

Retaining and Supporting Effective Elementary School Principals  
Through Collaborative Teams and Data-Informed-Decision-Making

by

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## ABSTRACT

In this action research study, I explored and developed a means to address the challenge of developing, supporting, and retaining effective elementary school principals skilled in instructional leadership and serving in historically marginalized communities. Evidence from the research literature and earlier action research cycles indicated principals often worked in isolation and needed more support to retain these elementary school leaders. Notably, retention has been shown to be influenced by building collaborative teams to accomplish shared goals. In the current study, an intervention was developed to support school principals by improving their knowledge and skills with respect to using data-informed decision-making in a collaborative environment. The intervention titled, “*Got Juice? Jam Sessions!*” was composed of a three-pronged approach, including (a) professional development using the Collaborative Learning Cycle, (b) a hybrid Community of Practice consisting of online and in-person elements, and (c) one-on-one coaching with school leaders on the implementation of data-informed decision-making. The overarching goal was to examine how the three support processes influenced leadership practice, self-efficacy, and school principals' perceptions of remaining in the profession. In the study, leaders' perceptions of their knowledge, skills, attitudes, self-efficacy, level of support, intent to stay in the profession, and intent to apply a team-based approach to data-informed decision-making were assessed. A mixed-methods study included the collection of quantitative survey data and qualitative interview data. Results showed the intervention provided a system of support for school leaders that increased leaders' perceptions of their knowledge, skills, attitudes, self-efficacy, intent to stay in the profession, and intent to implement the team-based

approach to implementing data-informed decision-making at their school sites. In the discussion, I described the complementarity of the quantitative and qualitative data, explained the results based on the theoretical frameworks and the extant literature, presented limitations and their mitigation, and offered implications for practice and research.

## DEDICATION

Para Mi Familia, thank you for always supporting, encouraging, and carrying me through prayers and positive thoughts as I experienced the struggles, the joys, and the learning process of earning my doctorate. This has been a lifelong goal, and I could not have done it without each of you. To my dad, thank you for continuously checking in on me to see how I was doing and providing comfort and reassurance. To my mom, thank you for always believing in me, sending me prayers, positive early morning texts, and our coffee moments when I needed a listening ear. To my sister, your encouragement always made me laugh through your totally 80s references, such as "Super Sonic!" or funny memes late at night. Thank you for your prayers as we experienced this process together. To my little brother, my statistics partner, thank you for your support and for being there when I needed your perspective on statistics and always offering a new way to look at the data. To my older brother, thank you for always being there and providing an objective, realistic perspective. To my mother-and father-in-law and the Colorado Pombos, thank you for your prayers and encouragement these past three years. Finally, thank you to my daughter Eva Luz and my husband Jose Pombo, the two people that lifted me up, cared for me, ensured I had some balance, and supported me through everything. Eva Luz, you were my study partner who sat next to me for so many of those late nights, and I was lucky to have these special moments with you as we persevered. I loved learning from your creative and positive outlook. To my Cariño, you believed in me beyond measure and loved me unconditionally through this process, and I am forever grateful for how you took care of Eva Luz and me. Thank you for being there through everything, and I look forward to continuing this journey with you as my number-one teammate in life.

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The purpose of acquiring a doctoral degree was to gain the knowledge and expertise to inspire, design, and implement ideas and programs at a systemic level to create a broad educational influence for our traditionally underserved populations, where I became an instrumental scholarly practitioner. Reflecting on my professional practice, the biggest surprise was that action research was interwoven into my work. This process has helped me examine my current professional role, the system within which I work, and my influence in addressing problems in my environment using research and asking more questions. Through the Educational Leadership and Innovation program, I am thankful I had the opportunity to learn individually, but most notably through a Community of Practice. I appreciated learning from the participants in my study, the professors' expertise, my cohort team's experiences, and my dissertation committee's knowledge as they guided me in working on my problem of practice. Thank you to all of the professors in the MLFTC that inspired me through this program to do more, push through, and find solutions to my problem of practice. I especially want to thank and acknowledge Dr. Ray Buss for his support, critiques, guidance, and encouragement. You were the right fit for me and the BEST Dissertation Committee chair I could have asked for in this journey. You were direct, honest, and kind as I navigated through my research, writing, and balancing of my professional responsibilities. I knew you would get me to the finish line. Thank you to my committee members, Dr. Carl Hermanns and Dr. Donna Lewis. Dr. Hermanns, I appreciated your expertise in data-informed decision-making, research knowledge, and experience working with school systems. You always offered support when needed. Dr. Lewis, I appreciate your encouragement, guidance, expertise in leading

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## CHAPTER 1

### LEADERSHIP CONTEXT AND PURPOSE OF THE STUDY

To inspire people, don't show them your superpowers. Show them theirs.

—Alexander den Heijer

In my mid-thirties, I slowly started to notice I was losing my hearing. Needing earphones to hear people on the phone, requiring closed captions to watch television, and raising the volume in my car were all signs that something was wrong. The most terrible sign was the frustration I felt when trying to communicate with others, the constant repetition on their part, and the mishearing words on mine. Sign after sign, I felt myself inexplicably drowning in noise that I could not decipher or understand. This occurred during my first year as an elementary school principal, so I thought it might be the stress of the job. In fact, I hoped it was the stress of the job, the loss of my hearing. As a new school principal, I was drowning—drowning with responsibility, drowning in federal, state, and district-mandated pressures, drowning in the weight of meeting the needs of staff, students, and families academically and emotionally. I was drowning in the noise. How could I have focused on the school's top priorities when I was pulled in so many directions? How could I have led through the noise? The job of an elementary school principal felt so lonely and massive, coupled with the fact that I was serving students in a high-poverty, predominantly Mexican, Spanish-speaking community when the AZ-SB 1070 law was enacted about immigration status, which promoted fear and a loss of trust in the community where I served. Therefore, to be the most effective leader, a retired principal was hired through grant funds to be my coach as I navigated the role of being a school principal. I needed a coach to guide me, provide constructive feedback, and help me grow as an

instructional leader and manager at the same time. If I was going to be successful in moving my school from a low-performing school to a high-performing school and reducing the fights, drugs, and disrespectful behavior on campus, in that case, it was not going to be easy or accomplished alone. I needed support. I needed a team. I tasked myself with finding the strengths in each person on campus to build my team. Ultimately, the school needed to be transformed into a place where students felt safe, loved, and could experience their childhood, a place of high expectations for students' learning and growth. It also needed to be a positive, thriving place for the community.

### **The National Context**

In their report to the National Association of Elementary School Principals, Fuller et al. (2018, p. 7) maintained, “the role of the principal has become ‘more complex and challenging,’ with these professionals no longer simply managers of their schools” (NAESP & Collaborative Communications Group, 2008, p. 2). The complexity and challenge of principals’ roles have had some adverse effects on those serving in this role. For example, in a report from the National Association of Secondary Principals (NASSP) and the Learning Policy Institute (LPI) on a survey of principals, Levin et al. (2020b) found 42% of principals indicated they were considering leaving the principal role for various reasons. These reasons included working conditions; compensation and financial obligations; high-stakes accountability systems and evaluation practices; lack of decision-making authority; and inadequate access to professional learning opportunities. The same report indicated principal turnover was related to teacher turnover, student achievement, and the school’s progress. Levin et al. (2020b) also shared a national study that revealed 18% of principals did not stay in the role after one year. These challenges

have been exacerbated at high-need schools where school leaders, teachers, and staff members have become emotionally drained to the point they left the school. In another recent report from NASSP and LPI, Levin et al. (2020a) found that schools serving students of color who exhibited low achievement and who came from low socioeconomic status had higher principal turnover rates, 21% in high-poverty schools. In a recent study, the Educator Effectiveness Alliance in partnership with the Regional Educational Laboratory at WestEd examined principal retention and mobility in Arizona, Nevada, and Utah (IES, 2021). The researchers found from fall 2016 to fall 2020, less than half of the school principals in the three states stayed at the same school. School principals either left the profession, moved schools, or moved to another local education agency. Notably, of those who left, most of the principals departed the profession entirely. “Across the three states, proportionally fewer principals remained at lower-performing schools than higher-performing schools from fall 2016 to fall 2019,” (IES, 2021, p. 8). In Arizona and Nevada, the retention rate in predominately white schools was 44% compared to 32% in schools where the students of color predominated (IES, 2021). As indicated in these studies, principal turnover has created a vicious cycle of new school leaders, teachers, and staff members coming into our traditionally underserved schools where our most experienced educators were needed. School principals serving in these communities were there because they genuinely cared about students, but the stakes were too high, the hours were too long, and there was little appreciation for their work. This vicious cycle seemingly had no end and left many educators feeling like they were just spinning their wheels. Thus, a great need has emerged to stop this cycle of principal turnover in our most underserved schools by redistributing our resources and providing professional

learning opportunities, support, and feedback for school principals. It has become essential to take care of our school leaders (a) for their well-being, (b) to move our schools forward, and (c) to have the best principals serving in our historically underserved communities to meet the needs of all students.

