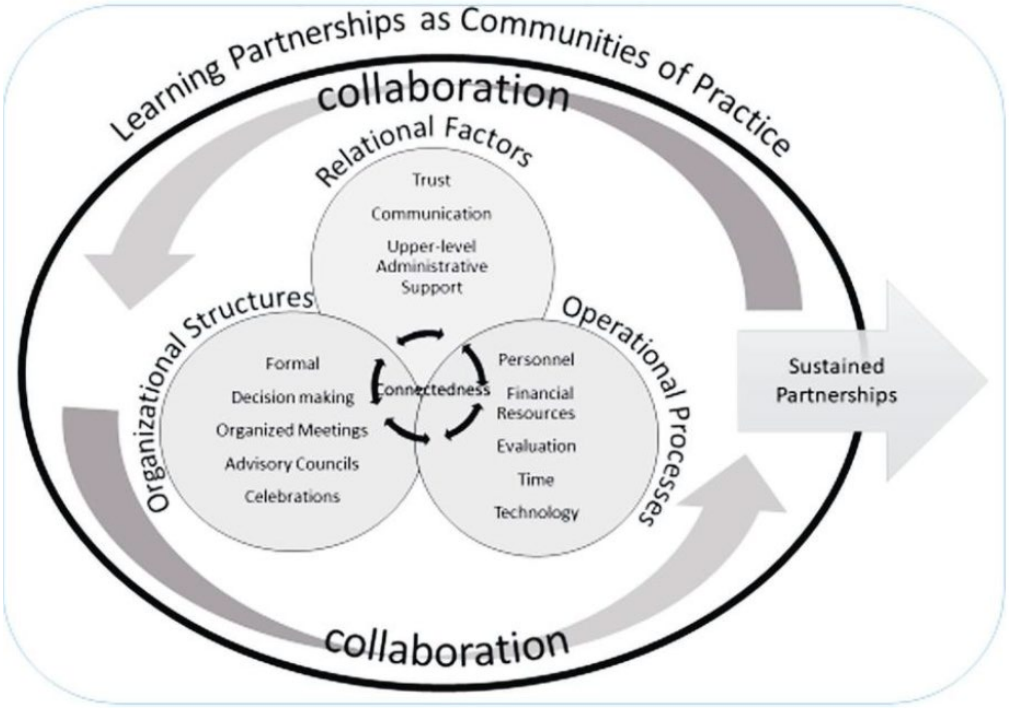
*Collaborative Model (Korach, S., Seidel, K. S., Salazar, M., 2012, pg. 6)*




One of the most current partnership models was created by Reames and Kochan (2021). This model focuses on an important concept of earlier models which includes collaboration and viewing the partnerships as a learning experience for those involved. It becomes a way of learning for stakeholders and can hence be referred to as a learning partnership. This partnership model was designed from reviewing and analyzing previous partnerships and collaboration models that were developed to improve educational learning. Most of the previous educational partnership models focus on creating partnerships between universities and K-12 schools. Reames' and Kochan's (2021) model identifies the relationship of learning partners as communities of practice. Their model's most central factor is collaboration followed by connectedness between three major components (relational factors, organizational structures, and operational processes). The researchers identify relative factors under each component. This model suggests that internal learning partnerships use collaboration as a major force in the development of the organization.

**Figure 4**

*Learning Partnerships as Communities of Practice*




*Partnerships for Leadership Preparation and Development: Facilitators, Barriers and Models for Change (Reames & Kochan, 2021, p. 247)*

The efficiency of all three components creates sustained partnerships within an organization. Each component has identified features that enhance the successfulness and productivity of a partnership (Kochan et al., 2020). Collaboration reflects the overall connectedness in this partnership model as the linchpin or the factor that holds the partnership together.

Relational factors demonstrate ties and bonds between the individuals within the organization and between multiple organizations. Some relational factors are trust, communication, and administrative support, social and professional relationships, and other support that develop relationships and ties between individuals within the organization. Hudson (2021) conducted a study exploring a partnership between a school district and university. His

study displayed the importance of relational and structural factors within the school and university. Social connections and building positive relationships are important factors to building and sustaining an effective partnership.

Organizational structures are the entities needed for the organization to run smoothly. Key factors of this component include school decision-making, meetings (department, faculty, grade-level, etc.), and celebrations. This component, organizational structures, encompasses the established goal and mission within the organization, the development of the partnership, and the implementation of leadership meetings and celebrations for positive behaviors and rewards. Poirel et al. (2021), note the development of a successful partnership between Montreal Educational Leadership Department and Montreal School Board. Poirel and colleagues demonstrated the initiation and establishment of a partnership between these two organizations. The partnership provided open communication, culture change, and the building of trust between the two committees, and the researchers revealed the organizational structures of the development of a successful learning partnership between the two organizations to promote improvement in education on both the grammar school and the university.

Operational processes were another component of this model. This component includes financial support, personnel, time, evaluation, etc. Organizational funding, the hiring process, and project evaluations fall under this component. These factors are vital to the development and establishment of a school or an organization. Financial resources provide continual operations of learning partnerships. Identifying and finding appropriate funding is an operational process that supports the continuous operation of a school or an organization. Personnel hiring process is important in a learning partnership due to selecting appropriate personalities that would enhance and impact the organization positively. In a learning partnership, hiring and maintaining effective

personnel promotes a positive and motivated atmosphere. Also, evaluations and reflections are important factors to the sustainability and effectiveness of a learning partnership. Evaluating programs through collaboration and within the organization assists in identifying the types of programs and resources that have a positive impact on the learning partnership.

Overall, the three components of this model are vital to establishing, developing, and sustaining a learning partnership. Although, there is no certain arrangement of the connection between the three components, they should be working together continuously to create a positive and effective partnership. All components connected and working together through collaboration enhances the ability of an efficient, purposeful, and positive learning partnership (Reames & Kochan, 2021).

### *Internal Partnerships: Collaboration as the Linchpin*

Internal partnerships are developing but are not defined in much of the research regarding partnerships. There is a lack of research on the definition and description of internal partnerships but a few researchers have developed their own definitions. Fullan (2000) identified internal partners in a school as the students, the teachers, and the administrators. Internal partners are individuals that are directly within the organization daily. External partners are those who are on the outside of the organizations' structure. These partners may include parents, community members, researchers, companies, and organizations that assist within a partnership but are outside of the actual partnership (Fullan, 2000; Goldring & Sullivan, 1996; Turley & Stevens, 2015). In education, parents play a key role in students' education. The parent's role and support are essential to the attitude, behavior, and progression of a student. Parental involvement has emerged and become a benefit of student achievement (Henderson, 1987). Other external factors

in partnerships are technology and government policies. These outer layers of external partners have no direct connection with the students individually.

The Wake County school district partnership was established between the school district and the county's human resources teams. This partnership's vision was to assist at risk families with family engagement and the progression of its student's success. The results of this partnership showed a ninety-six percent family engagement rate and seventy-two percent of the students improved in mathematics and reading skills (Cuddy, 2005). Also, the city schools of Charlotte/Mecklenburg developed a partnership between schools and the business community. This partnership was created to assist low-income and drop-out students' families to become more supportive and offer services to the students and their families. Ninety percent of the students that participated in this partnership were promoted (Cuddy, 2005).

Weiland and Akerson (2013) conducted a research study to examine the relationship between an informal educator and a classroom teacher in science. The National Science Teachers Association (2012) noted the following:

> informal environments can spark student interest in science and provide opportunities to broaden and deepen students' engagement, reinforce scientific concepts and practice introduced during the school day; and promote an appreciation for and interest in the pursuit of science in school and daily life. (NSTA)

In this study, the researchers stressed the importance of differentiating a partnership based on cooperation, coordination, and collaboration. This coordination partnership exhibited the relationship of an external partner with an elementary classroom teacher. The informal science teacher worked at a parks and recreation center. The two participants in the first meeting met to review the classroom teacher's objectives, goals, and scheduling for the semester. The methods

used for data collection for the study included pre-and-post interviews, observations, videos, and student pre-and-post assessments. The results showed the importance of mutual respect, clear roles, expectations, and goals in a partnership. Informal programs do have an impact on enhancing student achievement and engagement.

There are benefits and barriers to the establishment of educational and collaborative partnerships and other partnerships, as well. Some of the benefits of building partnerships are cost reduction, improvement in competence and accountability, relationship expansion, increase in the institution's reputation, and increase in student achievement (Chou, 2012). These benefits allow institutions to offer more resources that assist in students becoming better learners.

### *Benefits of Partnerships*

Researchers identified various benefits of partnerships such as funding through grants, cost effectiveness, improvement in students' lives, increased student academic achievement, increased communication, and improved collaboration through building teacher relationships and trust (Briggs, 2010; Cuddy, 2005; Goduto et al., 2008; Tschannen-Moran, 2001; Turley & Stevens, 2015). School partnerships are beneficial because they increase the odds of funding (Turley & Stevens, 2015). Funders are more willing to contribute due to the likelihood of improving students' lives. Other beneficial elements of creating partnerships are "developing relationships of trust, communicating with different stakeholders, and building a joint research infrastructure" (Turley & Stevens, 2015, p. 14S). A structured approach to student learning created by partners learning from each other and sharing strategies has a positive impact on partnerships and student learning (Briggs, 2010).

A study conducted by Lindsay et al. (2007) found that teachers sharing good strategies improved student achievement and was a positive impact of collaborative learning partnerships.

Another study conducted by Ainscow et al. (2006) revealed that schools working together are able to solve problems by mutual support and sharing resources and strategies. Some external partnerships were successful because of the decreased drop-out rate of students and increased family support in Charlotte/Mecklenburg County and increased student achievement in reading and mathematics in Wake County (Cuddy, 2005).

***Barriers of Partnerships***

Researchers have identified areas of concern that inhibit the development, establishment, and sustainability of successful partnerships. Some identified barriers to the development, establishment, and sustainability of partnerships are the following: lack of commitment, large groups, lack of consensus, conflicting policies between organizations, lack of individuals' duties and responsibilities, insufficient funding, lack of communication, inappropriate processes and procedures, and lack of reward (Briggs, 2010; Chou, 2012; Kochan and Kunkel, 1998; Turley & Stevens, 2015).

Briggs (2010) referenced partners with conflicting beliefs and cultures. Some organizations, especially ethnic and religious organizations, have established cultures, policies, and procedures that cannot be changed and manipulated. Schools and universities have mandated policies that are issued by the federal government which hinder some partnerships with businesses and organizations. The development of partnerships with some of these organizations would have a positive impact but are unable to be established because of the organization's internal policies and beliefs.

For the creation of some partnerships, funding is an essential component. One purpose of funding a partnership is to gather the appropriate individuals to accomplish the partnership's goal (Briggs, 2010). Also, partnerships may need resources and equipment purchased to reach the

identified goal. Turley's and Stevens' (2015) study revealed a partnership with a lack of communication and a one-sided partnership. In this study, the partnership between Rice University and HISD had a communication issue. The partners were neither willing to listen and take criticism nor learn from each other's opinions and mistakes. "It is imperative that both partners are willing to learn from each other" (Turley & Stevens, 2015, p. 11S). This study also showed that partnerships can be one-sided. *One-sided* implies that only one partner will benefit for the success of the partnership. For example, in university – school district researched partnerships, the school district benefitted from the partnership based on the needed research that is conducted by the university. The development of a partnership regardless of its framework can impact any organization. Although, the process of establishing a partnership takes quality time, effort, and support; it also involves collaboration among the partners.

**Collaboration**

Individuals working together to accomplish one task for an organization is referred to as collaboration. In the view of organizational theory, Boleman and Deal (2003) described collaboration as "a form of lateral coordination that can improve organizational performance by fostering creativity and integration around specific problems" (p.55). "Collaboration is organizational or individual entities coming together to work toward a common goal or vision" within an organization (Saltiel, 1998, p. 5). Collaboration is also defined as "uniting organizations and people for the purpose of achieving common goals that could not be accomplished by any single organization or individual acting alone" (Swan & Morgan, 1993, p. 19). Collaboration is "a relational system in which two or more stakeholders pool together resources in order to meet objectives that neither could individually" (Graham & Barter, 1999, p.7). Collaboration reflects coordinated efforts and the resources of two or more people or two or

more organizations to achieve an agreed upon goal (Rubin, 2009). Morel (2014) adds that collaboration offers great benefit to the individual people and organizations involved as it develops certain skill sets and it serves as a tool by which goals are accomplished. "Collaboration involves all key stakeholders…" (D'Agostino, 2013, p. 248). Tschannen-Moran (2001) defined collaboration as "the extent to which teachers perceived themselves and parents to be not only involved but to exercise influence over school and classroom-level decisions" (p. 317). DuFour (2004) described collaboration as "congeniality and focus on building group camaraderie" (p. 8). It is the establishment of small communities that have a defined goal and purpose.

In recent years, collaboration has become a prominent focus because advances during the era of the No Child Left Behind Act of 2001 have suggested that student achievement improves in school settings where collaboration is present (Goddard et al., 2007). In schools where there is a collaborative atmosphere, individuals share experiences and knowledge that enhance learning for instructional improvement. Prince (2004) noted "the core element of collaborative learning is the emphasis on student interactions rather than on learning as a solitary activity" (p. 223). It gives support or reason for all teachers to collaborate with each other. In addition, collaboration needs to involve all - school leaders, teachers, students, and parents. Parental involvement and school collaboration is usually expected under traditional bureaucratic schools. In bureaucratic schools, parental input plays a role in the decision making. "School administrators are encouraged to include teachers and parents in their decision making for key organizational decisions" (Tschannen-Moran, 2001, p. 308).

In school setting, studies have shown that there are positive outcomes of teacher collaboration including improved teacher efficacy, positive attitudes toward teaching, and higher

levels of trust (Goddard et al., 2007). For teachers to perform collaborative efforts, there must be time set aside for them. Also, for teachers to collaborate with one another, there must be the establishment of trust. “For teachers to break down norms of isolation and to sacrifice some of the autonomy they value so highly in order to reap the potential benefits of greater collaboration they must trust their colleagues” (Tschannen-Moran, 2001, p. 311). These collaborative communities provided teachers the ability to reflect on their own teaching philosophy and strategies, their teaching content and student backgrounds and experiences in their classrooms (Putman & Botko, 1997). Teacher collaboration is a good opportunity for them to work on issues and goals as a unit within the organization.

Past studies have shown that teacher collaboration can improve positive attitudes toward teaching and teacher efficacy. Other ways collaboration can be implemented in schools is with teachers and administrators working together. Teams of teachers may be established to focus on a curriculum or school concern that needs improvement. Sometimes these groups can also be used to assess the whole school. In these settings, teachers meet and share their expertise in areas to develop a better learning environment for the school. It also gives teachers the opportunity to work with each other outside of their individual classrooms. When teachers work collaboratively to solve problems within their practice, results for all students are better (Darling-Hammond & Richardson, 2009). “Collaboration among teachers paves the way for the spread of effective teaching practices, improved outcomes for the students they teach…” (Berry et al., 2009, p. 2).

There have been a few studies conducted on collaborative practices especially in elementary education. In the research study conducted by Goddard et al. (2007), teacher collaboration had a positive effect on school improvement in reference to student mathematics and reading achievement scores in the fourth grade. This quantitative study was conducted in a

Midwestern school district where the scores from the prior year were used to display the increase across the grade levels. Teacher collaborative practices have an indirect link to student achievement (Goddard et al., 2007). In a study conducted by Damore and Murray (2009), there were many students with disabilities in urban elementary schools. Mostly the minority students were identified with disabilities. In this study, the researcher wanted to determine which collaborative model (consultation, co-teaching, team teaching) or if any collaborative practices were used in these schools by the teachers. The teachers were familiar with the different models, and some identified that their individual schools were using the models. The teachers were surveyed on the use of collaborative practices within their schools. The results displayed that these urban teachers supported inclusive practices and had limited experience working with collaborative settings in their classrooms. The teachers were willing to learn how to implement collaborative practices as well as various collaborative strategies to assist with improving academics of disabled students.

Collaboration is a worthwhile pursuit for energy and efforts expended. Rock (2008) explains that when people enter a working relationship that is collaborative in nature, status is always a consideration. Meaningful work helps to satisfy the need to feel valued and for mutual respect to be shared fairly. Tshannaen-Moran (2001) identified trust as a significant factor when developing collaborative relationships. A climate of respect and trust is critical to the existence of a true collaboration (Morel, 2014). “Collaboration among individual professionals is a first step in developing collaborative relationships among community constituents, agencies, and professional groups” (Bronstein, 2003, p. 298).

Rock (2008) also discusses the need for consistent protocols to be in place where everyone involved in the collaboration may have a voice. By having a protocol, Rock (2008)

argues that everyone is knowledgeable of the expectation of time, sharing of ideas, and valuing of each other's expertise. This too supports a collaborative process. Rock (2008) contends that the brain searches for status and the protocol helps "balance" status (p. 5).

Morel (2014) described her experience and noted that certain skills are needed prior to an effective collaborative is developed. She includes the following elements:

- Ability to assess and interpret emotional climate of a situation and ensure safety for others
- Attention on the project, not on the individual personality
- Ability to listen
- Advocate for voice and clearly represent one's perspective to others
- Define mutual goals (p. 38)

According to Morel (2014), collaboration is a skill that must be developed to have a professional exchange with others. The aforementioned elements help to secure an environment conducive to gaining mutuality among different representatives.

Stephens et al. (2013) agree that collaborative relationships are important and should be considered as a tool for change in education. To investigate collaboration to close educational gaps, these researchers suggest that school leaders should be collaborative decision makers and use collaboration as a means to achieve the academic growth and social change within schools that can close the achievement gap and resolve inequities found in socioeconomic disadvantaged schools. "Effective leadership teams involve collaboration to engage multiple perspectives in providing services to all stakeholders in our schools" (Stephens et al., 2013, p. 11).

Collaboration has been a major asset to building relationships between universities and high schools. In the study conducted by Salas-Morera et al. (2012), collaboration was the key to

the partnership between a university and K-12 teachers. The purpose of this study was to improve engineering skills in high school students to improve enrollment in engineering degrees. The relationship between the teachers and university faculty was to assist in improving student knowledge of engineering careers and basic academic skills needed to major in engineering. The participants were ten university lecturers and five teachers at four high schools. Surveys were distributed to the students at the high schools to determine skill levels of the required academic areas in reference to being successful in engineering. Also, surveys were issued to the university's lecturers to determine what academic weaknesses were of note in their current engineering majors' cohorts. After the survey's analysis, educational activities were created to assist the participating high schools in preparing students academically and becoming more knowledgeable. The university lecturer and high school teachers met to identify the content areas of weakness and established activities that would improve the weak areas. The collaboration identified activities that connected real-world situations to student learning, motivation, critical thinking situations, and improved communication of technical conditions. The findings showed that the collaboration between the university and the high schools was successful in improving students academically and increasing college entrance in the field of engineering.

**Benefits and Barriers of Collaboration**

Collaboration has various benefits and barriers in education. Several researchers have identified various benefits of collaboration. Collaboration improves teacher morale, staff participation, low staff absenteeism (Johnson, 2003), increased teacher efficacy (Johnson, 2003; Shachar & Shmuelevitz, 1997), positive attitudes towards teaching (Brownell et. al., 1997), and increased student achievement (Johnson, 2003; Pounder, 1999). Successful collaboration involves increased levels of trust, patience, and attentiveness to the reached goal and to the

commitment of working together within a relationship (Saltiel, 1998; Tschannen-Moran & Hoy, 1998; Tschannen-Moran, 2001). Increased collaboration between schools and universities was able to close gaps in the development of student teachers (Brady, 2002). Although collaboration offers benefits in a school setting, there are some barriers, as well. Collaboration requires an increased workload, pressure for teachers to work together, lack of teacher independence, lack of time for teachers to work together (Darling-Hammond & Richardson, 2009; Friend & Cook, 2009), and power struggles amongst teachers (Johnson, 2003). Collaboration has become a major focus in education along with the development and establishment of professional learning communities within schools.

**Trust: Important Factor for Collaboration and Partnership**

For positive transformation to exist, trust must be established among organizations, administrations, teachers, students, and involved individuals (Tschannen-Moran & Hoy, 2000). The meaning of trust has had many variations since its initial research without a concrete definition from different areas of study. According to Hosmer (1995), "There appears to be widespread agreement on the importance of trust in human conduct, but unfortunately there also appears to be an equally widespread lack of agreement on a suitable definition of the concept" (p. 380). Mayer et al. (1995) defined trust as the following:

> …the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that party. (p. 712)

There are different degrees of the definition of trust based on its relationship within individuals and organizations, such as the philosophical, economic, individual, and organizational

perspective. In this study, the major perspective is organizational trust with some aspects of individual trust.

Organizational trust is the relationship of collective judgments within a group, honesty in group discussions, and efforts of good faith with commitments (Bradach & Ecceles, 1989; Cummings & Bromily, 1996; Tschannen-Moran & Hoy, 2000; Tschannen-Moran, 2004). There is difficulty building organizational trust among different groups of individuals. In organizations, each individual has to be in agreement, has to be trustworthy, and has to be able to support the final decision that is made by the organization. Organizational trust requires individuals to think beyond their individual opinions and accept the conclusion of the organization. Often, individuals must let their opinions go and accept the conclusion of the organization.

Trust offers benefits to organizations and communities that are willing to establish it. The quality of communication has been linked to the effectiveness, and trust is necessary for open communication in an organization (O'Reilly & Roberts, 1977). "In organization with high level of trusts, participants are more comfortable and are able to invest their energies in contributing to organizational goals rather that self-protection" (Tschannen-Moren, 2001, p. 313). Also, distrust is a factor in the effectiveness of an organization. When working with a distrusted individual, people are less likely to be honest or open and may show attitude towards that person. Over the past decades, trust has become individualized and part of a person's personality traits (Tschannen-Moran & Hoy, 2000).

Individual trust is the degree of one's disposition to be able to open themselves and rely on other individuals (Frost et al., 1978; Rotter, 1967; Tschannen-Moran & Hoy, 2000). Trust is a feeling that must be established and earned among individuals. It is a bridge that has to be continuously built. Tschannen-Moran and Hoy (2000) define the characteristics of trust as "one's

party's willingness to be vulnerable to another party based on the confidence that the latter party is (a) benevolent, (b) reliable, (c) competent, (d) honest and (e) open" (p. 556).

Benevolence is the most important facet of trust within organizational relationships. "Benevolence is the confidence that one's well-being, or something one cares about, will be protected and not harmed by the trusted party," (Baier, 1986; Bradach & Eccles, 1989; Butler & Cantrell, 1984; Cummings & Bromily, 1996; Deutsch, 1958; Mishra, 1996; Zand, 1972; Tschannen-Moran & Hoy, 1998; Tschannen-Moran & Hoy, 2000). According to Mayer et al., (1995), "benevolence is the extent to which a trustee is believed to want to do good to the trustor" (p. 719). Under this facet, there is some attachment between the trustee and trustor. The trustee and trustor are willing to work with one another regardless of their personal perceptions. Benevolence is listed and regarded by the researchers to be the most important facet of trust. It is defined as the belief that one party will not be harmed by the actions of another. It is the belief that one can depend on each other's good intentions and that there is mutual goodwill. Although this facet is the most important, it is also the one that is difficult to maintain. It is viewed as a positive arrangement between two individuals (Mayer et al., 1995).

Reliability is being dependable and mostly honest with an individual. In this facet, trust deals with being predictable by knowing what to expect from others. "Reliability or dependability combines a sense of predictability with benevolence" (Tschannen-Moran & Hoy, 2000, p. 557). It is easier to identify an unreliable individual when the level of trust with that person is weak. Administrators and teachers are in positions where there is a great level of reliability. Educators are assumed to be dependable individuals. When teachers are working on a school task in teams or groups, the administrators are relying on the teachers to accomplish the task.

Honesty has a crucial portion in the field of trust. “Honesty speaks to a person’s character, integrity, and authenticity,” (Tschannen-Moran & Hoy, 2000, p. 558). Individuals who are willing to tell the truth continuously and without asking are trustworthy. Integrity constitutes the combination of a person’s statement and their deeds. When an individual accepts responsibility for their actions, they reflect authenticity. The level of trust in schools is associated to the behaviors of the principal and teachers.

Competence is having knowledge and skill in your profession. Individuals can be experts in their fields and not be trusted by their organizations. Although the organization is dependent on that individual in that position, the individual’s attitudes and ways of doing things may impact the trust of the organization. Students often encounter trust issues with teachers and their teachers’ competency level. Students may need assistance with a problem in the class, and if the teacher is unable to give direction to the students, it can result in student distrust of the teacher’s ability. School leaders, administrators, and teachers need to be experts in their professions so that individuals within their organizations can trust that they are competent.

Openness is the ability to not withhold information that is relevant to share among appropriate individuals even if the information is personal. Moreso than teachers, administrators are often in situations in which they have to share personal or private information that has been entrusted to them for safety and school purposes. Situations such as child neglect and abuse force the teacher and administrator to report the incident once students have entrusted them with their personal situations.

Moreover, the five facets of trust described by Hoy & Tschannen-Moran (1999) benevolent, reliable, honest, competent, and open have major connections to the trust relations in schools. Hoy & Tschannen-Moran (1999) performed a factor analysis on the five facets of trust

to determine that there is a comprehensible concept of trust in schools that relates to collaboration. In this study, teachers were measured on their collaboration and trust levels within their individual schools. Trust was measured by teachers' perceptions of trust within the principal, colleagues, students, and parents. The trust survey, a fourteen-item instrument, was based on the facets of trust. The results displayed mutual relationships between the variables of trust and collaboration. Trust in clients was the most influential on predicting the set of collaboration variables. Faculty trust in the principal contributed to the meaning of the reported collaboration levels. High levels of trust did predict high levels of collaboration. Trust in parents produced greater confidence which resulted in less defensiveness from the principal and faculty and greater willingness to share authority.

There are various bases of trust. The reality of trust depends on an individual's disposition to trust, moods and emotions, attitudes and values, trust and diversity, and/or calculative, institution-based, uneven, unconditional and optimal trust (Tschannen-Moran & Hoy, 2000). These bases and the degrees by which individuals are capable of trust are determined by the individual's and organization's unique experiences and situations. Disposition of trust refers to a person's attitude and/or judgement toward someone that they do not know. Individuals with a disposition toward trust tend to be more genuine and trustworthy. The emotions and moods of individuals have an influence on a person's ability to trust. Emotions are developed from feelings on intense situations and experiences while moods are less intense and not as affected by situations and experiences (Jones & George, 1998). Values are common standards and principles that people believe in. According to Tschannen-Moran and Hoy (2000), "attitudes are the knowledge structures containing the thoughts and feelings people have about other people, groups, organizations and the means through which they define and structure their interactions

with others" (p. 560). In the base diversity and trust, individuals within organizations tend to separate into homophilous groups and establish trust with those indicated individuals. Diverse individuals have issues with trust due to the concerns of languages, race, and cultural norms. People's faiths and cultures impact their trust within given situations.

Along with these bases of trust are degrees of trust that factor into the existence and levels of trust. Calculative trust is established from a rational choice (Rosseau et al., 1998) in reference to motives and interactions. It is the acceptance of an identified trust level based on the agreement between two parties. Williamson refers to calculative trust as "accepting a certain level of vulnerability based on calculations of the relative costs of maintaining or severing a relationship" (as cited in Tschannen-Moran & Hoy, 2000, p. 561). Levels of trustworthiness are established and, if broken, consequences are enforced. Upon the creation of the relationship, the parties/organizations have developed trust levels through conversations, commitments, interactions, and competence. Institution-based trust refers to the norm trust that is associated with licenses or certifications. This norm trust is established through the standards, requirements, and processes of earning the license or certificate. Each license or certificate process have set standards and procedures that must be followed. Although mistrust can occur, the predetermined learned patterns uphold individuals to certain levels of trust. Trust that is built upon the relationship and interaction of involved individuals/organization is identified as knowledge-based trust. Individuals/organizations can predict the behavior of the partnered individual/organization. Knowledge-based trust levels are derived by continuous interactions, communication, and involvement between partners and organizations. One-sided trust between two organizations is characterized as uneven trust. This degree of trust mainly occurs when individuals move to authoritative positions within the same organization or when organizations

move to a higher level without the promotion of the partnered organization. Unconditional trust is described by the openness of partners and organizations. These organizations and individuals are open about feelings and decisions because of the lack of utilization of the shared information. Partners and organizations have the ability to share plans and decisions without being threaten for sharing their personal thoughts and opinions. Wicks states that optimal trust "implies that trust levels should be appropriate to the context and may fall anywhere on the spectrum, from minimal trust to high trust, depending on the person and situation" (as cited in Tschannen-Moran & Hoy, 2000, p. 564). Organizations that establish optimal trust are uncertain of the organization's trust level. It becomes dangerous to have too much or too little trust. An individual or organization which displays too much trust invests and spends too much. In contrast, too little trust develops lack of sustainability and trustworthiness. The bases and degrees of trust display an ingenuous blueprint of trust.

There are some benefits of the establishment of trust within a partnership and/or organization. High trust in partnerships demonstrates decreased levels of stress, improvement of flexibility among partnered organizations, and no breakage in agreements even when the number of participants increases in the partnerships (Lee & Lim, 2003).

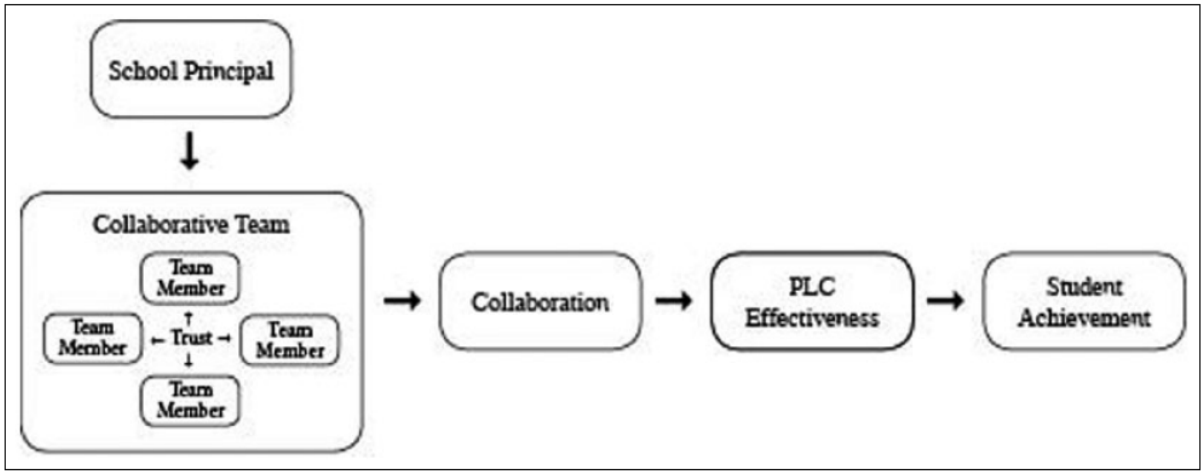
For schools to produce positively, administrators must promote trust with all stakeholders. When teacher interaction is promoted by principals, there is a development of trust between the teachers. Tschannen-Moran (2004), "who engaged in mixed-methods research in three urban elementary schools that were reputed as either high- or low-trust schools, concluded that principals support trust formation between teachers by shaping a cooperative culture, creating time and structures that support collaboration, establishing norms for interaction, intervening to help resolve conflicts or to enforce norms of behavior, and improving the conflict

resolution skills of teachers" (pp. 256-257). Administrators (principals) are the leaders in schools. Principals' trust from teachers is measured by their behaviors and attitudes towards them (Van Maele & Van Houtte, 2009).

Hallam et al. (2015) conducted a study on trust and collaboration in professional learning community teams and found trust to be critical to collaborative teams. These researchers created a developmental chain which depicts the principal as the initiator of collaborative teams with trust as the focal point that connects team members to form collaborative teams. As collaboration is established, professional learning communities become effective and student achievement is gained.

**Figure 5**

*Trust and the Collaborative Team (Hallam et al., 2015, pg. 194)*




The diagram displays that trust is a vital key to the setup of a collaborative team. All individuals within the team must have mutual trust with one another before effective collaboration begins in professional learning communities.

Along with trust, there exists distrust. Distrust causes various problems within organizations and partnerships, such as being costly, causing anxiety and insecurity, and

disrupting productive communication (Govier, 1992; Tschannen-Moran & Hoy, 2000). According to Tyler and Kramer (1996), “people are increasingly willing to take risks, demand greater protections against the possibility of betrayal, and increasingly insist on costly sanctioning mechanisms to defend interests” when trust is not present (pp. 3-4).

In education, lack of trust is a serious issue with new reforms that shape and improve schools. The development and implementation of new reforms require greater visions, goals, expectations, flexibility of implementation progression, and new atmosphere pressures (Tschannen-Moran & Hoy, 2000). Trust is a mutual factor in the development and sustainability of partnerships, collaboration, PLCs, and teacher efficacy (Blasé & Blasé, 2000).

Mutual trust is a vital component in the development and sustainability of collaboration and the establishment of learning partnerships. Just like it takes time to build strong collaboration and sustained learning partnerships, it takes just as much time to build trust. Trust must be built within the organization first before the establishment of trust with other individuals and organizations can occur. Collaboration and learning partnerships cannot be impactful or successful without trust between the involved individuals and organizations.

**Rural Schools**

Many schools in the United States are classified as rural schools. There are many rural areas where schools have been established to better their communities. Some of these rural schools were established during segregation due to keeping the whites and non-whites separated. After integration, a majority of these rural schools are still promoting academic achievement in their communities.

Rural areas are classified by their geographical location in relation to urban areas and school community, where over one-third of the schools in the United States are classified as rural

(Clarke & Stevens, 2009; Griffith et al., 2019; Preston & Barnes, 2017). There are over 9.7 million students enrolled in United States rural schools, which represents the largest number of school populations (National Rural Education Association, 2013; Preston & Barnes, 2017). According to the National Center for Education Statistics (NCES), *rural* is defined as less than five miles to more than twenty-five miles from an urban area (2006). Although, *rural* is mainly defined by geographical locations, there are other factors that assist in the identification of rurality in education. Some of the factors are cultural perception, race, ethnicity, funding, location, and community support (Bridgeforth et al., 2021; Stoll, 2009).

A majority of rural schools also represent high poverty levels and are low performing academically (Herzog & Pittman, 1995; Bridgeforth et al., 2021). Also, rural schools have major problems retaining and employing teachers, insufficient rigorous training options, and social isolation (Aragon, 2016). This setting offers fewer staff members, which means fewer people with which to collaboratively share ideas and practices. According to Monk (2007), there are factors that cause teacher attrition in rural areas, such as higher poverty levels, small populations, distances from major cities, and the establishment of agricultural industries.

Academically, rural schools have lower literacy rates, offer fewer advanced courses, and have other issues related to academic performance. The lack of offering advanced courses is due to low staff numbers. Students in high poverty rural areas tend to complete high school but drop out of college and have inadequate resources at home. Rural families often struggle financially with food and living expenses.

Successful rural schools have leaders that are change agents and interdependent communities (Barley & Beesley, 2007; Whalley & Barbour, 2020). Most successful school leaders believe in teamwork and collaboration. The commitment of collaboration in rural schools

enhances moral, motivation, and teacher performance (Preston & Barnes, 2017; Renihan & Noonan, 2012). These rural schools receive support from their communities and their community leaders. Some families invest in the school by providing community support and financial resources so that the school can provide a better educational opportunity for their students.

Benefits of rural education are the level of the community support and understanding of family situations, closeness, and connection across family generations. Rural schools offer small class sizes, positive teacher-student relationships, and greater real-world connections and life skills (Bridgeforth et al., 2021). Small school settings assist rural schools in building relational factors such as trust, collaboration, and student academic achievement (Chance & Segura, 2009). Some other benefits of rural schools are principals and teachers that know their students and parents, they provide a welcoming atmosphere, the existence of strong communication between teachers, students and parents, and the expectation of excellent behavior and advanced achievement for their students (Preston & Barnes, 2017; Reniham & Noonan, 2012; Whalley & Barbour, 2020).

Rural schools have barriers that can affect student achievement and school success. Some barriers in rural schools are teacher retention, lack of financial support, lack of community support, and lack of technology (Bridgeforth et al., 2021; Griffith et al., 2019). Furthermore, teachers in rural schools may have decreased job satisfaction, teacher efficacy, pedagogy skills, organizational structure, and commitment to student achievement (Sargent & Hannum, 2005).

**Rural Schools in Alabama**

The National Center for Education Statistics (NCES) has identified that Alabama has 69 rural school districts out of 130 school districts (https://nces.ed.gov). In the 2019-2020 school data report collected by NCES, there were 1546 Alabama public schools. Out of the 1546

identified Alabama schools, 685 were classified as rural schools (https://nces.ed.gov). Alabama has been ranked fifth in the country in relation to rural to non-rural students and one of four states that are considered the least productive in rural student achievement (Lindahl, 2011). In 2014, the Rural School and Community Trust ranked Alabama second in the nation for the highest attention needed for rural education (Bergeron, 2016).

Alabama rural schools have characteristics that are similar to many schools within the United States. A majority of Alabama rural schools are high minority and high poverty. Most of the rural schools in Alabama student population is African-American (Lindahl, 2011). In these schools, there are a good number of Native Americans and few Caucasians. Many of the students that attend Alabama rural schools receive free or reduced lunches and their families qualify for government assistance. The per pupil expenditure for rural students in Alabama is lower than the other locale classification (Johnson & Strange, 2009; Lindahl, 2011). Alabama State government, therefore, provides rural districts financial resources to help close the financial gap for rural students. These funds assist in student transportation, professional development, teacher resources, and incentives.

Rural schools have a big challenge in upholding the benefits of a small rural community while improving students academically (Gibbs, 2000). Some adequate benefits for Alabama rural schools are transportation, staff support, and academic improvement. Transportation is vital to academic achievement for rural schools' students in Alabama (Lindahl, 2011). Some students have to awaken extremely early and return home late due to enrollment in a rural school. Early mornings and late afternoons can cause student sleep deprivation and limit homework and study time much needed for academic success.

Although, transportation is one vital factor in Alabama rural schools, there are other influential factors. These schools often provide positive environments, common planning periods, collaboration among colleagues, signing bonuses, and competitive salaries (Griffith et al., 2019; Hirsch, 2006; Lucy, 2018). The small size of the rural schools assists in creating positive environments and enhances collaboration within the school building. Teachers and staff often feel more connected with one another and have a common goal and mission.

Some Alabama rural schools' administration focus on professional development and improvement on instruction (Griffith et al., 2019). These administrations believe that educating teachers and aides in the profession impacts and enhances student achievement and teacher retention. Academically, rural students have a larger percentage of students in career and technical educational programs (Lindahl, 2011). Career and technical educational programs are offered in most schools in Alabama. These programs offer students opportunities to receive early education in technical and vocational studies, such as wielding, culinary arts, television production, and agriculture.

Alabama rural schools face barriers that impact school success. One of the major issues is teacher retention. Teachers that lack passion for the profession tend to leave rural school settings due to heavy paperwork, shared responsibilities, personal conflicts, behavior problems, and inadequate staff and co-teaching (Lucy, 2018; Griffith et al., 2019). Student behavior problems and the abundance of paperwork are the main causes that teachers do not stay at rural schools. Some teachers are not certified but, due to lack of individuals entering the education profession, are hired to fill vacant teaching positions without proper training. These individuals tend to leave the profession after the first year. Also, low salaries impact teacher retention because some rural districts pay teachers less than other locale districts. A lack of resources affects academic success

in rural school settings. Since these schools are far from most major cities, a lack of support from the community and other business stakeholders can result in a lack of learning experiences and opportunities for the students.