As described in the National Association of Elementary School Principals 10-year study, Fuller et al. (2018) noted,

The job of the elementary school principals covers a wide range of situations and contexts. Research has shown that principals encounter many different challenges in the course of a typical day. Some of those challenges have held constant over the years, whereas others are new. It is clear that context matters. The work that elementary and middle school principals do reflect changes in U.S. society and is affected by the school, community, and district contexts in which they work. In particular, the work of elementary principals is impacted by changing demographics, the increased emphasis on improving school quality, making schools more responsive to student needs, the changing roles of parents and teachers, and school and district size and structure. (p. 21)

In my experience, too often, the role of school principals has become a lonely one. Many priorities have pulled principals in different directions, and it has been challenging for principals to find time to obtain support, participate in professional development, and collaborate with others with similar goals and responsibilities. NASSP and LPI, Levin et al. (2020a) explained two of the top reasons principals leave their jobs is due to inadequate preparation, and professional development and working conditions which include the complexity of the job where the ‘fires’ arising throughout the day have distracted leaders

from their priorities and, many times, led to principal burnout and attrition. I have found the most effective school leaders have developed systems to minimize or alleviate problems. They also have had a strong team working together towards a common goal of collective responsibility, trust, and accountability. Finally, the most influential leaders have used data to make decisions to implement various systems and actions. Fuller et al. (2018) emphasized the role principals played in influencing learning when they stated, “there is no question that the work of school leadership is challenging or that achieving high-quality education for all children in all schools is strongly tied to the capacity of educational leaders” (p. 7).

### **Local Context**

For most of my 26 years in elementary education, I have worked in various roles in high-poverty schools, including 19 years in a school district. For the last seven years, I have worked in a public charter school system where 70% of the student population or more qualify for free or reduced lunch, with a high percentage of students learning English as a second language. Other risk factors have also affected this charter school system, including high student mobility, absenteeism, homelessness, and increased emotional demands such as the need for counseling or other outside services. These experiences have given me a perspective on many of the challenges, educators face. I have found the greatest challenges to improving students' academic performance to be the attrition of effective school leaders and dealing with teacher shortage/turnover. These challenges have been intensified in schools serving our most vulnerable populations. In many cases, in our underserved communities, students have needed to grow academically



for several years in one year to meet grade-level expectations; otherwise, there would be a continuation of long-term academic performance gaps.

In my organization, we have recognized the importance of strong school leaders. Our public charter schools have served students from challenging family backgrounds, with many factors that influence our students socially and emotionally, affecting their academic success. Our school teams have addressed these matters by building strong relationships with students and families. Our mission is to look at each student individually and understand their story to provide support, opportunities, and resources to redefine what is possible. Healthy relationships have always been the primary goal of creating a school environment where students felt they are safe, cared for, and supported. Although relationships have served as the foundation for meeting this goal, our needs assessments revealed teams needed to focus on school improvement and academic achievement to help our students succeed, improve their situation, and reach their full potential. Therefore, my role has been to coach our leaders to support them in becoming instructional leaders as well as managers. I have implemented the use of the Collaborative Learning Cycle for data-informed decision-making (Lipton & Wellman, 2012), created teams by drawing from Lencioni's (2002) work, and implemented the school improvement cycle, based on ELEVATE, a school improvement program offered through the Arizona Department of Education (ADE). Our organization applied for the ELEVATE program through ADE's Support and Innovation department as part of our school improvement process. "ELEVATE is an executive leadership program developed and supported by the Arizona Department of Education and WestEd. The program focused on developing leaders' knowledge, competencies, and skills as they worked

toward systemic change within schools and districts" (ADE ELEVATE, n.d.). ELEVATE was offered as a two-year program that includes WestEd's research-based training.

District leaders, school principals, and their instructional coaches developed 90-day plans four times a year to improve leader and student performance based on Player and Katz's (2016) research on focused school improvement and the resulting enhanced academic outcomes. The ELEVATE program has been directed toward Equity Focused Leadership, including talent management, the culture of learning, and instructional infrastructure. Our public charter school organization has focused on developing our school leaders' efficacy and advancing instructional teams through the ELEVATE program and beyond.

However, over the last seven years in my current role, we have had 14 elementary school leader changes in nine elementary schools, as illustrated in Table 1 below.

**Table 1**  
*Principal Turnover*

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School	Type of School	Number of Principals at the school in the last 6 Years	Current Principal # of Years at the School
A	Title I	4	1
B	Title 1	2	5
C	Alternative & Title 1	2	5
D	Alternative & Title 1	1	6
E	Title 1	3	5
F	Title 1	2	5
G	Alternative & Title 1	5	1
H	Alternative & Title 1	2	2

I	Title 1	2	4
# Of Leadership Changes	23	Average # of Years at the School	3.78

In my sphere of influence, I have worked closely with nine elementary school leaders. I have used the 90-day plan cycle from ELEVATE four times a year with the school leaders. During each 90-day cycle, I have worked with school leaders to establish visions, goals, priorities, decision-making processes, budgets, and action steps, as part of my professional role. These efforts were accomplished by supporting and mentoring the nine school principals in this process and simultaneously coaching them through the management portion of their roles, such as marketing, building maintenance, contracts with vendors, safety protocols, and many more responsibilities. Further, I help leaders manage the external accountability factors, including charter board compliance, standardized testing, school finance, and teacher evaluations which influence what we do to meet students' needs. These factors directly affected how leaders and teachers operated at the schools. For instance, concerning standardized testing, schools and teachers focus on high-stakes test scores, which caused them to establish individualistic goals rather than group responsibility. Standardized testing was only one measure of student learning. Instead, to encourage professional capacity as a team, we needed a strengths-based and growth-oriented assessment that was not focused on high-stakes testing alone but on other items that were not assessed on a test. The challenge was balancing the high accountability measures set forth by the federal and state government with those of students in our school settings. Therefore, our leaders need a system of

support to reduce leader turnover, improve self-efficacy, and provide feedback to improve leadership practices.

In my experience, the most effective school principals had a strong team around them and used data to make decisions. Building a team with a shared vision/goal has been a crucial component of effective leadership. Lencioni (2002) maintained the key elements of building a highly effective team were (a) creating trust, (b) honoring diverse perspectives in the group, (c) sharing commitment, (d) holding each other accountable, and (e) focusing on results. Notably, these five elements were very similar to noteworthy characteristics of a Community of Practice (Wenger, 1998), such as sustained mutual relationships; shared ways of engaging and doing things; knowing what others know, what they can do, and how they can contribute to the enterprise; the ability to assess the appropriateness of actions; specific tools and representations; and shared discourse reflecting a certain perspective on the world (p. 125-126).

Both frameworks emphasize the importance of building relationships, working, and learning together towards a common goal, collaborating, and holding each other accountable for the results. As a social learning framework, Community of Practice (CoP) has been ideally suited to support teams in school settings. Moreover, from my perspective, the purpose of learning has been to view the world from different viewpoints and develop ideas or systems based on knowledge, experience, communication, and collaboration. Thus, the use of strategies to monitor and reflect on learning included observing in meetings, listening during professional development sessions, providing/receiving feedback, and engaging in conversations with colleagues. The processes of listening, watching, and asking questions helped me understand multiple

perspectives and reflect on my leadership practices. I anticipated the use of these same strategies could work effectively for the leaders I supervise.

The use of a CoP allowed participants to develop collaborative relationships between leaders to improve shared leadership to navigate through various challenges at school sites, including lightening the workload, better use of school data to guide instruction, health pandemics, and equity issues. The issue of the increasing workload for principals was captured well by Fuller et al. 2018 who said,

The number of hours that principals work each week has increased over time. Whereas in 1956-57, principals worked, on average, 7 hours more than the traditional 40-hour workweek, a half a century later, principals were working 16 hours over the traditional 40-hour workweek. By 2017-18, this has increased to 61 hours per week. Coupling increased demands and stress with working 21 hours more than the traditional 40-hour workweek, one would expect a significant increase in salary; however, this simply isn't the case. In addition to considering factors leading to a robust pipeline, it is important to consider findings related to the current pool of educational leaders and how we can support and retain them. Two key factors are professional development opportunities and relationships with principals' supervisors (p. 107).

The increased work hours described above have been considered unsustainable for school leaders to be effective and have balance outside of work. In addition, these extra hours have the potential to lead to burn out of school leaders.

## **Cycle 0 Action Research and Findings**

During Cycle 0, the reconnaissance phase of action research was completed. According to Mertler (2020), reconnaissance is the act of gathering data and information on the action research topic. It served as an opportunity to talk to stakeholders and get a ‘pulse’ on their perceptions of the issue. During this portion of the process, interview questions were developed about what makes an effective school principal. In Cycle 0, virtual interviews were conducted with three school principal coaches from the ADE ELEVATE program at our district level. Interviews also included, one elementary, and one high school principal. Based on the interviews with these leader coaches and principals, effective leadership started with data-informed decision-making using qualitative and quantitative data such as classroom walkthrough observations, student formative assessments, attendance surveys, and discipline data to inform school practices and leader actions. Throughout the entire interview process, data-informed decision-making was a theme that emerged in each of the interviews. A second theme indicated successful school leaders built a collaborative team around them to accomplish shared goals. The Cycle 0 work helped narrow the focus, to begin laying the groundwork to improve school leaders’ use of data in their decisions and their development of collaborative teams at their school sites.

### **Intervention—A Brief Introduction**

The problem of practice focused on addressing the challenge of supporting and retaining effective school principals in schools serving underserved populations and developing leaders skilled in instructional leadership and managing schools. In this action research project, the study aims to define concrete methods for building an

effective, collaborative team and high-functioning CoP (Wenger, 1998; Wenger et al., 2002) to foster effective leadership and team support. Lipton and Wellman's (2012) Collaborative Learning Cycle (CLC) was used as a guide to teach and facilitate data-informed decision-making for school leaders. In addition, the CLC aided in informing effective leadership practices to address the needs of each school.

Additionally, the CoP with school leaders to provide support and collaboration opportunities was implemented. The focus was increasing school leaders' self-efficacy and creating a supportive environment through CoP to address challenges such as federal and state accountability by affording the opportunity to work and learn from other leaders. Increasingly, deficit-based accountability measures caused school leaders to leave the profession. The CoP focused on solutions to this problem. Finally, one-on-one coaching was provided to each school leader as they implemented data-informed decision-making with their teams.