Internal learning partnerships are built between stakeholders within an organization. These internal learning partnerships rely upon strong collaborative efforts and connection between relational factors, organizational structures, and operational processes. Reames' and Kochan's (2021) model suggests that organizations can use this as a template to create and sustain internal learning partnerships as well as external learning partnerships. The model also suggests that if the organization is collaborative, it will be able to collaborate with other organizations and entities.

# Chapter 3: Methodology

The establishment of internal learning partnerships within a school can assist with the school's primary focus of school improvement and student learning. This study was designed to examine the internal learning partnerships and teacher collaboration within one rural intermediate school. The performance of this school has been described as high performing based on their 2016-2019 Alabama State Report Card data. It measured levels of collaboration among the teachers and administration. A survey was designed and used to gather data on teachers and administrators' perceptions of collaboration.

According to the National Center for Education Statistics (NCES) database 2018-2019 school year had identified one thousand five hundred thirty-eight (1538) schools within Alabama. Among these schools, one hundred sixty-eight (168) are elementary schools and ninety-four (94) of these are classified as rural elementary schools that go up to sixth grade. There were sixty-five (65) of the ninety-four rural (94) elementary schools identified as high performing elementary schools by having an overall average of 85 and above over three consecutive State Report Card grades for Alabama.

The NCES has classified rural areas into three categories: remote, distant, and fringe. Remote rural schools are defined as being greater than twenty-five (25) miles from an urban area. Distant rural schools are located between five (5) and twenty-five (25) miles from an urban area. Fringe rural schools are within five (5) miles or less from an urban area.

## Purpose of Study

The purpose of this study was to examine the extent of collaboration in one rural elementary school in Alabama. The researcher explored the relationships and ties among the teachers and administrators within the participating intermediate school. Social network analysis

(SNA) was a key factor in identifying the key relationships and key collaborative actors within the organization to determine the strength of the internal learning partnerships.

**Research Design**

A case study combination of quantitative analysis using social network analysis and qualitative analysis of interviews of key personnel was used to conduct this study. A non-experimental design is used to conduct research without a control or treatment groups. Using this design, the researcher examined collaborative ties in a high performing rural school.

A case study is a type of research analysis that is mainly used in qualitative research. This kind of design is a research method of inquiry where the researcher discovers unique and in-depth information about an event, program, and process of one or more individuals. “Cases are bounded by time and activity, and researchers collect detailed information using a variety of data collection procedures over a sustained period of time” (Creswell, 2014, p. 14). These types of studies are time constrained and conducted in one location or within a certain group of people. They also provide insights and enhance the meaning of the researcher’s purpose of conducting research. It offers a deeper understanding of the research problem to assist in the improvement of practice of the individual’s or group’s program, event, and activity (Merriam, 1988).

In this study, a case study approach was conducted to examine and identify collaboration and internal learning partnerships. The researcher conducted this study within one rural intermediate school in one semester. All the participants worked in this rural school and were surveyed and interviewed by the researcher.

Quantitative research is the study of theories by exploring the connections between identified variables. This type of research includes mathematical equations modeling and the identification of levels of strength of multiple variables (Creswell, 2014). This approach is one in

which the investigator primarily uses postpositivist claims for developing knowledge (i.e., cause and effect thinking, reduction to specific variables and hypotheses and questions, use of measurement and observation, and the test of theories) and employs strategies of inquiry such as experiments and surveys and collects data on predetermined instruments that yield statistical data (Creswell, 2014).

Qualitative research is the study of theories, methods, and practices within different fields of research. Qualitative research allows for the understanding of common themes that are conducted through interviews, open-ended questions, and observations (Creswell, 2007). Many educational, psychological, and social sciences studies use a qualitative research design. "The process of research involves emerging questions and procedures, data typically collected in the participant's setting, data analysis inductively building from particulars to general themes, and the researcher making interpretations of the meaning of the data" (Creswell, 2014, p. 4). Some identified types of qualitative research are narrative research, grounded theory, case studies, phenomenology, and ethnography.

> Qualitative research is a situated activity that locates the observer in the world. It consists of a set of interpretive, material practices that make the world visible. These practices transform the world. They turn the world into a series of representations, including fieldnotes, interviews, conversations, photographs, recordings, and memos to the self. At this level, qualitative research involves an interpretive, naturalistic approach to the world. This means that qualitative researches study things in their natural settings, attempting to make sense of, or interpret, phenomena in terms of the meanings people bring to them. (Denzin & Lincoln, 2005, p. 3)

Qualitative research design also allows researchers the ability to write in various writing styles, to provide detailed understanding of the problem statement, and to identify various themes and theories within the collected and observed data.

**Social Network Analysis**

The interaction of school staff, students, parents, and external stakeholders are affecting the student's learning process. Within organizations, especially schools in need of improvement, scholars have begun to recognize that social interactions and relationships are significant factors among school personnel, administrators, students, and parents (Carmichael et al, 2006; Daly et al., 2010; Moolenaar et al., 2009). Networks assist with identifying relationships and interest interactions. Student relationship perspectives also play a role in the success of student learning by examining and measuring the frequency of ties among individuals within networks. The effect of engagement within an organization results in the school's overall outcomes regarding school improvement.

According to Freeman (2004), Barton describes social research as understanding people's behavior. In 1968, Barton recognized that research on understanding the behavior of individuals needs to be conducted on individual's interactions and roles within all types of groups, organizations, social circles, and/or communities. Barton's research led practitioners into the development and establishment of social network analysis. The main purpose of the use of social network analysis is to recognize the importance of relational ties and their strengths.

Social network analysis is the "study of interaction among social actors" (Freeman, 2004, p. 2). Scott (2000) identifies that "social network analysis emerged as a set of methods for the analysis of social structures, methods that specifically allow an investigation of the relational aspects of these structures" (p. 38). According to Breiger (2004), social network analysis is

defined as “the disciplined inquiry into the patterning of relations among social actors, as well as the patterning of relationships among actors at different levels of analysis (such as persons and groups)” (p. 507). Reinforcing this idea, social network analysis offers visual approaches and measured data through characteristics and relationships of social interaction among individuals, groups, organizations, etc. (Datnow, 2012; Moolenaar, 2012). Most social network analysis describes interactions using quantitative data, but it can also be used for analyzing qualitative data (Daly, 2010).

Social network analysis was established from the theory of social capital. According to Nahapiet and Ghoshal (1998), social capital is “the sum of the actual and potential resources embedded within, available through, and derived from the network of relationships possessed by an individual or social unit” (p. 243). Also, social capital is identified as any characteristic of social structure that generates and promotes efforts of individuals within the particular social structure (Coleman, 1990). It occurs when relations among people are altered in ways that build a stronger tie. Moolenaar (2012) notes the following:

> social capital theory offers a way to think about the potential of social structure for acquiring resources; social network theory seeks to reveal and understand certain patterns in this social structure and searches for tangible mechanisms that are responsible for its social capital outcomes. (p. 4)

Social capital theory, therefore, identifies the collection of relationships in social organizations which details the sharing and exchanging of resources and information (Daly, 2010; Moolenaar, 2012). It provides the identification of the connection of the shared information. Also, social network theory is vital to social network analysis (SNA). Social network theory observes relationships between individuals within an organization and/or group. It can explain

groups/organizations attributes, characteristics, action choices, and/or patterns through levels of ties and connectors between individuals, such as communications, friendships, interactions, exchanges, cliques, etc.

Social network theory recognizes three norms: the exchange of resources in relationships, the individuals as interdependent (meaning that they are embedded within an organization), and the opportunities within an organization (Moolenaar, 2012). It also provides a model for understanding outcomes of individuals and organizations based on the position within a network and entire social system structure, examining the relational networks structures and outcomes, and providing measures and visualization through examining the relational ties and flows of resources within a network (Lima, 2010).

> Social capital and social network theory provide useful frames and specific methods for researchers and educators to use in answering such questions as to the extent which information is diffused throughout an organization; who is sharing information with whom, and at what frequency; or to what degree is there congruence between formal and informal systems. (Daly, 2010, p. 5)

Although social network analysis methods are not recent, some researchers in the past used visual images, organized investigation, and mathematical approaches to identify different kinds of social patterns. According to Freeman (2004), the following four characteristics define social network analysis:

1. Social network analysis is motivated by a structural intuition based on ties linking social actors,
2. It is grounded in systematic empirical data,
3. It draws heavily on graphic imagery, and

4. It relies on the use of mathematical and/or computational models (pg. 3).

Social network analysis offers visual graphs, closeness percentages that identify strength of ties, relations and/or interactions, centralizations, and densities of networks (Borgatti et al., 2013; Provan et al., 2005). These data offer a dynamic report of how connected an individual, group, or agency is within a network. Traditional social science analyses do not offer this kind of relationship data. Instead, they offer common central tendency and data analyses, such as correlation, standard deviation, variance, identifiable predictor variables, etc. The combination of both types of analyses should offer better results of research data.

Moreover, SNA provides positive outcomes by demonstrating the level of ties among individuals/organizations, key personnel, and other structured performance within organizations. Serrat (2017) noted the following as benefits of SNA:

- Identifies the individuals, teams, and units who play central roles.
- Discerns information breakdowns, bottlenecks, structural holes, and isolated individuals, teams, and units.
- Creates opportunities to accelerate knowledge flow across functional and organizational boundaries.
- Strengthens the efficiency and effectiveness of existing, formal communication channels.
- Raises awareness of and reflection on the importance of informal networks and ways to enhance their organizational performance.
- Leverages peer support.
- Improves innovation and learning.
- Refines strategies (p. 41).

Network relationships are functioning and evolving information that can be beneficial to individuals and organizations. Networks can identify central actors (individuals with the most connectors/ties with other individuals in the network), actors, and their connectors as well as the strength of ties within a network.

Provan et al. (2005) conducted a study to build a community that was able to focus on concerned areas such as health, economic development, human services, and social issues. The use of network analysis was to allow the leaders and community to see the importance of establishing strong relationships between profit and nonprofit organizations, other important groups, and individuals within the community. This article identified eight questions that needed to be addressed to develop a collaborative and purposeful network for the community. The questions focused on identifying the central organizations, community needs, external ties, characteristics of ties within the network, collaboration, trust, and benefits. Overall, the main purpose was to build a strong network. These essential items are important for the development and sustainability of a collaborative community and its structure. The result was an example that communities can benefit from using a network analysis by displaying relationships and ties among organizations within a community and network structure.

**Connection to Education**

Social networks have grown in the field of education within the last fifty years (Daly, 2010). Other areas, such as social science, organizational theory, humanities, and psychology have used social network analysis to show the interactions of groups, various characteristics, organizations, and data (Borgatti et al., 2013; Provan et al., 2005).

In education, the connectedness and relationships of individuals, groups, and agencies within a school, university, or partnership provide the researcher opportunities of identifying

who the central actors are, who has ties with whom, and other types of relationships within the network. It also provides the networks information on individuals' personal opinions and their relational status with others within the network. The impact of social networks within schools and their effects on school improvement is limited (Daly et al., 2010). Researchers have begun to use social network analysis to identifying teachers' social relationships and patterns within their organizations (Moolenaar, 2012), such as formal and informal advice-seeking networks (Spillane et al., 2010), innovative school climate and teacher trust (Moolenaar & Sleegars, 2010), and collaborative interactions among three different networks (Lin et al., 2016). These researchers have demonstrated the progression of the use of SNA in research studies.

Daly et al. (2010) conducted a mixed-method case study in a California school district to examine social networks in five urban elementary schools. The school district was under the implementation of a reformation for the improvement of student achievement especially in reading comprehension. The selected district had been underperforming for the previous two years and during the time of the study was under the authorization of the federal government. The study focus was on principals' and teachers' social networks in reference to lesson planning, reading comprehension, and effort recognition. Social network analysis, grade level work, and semi-structured interviews were used to collect the data. The findings suggested that the social networks had a significant role on the understanding of implementation and the understanding of the reform by grade level. There were more interpersonal activities in the area of lesson planning versus reading comprehension and effort recognition. The teachers communicated more and were more collaborative and interactive in the lesson planning section in the improvement of reading comprehension in their schools. The lesson planning section was implemented in grade level meetings. The teachers were given direction on the reformation from their principals. Two

principals of the five had a different approach on the delivery of the reform. These two principals detailed an organizational structure to assist in the management of evidence throughout the school year. These principals' teachers had to submit meeting minutes which included what each grade level team was accomplishing and planning in each meeting as they identified content areas which needed to be addressed and/or retaught according to student data. The other three principals delivered the information regarding the reform and allowed the teachers to develop their own meaning. There was no more communication between the teachers and principals on the progress of the implementation.

Lin et al. (2016) conducted a SNA study on collaborative interactions within three different networks: real network (face-to-face), virtual network (online learning), and blended network (combination of face-to-face and online learning). The purpose was to examine the centrality between the three networks to identify which network endures the highest level of collaboration. It involved one hundred seventy-two teachers within a K12 environment. Questionnaires were used to collect data in the real-world network while the discussions and comments on a blog were collected as data for the virtual network. The collection of the blog data included responses to discussions, emails, chats, and revisions to the design of the class's educational project with individuals within that network. In the blended network, eight individuals were identified and interviewed. Data were collected and inputted in a social network relationship matrix to encode the relationships by identifying the frequency, receiver, direction, sender, and weight of the interactions. Degree centrality, betweenness centrality, and closeness centrality was measured using SNA and UCINET to visualize the network's sociograms. The results of this study displayed that the real network had the highest collaborative interaction.

These are a couple of research studies that used SNA in education. The implementation of SNA is continuously growing and is used to examine relational patterns among people and within organizations. SNA offers visualization and graphical images to be explored and used by practitioners. Overall, SNA will provide the importance of building a strong network within a school through building positive relationships.

Social network analysis was used in this study to examine the relational ties within this rural intermediate school. The centrality and density of collaboration and knowledge of internal learning partnerships are the focus of this study. The researcher used SNA to determine a collaboration network and the ties among the faculty and administration within the school. Moreover, interviews were conducted to support the results of collaboration and partnerships.

The chart below provided the researcher with connection of research questions and data collection instruments.

**Table 1**

*Research Questions and Data Collection Instruments*

| Research Questions | Data Collection Instruments |
|---|---|
| What is the centrality of collaborative partnerships in a high performing rural intermediate school? | SNA |
| What is the density of collaborative partnerships in a high performing rural intermediate school? | SNA |
| To what extent do faculty and administration collaborate in a rural school? | Frequency Table |

| | |
|---|---|
| What are the a) relational factors, b) organizational structures, and c) operational processes identified in the school's internal learning partnership? | Interviews |

**Instrumentation**

Social network analysis is the development of relationships among factors that make up the system. According to Daly et al (2010), "social network analysis is a systematic approach used to quantify and visualize the ties and overall structures of formal and informal networks" (p. 360). "Network analysis is a method of collecting and analyzing data from multiple individuals or organizations by interacting one another" (Provan et al., 2005, p. 3). It is used to show relationships and ties among individuals, groups, agencies, organizations, etc. The focus here is on networks of collaboration, trust, and identifiable internal learning partnerships. Relationships were measured among and across members within the network. Data are analyzed using a matrix, nodelist, edgelist, and visuals. Nodes are individuals, organizations, or any type of active agents. The teachers, staff, and administrators are the nodes in this study. A relational tie is the connection between two or more nodes within a network. In this study, the centrality of the relational ties was measured through collaboration levels between the nodes. The SNA in this study examined the collaborative relationships between the nodes within one rural school and the centrality of the network.

The software UCINET was used to measure and calculate descriptive statistics of the survey questions. A nodelist was used to analyze collaborative ties and frequency among the teachers and administration within this school. The SNA questions were measured through

degrees, centrality, and density among the organization. Density displayed the average of ties within a network among an identified participant. It described the actual number of ties out of the total potential ties. Centrality measured the number of connectors to a node. This explained how many ties a participant received. Degrees represented how many direct connectors a node acquired. In this study, the degree identified the most effective or resourceful teacher or administrator within the networks.

The interview instrument consisted of eight questions that included demographics, definition of collaboration, the looks and level of collaboration in the school, and the identification and existence of internal learning partnerships. The interview instrument is attached at the end of this dissertation within the application for Institutional Review Board approval.

*Pilot Information*

The survey instrument was piloted by three elementary teachers and one administrator from other schools outside of the studied school/system. The participants were asked to complete and proofread the survey. A meeting was held to review the instrument and identified areas that needed more clarity and refinement. Appropriate changes were made to produce a concise and clear instrument. A few of the collaborative questions/statements were also revised.

**Research Questions**

1a. What is the centrality of collaborative partnerships in a high performing rural intermediate school? (SNA)

1b. What is the density of collaborative partnerships in a high performing rural intermediate school? (SNA)

4. To what extent do faculty and administration collaborate in a rural school? (Frequency table)
5. What are the a) relational factors, b) organizational structures, and c) operational processes identified in the school's internal learning partnership?

**Setting**

This current study was conducted in one high-performing rural intermediate school in the state of Alabama. According to the National Center of Educational Statistics, rural schools in the United States have been classified as distant, fringe, and remote. The three different rural categories are identified by the geographical location in respect to the next nearest city. The participating school in this study was identified as a fringe rural elementary school. This school is located in a community less than five miles from an urban area.

Charity (pseudonym) Intermediate School is located in the southeastern region of Alabama. Its district is comprised of elementary, intermediate, and high schools, which are all classified as rural. The city's population where this school is located is approximately 10,159 people according to the 2020 Census. This school is comprised of two administrators, twenty-eight teachers, and six staff members. Staff demographics are thirty Caucasians, four African Americans, and two from other ethnic groups. The teacher student ratio is 1:22. There are approximately 563 students enrolled from fourth to sixth grade, and twenty-one percent of the students receive free or reduced lunch. The grade levels are identified as communities, such as Community 4.

**Sampling Procedures and Data Collection**

A cross-sectional survey instrument was developed and revised by the researcher. The instrument was designed to be completed by all administrators, teachers, and staff within each organization.

The initial email was sent to the administration of this school requesting participation in this study. After administration/district approval to conduct this study, application for approval was sent to the Institutional Review Board (IRB) for approval. Once IRB approval was granted, an email was sent to the principal for her to send to the entire faculty and administration explaining the purpose of the study and asking for their participation to complete the survey. The instrument was delivered electronically to the teachers and administration through their school email using Qualtrics. Qualtrics is an online electronic survey software program that can access survey responses in real time. The instrument consists of thirteen (13) questions answered in the format of relative Likert scales, closed-ended, and multi-grid questions in addition to a demographics section. The Likert scale questions measure the levels of collaboration within each school and among the faculty. The closed-ended and multi-grid questions measure existence of internal learning partnerships and levels of participation within a partnership. After the researcher received few responses, the researcher requested the principal to send out the initial information a second time.

The researcher requested that the principal provide school demographic information and the email addresses of the lead teachers and staff to be interviewed. The researcher emailed each identified lead teacher and staff requesting their participation in the interview process. This email was developed through a Google form asking for their willingness to be interviewed and providing a consent form and availability of interview times. If participants agreed to be interviewed, they were asked to sign a consent form electronically. After receiving the signed

consent form and availability of interview times, the researcher sent out another email to confirm interview times and a Zoom link to each participant. The interviews were conducted through Zoom and lasted approximately 30-45 minutes each. Each participant was interviewed individually.

**Limitations**

The following are limitations imposed on this study:

- Lack of research about partnerships and collaboration and its relation to student achievement.
- Population size – if enough responses were collected per individual schools to make the study generalizable in the state of Alabama.
- Each participant was to complete a survey for responses to be counted in the data.
- Generalizability of findings may not be appropriate beyond Alabama.
- Generalizability may be dependent upon the percent of respondents.
- The study included one rural intermediate school in Southeastern Alabama.
- The study was conducted during a world-wide pandemic.