### **Purpose of the Study and Research Questions**

In my research project, a system of support was provided that included professional development, collaboration for school leaders, and coaching to prevent burnout and emotional stress and to support and retain effective school leaders.

As summarized in Avolia et al. (2009), leadership is an area that we need to understand and study more fully. Avolia et al. maintained that leadership can be developed over time through experience and leadership interventions or innovations. Nevertheless, Avolia et al. describe that there is limited research on the effectiveness of interventions with respect to influencing leaders' behaviors. "The importance of school leaders and their daily practices in creating generative learning environments for teachers

and students is receiving increased attention from policymakers and a host of entities committed to the improvement of PK–12 education” (Hitt & Tucker 2016, p. 531). Thus, the purpose of the project was to support school principals in developing the knowledge, competencies, and skills of leaders as they work toward systemic change within their schools. The following research questions guided the conduct of the study.

RQ 1: How and to what extent does participation in professional development, a CoP, and coaching influence school leaders’ perceptions of (a) knowledge and (b) skills about using data-informed decision making?

RQ 2: How and to what extent does participation in professional development, a CoP, and coaching influence school leaders’ perceptions of (c) attitudes and (d) self-efficacy about using data-informed decision making?

RQ 3: How and to what extent does participation in professional development, a CoP, and coaching influence school leaders’ perceptions of (e) support in their leadership role and (f) intention to stay in the profession?

RQ4: How and to what extent does participation in professional development, a CoP, and coaching influence school leaders’ implementation of a team-based approach to using data-informed decision making?



## CHAPTER 2

### THEORETICAL PERSPECTIVES AND RESEARCH GUIDING THE PROJECT

Communities of practice are groups of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an ongoing basis.

— Etienne Wenger

The previous chapter outlined the challenge of retaining effective school leaders in our most underserved school communities. Then, I briefly described the intervention and the reconnaissance stage of my action research project. In this chapter, the theoretical frameworks guiding the project are presented, including the implications of each theory. Then, the Collaborative Learning Cycle process guiding the workshop portion of the study, the coaching model, related studies, and the research contributing to my project are described. The related research includes the components of effective leadership. Finally, my previous cycles of research are shared related to preliminary studies of components of the intervention.

#### **Communities of Practice**

The theoretical framework that guided the project was Communities of Practice ([CoP], Wenger, 1998). Anthropologists Jean Lave and Etienne Wenger (Lave & Wenger, 1991; Wenger, 1998) have been credited with developing the CoP framework. Wenger and Lave developed the concept of CoP as they studied apprenticeships. They found apprentices learned from each other by capitalizing on social processes related to learning.

CoP has been defined as groups of people sharing a common purpose or interest in a subject matter where they worked together consistently to improve their own efforts

as they learned collectively (Wenger, 1998). CoPs engaged in learning in a shared environment that included three critical components: (a) a domain, (b) a community, and (c) the practice (Wenger-Trayner & Wenger-Trayner, n.d.). First, the domain was defined as a shared field of interest, which motivated participation (Wenger-Trayner & Wenger-Trayner, n.d.). In other words, CoP included individuals committed to the same concerns, the domain. For example, in the CoP of elementary school leaders in my organization, they shared the domain of instructional leadership.

Second, Wenger (2004) characterized the community as “the group of people for whom the domain is relevant” (para. 14). According to Wenger (2004), the quality of the relationships among the members was an important feature of a CoP and contributed to a clear definition of the boundary between who or what was inside or outside the CoP (para. 14). This afforded opportunities for the community to share consistently through discussions and activities to learn from each other. Third, the practice in the CoP was defined as “a set of frameworks, ideas, tools, information, styles, language, stories, and documents that community members share. ... the *domain* denotes the topic... [however] the *practice* is the specific knowledge the community develops, shares, and maintains” (Wenger et al., 2002, p. 29, italics in original). Notably, the practice was what the group did to improve their domain knowledge. CoP has developed their practices by sharing resources and experiences through problem-solving, asking questions, discussing positive or negative results, and visiting each other’s sites. Thus, the practice reinforced the strong relationships among group members, which included trust and shared accountability. Together, these three pieces—domain, community, and practice, created the community of practice.

### *Criticisms of Communities of Practice and Some Remedies*

Criticism of the CoP framework has included issues related to organizing and implementing CoP. One particular critique has been that the organization's hierarchy generally develops the CoP, wanting groups of people to work together (Coghlan & Brydon-Miller, 2014). CoPs have tended to be more formal when instituted by the organization and have resembled staff meetings rather than collaborative learning time. CoPs were intended to develop as people come together to collaborate on their own. However, participants in CoP may have felt obligated to participate because of the top-down approach, which may have led to considerations of the CoP not being authentic and task-oriented rather than being viewed as a time to learn. Another limitation has been finding time to dedicate to CoP to develop relationships, trust, and collaboration.

To avoid these pitfalls, several key concepts from Heath & Heath's (2010) work on implementing change seemed relevant with respect to working with a CoP. First, for example, the authors suggested that all too often, assumptions were made that *people resisted change* when, in fact, the context or system was the problem, not the people. So, to institute change, the contextual situation needed to be altered rather than the people in the setting.

Second, Heath and Heath (2010) employed a metaphor related to motivation to engage in change. They described the situation where individuals were a mix of an elephant and a rider. The elephant represented the heart and emotional side of individuals, and the rider was the analytical, rational side of the person. The elephant motivated the change, and the rider provided the direction for the change and considered

long-term issues. The change needed to appeal to the elephant and the rider to promote change.

Third, Heath and Heath (2010) described another assumption about resistance to change that indicated resistance was due to individuals being lazy or unmotivated was inaccurate. Rather, resistance was likely to be due to mental exhaustion. All individuals began a task or situation with a certain amount of willpower or self-control, which was dissipated by the incredible demands on leaders. When self-control was drained, it was more challenging to continue implementing the change.

### ***Implications from the Community of Practice Framework***

It is crucial that school leaders work smarter, not harder, for example, by sharing their expertise and talents with other members of the CoP. Therefore, as a part of the dissertation work, I provided support for the school leaders with whom I work by creating a CoP to promote collaboration, which is also intended to decrease cognitive overload and stress. I participated in the CoP to build my relationships with the leader as their supervisor, but it was also time for professional development and learning together.

In trying to resolve the problem of practice, one of the goals was to incorporate a collaborative, data-informed decision-making process between school leaders that will support school leaders as they attempt to improve student outcomes in their school settings. Therefore, I needed to change the environment by incorporating collaboration and data analysis routinely into our regularly scheduled meetings, making it a habit, instead of making it something separate from our daily work or a new task to add to the school principal's already too full plate of responsibilities. A CoP approach was ideally

suiting to facilitate this effort for several reasons. First, because principals share the same goals concerning school improvement and increasing all students' performance by using data more effectively, they share a domain. Second, rather than allowing them to work in isolation, I will have them tackle this problem as a community, in which they can share their understandings of data-informed decision-making and work toward better and new understandings as they move forward in dealing with this matter. Third, they have commonalities in their interests regarding understanding how tools and various strategies related to teaching practice may be used to attain teacher performances associated with increased student growth and success.

To implement the change, I drew upon Heath and Heath's (2010) metaphor and appealed to the elephant *and* the rider. In my leadership role, I explained and illustrated the why or purpose of the change to appeal to the emotional side of participants. I did this by sharing personal stories, school stories, showing the trajectory of students if we do not do something now by working collaboratively or illustrating the long-term effect of the change. Notably, I emphasized the effect of collaborative data-informed decision-making. Following that, the steps for collaborative data-informed decision-making were shared to provide clarity, and this clarity addressed participants' needs for the logical aspects of the work.

Further, consistent with Heath and Heath's (2010) discussion of how exhaustion can be misconstrued as laziness when working with school leaders, I implemented the change or the mental work at the beginning of the day to minimize such effects. Finally, because change is influenced by the context, not necessarily the person, we worked to

establish a set of sound contextual conditions for the change, such as changing the environment to foster and support change.

I have titled the CoP, “*Got Juice? Jam Session.*” The *Got Juice?* represents two ideas. First, *Juice* can be defined as power or energy in an electronic device. Therefore, using this definition, the CoP was about bringing passion and gaining energy from the session to rejuvenate each other to implement ideas from the CoP. The second idea from the term *juice* means generating creative ideas. The saying goes, let's get the creative juices flowing. This relates to the CoP as a creative place and sharing ideas. The *Jam Session* portion of the title represents working together, ‘jamming together,’ similar to the music definition of a *Jam Session* where musicians are brought together with different instruments to have fun and create an improvisational piece of music where each musician brings their expertise to add to the session. The CoP *Jam Session* was about combining the individual talents and perspectives of these elementary school leaders to create one collaborative concept or practice that was learned and created together. Figure 1 represents the intervention's in-person and online Community of Practice components.

**Figure 1**

*Wenger's Communities of Practice Components Influence the Study's Design*



As Wenger (1998) portrays, CoPs are not where learning can be designed; they can only be facilitated, supported, and encouraged. Learning in communities is active and fluid. Based on this idea, I have designated the name of the CoP as “*Got Juice? Jam Sessions!*” because the CoP was improvisational, and it was about the participants’ energy, passion, and talents coming together for new learning, developing leadership practices, and implementation.

### **Sociocultural Theory**

Sociocultural theory ([SCT], Vygotsky, 1978) has emerged as a learning theory useful in learning in collaborative situations such as pairs of individuals or larger group settings. In particular, Vygotsky’s SCT has emphasized how dialogue among participants in a social, collaborative learning setting contributed to learning by participants. In particular, Vygotsky suggested dialogue was crucial because it provided occasions for

group members to learn from others' knowledge and experiences, facilitating and enhancing group learning. For example, in this study, I anticipated dialogue among participants would foster learning about the use of school data to inform their teachers' use of data and, subsequently, their instructional practices.

Notably, Given's (2008) application of sociocultural theory illustrated that in sociocultural-based dialogues, the learning was not just individuals' knowledge, but learning was based on relationships with the other participants. Moreover, Given (2008) described the importance of the dialogue-based approach because it was used to confront oppression and the perspectives of traditionally marginalized groups.

### ***Implications from Sociocultural Theory***

One of the implications of SCT theory is that collaborative efforts lead to learning from each other in the CoP. Thus, there needs to be teamwork, which affords opportunities to learn from others. For some of the activities, we worked in a whole group setting. Nevertheless, because it was more challenging to engage in close teamwork in a group of nine with equal participation, the nine leaders formed smaller groups that worked together to allow for more close relationships and afford more personal learning. In addition, the use of dialogue was a crucial component of the study. It was important to ensure everyone has a voice with an opportunity to share and discuss in these smaller groups, but also in the larger group. Consequently, collaboration structures were put in place for equal participation and sharing of roles during the CoP to promote dialogue.



## **Building a High Functioning CoP**

To build a more effective CoP, Lencioni's (2002) book, *The five dysfunctions of a team*, was reviewed, where he explained what makes teams work well together. The book's title was misleading because he described the five pitfalls of a team and how to avoid or rectify these dysfunctions, including concrete ideas on how to facilitate a high-functioning group. The five dysfunctions included the absence of trust, fear of conflict, lack of commitment, avoidance of accountability, and inattention to results. Lencioni (2002) highlighted the five dysfunctions of a team using a hierarchical pyramid, with the base of the pyramid beginning with trust, the foundation of a high-functioning team. For example, the lack of trust among team members began with a lack of vulnerability among the group members. Lack of trust resulted when team members were not honest or open about mistakes, weaknesses, or needing help. The opposing characteristics were confirmed in a high-functioning group where members asked for help, took risks in offering feedback, appreciated tapping into another person's skills, and admitted mistakes. Moreover, it was essential to establish norms and build time into meetings to connect and build relationships to develop trust.

Lencioni (2002) presented the next layer of the pyramid as fear of conflict, which stemmed from the lack of trust. Teams that did not engage in conflict exhibited artificial harmony, where spirited discussions that were critical to the team's success were avoided. Conversely, groups that engaged in conflict solved problems by honoring various perspectives and expertise. Additionally, team members were not afraid to have varying opinions on critical issues. The conflict was a productive way to solve complex problems.

For a team to engage in conflict, it was important to acknowledge that conflict often involves productive and healthy debate helping teams develop new ideas or solutions.

The third dysfunction was a lack of commitment because there was ambiguity about the group's goals and priorities, resulting in no buy-in or collective responsibility. On the other hand, a committed team had shared goals, preferences, and action steps. Effective teams thought it was crucial to review critical decisions as a group to foster commitment. The fourth dysfunction was avoiding accountability. This dysfunction created resentment among team members because there were differences in execution standards, which encouraged average or below-average performance. Members of high-functioning teams exerted pressure on their colleagues to improve performance from below-average to higher levels. Notably, there were expectations among team members about holding each other to high standards. To promote accountability, the group conducted regular progress reviews on the action steps in which they were engaged as a group.

Finally, Lencioni (2002) maintained inattention to results was the last dysfunction in which team members were focused on individualistic goals or achievements. As a result, the team failed to grow together. Conversely, a group focused on collective results enjoyed success and failure together. To ensure attention to results was attained, the group needed to review goals and data to monitor progress, which fostered attention to results. These five high-functioning, team-based approaches highlighted the collective responsibility to meet the team's vision and goals. Notably, leadership was distributed throughout the group rather than being assigned to one individual.

### ***Implications for the Study from the Five Functions of a Team***

Building a high-functioning team aligns with the CoP's collective responsibility and accountability system for a shared purpose. For the CoP portion of the intervention, I worked with the CoP to teach and build the five components of a high-functioning team by building trust through relationship-building activities, engaging in unfiltered conflict in a safe space, committing to decisions, and encouraging members of the group to hold each other accountable to our decisions by conducting peer visits and providing each other feedback. Finally, we continually focused on data-informed decision-making to monitor our progress and results. Some of the activities and recommendations from Lencioni's (2002) book were used to foster a high-functioning CoP.

### **Bandura's Self-Efficacy Framework**

Self-efficacy has been defined as individuals' beliefs in their capacities to execute actions or behaviors necessary to succeed in a specific area or achieve goals. Further, self-efficacy, which has been shown to be contextually related, has influenced how individuals felt, acted, and thought about a particular area. In simple terms, self-efficacy is the belief that individuals have the capacity, skills, and knowledge to succeed in meeting their goals.

Four sources of information have been shown to influence self-efficacy. These sources of information included mastery experiences, vicarious experiences, social persuasion, and physical and emotional states (Bandura, 1977, 1997). Mastery experiences referred to occurrences where individuals experienced success in performing a task or attaining a goal. Notably, repeated successes have helped individuals to develop higher levels of self-efficacy. On the other hand, vicarious experiences involved

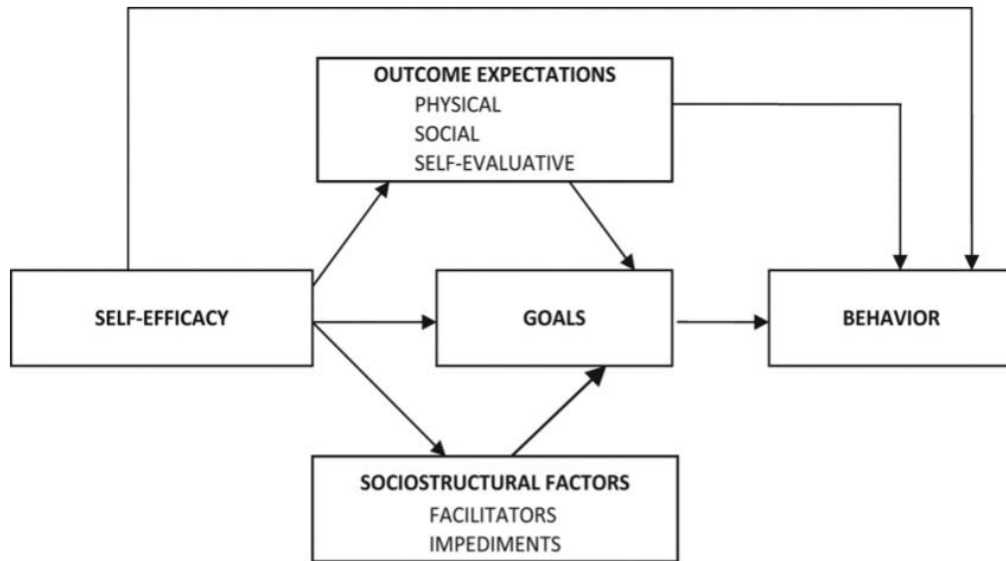
observations of others who successfully performed a task. Thus, observing a model who showed success also contributed to increasing self-efficacy, especially if the observer perceived the model was similar to theirs. As its name suggested, social persuasion occurred when others told individuals they were competent and capable of performing a task or attaining a goal. Finally, physical and emotional states like being tired or stressed have been shown to influence self-efficacy (Bandura, 1977, 1997).

Self-efficacy has also influenced human behavior in a number of ways, including affecting cognitive processes, motivational processes, and other behaviors (Bandura, 2012). For example, individuals with higher levels of self-efficacy demonstrated greater levels of motivation and persisted in the face of challenges, whereas those with lower self-efficacy did not show these high levels of motivation or persistence. Bandura (2012) summed up this important matter when he stated, “Self-efficacy beliefs influence how well people motivate themselves and persevere in the face of difficulties through the goals they set for themselves, their outcome expectations, and causal attributions for their successes and failures” (p. 13).

In Figure 2 below, Bandura (2012) illustrated how self-efficacy influences motivation and behavior. Specifically, Bandura maintained, “self-efficacy affects motivation and performance accomplishments directly and through its impact on goals ...” (p. 14). Thus, self-efficacy has played an important influence in setting goals and hence the motivation to move toward those goals and their attendant accomplishments.

**Figure 2**

*Bandura's Model of Self-Efficacy and Its Influences on Goals and Behavior*



Structural Paths of Influence Wherein Perceived Self-Efficacy Affects Motivation and Performance Accomplishments Directly and Through Its Impact on Goals, Outcome Expectations, and Perception of Socio Structural Facilitators and Impediments (Bandura, 2013. p. 14)

Notably, in other research on elementary school leaders, Hitt et al. (2019) found self-efficacy was an essential component of developing and supporting elementary school principals. In fact, principal efficacy was second to teacher quality when assessing the influence of school variables on student achievement (Hitt et al., 2019).

### ***Implications from Self-Efficacy Theory***

Motivation is influenced by being a part of the community, observing others, and encouraging each other. This environment was created by fostering a team approach in the CoP. Notably, a primary purpose of the CoP was to build effective leadership practices in the CoP to influence self-efficacy. As Bandura (2012) points out, there is not one valid assessment of self-efficacy because self-efficacy is specific to the context so it

must be assessed with respect to the given area, for example, in this study, with regard to using data-informed decision-making processes at their school site.