# Chapter 4: Results

This case study was conducted at one fringe rural high-performing intermediate school in southeast Alabama. Charity Intermediate School was identified as fringe rural by the National Center of Education Statistics (NCES) for the 2018-2020 school years. Charity Intermediate is also identified as a high performing school for years 2018-2020 by the state of Alabama due to earning an overall report grade of eighty and above for consecutive years. The 2020–2021 school year data has not been reported due to the worldwide pandemic.

## Purpose of the Study

The purpose of this case study was to examine the internal learning partnerships using collaboration as a matrix within a rural intermediate school. Collaboration was measured through social ties within the organization among the faculty and administration. Collaboration studies have been conducted to examine collaboration among other key factors such as trust, self-efficacy, etc. (Liu et al., 2021; Tshcannen-Moran, 2001). There have been very few case studies analyzed through social network analysis and few studies conducted within intermediate schools.

## Research Questions

1a. What is the centrality of collaborative partnerships in a high performing rural intermediate school? (SNA)

1b. What is the density of collaborative partnerships in a high performing rural intermediate school? (SNA)

2. To what extent do faculty and administration collaborate in a rural school? (Frequency table)
3. What are the a) relational factors, b) organizational structures, and c) operational processes identified in the school's internal learning partnership?

## Descriptive Statistics

### *Charity Intermediate School—Background and Statistics*

Charity Intermediate School is part of a school district that was established in 2015. Prior to 2015, this school district was a part of a major school system in the same county. When established in 2015, the school district only had one school that includes grades K-8. The school district currently has four schools ranging from grades K-12. This study's focus is on the intermediate school within this system. Charity Intermediate School housed grades 4-6 with thirty-one faculty and administration members. Each grade is identified as a community within the school with eight teachers in the fourth-grade community, six teachers in the fifth-grade community, and six teachers in the sixth-grade communities. There are two administrators, one counselor, one nurse, and eight specialty teachers (special education, physical education, and art teachers). The faculty and administration consisted of twenty-five females and six males with ethnicity of 86.71% Caucasian, 9.68% African-American, and 1.61% Hispanic. Charity's enrollment for 2020-2021 was 562 which included 205 fourth graders, 174 fifth graders, and 183 sixth graders. The ethnicity of the students were 316 Caucasians, 155 African-Americans, 50 Hispanics, 39 Asians, 1 American Indian, and 1 Pacific Islander.

### *Faculty Participation and Demographics*

Sixteen out of thirty-one of Charity faculty and administration participated in the study. The roles of the participating faculty and administration were principal, counselor, special education teacher, six fourth-grade teachers, one fifth-grade teacher, and six sixth-grade teachers. The ethnicity of the participants were 12 Caucasians, 1 African American, 1 Other, and 2 unknowns while the level of education ranged from bachelors to educational specialist degree. The highest level of education of the participants were a fourth-grade teacher and the special

education teacher who both held educational specialist degrees. There were seven participants who have earned a bachelor's degree and seven who have earned a master's degree. The educational experience of these teachers and administrators ranged from one year to more than twenty-seven years. All of the participating faculty and administration were in the first three years of their current positions. Most of the participants were in the first year of their current positions. All of the fourth and fifth grade teachers taught two subjects within their grade levels while the sixth-grade teachers only taught one of the main core subjects with the exception of one sixth grade teacher who taught two subjects.

**Data Collection Instrument**

The survey instrument included two network questions (identifying collaborative and frequency ties), sixteen collaboration questions, and five demographic data questions (grade-level teaching, race, title, years teaching, years in current role, and educational level). Participation was voluntary, and the principal provided the participants with the survey instrument electronically. The researcher requested that the survey be emailed to the entire school faculty and administration. A second request was emailed to the principal to receive more responses. Participants were asked to identify the colleagues with whom they collaborate and the frequency of the collaboration (almost daily, monthly, once a semester, etc.) in the first two questions of the instrument. The third question asked the grade level and subject that each participant taught. The next set of questions asked about collaboration within the network among teachers and administration regarding instruction, instructional policy, and student achievement. The remaining questions were demographics of the participants (gender, level of education, title, race, years in current role, and educational level). Descriptive statistics were calculated using SPSS for demographic and collaboration data and UCINET for network and attribute data.

Visualization graphs of the data (below) were constructed using NETDRAW within the UCINET software program.

***Research Question 1: What is the centrality and density of collaborative partnerships in a high performing rural intermediate school? (SNA)***

**Survey Question 1:** Who do you collaborate with in your internal partnership?

Survey question one identified the collaboration ties among the participating faculty within Charity Intermediate School. The number of participating faculty were sixteen participants out of thirty-one which is approximately 50% of the school's faculty and administration. The analysis on the *Charity Density Network* (identified collaboration ties with each other) showed a total of 211 ties among the network. This network's density was calculated using the social network analysis program, UCINET. Density is the measurement of the total number of ties divided by the number of pairs in the network. Its range is from zero to one; the closer the density is to one, the denser the network is. It displays how a network is connected by directed and undirected ties by using a formula. The formula involved the total number of edges being divided by the total possible number of edges. Edges are the connected ties between each node. Table 2 below displays the density of the network as 0.469, which implies that the interconnectedness of the faculty and administration density is moderate. The density was inclusive due to the lack of participation within the entire network. The average degree for nodes in this network was 6.806 (SD=0.499) with Annie being the node with the least number of ties overall. The Cronbach Alpha of this network was 0.925 which demonstrates that the overall network has strong collaborative ties.

**Table 2**

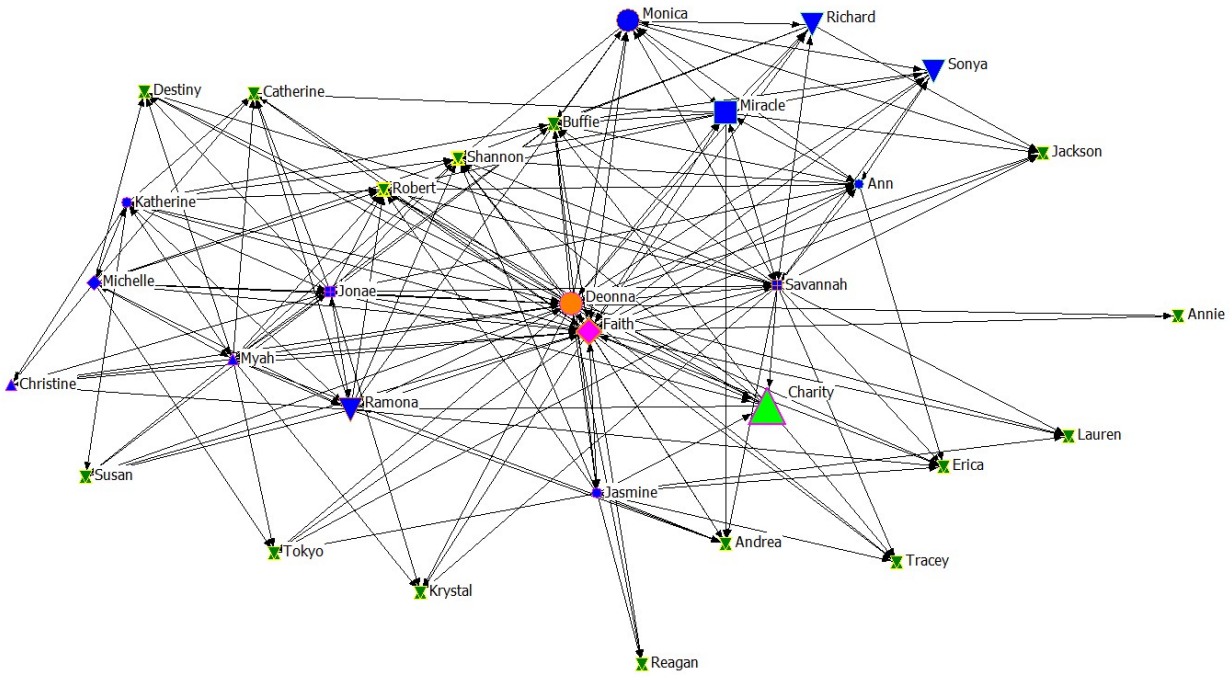
*Charity Density Network*

| | |
|---|---|
| **Density** | 0.469 |
| **Number of Ties** | 211 |

| | |
|---|---|
| **Std. Dev.** | 0.499 |
| **Avg. Degree** | 6.806 |
| **Alpha** | 0.965 |
| **Number of Obs.** | 31 |

**Figure 6**

*Charity Network Demographics*




Legend

| *Identification* | *Color* | *Level of Education* | *Size* | *Years of Experience* | *Shapes* | *Years in current role* | *Rim color* |
|---|---|---|---|---|---|---|---|
| Principal | Pink | Bachelors | 10 | 1-3 | Circle | 1 | Pink |
| Counselor | Orange | Masters | 15 | 7-9 | Square | 2 | Green |
| Teacher | Blue | Ed. Specialist | 20 | 10-12 | Up Triangle | 3 | Orange |
| Sped. Teacher | Lime | | | 13-15 | Box | No response | Yellow |
| No response | Dark Green | No response | 6 | 16-18 | Down Triangle | | |
| | | | | 25+ | Diamond | | |
| | | | | No response | Thing | | |

Centrality is the number of connections one node has to other nodes within the network. There are three common centrality measures: degree, closeness and betweenness. The overall

centrality of the network out-centralization is 0.799 and the in-centralization is 0.248. The centralization representations are proportions of centrality within the network. The out-centralization represents the proportion of the number of outward directed ties (from the node) within the network. While the in-centralization represents the proportion of the number of inward directed ties (ties to the node) within the network. The out-centralization proportion of 0.799 shows that, overall, there were more connections coming outwardly from each node instead of inwardly to each node.

Degree centrality is the number of directed and undirected ties between each individual node. The outward and inward degree of each node is displayed in Table 3. The table has been arranged in order of highest outward degree. In this network, two participants report a maximum out-degree of 30 and one participant reports maximum in-degree of 14. Only 88 ties portrayed reciprocity (reciprocal ties).

Closeness centrality reflects how close a node is to another node within a network. The higher the closeness centrality determines how close (near) the node is to another node. Closeness centrality is separated into out-closeness and in-closeness based on directed ties of the nodes. The nodes with strong closeness collaborate the most with other nodes within the network. The out-closeness measurement ranges from 30 to120 and the in-closeness measurement ranges from 76 to 91. There are several nodes with out-closeness measurements of 120. These nodes are the closest to each other in this network due to no directed out-degree ties with other nodes and lack of participation within this case study. In-closeness measurements range is not that wide with Jasmine having the highest in-closeness of 91.

Betweenness centrality is a measure of the shortest path a node falls between two other nodes (Borgatti et al., 2013). Also, it represents a node's control of exchanges of information and

interactions between other nodes. Betweenness centrality measurement range varies. The higher the betweenness, the more power the node has in the network. A node that has high betweenness does not mean that node has a high degree centrality. In this network, betweenness centrality measurement ranges from 0 to 106.442. There are two nodes (Deonna, the counselor, and Faith, the principal) with betweenness values greater than 50. These two nodes are very important and powerful in this network. Faith, the principal, has the highest betweenness measurement which represents that she has the most collaborative power within this network.

**Table 3**

*Nodes Degrees, Closeness and Betweenness*

| Node | Out Degree | In-Degree | Out-Closeness | In-Closeness | Betweenness |
|---|---|---|---|---|---|
| Deonna | 30 | 11 | 30 | 81 | 73.100 |
| Faith | 30 | 13 | 120 | 76 | 106.442 |
| Savannah | 20 | 7 | 40 | 85 | 21.908 |
| Jonae | 17 | 1 | 43 | 86 | 8.050 |
| Myah | 16 | 5 | 44 | 88 | 2.217 |
| Miracle | 13 | 6 | 47 | 86 | 13.792 |
| Ramona | 13 | 7 | 47 | 86 | 6.267 |
| Jasmine | 12 | 2 | 48 | 91 | 0 |
| Katherine | 12 | 6 | 48 | 87 | 0.767 |
| Michelle | 12 | 6 | 48 | 87 | 1.433 |
| Ann | 10 | 7 | 50 | 85 | 11.208 |
| Monica | 9 | 8 | 51 | 84 | 8.983 |
| Charity | 7 | 5 | 53 | 88 | 0.833 |
| Richard | 6 | 5 | 54 | 87 | 0 |
| Sonya | 4 | 6 | 72 | 86 | 0 |
| Andrea | 0 | 7 | 120 | 83 | 0 |
| Annie | 0 | 2 | 120 | 89 | 0 |
| Buffie | 0 | 13 | 120 | 77 | 0 |
| Catherine | 0 | 8 | 10 | 82 | 0 |
| Christine | 0 | 7 | 120 | 84 | 0 |
| Destiny | 0 | 6 | 120 | 85 | 0 |
| Erica | 0 | 6 | 120 | 84 | 0 |
| Jackson | 0 | 6 | 120 | 84 | 0 |
| Krystal | 0 | 5 | 120 | 86 | 0 |
| Lauren | 0 | 4 | 120 | 87 | 0 |
| Reagan | 0 | 3 | 120 | 88 | 0 |
| Robert | 0 | 12 | 120 | 78 | 0 |

| | | | | | |
|---|---|---|---|---|---|
| Shannon | 0 | 14 | 120 | 76 | 0 |
| Susan | 0 | 6 | 120 | 85 | 0 |
| Tokyo | 0 | 6 | 120 | 85 | 0 |
| Tracey | 0 | 5 | 120 | 86 | 0 |

**Survey Question 2:** Select the frequency of collaboration with whom you have an internal partnership.

The second survey question asked the participants to report frequency levels of collaboration with faculty and administration. The identified Likert scale levels included a) almost daily – 5, b) weekly – 4, c) monthly – 3, d) several times this year – 2, e) once or twice a year – 1 and f) not at all – 0. This question format was a matrix list where each individual faculty and administration were listed. This data was analyzed by social network analysis as visualization graphs using the NETDraw application. Table 4 displays the descriptive results of the network which included a total of 211 ties. The out-centralization proportion is 0.4738 and the in-centralization is 0.2189 of this frequency network. There were more outward ties overall than inward ties provided by the participants. Although the out-and-in centralization proportions are less than 0.5, the Cronbach alpha was 0.947 which concludes that collaboration frequency is very strong in this network. This data was dichotomized which represented a density value of 0.227, out-centralization of 0.799, and in-centralization of 0.248. The dichotomized data displays that this network is less dense than the "whom network". The out-centralization proportion dichotomized is high while the in-centralization value was similar to the frequency value in-centralization value.

**Table 4**

*Charity Frequency Network*

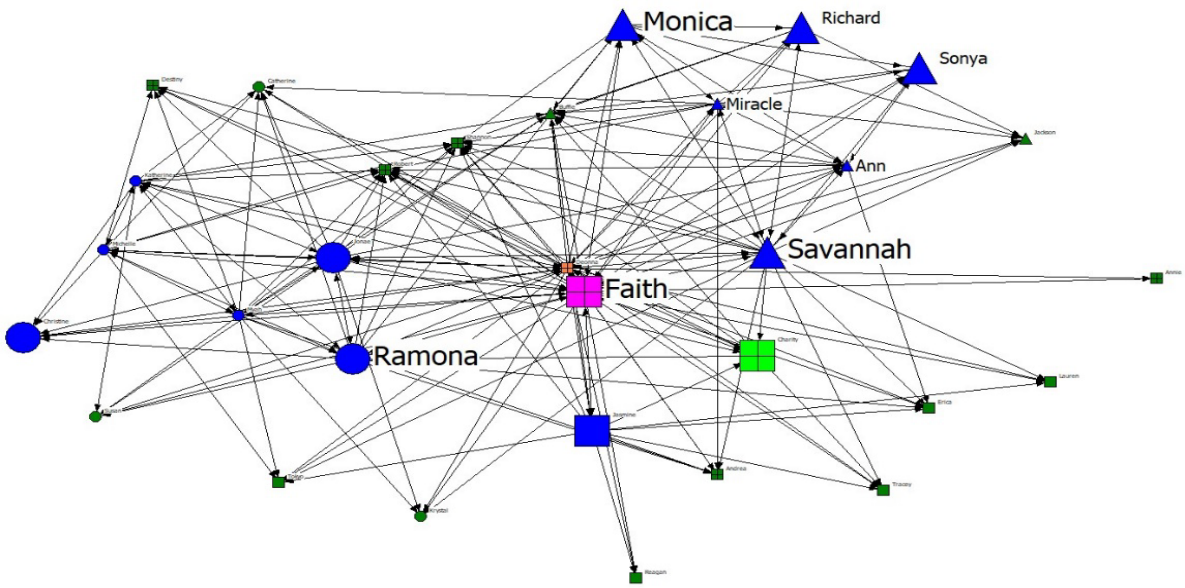
| | |
|---|---|
| **Number of Ties** | 211 |
| **Std. Dev.** | 1.481 |
| **Avg. Degree** | 6.806 |

| | |
|---|---|
| **Number of Obs.** | 31 |

Visualization graphs were developed to represent the overall frequency network and frequency of each collaboration level. In these visualizations, the faculty and administration are represented by colors: pink-principal, counselor-orange, teachers-blue, special education teacher-lime, and no response-green. The node's shape represents their current teaching position by grade (circles – 4th grade, squares – 5th grade and triangles – 6th grade, box – no grade/no grade identified). The node's name size increased by their time in their current role which do not exceed past three years. The node's shape size identified how they viewed their school's overall collaboration (Figure 7). A Likert-scale was used to identify levels of overall collaboration: a) Extremely High Collaboration – 4, b) High Collaboration – 3. c) Moderate Collaboration – 2, d) Low Collaboration – 1 and e) No Collaboration – 0. The participants agreed their school demonstrated high and moderate collaboration.

**Figure 7**

*Charity Network Collaboration Levels*



The following figures represent each frequency level. Each visual graph layout and web pattern are unique. There are isolates in every graph and the principal (Faith) has a tie in every frequency graph except for one or twice a year. The principal is located in the center of each network and identified as one of the central actors within the network. The principal's collaboration efforts are represented and strong in each frequency network. The almost daily frequency graph (Figure 8) had 43 ties. In Figure 8, there are several isolates and a split network where one node, Jasmine, has outwardly directed paths to three other nodes. Majority of the fourth (circles) and sixth (triangles) grade teachers collaborate daily in this network. The weekly frequency graph (Figure 9) represents 60 ties which is most of each identified level of collaboration. The monthly (Figure 10) represented 40 ties while several times a year (Figure 11) represented 46 ties. The graph (Figure 12) with the least frequency ties was the once or twice a year with 22 ties.