### **Related Literature and Research Informing the Study**

The community of practice framework, social-cultural theory, and self-efficacy theory all intersect with the idea of learning through social interaction and observation with others, including the importance of relationships and trust in learning. In the following section, the research that characterized the professional development workshop to be implemented, the coaching model, and the related research on effective leadership practices are discussed.

### **Collaborative Learning Cycle**

In this study, the focus was on data-informed decision-making during the CoP. To build this effective leadership practice, Lipton and Wellman's (2012) Collaborative Learning Cycle was used for the workshop portion of the intervention. These components were reinforced in the CoP to support the participants' ongoing work.

The Collaborative Learning Cycle (CLC) was developed to encourage leaders to reflect on their current practices and collaborate with other leaders or team members to continue learning and growing (Lipton & Wellman, 2012). Lipton and Wellman designed the CLC process to focus on shifting participants' thinking about leadership from professional autonomy to a collaborative approach and from knowledge delivery to knowledge construction. In this study, the goal of the work in the CLC was to develop skills for building successful data analysis habits and practices among leaders, teachers, and other staff members. The CLC materials and processes included steps, strategies,

activities, rubrics, and tools to turn groups into communities of learners while developing cultures of collaborative inquiry (Lipton & Wellman, 2012).

In the CLC, the first area of focus was defining, developing, and sustaining high-performing groups. According to Lipton and Wellman (2012), there are seven characteristics of high-performing groups, which have been enumerated below.

1. Maintain a clear focus, which means sharing a vision, driving the work by using priorities, and developing well-defined success criteria.
2. Embrace a spirit of inquiry, which is reflected in generating questions, seeking resources, engaging in conflict, and seeking patterns and root causes.
3. Put data in the center means providing evidence through data, using data to focus conversations, and using multiple data sources.
4. Honor commitments to learners and learning means improving practice to benefit learners, monitoring learning efforts, and reflecting on the learning process.
5. Cultivate relational trust means feeling safe to display high competence and vulnerability, operating with high expectations and positive intentions, and relying on the integrity and competence of others.
6. Seek equity means recognizing everyone has something to offer, leaving titles at the door, seeking a diverse blend of voices, and engaging in collaboration.
7. Assume collective responsibility means answering for the group's choices and decisions, having a role, and persisting through collective action.

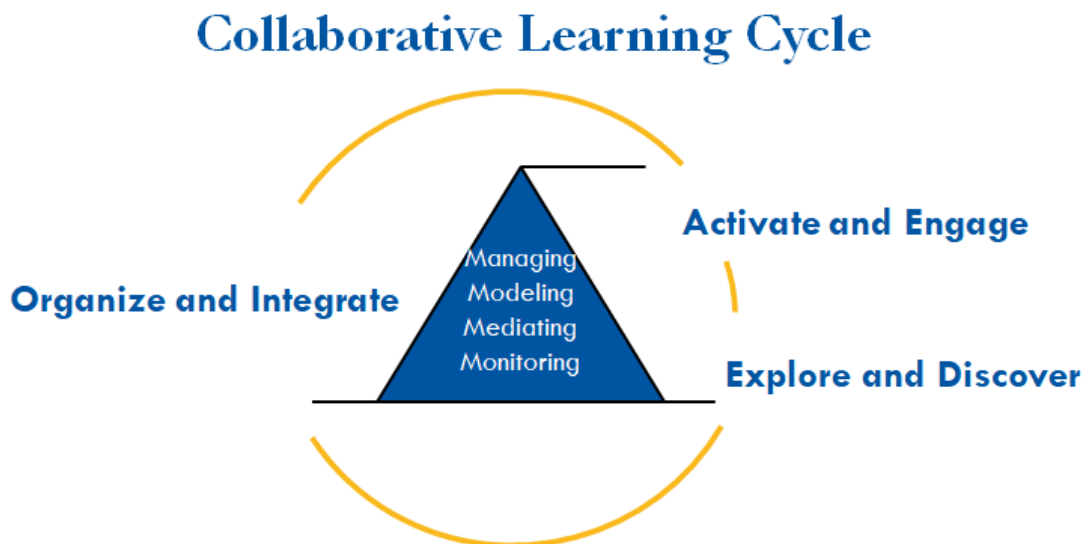
Implementation of the CLC was composed of three phases. It began with the activate and engage stage, where participants' assumptions about the data or problem were brought into the discussion to allow the group to share experiences and

expectations. It was used as a time when team members were not yet looking at the data. Instead, they were cognitively and emotionally preparing themselves to work as a group. The second stage was the exploring and discovering stage, which introduced the data. This stage afforded participants opportunities to analyze the data to find patterns, categories, and trends. Finally, the third stage was organizing and integrating the data to make inferences, explanations, or draw conclusions from the data, and brainstorm solutions to create an action plan. Below, an illustration of Lipton and Wellman's (2012) CLC has been provided. The triangle in the center of Figure 3 represents the facilitator's actions in leading the CLC process.

**Figure 3**

*Lipton and Wellman's Collaborative Learning Cycle*

M



*Implications Based on the CLC*



As the researcher and participant, I taught the CLC as part of the professional development portion of the intervention to allow leaders to replicate this process on their campuses. Collaborative, informed decision-making is one of the effective leadership practices identified in the leadership frameworks that we developed in the study. As Lipton and Wellman 2(2012) note, “A cohesive, high-performing group attends to relationships while engaging in tasks” (p.75). Also, the CLC with the common thread of building relationships is aligned with the components of a CoP.

The CLC provided a sound framework that I readily applied as part of the intervention for this study, the workshop component. I facilitated the CLC, a multi-step process, during a full-day workshop for school leaders. Because of the complexity of the CLC, I provided training to the school leaders during a professional development session in the summer when more time was available. As part of their work, they were given time to plan how to implement the CLC at their school sites. Then, as the school leaders considered their own CLC implementation efforts and implemented those processes at their schools with their teachers and staff, they were able to draw upon their CoP and me to provide support.

### **The Impact Cycle Coaching Framework**

The Impact Cycle Coaching Framework (ICCF) has served as a coaching technique focused on coaching with the purpose of learning and improvement (Knight, 2018). Knight originally designed the ICCF for instructional coaches who were working with teachers to analyze the current situation, set goals, identify, and explain strategies to meet goals, and provide support until those goals were met. Nevertheless, the framework’s processes were sufficiently broad to be applicable in other contexts or

coaching relationships where a partnership between the coach and the learner characterized the coaching process.

Notably, Knight (2018) shared the importance of leading with caring and compassion before beginning the coaching process. Building trust and relationships were the key components. He maintained a conversation between a coach, and a learner should be the same as a conversation between two learners where there was mutual respect and trust. Knight considered his coaching process a partnership approach compared to the more traditional method in which a coach observed and provided feedback. In the conventional approach, the coach offered positive feedback as well as the suggested area(s) to improve, which was more directive and established a hierarchy.

The ICCF involved a process where the learner chose a goal they believed would make a difference for their context, which mattered deeply to the learner. The coach asked reflective, learner questions, so the learner carefully considered and settled on the best goal for their context. The coach's contribution included strategic knowledge that was helpful to the learner, such as understanding data-informed decision-making and the practices that would help the learner meet the goal. When using the ICCF, the coach did not offer advice unless the learner asked, or the coach asked, "Do you mind if I share some ideas about this topic?" It was essential to treat the learner as a professional, and the coach possessed the expertise to help the learner with their goal. The coach's role was to have helped the learner to develop compelling goals, make their jobs easier, save time, honor the learners' expertise, and help leaders make a difference.

Further, Knight (2018) remarked that coaches have helped to change the system, so coaches were not viewed as the person between the learner and the supervisor, but

rather as a resource for the learner. System change has been accomplished through conversations, changing how the coaching role was implemented, and sharing the research on effective coaching. In my role, I am both supervisor and coach, and I was more supportive rather than directive.

Knight (2018) discussed three types of coaching including (a) facilitative coaching, (b) directive coaching, and (c) dialogical coaching. Facilitative coaching occurred when the individual being coached already knew what they wanted to improve and had some ideas on how to improve their work. In that situation, the coach acted as a facilitator asking powerful questions encouraging the individual being coached to share ideas and unwrap their knowledge to create a plan and move forward with their goals. The coach facilitated the thinking of the individual being coached. This type of coaching has not been effective with novices in the field because they needed to learn something new, new strategies, or ideas.

The second type of coaching was directive coaching, which was the opposite of facilitative coaching, where the directive coach was helping the individual being coached build or learn a skill or set of skills. The coach had expert knowledge and was directive in their approach including having the coach set the goal and share their knowledge directly with the learner. Directive coaching worked most effectively when there was an assumption that the individual being coached did not know what to do. Nevertheless, this type of coaching has been ineffective because it discounted the expertise of the individual being coached and raised issues about their professionalism. Sometimes, this led to resistance and a lack of change.

Finally, Knight (2018) characterized the third type of coaching as dialogical coaching, a blend of the facilitator and directive coaching types. In this approach, coaches carefully listened, questioned, and in so doing created a partnership between the coach and the individual being coached where the individual had essential expertise but may have needed more knowledge or thoughtful questioning to improve. Expertise was shared through dialogue and there was a balance between inquiry and assistance. The individual being coached established their goals and action steps through this discussion. Dialogical coaches shared possible strategies and ideas but did not offer advice. The learner remained the decision-maker. The learner also decided what strategies they would like to try. Knight (2018) designed the ICCF as a process to help coaches provide dialogical coaching. By using this process, coaching moved the learner from a compliance orientation to a commitment perspective. Knight (2011, 2018) described seven partnership principles: equality, choice, voice, dialogue, reflection, praxis, and reciprocity. More specifically, Knight (2018) defined the partnership principles as:

1. Equality: Coaching was a partnership where both partners shared ideas and made decisions together.
2. Choice: The coach provided choices, and the individual being coached decided which practices to adopt and how to interpret the data.
3. Voice: The conversation was open and candid so the individual being coached felt safe to share their opinion, and it mattered what each person shared.
4. Dialogue: Coaching was a conversation where the coach and the individual being coached were thinking partners.
5. Reflection: Learning required reflection on the learning.

6. Praxis: The individual being coached acted on the learning by applying the knowledge and skills in their context.
7. Reciprocity: Coaching was an authentic partnership where there was shared learning.

To implement this type of coaching, the ICCF was comprised of three components or steps followed throughout the coaching cycle (Knight, 2018). According to Knight (2018), the three steps included,

1. Identify: the coach and the learner collaborate to get a clear picture of the current reality using data, identify a school-focused goal, and choose a strategy to meet the goal.
2. Learn: the coach works with the learner to ensure he/she learns the identified strategy by explaining it clearly, usually through a checklist, and by modeling the strategy, so the learner sees it before implementing it.
3. Improve: while the learner implements the strategy and the coach and learner monitor the progress toward the goal adjusting as necessary until the goal is reached. (p 22)

Notably, Knight's (2018) coaching model, the ICCF, was aligned with the CLC, where the learning occurred together by embracing a spirit of inquiry, cultivating relational trust, and seeking equity in learning.

### ***Implications Based on the Impact Cycle Coaching Framework***

Knight's (2018) ICCF is explicitly designed for an instructional coach and teacher relationship to improve instruction and learning in the classroom. Although his research is focused on instructional coaching, his model encompasses coaching in general with the

common purpose of improvement of the situation within one's context. For the intervention, I used the ICCF dialogical coaching style, the partnership principles, and the three steps to the coaching cycle to provide one-on-one coaching to the nine school principals in my study. We collaborated through the goal-setting cycle in using data-informed decision-making as I worked with them one-on-one as they implemented the CLC on their campus.

In the previous year, the nine elementary school leaders asked for time to focus on data-informed decision-making as a team. Therefore, this past summer, seven of the nine elementary leaders were able to attend the NWEA Fusion conference to learn more about data-informed decision-making and reports. After this training, professional development was provided on the CLC, a process on how to use what we learned at the NWEA Fusion conference. During the training, I modeled the CLC in our CoP and provided a checklist, so each school leader had the criteria for successful implementation. This illustrates part two of the ICCF, the learning portion. Then, we reflected on these two professional developments, the NWEA Fusion conference sessions, and the CLC training. As a CoP, we examined our current reality, created a goal and decided how to implement the CLC. This was the first step of Knight's (2018) ICCF. Next, I worked one-on-one with each leader on step two, learning the CLC to apply it on their campus, and in step three, improving the use of data-informed decision-making systems when I worked on campus with each leader going through the ICCF in my coaching.

### **Related Research on Leadership Practices**

Hitt & Tucker's (2016) research reviewed 56 empirical studies and three frameworks of leadership practice to identify leadership practices related to student

achievement to create a simplified framework encompassing all of these practices. The prominent position of school leaders was evident when they stated, “The importance of school leaders and their daily practices in creating generative learning environments for teachers and students is receiving increased attention from policymakers and a host of entities committed to the improvement of PK–12 education” (Hitt & Tucker, 2016, p. 531). In their work, the authors confirmed an abundance of frameworks on school effectiveness. In addition, they reviewed three leadership frameworks, including empirical studies where they consolidated, organized, and united them to form five areas of focus, including (a) establishing and conveying the vision, (b) facilitating a high-quality learning experience for students, (c) building professional capacity, (d) creating a supportive organization for learning, and (e) connecting with external partners.

Hitt and Tucker (2016) claimed the unified framework would help district leaders, educators, principal supervisors, and principals' coaches better understand and prepare school leaders to cultivate these practices. Some of the critical indicators described among the five areas that were important to the current study included promoting the use of data for continual improvement, attending to external accountability, building trusting relationships, creating communities of practice, allocating resources based on mission and vision, building collaborative processes for decision making, and monitoring instruction. These indicators were closely aligned with my research work and were areas I focused on during my study.

In addition, Hitt and Tucker’s (2016) study indicated the knowledge about effective leadership has improved over the past ten years. Still, the effort to define and

implement effective leadership practices continued to be important in identifying behaviors conducted by leaders to enhance student growth and achievement.

Based on Hitt and Tucker's (2016) study, Gittens (2018) explored leadership practices and how these practices affected student achievement in an urban setting. In particular, Gittens's (2018) aimed to understand why some schools with the same demographics, 80% or more with high needs, excelled in student achievement compared to similar schools within the same school district. Notably, Gittens' study was focused on one specific elementary school principal, whose school achievement scores were as high as the best performing schools in the state.

Gittens (2018) explicitly employed the five effective leadership domains from Hitt & Tucker's (2016) unified framework to explore the relationship between the five areas of leadership and the school principal's leadership practices. As the study moved forward, the researcher explored the roles of positive deviance, the influence of leadership on student achievement, and leadership in an urban context where there were issues related to poverty, geography, funding, and parental involvement.

Results from Gittens' (2018) bounded case study were aligned to the five domains of Hitt & Tucker's (2014) leadership practices, but greater depth was illustrated for these outcomes in this study. The study showed the school leader practiced four of the leadership domains that promoted student achievement. Notably, results also indicated the school leader facilitated goal setting as a continuous practice that contributed to the school's success.

In the National Association of Elementary School Principals' ten-year study (Fuller et al., 2018), the researchers asked school leaders several questions about



decision-making at the school site. One important finding indicated "Nearly all respondents believe principals have a high or moderate degree of authority to make decisions concerning their schools (Fuller et al., 2018, p. 39). This research confirmed the school leader was viewed as having the primary influence and responsibility to make decisions at the site level to improve student outcomes. Nevertheless, the results also pointed to the importance of shared decision-making. The report indicated shared decision-making was an area warranting further investigation. In particular, school leaders in the Fuller et al. (2018) study expressed the need for support and shared decision-making training.

As confirmed in the Hitt and Tucker (2016) study, much of the research on leadership frameworks have been focused on effective leadership practices to improve student outcomes. Notably, school districts and charter school systems have adopted the framework that best matches the goals of their system to build leadership capacity, support school leaders, and foster school improvement. In the next sections, I have briefly summarized the National Professional Standards for Educational Leaders along with the Arizona Department of Education ELEVATE levers for school leadership, which informed my study.

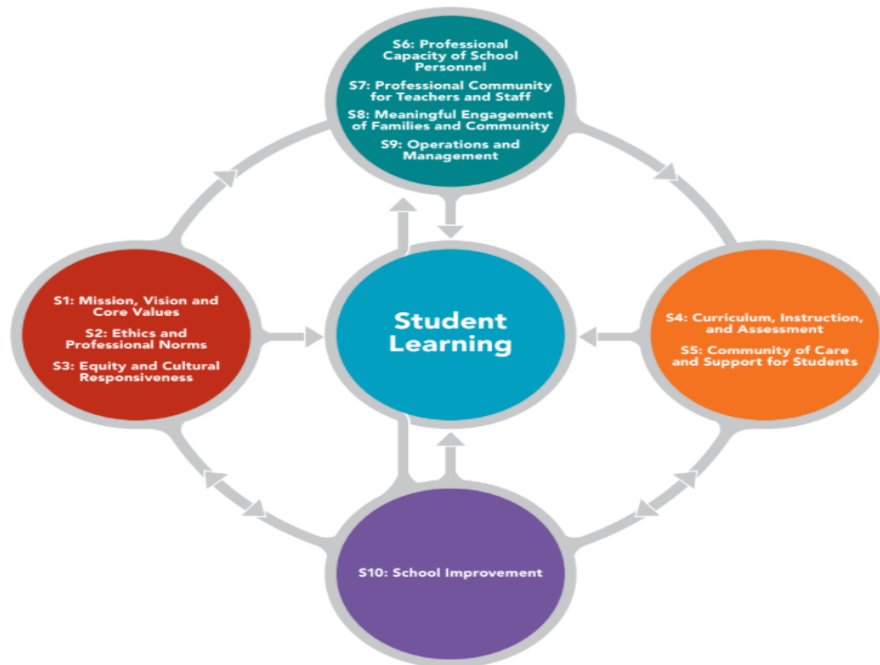
### ***Professional Standards for Educational Leaders***

The Professional Standards for Educational Leaders, formerly known as ISLLC standards, were developed by the National Policy Board for Educational Administration to define the crucial practices of school principals and assistant principals to support student growth and achievement. These standards were designed for site-level school leaders. "The standards embody a research and practice-based understanding of the

relationship between educational leadership and student learning” (National Policy Board for Educational Administration, 2015). In all, there are ten standards, which in the following text have been denoted by (S#) to be aligned with Figure 4. The standards were: (S1) Mission, Vision, and Core Values; (S2) Ethics and Professional Norms; (S3) Equity and Cultural Responsiveness; (S4) Curriculum, Instruction and Assessment; (S5) Community of Care and Support for Students; (S6) Professional Capacity of School Personnel; (S7) Professional Community for Teachers and Staff; (S8) Meaningful Engagement of Families and Community; (S9) Operations and Management; and (S10) School Improvement. Figure 4, below, illustrates the relationship between school leadership and student learning. In it, note the ten standards have been combined into four key areas that influence student learning.