**Figure 8**

*Almost Daily Frequency Graph*

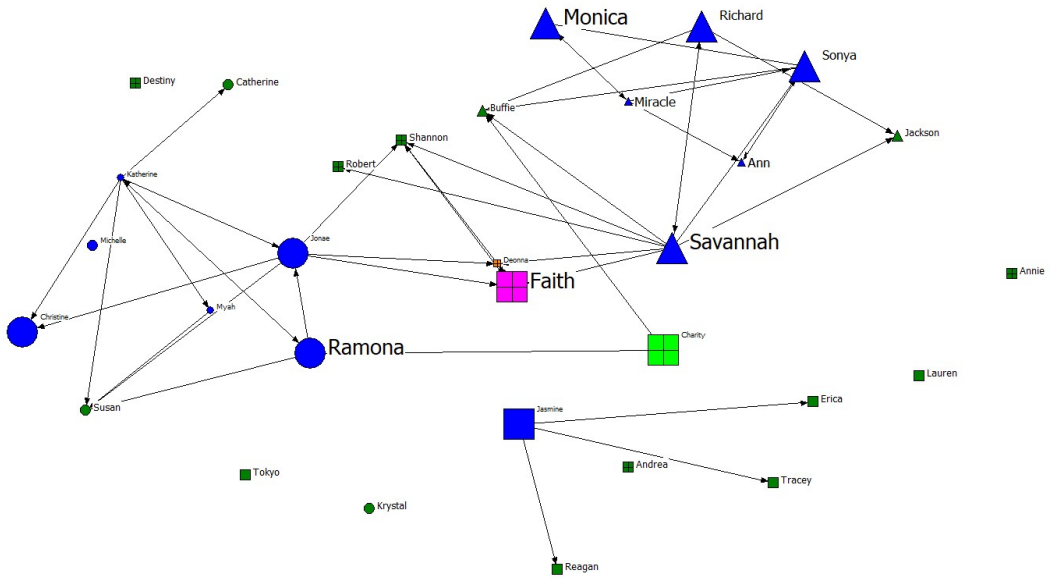


**Figure 9**

*Weekly Frequency Graph*

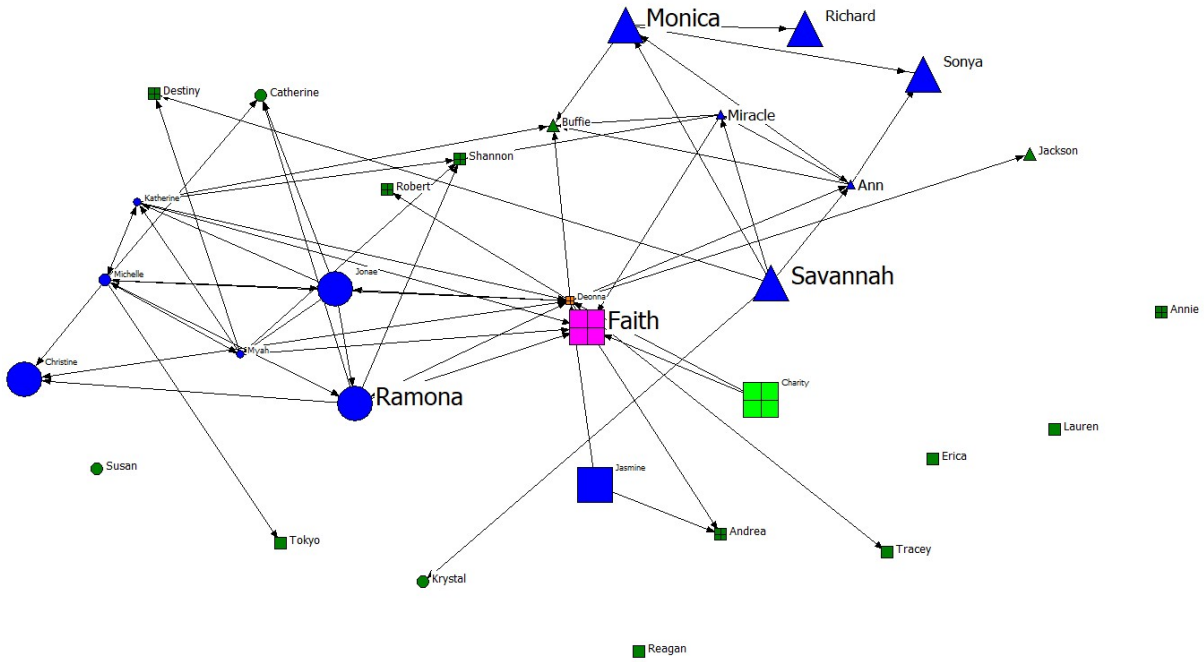



**Figure 10**

*Monthly Frequency Graph*

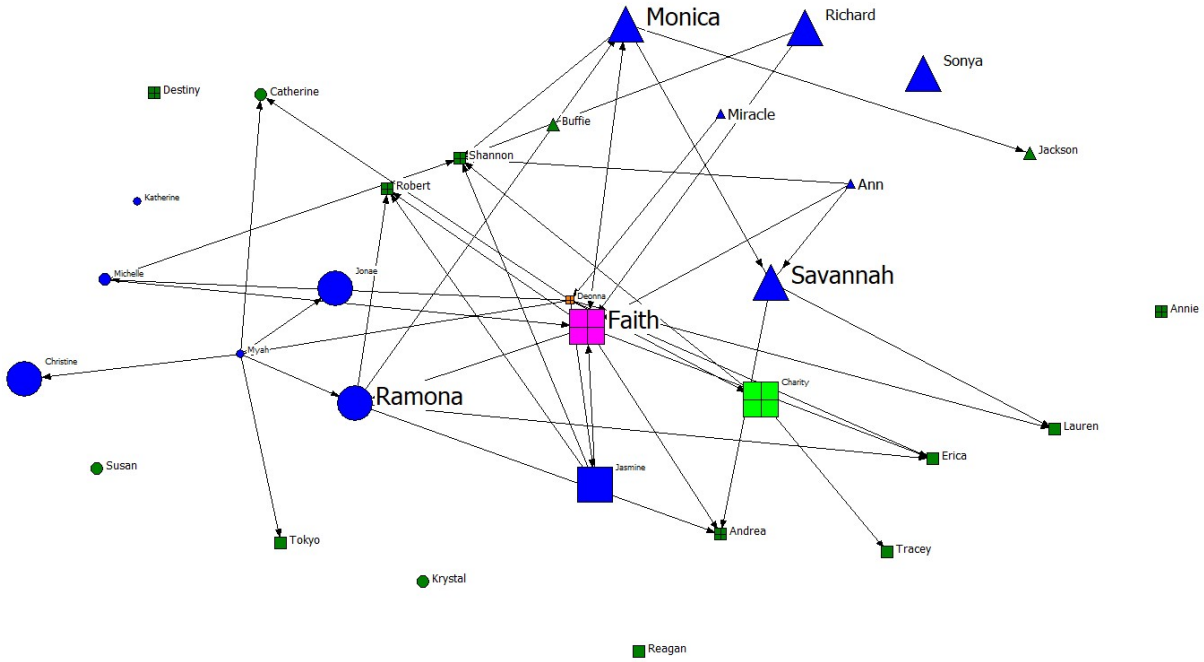


**Figure 11**

*Several Times This Year Frequency Graph*

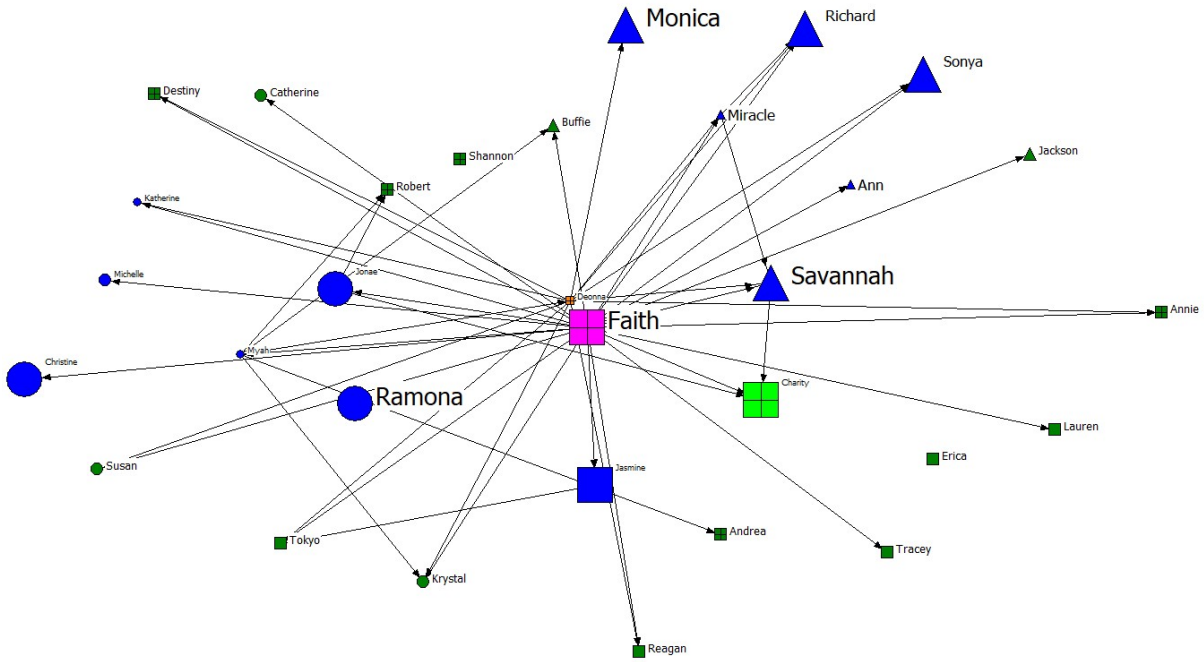
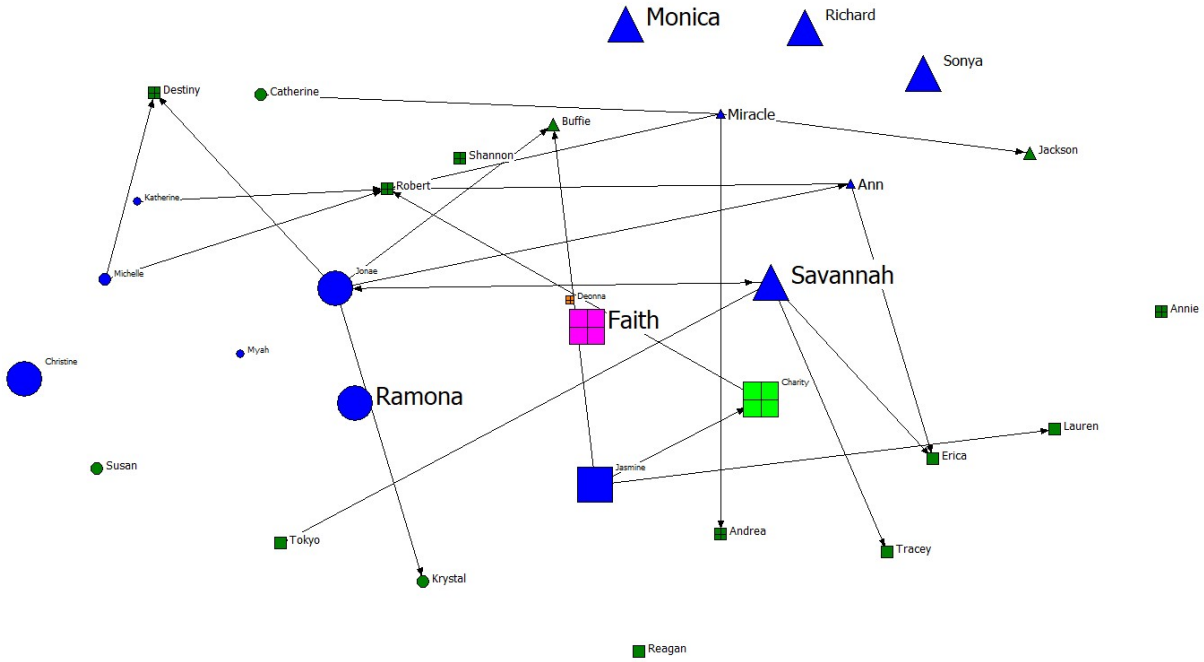



**Figure 12**

*Once or Twice a Year Frequency Graph*



***Research Question 2: To what extent do faculty and administration collaborate in a rural school?***

Collaboration among the faculty and administration was measured using SPSS, a statistical program. The participants were asked to rate their school's level of collaboration for the current school year. The participants were asked to rate their school's collaboration on a Likert-scale from no collaboration to extremely high collaboration. The results of this question examined the school overall level of collaboration during this unique school year. Table 5 shows the frequencies of the level of collaboration based on the participants responses. The faculty and administration responses displayed that their school level of collaboration is high and moderate. Two-thirds of the responses were that there were high levels of collaboration at this school during this school year. In conjunction with the network visualizations, collaboration levels displayed within the weekly and monthly networks were supported by the Cronbach Alpha from the whole network from SNA which displayed that collaboration was strong and evident within this school among the faculty and administration during this unique school year.

**Table 5**

*Level of School Collaboration Frequencies*

| | Extremely High | High | Moderate | Low | No |
|---|---|---|---|---|---|
| Collaboration | | 10 | 5 | | |

***Research Question 3: What are the a) relational factors, b) organizational structures, and c) operational processes identified in the school's internal learning partnership?***

Qualitative data were collected and analyzed to answer research question three. Interviews were conducted from the population. The researcher requested from the principal a list of lead teachers to interview. The principal identified five lead teachers within the network. Out of the identified five teachers, three volunteered to be interviewed only with the administrator and counselor. The interviews lasted thirty to forty-five minutes and were

conducted via Zoom. The researcher emailed the willing participants to receive consent of participation and a convenient meeting time. The interview protocol consisted of eight questions. The first two questions asked the respondents to state their name, current role, and length of time in the school. The following three questions inquired the respondent's definition and utilization of collaboration and its impact on instruction and academics. Within inquiry about collaboration effect on instruction and academics; the interviewee asked the participants about any barriers they noticed that impacted the network's level of collaboration. The last few questions referenced the identification and effects of internal learning partnerships within the school. The pseudonyms for the survey were the same pseudonyms for the interviews. The interviews were transcribed and reviewed by the researcher. The five participants were Faith (principal), Deonna (counselor), Jasmine (5th grade teacher), Ramona (4th grade teacher), and Richard (6th grade teacher).

The three subareas from the sustained partnership model by Reames and Kochan (2021) were used as the main themes in the qualitative analysis. The three themes were relational factors, organizational structures, and operational processes.

**Collaboration**. Collaboration was the overarching element in the sustained partnership model. The connection of the three subareas was ineffective without the collaboration element. All interviewed participants displayed communication as a factor of collaboration by teachers working together with other teachers and students working together with peers and in groups to improve student learning. Jasmine, who was in her first year as a fifth-grade teacher, defined collaboration as "working together with peers, building on each other, bringing your own perspective and students working in groups to reach a common goal in the classroom." Richard, a sixth-grade teacher, shared his thoughts of the meaning of collaboration in several forms.

Richard also described collaboration as "creating and establishing our own pacing guides as a community, sharing assignments and tests, helping students academically and working together to make things better." Deonna, the counselor, defined collaboration as the following:

> Just working with stakeholders with the building or outside of the building, teachers, community, and parents. You see teachers meeting together, you will see committees and we will have parents meeting in the building. You often see teachers traveling in groups they're collaborating and speaking about what they're doing the whole way there. Collaborating is really helpful not only for you but for the kids, as well.

Deonna believed the effect of the collaboration helped improve teachers individually, student achievement, and the entire school. Faith, the principal, shared her definition of collaboration as "you're exchanging ideas and having open communication with other professionals in your building." These teachers, the counselor. and the administrator believed that the definition of collaboration was working together to reach common goals to assist in improving student achievement. The display of collaboration was very evident within this school through collected data from the interviews and SNA.

**Relational Factors.** According to the sustained partnership model, relational factors elements are trust, communication, and upper-level administration support. In partnerships, trust is built through communication and building and establishing relationships. The principal, Faith, believed that trust was established through relationships. Faith stated, "As far as the trust factor goes, just relationships. Because you create relationships by getting to know each other." She believed in the development of relationships among her faculty. Once relationships and the feeling of a safe atmosphere were established, then trust among each other was formed. Ramona believed "trust was developed among colleagues through building relationships with each other."

Also, trust is built through open communication. Richard stated that the "internal learning partnerships impacted student achievement in this school through continuously open communication among teachers, students, and parents." The impact of trust among the faculty and administration encourages trust among the students and enhances academic instruction.

Communication was vital in this network by the administration and faculty consistently meeting and sharing thoughts amongst each other. Ramona shared an impact of student achievement through internal learning partnerships as "coming together in assisting in building relationships among colleagues." Richard shared that this community displays "open communication throughout the administration and faculty and communicating weekly with parents by sending out weekly newsletters." The administration and faculty feel safe to communicate and share their thoughts with others in the building, especially with the administration. Faith shared that "I had an open-door policy. I had a restroom in my office and people didn't mind stepping into my office and saying, 'Are you in the restroom?'"

This school demonstrated strong communication within and outside of the building and among the community levels. The teachers in each community worked strongly together through communication in terms of lesson planning and student behavior. Strong communication impacted the school's overall levels of collaboration and internal learning partnerships. Upper-level administration support was described as an essential factor by all three teachers. The administration and counselor were highly involved in monthly meetings with teachers. Richard shares that "teachers meet once a month as a pod with the Assistant Principal to discuss student performance, teaching strategies, and teaching techniques to assist with improvement of identified student academics." Ramona stated the following:

> Response to Intervention meetings were held with administration, counselor, and resource teachers to identify struggling learners and provide methods to help them in certain content areas. Never been at a school with this type of collaboration, however in the long run; it is very beneficial to building a strong learning partnership.

These two teachers portrayed the level of administrative involvement within the network and their interest in student academics. Administration support within a school is vital to overall school academic performance and improvement. Faith stated, *"*We collaborated because we depend on each other for answers and questions." Faith embraced teachers' responses and thoughts. She believed that every individual's voice was vital to the success of the school.

***Organizational Structures***

Organized meetings, advisory councils, decision-making, and celebrations were identified as areas under the component of organizational structures. In this network, organized meetings are scheduled weekly, bi-weekly, and monthly. There were weekly grade level meetings and bi-weekly grade level and subject meetings to develop and create lesson plans and student activities. The monthly meetings were scheduled to discuss overall student performance, intervention, and activities for the struggling learners. In the sixth-grade community, Richard shared "monthly meetings were held with the lead learners within their community which included the assistant principal*."* Jasmine discussed *"*there were monthly Response to Intervention (RTI) meetings and biweekly meetings on instruction*."* Ramona, a fourth-grade mathematics teacher shared the following:

> C4 meets weekly with our team of 8 teachers and the following week we meet with English Language Arts teachers. In the weekly meetings, we develop and discuss lesson plans and activities that will be covered for the week. The following week, when we

> meet as a community, we discuss overall grade activities and students that are struggling and sometimes behavior issues.

Deonna, a counselor, stated the following:

> We collaborate monthly. We have team meetings monthly, and I'm involved in those team meetings. You'll see teachers meeting together, you will see committees, we're really big on committees, and we'll have parents meeting in the building. We have a lot of committees and so we have committees for events.

Faith, the principal, added the following:

> We had regular data meetings and regular meetings with our staff. We met monthly for our data meetings. But then every two weeks, we would meet with grade levels. The data meetings were RTI and problem-solving teams, where we would all get together and meet, it wasn't run by one individual. Even though myself and my assistant principal were there too the meetings, we basically led our teachers into conversation and reflection on what it was we were there to discuss.

Decision-making for this school was made by the administration, faculty, and community members. It involved planning school activities, instructional implementation, and other various activities. Ramona believed "planning activities makes all teachers better and getting peers together to discuss needs in classroom like planning standard lesson plans." Ramona thought decision-making demonstrated the importance of teacher planning and the ability and benefit of teachers planning together to implement effective activities. Jasmine noted "making decisions on instruction and collaborating

with the other 5th grade teacher in social studies and science." Core teachers within the same community collaborated and decided together on content and student activities that were conducted in their classrooms. Richard discussed "issues and concerns were discussed about students, what changes needed to be made instruction and various activities."

Faith stated the following:

> Within the meetings, teachers were able to openly communicate their thoughts and concerns. In these meetings, decisions are hashed out and discussed to help improve student achievement and prevent behavior issues among specified students. Decisions are made on instruction, curriculum, and behavior.

The administration and faculty in this school believed that proper decision-making was important and impacted the students. Decisions were made to enhance student learning, academic success, and student behavior. These stakeholders impacted the success of this school being high performing academically through planning activities, educational experiences, field trips, and parental involvement.

**Operational Processes.** Successful organizations establishment and growth benefit from good operational developments. The effects of good hierarchical structures, leadership, organizational skills, and professional skills builds valuable effective organizations. Under the learning partnership model developed by Reames and Kochan (2021), operational processes include personnel, financial resources, time, technology, and evaluation. This component represents the organization's structure and operation.

Personnel within an organization/company is important to the success of the organization. Individual personalities impact the whole organization. Leaders' willingness to trust and believe

in their employees affects the organization. Hiring effective individuals who are suitable and fit the organization's personality makes the organization more valuable. The principal had innovative ideas when she became principal at Charity. She established and identified each grade level as a community. Each community worked together to enhance student achievement. These communities worked to improve instruction, student behavior, and plan grade-level activities. In each community, the teachers were identified as lead learners while the students were identified as learners.