**Figure 4**

*Ten Educational Leadership Standards and How They Influence Student Learning*



*Note.* This figure was taken from the report by the National Policy Board for Educational Administration (2015) and was used with permission.

The National Policy Board for Education Administration (2015) recognized the need for quality leaders and their continued need for growth when they said,

The high turnover rate of educational leaders nationwide points to the complexities, responsibilities, and relentless pressures of the job, and such turnover derails improvement efforts necessary for student learning. Whether they are first-year novices or veterans of the profession, educational leaders need ongoing support to succeed in a job that is dramatically changing. The nature and qualities of work articulated in the Standards serve as a foundation for high-quality professional development opportunities so that educational leaders can continually develop and refine their abilities to excel at their work. As foundational principles of leadership, the Standards can also inform the work of central office administrative leaders and school boards. They communicate what is important about leadership both at the school and district levels. They serve as a guide for central office leaders to develop systems of development, support, and accountability for school-level leadership, ensuring that the central office functions to serve the needs of schools in ways that are beneficial to students. (p. 6)

Notably, this quote supports the idea that school leadership turnover has been a challenge affecting leadership practices that, in turn, have influenced student learning. As noted in Chapter 1, leadership turnover in elementary schools that I have served has been a factor leading to the conduct of this study.

### *Arizona Department of Education ELEVATE Levers*

The Arizona Department of Education (ADE, n.d.) School Support and Improvement department have adopted three levers to illustrate how leadership practices influence school culture and student learning, including (a) talent management, (b) culture, and (c) instructional infrastructure. These levers have been defined in a detailed rubric that includes district and school-level indicators. I have provided the ADE-WestEd definitions of each lever in the next section.

*Talent Management:* Talent management is an organization-wide, holistic system ensuring the right people are in the right positions to help achieve organizational goals. This system includes careful analysis and workforce planning, strategic recruiting and hiring, and ongoing efforts to retain employees through working conditions that ensure engagement, support growth, and development leading to an empowered, motivated, high-quality staff.

*Culture:* The values, patterns of behavior, and customs that prevail among the school community — its students, teachers, staff, families of students, volunteers, and any others with an intimate association with the school.

*Infrastructure:* High-quality Curriculum, high-quality instruction, including an observation and feedback system and a cohesive assessment system focused on data-informed decision-making and data-informed instruction.

### **Leadership Practices for this Study**

To reduce the number of terms, concepts, and areas for school leaders on which I will ask them to focus, based on my experience, I reduced them to two main categories: instructional leadership and managerial leadership. In this section, I have clarified my

perspectives on instructional leadership, managerial leadership, and the National Principal Supervisor Standards in coaching school principals. Based on my experience, discussions with elementary school leaders, the Arizona Department of Education ELEVATE school-improvement program, and the National Policy Board for Educational Administration Professional Standards, I have been using four areas for the last ten years as an elementary school leader and now as I have been working with leaders. The four areas were: climate and culture of learning, data-informed decision-making, monitoring quality instruction, and family and community engagement. Elementary principals have received an abundance of rubrics and criteria for influential school leaders' practices. My goal was to synthesize these rubrics and definitions into a simplified language that was easy to use for participants in this study. To improve their schools, there typically have been four instructional or managerial leadership areas in which leaders consistently have worked—climate and culture, data-informed decision-making, monitoring quality instruction, and family and community engagement. These four areas fit with the expectations at the national, state, and local levels.

As a result, instructional leaders led their schools with a clear vision, mission, values, and beliefs to empower a team to meet shared goals. This definition included a clear focus on learning, student success, and achievement. By comparison, managerial leadership skills were typically related to budget, resources, enrollment matters, and federal/state compliance items. Nevertheless, there were four areas that fell under both leadership skills areas. Those areas included,

1. Climate and culture of learning: School leaders were committed to sustaining a culture of high expectations for learning and the growth of all

students within a respectful, professional learning community for all staff members.

2. **Data-informed decision-making:** School leaders collaboratively used data to make decisions in all areas, such as student attendance, student behavior, formative and quarterly assessments, staff performance, student, family surveys, and any other data available.
3. **Monitoring quality instruction:** School leaders monitored state standards in lesson plans, curriculum, resources, observing instruction, providing feedback, coaching, professional development, and participating in professional learning communities.
4. **Family and community engagement:** School leaders viewed families as partners with the school to understand children's data, growth, and goals. A school was considered a place where families came for resources. For community engagement, the focus was on student retention, marketing, and the school's growth. Community engagement involved community partnerships and awareness.

### **Previous Cycle of Action Research**

During Cycle 1, effective leadership practices were explored with a focus on data-informed decision-making to improve, support, and coach school leaders to reduce the disparity in academic performance and student outcomes in our underserved populations. This action research project was conducted to try concrete methods for using data-informed decision-making in school settings. Additionally, I wanted to expand my

knowledge about leading change, and strategic planning for schools in underserved populations focused on equity.

In my professional role, my responsibility has been to coach our leaders to become instructional and managerial leaders. For Cycle 1, I conducted professional development using the CLC (Lipton & Wellman, 2012) in conjunction with data-informed decision-making with one school leader, coaching the leader on how to create teams using Lencioni's (2002) teamwork ideas, and implementing the school improvement cycle mandated by the Arizona Department of Education. The intervention focused on developing one leader's knowledge, competencies, and skills to work toward systemic change within her school. The following research questions guided the study.

RQ 1: How did the one-on-one coaching influence the school leader's understanding of the Collaborative Learning Cycle?

RQ 2: To what extent did the collaborative, data-informed decision-making professional development influence the school leader's actions to set up a system of the collaborative decision-informed process with the school team?

RQ 3: How did the one-on-one coaching affect the school leader's understanding of high-performing teams' seven characteristics?

For this portion of the action research cycle, the intervention was implemented with one school leader who served in a community with predominantly Spanish-speaking families. The school leader had a strong managerial leadership background and wanted to continue to build her instructional leadership knowledge and skills. She shared that she was eager to learn and has not been through a formal coaching process on the CLC. The school has been an underperforming school moving from an F-rated school to a C-rated

school by the Arizona Department of Education. The school leader wanted to continue this positive trajectory of moving the school academically and wanted more support in data-informed-decision making.

As the researcher, I developed the CLC professional development sessions. I met with the school leader periodically throughout the semester as I conducted the training in three steps. The initial goal was for the school leader to implement each step after the training. Also, as the researcher, I met with the school leader once a week for individual coaching sessions.

The mixed-methods action research (MMAR) approach investigated the collaborative, data-informed decision-making process to understand how it supported a school leader in building trust with her team to improve student outcomes. For the qualitative data collection, a pre-and post-intervention interview was conducted with the school leader to determine the leader's understanding of the CLC and the school leader's need for one-on-one coaching. The participant responded to 12 interview questions at the beginning and end of the study, focusing on leadership practices. The pre-and post-interview responses were compared to examine the coaching's effectiveness and determine whether there was new learning or any measurable actions the school leader implemented based on the coaching. For the quantitative measure, the school leader completed 6-point Likert-scale items on a survey measuring the seven characteristics of high-performing teams using *The Scaled Group Survey* developed by Lipton & Wellman (2012). The school leader completed the survey before and after the professional development sessions on the CLC and individual coaching sessions to determine the effectiveness of the one-on-one coaching for collaborative data-driven decision-making.



The key findings from Cycle 1 were that the new leader claimed that she needed support and coaching. For example, based on the interview, the participant shared that she did not know what she did not know. For example, the participant knew it was essential to look at data to make decisions as indicated in the pre-interview; however, she shared that she did not know how to implement data-informed decision-making with a collaborative approach until after the coaching and training. After the intervention, she described the steps and how she would implement them in the future. Thus, as a new leader, she commented that she needed training and support to implement these practices. Further, the participant shared she needed someone to help her set up these systems and hold her accountable. Sometimes, I would refer her to another leader who had expertise in the areas that we were discussing. Thus, leaders can save time by learning from other successful leaders' different approaches, methods, and practices to meet the school's vision, mission, and goals. Therefore, based on the results, the three-pronged approach to supporting school leaders will be effective and include professional development using CLC, a CoP of school leaders with varying strengths and experiences, and one-on-one coaching.

## CHAPTER 3

### METHOD

The (overly) simple distinction between the two is that quantitative research is about numbers (the “what,” “where and “when” questions) and qualitative research is about words and stories (the “how,” and “why” questions).

—Dan W. Butin

In this mixed-methods action research (MMAR) study, the intervention was implemented to address the challenge of supporting and retaining effective elementary school principals in historically underserved communities. Specifically, the study provided concrete methods for building an effective, collaborative team and high-functioning Community of Practice (CoP) (Wenger, 1998) to foster effective leadership and team support. In doing so, I investigated how the collective, data-informed decision-making process supported and built capacity in school principals to develop a collaborative team to improve student outcomes. The project's purpose was to support school principals in developing the knowledge, competencies, and skills required of influential school leaders as they work toward systemic change within their schools. This study implemented a three-pronged intervention, including professional development, CoP, and one-on-one coaching for school leaders to support and retain elementary school principals.

Using a concurrent mixed-methods design, qualitative and quantitative data were gathered and analyzed simultaneously at the conclusion of the intervention (Creswell & Guetterman, 2019, Ivankova, 2015). This chapter describes the setting, participants, intervention, data collection and analysis procedures, and all the other methods associated with this mixed methods action research study.