> Deonna believed that Charity displayed "the autonomy factor; giving autonomy to the people who are great because we have some brilliant teachers." Faith shared the following: I had been a principal previously. And so, when I began as the program specialist or assistant principal there, my responsibility was instruction and supervision, academics, and intervention, those types of things, curriculum, and instruction. And so, from those days, I felt like it was always better to have communities meeting together.
>
> Deonna made the following remarks:
>
> Collaboration is actually how I got my job here. It's so prevalent that even I was able to make connections not being from the area, and able to even see that they were hiring in this area through those collaboration.
>
> Moreover, financial resources impacted partnerships and organizations positively.

The stakeholders within this organization were administration, faculty, and community. The community supports Charity Intermediate by providing projects and events by local and city businesses to share and demonstrate their purposes and roles of their businesses to the students. This system has much support from the city's legislative board and businesses within the community. Deonna stated the following:

> We do community projects. With these community projects, we've been able to collaborate with business leaders who have actually helped us in the community. They even brought stuff into the school that we've needed. Relying on local leaders, including business people, your local businesses, has been the best when it comes to building those partnerships as stakeholders. A lot of times when we say stakeholders, we think just parents, but if parents see that there's people other than them that are invested in their school, they're more likely to be invested in their school too.

Community in-reach is very important to the external stakeholders in this community. The community leaders have provided experience opportunities for the students by sharing and visiting the school. These community leaders shared their job descriptions with the students in preparation and knowledge of future careers.

The operational process factor time was a pro and con to the operational structure of Charity. In this school, time was a barrier to the development of collaboration and partnership. Richard remarked that "Time is a barrier because we do not have enough time to accomplish some tasks such as student preparation and meetings." Ramona added that "Postponing of meeting due to lack of time because of situations that arise. Testing interruptions and ending meeting without an agreement is caused by lack of time."

**Summary**

Overall, the results indicated that collaboration is high and promotes internal partnerships in Charity Intermediate School, a rural high-performing school. The Charity network density was moderate at 0.496. The level of collaboration was still high between the nodes. The combination of the SNA and qualitative data supported each other which offered a stronger measurement of

collaboration and internal learning partnerships within this network. Faith, the principal, was a central actor in this network and collaborated with a majority of the school's faculty and administration. The nodes that had the highest betweenness were Faith, the principal, and Deonna, the counselor. The collaboration efforts within this internal learning partnership appeared to be indicative of leadership that was evident in their high-performing school.

# Chapter 5: Conclusion

The purpose of this mixed-method case study was to examine collaborative internal learning partnerships through social networks within one high-performing fringe rural intermediate school. This chapter covers the summary, major findings, discussions, limitations, and recommendations for future research.

## Summary of the Study

Several partnership models were researched and discussed in this study to examine internal learning partnerships within schools. This study was guided by the latest partnership model by Reames and Kochan (2021) in developing sustained partnerships through collaboration. Studies have been conducted on smarter schools, collaboration, and high-performing schools individually but not on rural high-performing schools. Even less research has used social network analysis to explore collaboration in schools (Elmore, 2006; Goddard et al., 2007; Tschannen-Moran et al., 2000). The main factors in this study were network ties between the actors, levels of collaboration in this network, and supporting interviews of the actors in this high-performing rural school. The following research questions guided the study:

1a. What is the centrality of collaborative partnerships in a high performing rural intermediate school? (SNA)

1b. What is the density of collaborative partnerships in a high performing rural intermediate school? (SNA)

6. To what extent do faculty and administration collaborate in a rural school? (Frequency table)

7. What are the a) relational factors, b) organizational structures, and c) operational processes identified in the school's internal learning partnership?

A case study using quantitative and qualitative analysis was conducted to provide answers about collaboration within this high-performing rural school. This study was conducted during one school semester during a worldwide pandemic with participants working in the same school. The researcher used online surveys and video-chat interviews to collect data.

Charity Intermediate School has been identified as a high-performing school since its genesis. It has maintained a school report grade of eighty-five and higher for at least three consecutive years. For the last two years, the school has been identified as rural by the National Center of Education Statistics. The researcher collected data through surveys and interviews. The principal sent links to online surveys to every teacher and administrator within the school. Sixteen out of thirty-one individuals participated in the survey. After the surveys were sent, the researcher requested a list of lead teachers from the principal for interviews. The voluntary lead teachers were interviewed via Zoom for approximately 30-45 minutes. Interview data were transcribed to identify common themes among the participants. The interviews allowed the participants to share detailed experiences about their perceptions of collaboration and internal learning partnerships within their school.

Survey data were analyzed by social network analysis and SPSS. Social network analysis is a quantitative research design analysis that provides data through networks and strengths and through social and interactional ties among individuals within an organization (Borgatti et al., 2013). The survey data were displayed through various calculations and visualizations through SNA and through frequency tables and calculations provided by SPSS. These analyses allowed the researcher to examine and determine the level of collaboration, central actors, density, and centrality of the network. According to the partnership conceptual model by Reames and Kochan (2021), the researcher was able to identify elements of the three key factors

(organizational structures, operational processes, and relational factors) of the model within the network.

Collaboration networks were established and identified within this school. Teachers' improvement on their technological skills and flexibility with virtual professional development assisted in the improvement of collaborative networks and internal partnerships. The findings from this study offer additional insight on the establishment of collaboration and the collaborative levels and internal learning partnerships within a rural school. This study contributed to the research on social network analysis due to the lack of educational research studies using social network analysis design, especially on rural schools.

## Major Findings Relating to the Literature and Conceptual Framework

### *Network's Centrality and Density*

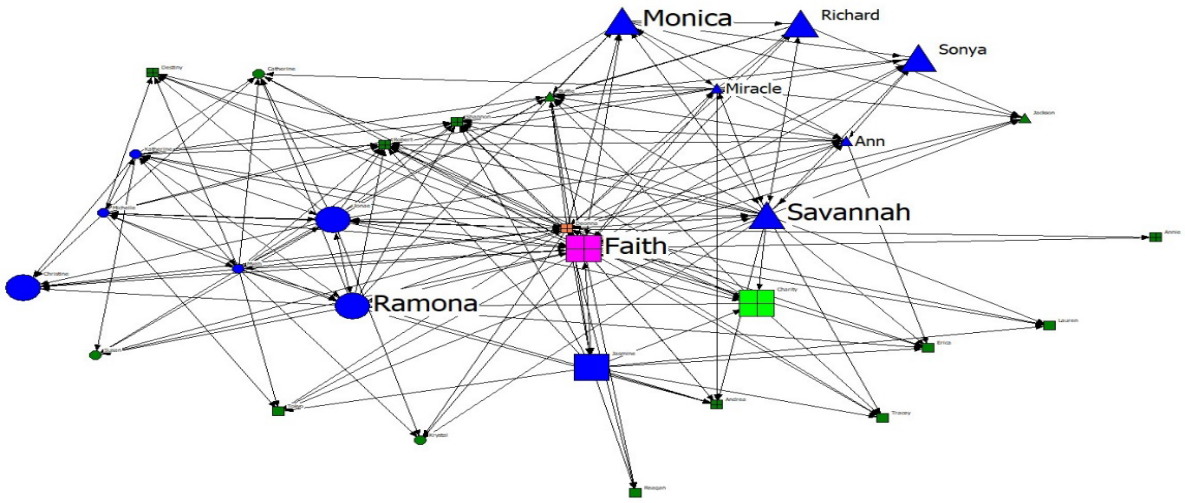
Research question one asked about the school's network centrality and density. The researcher collected data through the survey instrument that was emailed to the school's faculty and administration. The data was inputted into a matrix in UCINet software. This software analyzed data numerically, categorically, and visually.

The measurement of centrality is the number of ties between nodes collectively and individually. Centrality is measured in three different forms: degree, closeness, and betweenness. Degree closeness displays directed and undirected ties and is separated into two categories: in-degree and out-degree. In-degree recognized the numbers of ties connected to the node, while out-degree recognized the numbers of ties the node identified. Closeness centrality describes how near a node is to another within the network. Closeness is also separated into two categories based on directed ties: in-closeness and out-closeness. Betweenness centrality measures the shortest path between nodes.

Centrality findings determined the nodes that collaborated with each other and their closeness. This research question displayed the nodes collaborative ties among the faculty and administration. The numerical and visual data revealed that Faith and Deonna (principal and counselor) had the highest centrality values within this network. These two nodes had ten plus in in-degree and out-degree ties and the highest numeral values in closeness and betweenness centrality. A few others had ten plus out-degree ties which identified the nodes with whom they collaborated. Faith and Deonna had the highest collaborative power within this network. This implied that these two nodes are the central actors within the network and have the most effectiveness, connections, and power. The nodes that have the largest number of ties in terms of degree and closeness centrality are the important or major individuals within the network. These individuals were involved, engaged, effective, and work with a majority of the individuals within the network. They are key personnel and the key to an effective and successful network. Figure 13 displays the whole collaborative network.

**Figure 13**

*Charity Network Collaboration Levels*



Density measures a network's connectedness and effectiveness based on the number of ties among the individuals within the network. In this study, the number data displayed that the Charity's network density was moderate (0.469) and was inclusive due to the lack of participation from the entire network. The density measure in this study was collaboration. The survey instrument requested each node to identify their collaborative ties with others within the network. Charity's network total number of ties were 211, which is reasonable in a network with thirty-one individuals. Non-respondents were not removed from the survey because respondents may have identified them as individuals with whom they collaborated.

***Collaboration Within the Network***

Collaboration has various meanings depending on the perception of the researcher. Several researchers define collaboration as a lateral coordination, organizations and individuals coming together, a relational system where two or more stakeholders pool together, etc. (Boleman & Deal, 2003; Graham & Barter, 1999; Saltiel, 1998). In this rural setting, collaboration was measured quantitatively and qualitatively. The survey instrument identified the node's perception of collaboration based on frequencies between each node and the overall collaboration of the network. The quantitative findings showed that the network's Cronbach Alpha was 0.925 and that a majority of the nodes identified the network's collaboration as high. The remaining nodes identified the level of collaboration within the network as moderate. The network's visualization of each frequency was separated by daily, biweekly, monthly, several times a year, or twice a year and revealed the network's collaboration levels. The visualization graphs showed that a majority of the nodes collaborated with their peers either daily, weekly or monthly, and cliques were formed. Cliques are a cluster of nodes that worked together (Borgatti et al., 2013). In the study, the cliques were identified by the grade level community within which

the node was working. The nodes that worked in the same clique collaborated more frequently with each other than the other nodes. Overall, the fifth-grade clique showed the most collaborative network than the other clique networks. One reason why the fifth grade showed the most collaborative network was because a majority of that clique participated in the survey. The network's visualization graph also displayed the network having 88 reciprocity ties. This implied that several nodes identified that collaboration existed between themselves within the network.

Qualitative findings were based on each node's perception of collaboration by definition and demonstration. Many of the nodes defined collaboration as working together to reach a common goal or mission. They also recognized their collaborative internal learning partnerships within the network as being on various instructional committees (department, vertical, RTI, etc.) and other school committees (field trips, ceremonies, etc.). The interviewed nodes recognized communication as being a vital component of collaboration within their school. Communication was essential to this school effectiveness in improving student learning, student behavior, and offering student career experiences from outside stakeholders. The counselor shared that collaboration was beneficial for the entire school, especially regarding improving individual teachers as well as student achievement. The principal added that collaboration promoted open communication and gave teachers the ability to exchange ideas. These qualitative findings assisted in the network's result of being a high collaborative school based on the perceptions of the administration and faculty.

Research question two addressed the extent of collaboration in a rural setting. Although this particular rural setting was unique due to adjusted teaching methods because of a worldwide pandemic, collaboration was very prominent to the successfulness of the student learning in this network. Teachers worked within their communities and departments and along with the

administration, counselor, and coach. Strong collaboration was evident in this network through data collected from SNA, SPSS, and interviews.

### *Factors on Internal Learning Partnerships*

The third research question addressed the components to sustained partnerships. In the partnership model by Reames and Kochan (2021), the overall element for sustained partnerships is collaboration with three components in support of collaboration. Those three components are relational factors, operational processes, and organizational structures. The researchers of this model believed that collaboration along with the three components assist in the development and establishment of a sustained partnership within education. Qualitative findings were used to address this question. The researcher interviewed five key personnel within the school: the principal, counselor, and one lead teacher from each grade.

**Figure 14**

*Learning Partnerships as Communities of Practice*

**Relational Factors.** Relational factors included elements such as trust, communication, and upper-level administration support. According to a study conducted by Hudson (2021), relational and structural factors are important to building positive relationships within an organization. Trust, communication, and upper-level administration support were evident within the network in this study. The principal believed that building relationships within the network was beneficial, which included individuals building trusting relationships. Other interviewees shared and believed their comfortability gave them the ability to have open communication with each other. In order to grow as a network, trust and effective communication is vital among administration, faculty, students, and parents. Administration support in this network was exceptional. The principal and counselor both shared that meetings that involved them were not always led by them. They allowed the teachers to lead and control meetings. This implied that autonomy was available to all and not just to leadership. Building effective relational factors within an organization enhances each node individually and collectively along with the progression of student academics.

**Operational Processes.** Effective organizations are established based on the organization's hierarchical structure. Operational process component included financial resources, personnel, time, evaluation, etc. These elements are essential to sustainability of any organization or business. In this network, hiring the individuals with the right personality that fit the network and allowing community support and resources were valuable to success of this network. Although, time and interruptions were issues of concern from two of the interviewees, the other elements offset some of their concerns. In this study, the teachers' ability to voice their opinion, successful communication, effective personnel, and community-in reach resources impacted student achievement.

Moreover, the three components along with collaboration enhances the sustainability of a partnership. These qualitative findings demonstrated the importance of the three components identified in this model for an effective and sustained partnership.

**Organizational Structures.** In a partnership, meetings are essential to the running of the organization. In the model, the organizational structure component included elements such as organized meetings, decision-making, celebrations, etc. The nodes in this network understood the importance of their roles within in the network. The teachers understood their titles as lead learners, the importance of their individual voices, and the importance of making decisions. Several types of meetings were held within this network such as department meetings, vertical meetings, response-to-intervention meetings, student behavior meetings, celebratory meetings, etc. All of these meetings resulted in improving student achievement and building internal partnerships. One teacher shared that decision-making on instruction was made by the teachers within the communities. The teachers were able to collaborate and discuss with each other activities, teaching content, and strategies that were beneficial for their particular groups of students. The administration allowed the teachers to have autonomy on instruction, student behavior and student activities.

## Implications for Practice

Partnerships have been studied as organizational structures in the business world but not as much in education. Internal and external partnerships are becoming an effective resource for school systems and districts because of funding and student experiences. These new partnerships are assisting in improving student learning in terms of education, life skills, and future careers. Components from the latest sustained partnership model (Reames & Kochan, 2021) have narrowed and identified various elements in promoting collaboration within an organization to

enhance student achievement and teacher accountability. Collaboration and trust among teachers and in schools has become a pivotal element in improving student achievement. Administration and faculty need to work together to achieve school goals and for students to become successful.

This case study's findings should be shared with the educational leaders of schools who are interested in building positive faculty and administration relationships, improving student learning, collaboration, and trust in their school buildings, and establishing internal learning partnerships. Some techniques described in this case study should be implemented in school leaders and grade-level departments. School leaders should be able to trust their faculties and allow them to have autonomy within their departments by making adequate decisions that will better the students' academics and enrich their lives overall. The stakeholders in the studied school believed in the importance of every member having a voice and the ability to share their opinions without consequences. They believed in having several productive meetings to discuss school goals, lesson plans, student behavior, and activities. The faculty believed that there needed to be trust among each other and that each person was responsible and able to handle their own. The faculty also believed in working together to achieve the school's goals and improve student achievement.

**Recommendations for Future Research**

This study provided the researcher an opportunity to examine internal learning partnerships and levels of collaboration within a small rural school using social network analysis during a worldwide pandemic. The findings from this study indicated that future research studies need to be conducted on using the partnership model to identify other elements of the key factors to improved sustained partnerships within a school. This model could also be used to study other

types of schools (urban, private, public, etc.), schools in differing geographic locations, and schools that represent various student academic levels.

Future studies on sustained partnerships need to be conducted for a longer timeframe, perhaps an entire academic school year. Within the extended timeframe study, data collection could occur at the beginning, middle, and end to determine the correlation across the network. Another future research suggestion is to analyze data in two different data analyses software programs to determine if the data produces similar results. Under qualitative analysis, a future study needs to be conducted using pre- and post-interviews with identified participants on levels of collaboration to determine if their perceptions change and how the network evolves during the conducted timeframe. Moreover, additional research should be conducted after the pandemic to examine if collaborative levels within schools will change due to the change of technology in this century.

**Conclusion**

This study examined the levels of collaboration as a central factor in internal learning partnerships. The partnership model that was used for this study was the "Learning Partners as a Community" model developed Reames and Kochan (2021). The researcher focused on identifying the level of collaboration within one network using social network analysis method. Also, another key factor in this study was to identify internal learning partnerships within this network using the components of the partnership model (relational factors, organizational structures, and operational processes). The results of this study could be used as a demonstration model for schools and organizations that need to enhance collaboration, internal learning partnerships, and increase and maintain student achievement across academic years. This study assisted in examining collaboration using social network analysis within the field of education.

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# Appendix A

## AUBURN UNIVERSITY INSTITUTIONAL REVIEW BOARD
## REQUEST for MODIFICATION

For Information or help completing this form, contact: **THE OFFICE OF RESEARCH COMPLIANCE (ORC)**
**Phone:** 334-844-5966 **E-Mail:** IRBAdmin@auburn.edu **Web Address:** http://www.auburn.edu/research /vpr/ohs

*In MS Word, click in the white boxes and type your text; double-click checkboxes to check/uncheck.*

- **Federal regulations require IRB approval before implementing proposed changes.**
- **Change means any change, in content or form, to the protocol, consent form, or any supportive materials (such as the Investigator's Brochure, questionnaires, surveys, advertisements, etc.). See Item 4 for more examples.**
- **Form must be populated using Adobe Acrobat / Pro 9 or greater standalone program (do not fill out in browser). Handwritten forms will not be accepted.**

| **1. Today's Date** | April 4, 2021 |
|---|---|

**2. Principal Investigator Name (PI): Hope Felton**

| | | | |
|---|---|---|---|
| **Principal Inves. (title):** | Graduate Student | **Faculty PI (if PI is a student):** | Dr. Ellen Hahn |
| **Department:** | Educational Foundations, Leadership and Technology | **Department:** | Educational Foundations, Leadership and Technology |
| **Phone:** | (334) 722-0344 | **Phone:** | (334) 844-3060 |
| **AU E-mail:** | hlf0004@auburn.edu | **AU E-mail:** | reamesh@auburn.edu |
| **Contact person who should receive copies of IRB correspondence (Optional)** | | | |
| **Name:** | | **Department Head:** | |
| **Phone:** | | | |
| **AU E-mail:** | | | |

**3. AU IRB Protocol Identification**

| | |
|---|---|
| **3.a. Protocol Number** | 21-033 EX 2101 |
| **3.b. Protocol Title** | Internal Partnerships through Collaboration in High-Performing Rural Elementary Schools – A SNA Study |

**3.c. Current Status of Protocol—For active studies, check ONE box at left; provide numbers and dates where applicable**

☐ **Study has not yet begun; no data has been entered collected**

☐ **In progress If YES, number entered**
**Adverse events since last review**

☒ **Data analysis only**
***(Site Change)***

**Approval Dates:** From: 01/09/2021 To ----------

☐ **Funding Agency and Grant Number:** **AU Funding Information:**

☐ **List any other institutions and/or IRBs associated with this project:**

**4. Types of Change**
**Mark all that apply, and describe the changes in item 5**

☐ **Change Key Personnel**
Attach CITI forms for new personnel.

☒ **Additional Sites or Change in Sites, including AU classrooms, etc.**
Attach permission forms for new sites.

☐ **Change in methods for data storage/protection or location of data/consent documents**

☐ **Change in project purpose or project questions**

☐ **Change in population or recruitment**
Attach new or revised recruitment materials as needed; both highlighted version & clean copy for IRB approval stamp

☐ **Change in study procedures**
Attach new or revised consent documents as needed; both highlighted version & clean copy for IRB approval stamp

☐ **Change in data collection instruments/forms (surveys, data collection forms)**
Attach new forms as needed; both highlighted version & clean copy for IRB approval stamp

☐ **Other**
(BUAs, DUAs, etc.) Indicate the type of change in the space below, and provide details in Item 5.c. or 5.d. as applicable.
Include a copy of all affected documents, with revisions highlighted as applicable.

## 5. Description and Rationale

**5.a. For each item marked in Question #4 describe the requested changes to your research protocol, with an explanation and/or rationale for each.**
Additional pages may be attached if needed to provide a complete response.

Site change has occurred due to lack of participation from one of the previous selected schools.

**5.b. Briefly list** (numbered or bulleted) **the activities that have occurred up to this point, particularly those that involved participants.**

- Administration email asking for the list of faculty and administration and list of lead teachers have been completed by two schools
- Recruitment email has been sent to the administration of two schools to have faculty and administration to begin completing survey.

- Surveys have begun to be completed.
- Interview emails and google forms has been emailed to the identified schools' lead teachers.

**5.c. Does the change affect participants, such as procedures, risks, costs, benefits, etc.**

▶ No, this change does not affect the procedures, risks, costs or benefits of the participants.

**5.d. Identify any changes in the safeguards or precautions that will be used to minimize described risks.**

▶ None

**5.e. Attach a copy of all "stamped" IRB-approved documents currently used. (information letters, consents, flyers, etc.**

▶

**5.f. Attach a copy of all revised documents (high-lighted revised version and clean revised version for the IRB approval stamp).**

▶

**6. Signatures**
**Principal Investigator** Hope Hilton

**Faculty Advisor PI, if applicable** Ellen Hahn

PIKE ROAD SCHOOLS

THINK. INNOVATE. CREATE. *THE PIKE ROAD WAY.*

April 2, 2021

Institutional Review Board
c/o Office of Research Compliance
115 Ramsay Hall
Auburn University, AL 36849

Dear IRB Members,

After reviewing the proposed study, "Internal Partnerships through Collaboration in High-Performing Rural Elementary/Intermediate Schools – A Social Analysis Study", presented by Ms. Hope Felton, a graduate student at Auburn University, I have granted permission for the study to be conducted at Pike Road Intermediate School.

The purpose of the study is to examine internal partnerships through collaboration and its impact on student achievement in a rural elementary/intermediate school. The primary activities will be conducting interviews with administration and lead teachers and the completion of electronic surveys by all administration and teachers. Only administration and teachers are eligible to participate.

I understand that this study will occur in one semester. I expect that this project will end no later May 30, 2021. I will make the initial contact with the assistant principals and teachers through email in reference to the electronic survey. I will provide Ms. Hope Felton with an administration and teacher email contact list and identify the lead teachers in the building.

I understand that Ms. Hope Felton will receive a consent form from all the interviewed participants. Ms. Hope Felton has agreed to provide to my office a copy of all Auburn University IRB-approved, stamped consent documents before she begins collecting data from participants on my campus. Any data collected by Ms. Hope Felton will be kept confidential and will be stored in a locked filing cabinet. Ms. Hope Felton has also agreed to provide to us a copy of the aggregate results from her study.

If the IRB has any concerns about the permission being granted by this letter, please contact me at the phone number listed below.

Sincerely,

Vicki W. Davis

Pike Road Middle School
4710 Pike Road
Pike Road, AL 36064
334-420-5360
vicki.davis@pikeroadschools.org

## Auburn University Human Research Protection Program

# EXEMPTION REVIEW APPLICATION

For information or help completing this form, contact: **THE OFFICE OF RESEARCH COMPLIANCE**
**Phone:** 334-844-5966 **Email:** IRBAdmin@auburn.edu

**Submit completed application and supporting material as one attachment to IRBsubmit@auburn.edu.**

**1. PROJECT IDENTIFICATION** **Today's Date** February 8, 2021

**a. Project Title** Internal Partnerships through Collaboration in High-Performing Rural Elementary Schools - A SNA Study

**b. Principal Investigator** Hope Felton **Degree(s)** BS and MS
Rank/Title Graduate Student Department/School Educational Foundations, Leadership and Technology
Phone Number (334) 722 -0344 AU Email hlf0004@auburn.edu

**Faculty Principal Investigator (required if PI is a student)** Dr. Ellen Hahn
Title Professor Department/School Educational Foundations, Leadership and Technology
Phone Number (334) 844-3067 AU Email reamesh@auburn.edu

**Dept Head** Dr. James Satterfield Department/School Educational Foundations, Leadership and Technology
Phone Number (334) 844-3060 AU Email jws0089@auburn.edu

**c. Project Personnel** (other PI) – Identify all individuals who will be involved with the conduct of the research and include their role on the project. Role may include design, recruitment, consent process, data collection, data analysis, and reporting. Attach a table if needed for additional personnel.

**Personnel Name** Hope Felton **Degree (s)** BS and MS
Rank/Title Graduate Student Department/School Educational Foundations, Leadership and Technology
Role Conducting research by interviewing and surveying participants, analyzing, comparing and recording collected data
AU affiliated? ☒ YES ☐ NO If no, name of home institution
Plan for IRB approval for non-AU affiliated personnel?

**Personnel Name** Dr. Ellen Hahn **Degree (s)** Ph.D
Rank/Title Professor Department/School Educational Foundations, Leadership and Technology
Role Conducting research by reviewing data, mentoring and supervising the research process
AU affiliated? ☒ YES ☐ NO If no, name of home institution
Plan for IRB approval for non-AU affiliated personnel?

**Personnel Name** **Degree (s)**
Rank/Title Department/School
Role
AU affiliated? ☐ YES ☐ NO If no, name of home institution
Plan for IRB approval for non-AU affiliated personnel?

**d. Training** – Have all Key Personnel completed CITI human subjects training (including elective modules related to this research) within the last 3 years? YES ☑ NO ☐

The Auburn University Institutional Review Board has approved this Document for use from 01/19/2021 to ----------
Protocol # 21-033 EX 2101



AU Exemption Form Version 07.14.2020

Version Date (date document created): February 17, 2021

**e. Funding source** – Is this project funded by the investigator(s)? ☐ YES ☑ NO
Is this project funded by AU? ☐ YES ☑ NO If YES, identify source _____
Is this project funded by an external sponsor? ☐ YES ■ No If YES, provide the name of the sponsor, type of sponsor (governmental, non-profit, corporate, other), and an identification number for theaward.
Name_____Type_____Grant # _____

**f.** List other AU IRB-approved research studies and/or IRB approvals from other institutions that are associated with this project.

**2. Mark the category or categories below that describe the proposedresearch:**

☐ 1. Research conducted in established or commonly accepted educational settings, involving normal educational practices. The research is not likely to adversely impact students' opportunity to learn or assessment of educators providing instruction. 104(d)(1)

■ 2. Research only includes interactions involving educational tests, surveys, interviews, public observation if at least ONE of the following criteria. (The research includes data collection only; may include visual or auditory recording; may NOT include intervention and only includes interactions). **Mark the applicable sub-category below (i, ii, or iii).** 104(d)(2)

■ (i) Recorded information cannot readily identify the participant (directlyorindirectly/linked); **OR**
- surveys and interviews: no children;
- educational tests or observation of public behavior: can only include childrenwhen investigators do not participate in activities being observed.

☐ (ii) Any disclosures of responses outside would not reasonably place participant at risk; **OR**

☐ (iii) Information is recorded with identifiers or code linked to identifiers and IRB conducts limitedreview; no children. **Requires limited review by the IRB.***

☐ 3. Research Involving Benign Behavioral Interventions (BBI)** through verbal, written responses (including data entry or audiovisual recording) from adult subjects who prospectively agree and ONE of the following criteria is met. (This research does not include children and does not include medical interventions. Research cannot have deception unless the participant prospectively agrees that they will be unaware of or misled regarding the nature and purpose of the research) **Mark the applicable sub-category below (A, B, or C).** 104(d)(3)(i)

☐ **(A)** Recorded information cannot readily identify the subject (directly or indirectly/linked); **OR**

☐ **(B)** Any disclosure of responses outside of the research would not reasonably placesubject at risk; **OR**

☐ **(C)** Information is recorded with identifiers and cannot have deception unless participant prospectively agrees. **Requires limited review by the IRB.***

☐ 4. Secondary research for which consent is not required: use of identifiable information or identifiable bio-specimen that have been or will be collected for some other 'primary' or 'initial' activity, if one of the following criteria is met. Allows retrospective and prospective secondary use. **Mark the applicable sub-category below (i, ii, iii, or iv).** 104(d)(4)

☐ (i) Biospecimens or information are publically available;

☐ (ii) Information recorded so subject cannot readily be identified, directlyorindirectly/linked; investigator does not contact subjects and will not re-identify thesubjects;OR

☐ (iii) Collection and analysis involving investigators use of identifiable health information when use is regulated by HIPAA "health care operations" or "research or "public health activities and purposes" (does not include biospecimens (only PHI and requires federal guidance on how to apply); OR

☐ (iv) Research information collected by or on behalf of federal government usinggovernment generated or collected information obtained for non-researchactivities.

☐ 5. Research and demonstration projects which are supported by a federal agency/department AND designed to study and which are designed to study, evaluate, or otherwise examine: (i) public benefit or service programs; (ii) procedures for obtaining benefits or services under those programs;(iii) possible changes in or alternatives to those programs or procedures; or (iv) possible changes in methods or levels of payment for benefits or services under those programs. (must be posted on a federal web site). 104(d)(5) (must be posted on a federal web site)

☐ 6. Taste and food quality evaluation and consumer acceptance studies, (i) if wholesome foods without additives are consumed or (ii) if a food is consumed that contains a food ingredient at or below the level and for a use found to be safe, or agricultural chemical or environmental contaminant at or below the level found to be safe, by the Food and Drug Administration or approved by the Environmental Protection Agency or the Food Safety and Inspection Service of the U.S. Department of Agriculture. The research does not involve prisoners as participants. 104(d)(6)

***New exemption categories 7 and 8: Both categories 7 and 8 require Broad Consent.*** (Broad consent is a new type of informed consent provided under the Revised Common Rule pertaining to storage, maintenance, and secondary research with identifiable private information or identifiable biospecimens. Secondary research refers to research use of materials that are collected for either research studies distinct from the current secondary research proposal, or for materials that are collected for non-research purposes, such as materials that are left over from routine clinical diagnosis or treatments. Broad consent does not apply to research that collects information or biospecimens from individuals through direct interaction or intervention specifically for the purpose of the research.) **The Auburn University IRB has determined that as currently interpreted, Broad Consent is not feasible at Auburn and these 2 categories WILL NOT BE IMPLEMENTED at this time.**

***Limited IRB review* – the IRB Chairs or designated IRB reviewer reviews the protocol to ensure adequate provisions are in place to protect privacy and confidentiality.**

****Category 3 – Benign Behavioral Interventions (BBI)* must be brief in duration, painless/harmless, not physically invasive, not likely to have a significant adverse lasting impact on participants, and it is unlikely participants will find the interventions offensive or embarrassing.**

**3. PROJECT SUMMARY**

**a. Does the study target any special populations? (Mark applicable)**

| | |
|---|---|
| Minors (under 18 years of age) | ☐ YES ☑ NO |
| Pregnant women, fetuses, or any products of conception | ☐ YES ☑ NO |
| Prisoners or wards (unless incidental, not allowed for Exempt research) | ☐ YES ☑ NO |
| Temporarily or permanently impaired | ☐ YES ☑ NO |

**b. Does the research pose more than minimal risk to participants?** ☐ YES ☑ NO

*Minimal risk means that the probability and magnitude of harm or discomfort anticipated in the research are not greater in and of themselves than those ordinarily encountered in daily life or during the performance of routine physical or psychological examinations or test. 42 CFR 46.102(i)*

**c. Does the study involve any of the following?**

| | |
|---|---|
| Procedures subject to FDA regulations (drugs, devices, etc.) | ☐ YES ☑ NO |
| Use of school records of identifiable students or information from instructors about specific students. | ☐ YES ☑ NO |
| Protected health or medical information when there is a direct or indirect link which could identify the participant. | ☐ YES ☑ NO |
| Collection of sensitive aspects of the participant's own behavior, such as illegal conduct, drug use, sexual behavior or alcohol use. | ☐ YES ☑ NO |
| Deception of participants | ☐ YES ☑ NO |

**4. Briefly describe the proposed research, including purpose, participant population, recruitment process, consent process, research procedures and methodology.**

Partnerships are evolving in education whether internally or externally with other businesses and organizations to assist in the improvement of the school's culture and student achievement. Internal partnerships are alliances that are established within an organization, while external partnerships are alliances with stakeholders, businesses and organizations outside of the identified organization. The purpose of this experimental study is to examine internal partnerships through collaboration in high-performing rural elementary schools. This study will investigate the administration and teachers' perceptions of collaboration within their own school and its impact on student achievement. In this study, high performing elementary schools were identified by having an overall average grade of 85 and above on the school s state report card over three consecutive years (2016-2019). These schools are also classified as rural schools by the National Council of Education Statistics 2018-2019 & 2019-2020 databases. The participating schools are Margaret Yarbrough Elementary School (Auburn City), Jemison Elementary School (Chilton County) and Guin Elementary School (Marion County).

**5. Waivers**

**Check any waivers that apply and describe how the project meets the criteria for the waiver. Provide the rationale for the waiver request.**

- ☐ **Waiver of Consent (including existing de-identified data)**
- ☐ **Waiver of Documentation of Consent (Use of Information Letter)**
- ☐ **Waiver of Parental Permission**

**All retrospective information will be de-identified.**

**6. Describe how participants/data/specimens will be selected. If applicable, include gender, race, and ethnicity of the participant population.**

The participants selected will be teachers and administration at an identified elementary school. All teachers and administration in the identified elementary will be asked to complete a survey. Administration and identified lead teachers will also be interviewed.

**7. Does the research involve deception? ☐ YES ☒ NO If YES, please provide the rationale for deception and describe the debriefing process.**

8. **Describe why none of the research procedures would cause a participant either physical or psychological discomfort or be perceived as discomfort above and beyond what the person would experience in daily life.**

All participants (surveyed and interviewed) responses and information will be confidential. Each participant will be given a pseudonym for research purposes. The participants are allowed to withdraw from the study at any time in the event of discomfort. The principal investigator will be the only individual that will know the participant s identity. Pseudonyms will be given once surveys are completed and before interviews are conducted. Pseudonyms will be established in order of participants' responses using common names that are not among the school faculty and based on gender. Survey and interview responses of the same participant will be linked to the same pseudonym. After surveys are completed, the principal investigator will be aware of each participant by name and pseudonym.

9. **Describe the provisions to maintain confidentiality of data, including collection, transmission, and storage.**

Participants will be protected through the use of pseudonyms that will be used to identify the data that is collected from surveys, interviews and any other transmission. The data will be stored in a safe and secured location where only the investigator has access. At the completion of the study, all files will be properly deleted.

10. **Describe the provisions included in the research to project the privacy interests of participants (e.g., others will not overhear conversations with potential participants, individuals will not be publicly identified or embarrassed).**

The interviews will be conducted via Zoom where no one will be allowed to enter the meeting without permission. Interviews will be conducted one at a time. All responses made by the participants will be kept confidential. Interviews will be conducted at least ten-fifteen minutes apart from each other.

11. **Will the research involve interacting (communication or direct involvement) with participants?**
☒ **YES** ☐ **NO If YES, describe the consent process and information to be presented to subjects. This includes identifying that the activities involve research; that participation is voluntary; describing the procedures to be performed; and the PI name and contact information.**
Interviews will be conducted in this study with the administration and identified/willing lead teachers within the schools. A consent form will be included with the survey link to all teachers and administration in the building through administration or principal investigator electronically. The consent form will inform the participants that their participation is voluntary, purpose of the conducted research and that confidentiality will be used in reference to their responses to the surveys and interviews. There will be a two-week window for responses before a second email is sent requesting their participation. Once the surveys have been emailed, an interview schedule will be established over two days or less or until all identified interviewees are interviewed. An email will be sent to the interviewee participants with their meeting time, length and location of the interview. Finally, a thank you notice will be emailed to all participants appreciating their support for being a part of this study.

Principal Investigator - Hope Felton (334) 722-0344

12. **Additional information and/or attachments.**

**In the space below, provide any additional information you believe may help the IRB review of the proposed research. If attachments are included, list the attachments below. Attachments may include recruitment materials, consent documents, site permissions, IRB approvals from other institutions, etc.**

Based on this rationale, this research study aims to determine: 1) What are the centrality and density of collaboration in their school?; 2) What are the facilitators of the collaboration in the school?; 3) What are the barriers of collaboration in their school?; 4) What are the centrality and density of internal partnerships as measured by collaboration in their school? Participants in this study will be administrators and teachers at three identified high-performing rural elementary schools in Alabama. Their participation will be voluntary. The principal investigator will request school information from the principal as well as the identification of selected lead teachers that will be interviewed. The requested school information will include a list of all the current teachers, their email addresses and position, and school demographics. The principal investigator plan is to call or video chat with each school's principal to review this study details and determine a date and time to begin reaching out to the schools' faculty and administration to start collecting data. The recruitment email will be sent out to each school faculty and administration by the principal requesting their participation in completing a survey on the principal investigator's behave. The principal investigator will send out a google form to the selected lead teachers and administrators requesting their participation in the interview. The google form includes the consent form that will be signed electronically and submitted by each participant. The submitted form will be returned automatically to the principal investigator. Suggested interview times are included in the google form. An email will be sent to confirm interview times from the requested email address list from the principal. The google form will have at least three session options for the interviewee to select at their convenience. The principal investigator will try to schedule interview session times during the potential participants planning time, before school or after school. A follow-up email will be sent by the principal investigator within two weeks of the initial email to those participants who did not respond. Administration and all teachers will be surveyed within the school.
Attachments:
Addendum: Question #12 – Description continued
Recruitment Email
Interview Recruitment Email
Google Form
Consent Form
Interview Questions
Survey Questions
Authorization Letters
CITI Documents

**Principal Investigator's Signature** Hope Hahn **Date** 2/17/2021

**If PI is a student,**
**Faculty Principal Investigator's Signature** Ellen Hahn **Date** 2/17/2021

**Department Head's Signature** James Satterfield, Jr. **Date** 2/18/21

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**INFORMED CONSENT**

**for a Research Study entitled**

**"Internal Partnerships through Collaboration in High-Performing Rural Elementary Schools: A SNA Study"**

**You are invited to participate in a research study** to examine internal partnerships through collaboration in a high-performing rural elementary. The study is being conducted by Hope Felton, Auburn University, graduate student under the direction of Dr. Ellen Hahn, Professor in the Auburn University Department of Educational Leadership, Foundations and Technology. You are invited to participate because you are an administrator or a faculty member at the designated school and are age 18 years of age or older.

**What will be involved if you participate?** Your participation is completely voluntary. If you decide to participate in this research study, you will be asked to complete an electronic survey and interview. The link to the survey will be sent out in the recruitment email by the school's principal. Interviews will be conducted during at an agreed designated time by the principal investigator and the interviewee via Zoom. The principal investigator will send out a google form requesting your participation in the interview. The form will also include the consent form that needs to be signed and submitted along with interview time options. The principal investigator will try to schedule interview session times during your planning time, before school or after school at your convenience. Interviews will be recorded for additional purposes of transcribing, future data collection and publication beyond the immediate needs of this study. These audio tapes will not be destroyed at the end of this research but will be retained for 24 months. Your total time commitment will be approximately 15 – 30 minutes for the electronic survey and 45 minutes for the interview.

**Are there any risks or discomforts?** The risk associated with this study is that your interview will be recorded.



Version Date: February 8, 2021

4036 Haley Center, Auburn, AL 36849-5221; Telephone: 334-844-4460: Fax: 334-844-3072

www.auburn.edu

**Are there any benefits to yourself or others?** You will not directly benefit from participating in this study.

**Will you receive compensation for participating?** There will be no compensation offered for participating.

**Are there any costs?** There is no cost to participate.

**If you change your mind about participating,** you can withdraw from the survey at any time by closing your browser window. You can withdraw from the interview, by selecting no on the google form. If you change your mind after submitting the google form, you can still withdraw by sending the principal investigator an email (hlf0004@auburn.edu) and state that you are no longer willing to participate in this study. If you choose to withdraw, your data can be withdrawn as long as it is identifiable. Your decision about whether or not to participate or to stop participating will not jeopardize your future relations with Auburn University.

**Your privacy will be protected.** Any information obtained in connection with this study will remain confidential. The participants responses will be confidential by using pseudonyms. Pseudonyms will be given once surveys are completed and before interviews are conducted. Pseudonyms will be established in order of participants' responses to the surveys using common names that are not among the school faculty and based on gender. Survey and interview responses of the same participant will be linked to the same pseudonym. After surveys are completed and pseudonyms are assigned, the principal investigator will match the signed and submitted consent form to the participant's email address to establish the participants' survey pseudonym. Information collected through your participation may be used to fulfill an educational requirement, published in a professional journal, and/or presented at a professional meeting.

**If you have questions about this study,** please contact Hope Felton at hlf0004@auburn.edu or Dr. Ellen Hahn at reamseh@auburn.edu . A copy of this document will be given to you to keep.

**If you have questions about your rights as a research participant,** you may contact the Auburn University Office of Research Compliance or the Institutional Review Board by phone (334)-844-5966 or e-mail at IRBadmin@auburn.edu or IRBChair@auburn.edu.

Version Date: February 8, 2021

**HAVING READ THE INFORMATION PROVIDED, YOU MUST DECIDE WHETHER OR NOT YOU WISH TO PARTICIPATE IN THIS RESEARCH STUDY. YOUR SIGNATURE INDICATES YOUR WILLINGNESS TO PARTICIPATE.**

_____

Participant's signature Date

_____

Printed Name

***The Auburn University Institutional Review Board has approved this document for use from _____ to _____. Protocol #_____***

Version Date: February 8, 2021

Recruitment Email

Dear participants,

You are invited to participate in a research study to examine internal partnerships through collaboration in high-performing rural elementary schools. The study is being conducted by Hope Felton, a Ph.D. student of the Department of Educational Foundations, Leadership, and Technology at Auburn University under the direction of Dr. Ellen Hahn, a professor of the Department of Educational Foundations, Leadership, and Technology at Auburn University. Your administrators and district have granted me permission to conduct this study. You are invited to participate because you are an administrator or faculty member at Yarbrough Elementary School.

Your participation is completely voluntary. If you decide to participate in this research study, you will be asked to take an online survey through Qualtrics. Your total time commitment will be approximately 15-30 minutes. Please answer each question and statement openly and honestly, there are no right or wrong answers.

There are no anticipated risks or discomforts associated with participating in this study.

The information gathered will provide practitioners social network data through individual relationships. The survey questions will help us understand levels of collaboration and relationships among teachers and administration within your school.

There will be no costs to participation or compensation. Information collected through your participation may be used for publication or professional presentation.

If you change your mind about participating, you can withdraw at any time by closing your browser window.

If you have questions about this study, please contact Hope Felton at hlf0004@auburn.edu.

If you have questions about your rights as a research participant, you may contact the Auburn University Office of Human Subjects Research or the Institutional Review Board by phone at (334) 844-5966 or email at irbadmin@auburn.edu.

If you decide to participate, please click on the link below.
https://survey.az1.qualtrics.com/jfe/form/SV_ehNmgI8DIUoxWp7

Interview Email

Dear participants,

You are invited to participate in a research study to examine internal partnerships through collaboration in high-performing rural elementary schools. The study is being conducted by Hope Felton, a Ph.D. student of the Department of Educational Foundations, Leadership, and Technology at Auburn University under the direction of Dr. Ellen Hahn, a professor of the Department of Educational Foundations, Leadership, and Technology at Auburn University. Your administrators and district have granted me permission to conduct this study. You are were selected to participate in the interview process by your administrator.

Your participation is completely voluntary. If you decide to participate in this research study, you will be asked to complete the google form below and sign a consent form. Your total time commitment will be approximately 30-45 for the interview through Zoom. Please answer each question and statement openly and honestly, there are no right or wrong answers.

There are no anticipated risks or discomforts associated with participating in this study.

The information gathered will provide practitioners social network data through individual relationships. The survey questions will help us understand levels of collaboration and relationships among teachers and administration within your school.

There will be no costs to participation or compensation. Information collected through your participation may be used for publication or professional presentation.

If you change your mind about participating, you can withdraw at any time by selecting no on the google form.

If you have questions about this study, please contact Hope Felton at hlf0004@auburn.edu.

If you have questions about your rights as a research participant, you may contact the Auburn University Office of Human Subjects Research or the Institutional Review Board by phone at (334) 844-5966 or email at irbadmin@auburn.edu.

If you decide to participate, please click on the link below.

https://script.google.com/macros/s/AKfycbzPfSdWV_Vdaz8eu9NtRbgGgvUZT23qgS4gqGhVLZ1e2PghsDc/exec?action=sign&formId=1sV5VqcUZIPenztL8_WCmsNzLH0bPTtK6avPIiYEmXrk&editor=U2FsdGVkX1%2FarXVQHw%2FfzmdqLP%2BkDgstM3XHKx7oss7WimCJC88nHGP8mfwq0tO3

# Interview Consent Form

* Required

1. Email address *

_____

2. Name *

_____

3. School's Name *

_____

4. Are you willing to participate in an interview? *

*Mark only one oval.*

- ◯ Yes
- ◯ No *Skip to section 6 (Declined Participation)*

Consent Form

Please read and review the consent form below. Please click next once you finish to sign the consent form.

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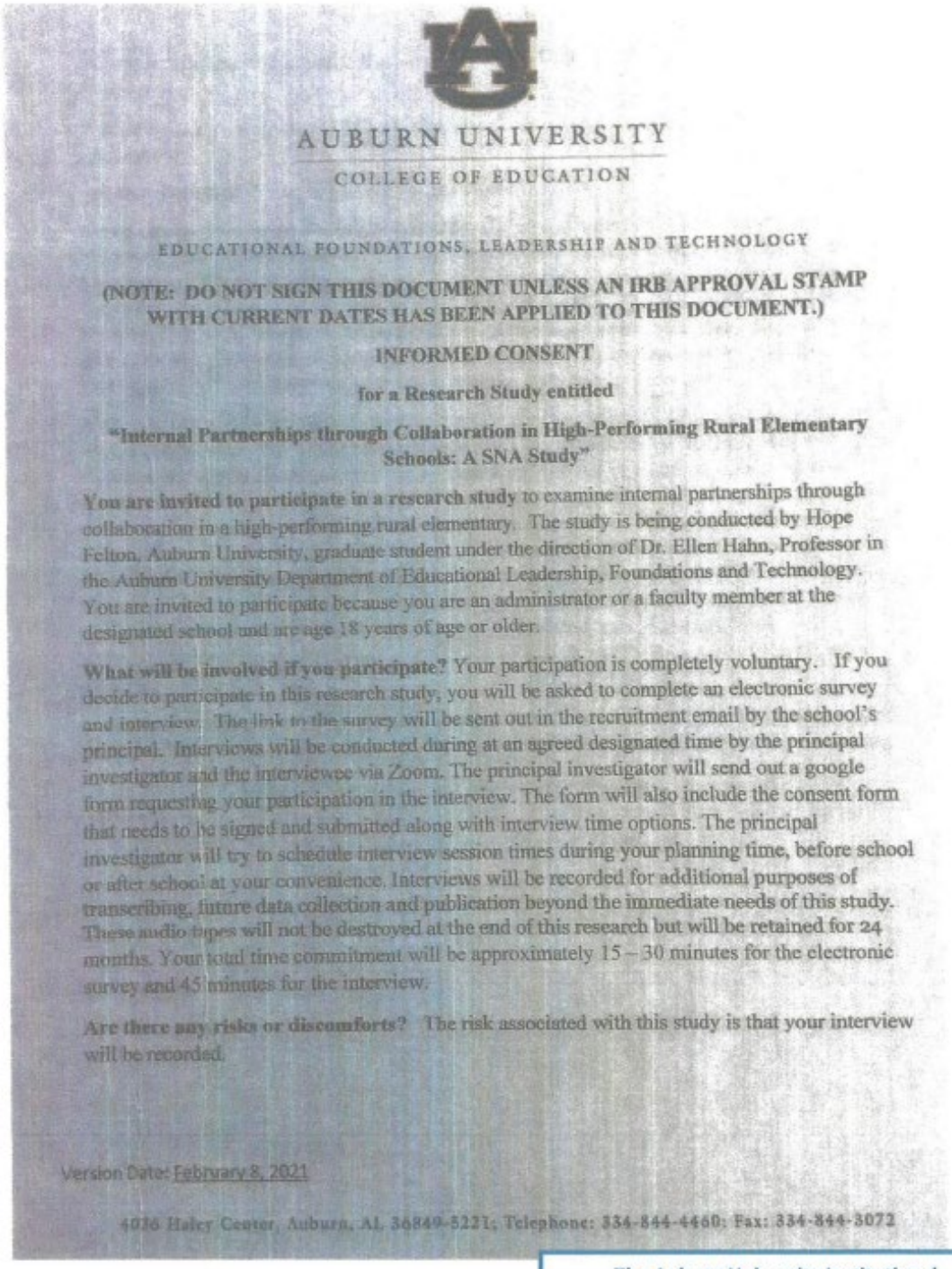

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**What will be involved if you participate?** Your participation is completely voluntary. If you decide to participate in this research study, you will be asked to complete an electronic survey and interview. The link to the survey will be sent out in the recruitment email by the school's principal. Interviews will be conducted during at an agreed designated time by the principal investigator and the interviewee via Zoom. The principal investigator will send out a google form requesting your participation in the interview. The form will also include the consent form that needs to be signed and submitted along with interview time options. The principal investigator will try to schedule interview session times during your planning time, before school or after school at your convenience. Interviews will be recorded for additional purposes of transcribing, future data collection and publication beyond the immediate needs of this study. These audio tapes will not be destroyed at the end of this research but will be retained for 24 months. Your total time commitment will be approximately 15 – 30 minutes for the electronic survey and 45 minutes for the interview.

**Are there any risks or discomforts?** The risk associated with this study is that your interview will be recorded.

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Protocol # 21-033 EX 2101

**Are there any benefits to yourself or others?** You will not directly benefit from participating in this study.

**Will you receive compensation for participating?** There will be no compensation offered for participating.

**Are there any costs?** There is no cost to participate.

**If you change your mind about participating,** you can withdraw from the survey at any time by closing your browser window. You can withdraw from the interview, by selecting no on the google form. If you change your mind after submitting the google form, you can still withdraw by sending the principal investigator an email (hlf0004@auburn.edu) and state that you are no longer willing to participate in this study. If you choose to withdraw, your data can be withdrawn as long as it is identifiable. Your decision about whether or not to participate or to stop participating will not jeopardize your future relations with Auburn University.

**Your privacy will be protected.** Any information obtained in connection with this study will remain confidential. The participants responses will be confidential by using pseudonyms. Pseudonyms will be given once surveys are completed and before interviews are conducted. Pseudonyms will be established in order of participants' responses to the surveys using common names that are not among the school faculty and based on gender. Survey and interview responses of the same participant will be linked to the same pseudonym. After surveys are completed and pseudonyms are assigned, the principal investigator will match the signed and submitted consent form to the participant's email address to establish the participants' survey pseudonym. Information collected through your participation may be used to fulfill an educational requirement, published in a professional journal, and/or presented at a professional meeting.

**If you have questions about this study,** please contact Hope Felton at hlf0004@auburn.edu or Dr. Ellen Hahn at reamseh@auburn.edu . A copy of this document will be given to you to keep.

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**HAVING READ THE INFORMATION PROVIDED, YOU MUST DECIDE WHETHER OR NOT YOU WISH TO PARTICIPATE IN THIS RESEARCH STUDY. YOUR SIGNATURE INDICATES YOUR WILLINGNESS TO PARTICIPATE.**

_____

Participant's signature Date

_____

Printed Name

***The Auburn University Institutional Review Board has approved this document for use from _____ to _____. Protocol # _____***

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Consented Signature

Once you sign your signature in the box, you will need to click save. Then confirm.
Next copy and return to form.
You will be pasting a link on the signature line. Then click submit.

5. Signature *

Use the green button at the top left of the page

_____

Interview Times

6. Please select an interview time that is convenient for me to reach out to you. I will send a confirmation email with date and time.

*Mark only one oval per row.*

| | 7:00am - 7:45am | Planning time (I will email you to receive this information) | 3:00pm - 3:45pm | Other (I will email you to receive this information) |
|---|---|---|---|---|
| Tuesday | ◯ | ◯ | ◯ | ◯ |
| Wednesday | ◯ | ◯ | ◯ | ◯ |
| Thursday | ◯ | ◯ | ◯ | ◯ |

Consented Participation

Thank you for completing this form. I will be in touch with you soon.

Declined Participation

You have declined participation in the interview, you may close the browser window or click submit.

## Interview Questions

Introduction

My name is Hope Felton. I am a graduate student at Auburn University. I would like to hear about your collaboration with your colleagues and how collaboration impacts school improvement in terms of its culture and academic achievement. I am going to ask you to answer each question honestly and to the best of your ability. I will turn the recorder on now. Is that okay? Thank you again for your willingness to be a part of this research study.

Questions:

1. State your name and position/roles at this school?
2. How many years have you been working at this school? How long have you been in your current position?
3. How do you define and identify collaboration within this building and/or classrooms?
4. Who do you collaborate with about instruction? Student academics? How often? Are there other concerns that you collaborate about and with whom?
5. Are there barriers that impact your collaboration with others? If so, with whom?
6. Internal partnerships are collaborations among individuals within an organization reaching a common goal. Do you believe that collaboration exist in this school can be identified as internal partnerships?
7. Do you recognize internal partnerships within this school among the faculty/staff? Describe the types of internal partnerships that you have noticed.
8. Do the internal partnerships within this school impact student achievement? If so, how?

I appreciate you taking time to answer these questions. If you think of anything else you would like to share or have any questions, please contact me. Thank you.

***Partnership and Collaboration Survey***

The researcher is conducting a survey for his research study at Auburn University. This survey has only 11 questions and should take you less than 10 minutes. There are no right or wrong answers. Please answer the questions to the best of your ability. The researcher is interested in the individuals that you collaborate and connect with in your school.

*By participating in this survey, you are indicating that you understand that you are at least 18 years old. You may skip any question that you find intrusive or offensive, but it will help me if you respond to as many questions as you feel comfortable.*

Thank you. I really appreciate your help!
Survey Link: https://survey.az1.qualtrics.com/jfe/form/SV_ehNmgl8DlUoxWp7

Definitions of terms:

**Internal Partnerships** are alliances people and/or organizations (groups) within the same building working together to find solutions and support towards a common goal.

**Collaboration** is the ability to share and work together individually or within an organization (group) towards a common goal.

| 1. Who do you collaborate with in your internal partnership (individuals within your school)? (Mark all that apply) | |
|---|---|
| o | Employee A |
| o | Employee B |
| o | Employee C |
| o | Employee D |
| o | Employee E |
| o | Employee F |
| o | Employee G |

| 2. Select the frequency of collaboration with whom you have an internal partnership. | | | | | | |
|---|---|---|---|---|---|---|
| | Almost daily | Weekly | Monthly | Several times this year | Once or twice a year | Not at all |
| Employee A | | | | | | |
| Employee B | | | | | | |
| Employee C | | | | | | |
| Employee D | | | | | | |
| Employee E | | | | | | |
| Employee F | | | | | | |
| Employee G | | | | | | |

| 3. What grade(s) do you currently teach and subjects? (Include all subjects) | | | | | | | |
|---|---|---|---|---|---|---|---|
| | English | Mathematics | Science | Social Studies | Music | Art | Reading |
| Kindergarten | | | | | | | |
| First Grade | | | | | | | |
| Second Grade | | | | | | | |
| Third Grade | | | | | | | |
| Fourth Grade | | | | | | | |
| Fifth Grade | | | | | | | |
| Sixth Grade | | | | | | | |
| Not Applicable | | | | | | | |
| | | | | | | | |

| 4. Select the frequency of collaboration within your internal partnership. | | | | | | |
|---|---|---|---|---|---|---|
| | Almost daily | Weekly | Monthly | Several times this year | Once or twice a year | Not at all |
| This school year, how often have you worked with colleagues to develop materials or activities for particular classes/lessons. | | | | | | |
| This school year, how often have you worked with colleagues to develop instructional strategies. | | | | | | |
| This school year, how often have you worked with colleagues to make teaching decisions using student assessment data. | | | | | | |
| This school year, how often have you worked with colleagues to discuss what helps students learn best. | | | | | | |

| 5. Collaborative Questions | | | | | |
|---|---|---|---|---|---|
| | Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |
| The principal, teachers, and staff collaborate to make this school run effectively. | | | | | |
| Collaboration in this school occurs formally (e.g. common planning times, team meetings). | | | | | |
| When teachers in this school collaborate, our collaboration time is typically structured; we stick to an agenda and/or we systematically work on a particular goal. | | | | | |
| The principal at this school participates in instructional planning with teams of teachers. | | | | | |
| Teachers in school work collectively to evaluate curriculum and programs. | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| Teachers in this school work collectively to determine professional development needs and goals. | | | | | |
| Teachers in this school collectively to select instructional methods and activities. | | | | | |
| Teachers in this school work collectively to plan school improvement. | | | | | |
| Teachers in this school work collectively to plan professional development activities. | | | | | |
| Teachers collaborate to improve student achievement. | | | | | |
| Teachers collaborate when student data is reviewed and analyzed. | | | | | |
| | | | | | |
| | | | | | |

| 6. How do you rate your school's level of collaboration? | |
|---|---|
| o | No Collaboration |
| o | Low Collaboration |
| o | Moderate Collaboration |
| o | High Collaboration |
| o | Extremely High Collaboration |

| 7. What is your title at this school? | |
|---|---|
| o | Administrator |
| o | Counselor |
| o | Instructional Coach |
| o | Teacher |
| o | Special Education Teacher |
| o | Media Specialist |
| o | Instructional Aide |
| o | Behavior Aide |

| 8. How long have you been in your role at this school? | |
|---|---|
| o | 1st Year |
| o | 2nd Year |
| o | 3rd Year |
| o | 4-6 Years |
| o | 7-9 Years |
| o | 10-12 Years |
| o | 13-15 Years |
| o | 16-18 Years |
| o | 19-21 Years |
| o | 22-24 Years |
| o | 25+ Years |

| 9. How long have you been teaching? | |
|---|---|
| o | 1-3 Years |
| o | 4-6 Years |
| o | 7-9 Years |
| o | 10-12 Years |
| o | 13-15 Years |
| o | 16-18 Years |
| o | 19-21 Years |
| o | 22-24 Years |
| o | 25+ Years |

| 10. What is your highest level of education? | |
|---|---|
| o | Associates |
| o | Bachelors |
| o | Masters |
| o | Educational Specialist or Sixth Year |
| o | Doctorate |

| 11. Select your ethnicity. | |
|---|---|
| o | American Indian or Alaskan Native |
| o | Asian |
| o | Black or African-American |
| o | Latino |
| o | Native Hawaiian or Other Pacific Islander |
| o | White |
| o | Other |