## **Action Research and Mixed Methods Action Research**

Action research is a collaborative effort between researchers and participants to solve an organizational issue and implement change within the educational context. As Given (2008) described, when conducting action research, the organizational stakeholders' participation is equally as important as the researcher's involvement. Further, Given maintained that action research includes following a collaborative approach between participants and researcher. The action research cycle is composed of four stages: planning, acting, observing, and reflecting, and then cycling back to planning. Mertler's (2020) definition is similar, indicating action research goes through four stages: planning, acting, developing, and reflecting. A key component of action research is allowing participants to review the data to clarify, add more information, and share their perspectives. It is also essential to debrief participants on the findings to facilitate the next cycle of work. Employing these steps promotes a higher probability that the action research process includes the participants' perspectives. Dick (2014) emphasized another critical point indicating action researchers want to develop competency in practical challenges to act to improve an organizational challenge.

Mixed methods action research (MMAR) includes gathering quantitative and qualitative data to aid in answering the research questions. After gathering the two data types, they were brought together to understand the outcomes (Ivankova, 2015). In bringing the data together and interpreting the outcomes, researchers examine the complementarity of the data, whether the data points to similar interpretations of the outcomes or divergences in the interpretations (Greene, 2007). By using two kinds of

data, researchers benefit from the strengths of each. For instance, qualitative data from interviews are used to aid the understanding of the quantitative data from surveys.

In this mixed-methods action research project, leaders were supported as they engaged in collaboratively solving problems. As a result, it was anticipated there would be less turnover in our schools with the greatest need for our best leaders, and this support can be replicated across my organization.

### **Setting**

This study occurred from the summer of 2022 through the fall of 2022. I examined nine elementary school principals' leadership practices and supports in a public charter school system in schools across Arizona. The nine school leaders serve in schools considered alternative and/or Title I schools. Of the nine schools, four are considered alternative, which is defined as having 70% or more students who are exhibiting homelessness, learning English, needing exceptional student services, living in poverty, and demonstrating increased emotional demands such as needing counseling or social services. Further, all nine schools are classified as Title 1 schools serving a high percentage of students that qualify for free or reduced lunch in communities with low-income families. As noted in Chapter 1, during my time in the organization, we have lost 14 school leaders in elementary schools over the past six years.

### **Participants**

In all, there were nine participants in the study. They were school principals at nine different elementary schools with varying experience, expertise, school communities, and student demographics. The nine principals averaged 7.89 years of experience as principals with a SD of 5.86, and they averaged 16.00 years of experience

as educators with a SD of 8.27. Of the nine principals, two were new in the 2022-2023 school year, and one leader was new during the pandemic school year of 2020-2021, which resulted in three new school leaders among the nine. There were five females, three males, and one non-binary individual. The racial and ethnic backgrounds of the nine leaders were: three White, four Hispanic, one Asian, and one Black school leader. I supervised and coached the nine diverse, experienced, elementary school leaders. I presented my project and answered questions during a regularly scheduled elementary school leader meeting to recruit them as participants in the study. I shared a slideshow presentation, the recruitment letter, and consent forms at the meeting. All nine principals decided to participate.

### **Role of Researcher**

In this action research study, my role was to implement the professional development component, the Collaborative Learning Cycle (CLC), and facilitate the steps in a group setting, implement the five functions of an effective team during the CoP, coach, and observe each of the participants between the CoP sessions. Between CoP sessions, school leaders implemented the CLC approach with their school teams. Notably, school leaders in the CoP observed each other facilitate portions of the CLC. In addition, I was a participant-observer in the CoP and collected data throughout the process. As the action researcher, I administered the post-intervention survey and the retrospective, pre-intervention survey; conducted interviews after the intervention; kept a research journal; gathered observation notes; collected artifacts and gathered CoP agenda notes. There may have been a conflict of interest with the participants because I supervise the elementary school leaders and the schools, but these effects have been mitigated

because they can be viewed as part of the school reporting process as noted next. Notably, the assessments I utilized are part of the school year's routine to measure the school goals and improvement plan. Coaching sessions and observations are regularly used to assess schools' goals progress, leadership development, and growth. The school principal reports these results to several federal and state accountability agencies to meet federal and state funding requirements.

### **Intervention**

My intervention was titled, "*Got Juice? Jam Session!*" The implementation of the Community of Practice (CoP) through the Collaborative Learning Cycle (CLC) focused on effective leadership practices informed by ADE Elevate, National Principal Standards, and supporting research. Data-informed decision-making and building a team simultaneously through three main areas of practice were incorporated, including (a) professional development on the CLC, (b) an online and in-person Community of Practice, and (c) one-on-one coaching for school leaders. Based on my Cycle 1 research literature studies, leaders needed professional development, other leaders with whom they could learn and collaborate regularly, and one-on-one support.

### ***Participation in the Various Components of the Intervention***

In the following section, I have provided data illustrating the extent to which study participants engaged in various components of the intervention, including professional development, the community of practice, and one-on-one coaching, along with the total number of hours of participation. Specifically, five of the nine participants attended and participated in all professional development sessions. Due to prior commitments, two participants could not attend the three-day summer NWEA MAP

conference. During the next Community of Practice session, we shared the highlights from the summer training to update the two leaders who had not attended. One participant missed the Collaborative Learning Cycle professional development session due to illness. Later, I delivered the CLC training one-on-one with the leader on their campus. The same school leaders missed one CoP because it was in the same time frame as the professional development, and another participant missed a different CoP session. With respect to the one-on-one coaching participation, the three leaders who received the most one-on-one support were new leaders or the mentor leader who works closely with all leaders as peer support in data-informed decision-making.

In Table 2 below, represents the number of hours of support each participant received, including the researcher-participant's hours for facilitating the support for each leader to build self-efficacy in data-informed decision-making and team support to develop and retain strong, effective leaders.

**Table 2**

*Participants' Hours of Participation in Three Types of Support*

School Principal	Professional Development	Community of Practice	One-On-One Coaching	Total Hours
Principal A	29.50	11	21.50	62.00
Principal B	29.50	11	18.00	58.50
Principal C	22.00	8	21.00	51.00
Principal D	29.50	11	21.50	62.00
Principal E	9.50	9	18.00	36.50

Principal F	9.50	9	15.50	34.00
Principal G	29.50	11	18.50	59.00
Principal H	29.50	11	18.50	59.00
Principal I	29.50	11	24.00	64.50
Researcher/Participant	29.50	11	176.50	217.00

As the table indicated, participants chose to engage in varied levels of support. The intent was for each leader to receive the same level of support in the three areas regardless of their experience or effectiveness. Nevertheless, due to scheduling conflicts, unplanned events, or more needs of leaders, not all leaders received the same number of hours of support. However, the number of hours of support did not influence the participants' results in the study.

***Professional Development on the Collaborative Learning Cycle***

This action research project's design used Lipton & Wellman's (2012) collaborative learning cycle (CLC) as a guide to teach and facilitate data-informed decision-making for school leaders. The CLC helped to inform participants about effective leadership practices related to data-informed decision-making to address the needs at each school and simultaneously provided support to school leaders.

The CLC encourages leaders to reflect on their current practices and collaborate with other leaders or team members to continue learning and growing. The CLC encourages a change in thinking from professional autonomy to a collaborative approach; from knowledge delivery to knowledge construction; from externally mandated



improvement to internally motivated improvement; and from a quick-fix mindset to continuous growth.

Lipton & Wellman's (2012) CLC is about creating and leading cultures of inquiry by developing high-performing teams. The following characteristics define high-performing teams: maintaining a clear focus, embracing a spirit of inquiry, putting data at the center, honoring the commitments of learners and learning, cultivating relational trust, seeking equity, and assuming collective responsibility (Lipton & Wellman, 2012). The CLC consists of three phases. During the first phase, Activate and Engage, team members are not yet looking at data; instead, they are getting cognitively and emotionally ready to examine the data. In the second phase, Explore and Discover, the data are introduced, and the structured analysis takes place. Finally, the Organize and Integrate phase occurs when the analysis is concluded, and the next steps are determined. Throughout the CLC steps, leaders guide and facilitate the process. I coached leaders through this process using a step-by-step approach, which included day-to-day practices to meet the focus of leaders' identified goals.

### ***Community of Practice***

Each leader with whom I have worked has particular strengths upon which we could capitalize and share with other leaders, so they were working smarter, not harder. Collaboration is the key. This is where the Community of Practice (CoP) became part of the intervention. The CoP framework supports the concept that leadership is about decision-making in a collaborative environment. Further, the CoP affords opportunities for developing a solid team with a common vision working towards a shared goal, which serves as the basis of an effective leader. The CoP informed this study on developing

collaborative relationships between leaders and school staff members to improve their leadership practices.

### ***The Five Functions of a Team***

Lencioni's (2005) Five Functions of a Team supported the seven actions of high-performing groups from the CLC. The Five Functions of a Team were woven into the CoP. There were activities to build trust, master conflict, achieve commitment, embrace accountability, and focus on results during the CoP.

### ***One-on-One Coaching***

For the one-on-one coaching, I worked closely with each school leader between CoP meetings to provide feedback and coaching on implementing the CLC and data-informed decision-making at the school sites. These coaching meetings consisted of observation, modeling if needed, and co-teaching the CLC with the school leader. I also incorporated peer observations with all participants so leaders could provide feedback on the CLC implementation. Using this intervention, I aimed to prepare school leaders with the most effective practices that influential leaders have accumulated over time through professional development, CoP, and coaching.

### **Instruments and Data Sources**

As previously stated, this is a mixed-methods design where qualitative and quantitative data are gathered. The concurrent, mixed methods design was used to collect quantitative data and qualitative data, and then analyze them and integrate the outcomes (Creswell & Guetterman, 2019; Ivankova, 2015). As Ivankova (2015) described,

Qualitative data often receives more emphasis than does quantitative data in MMAR study, due to the focus on specific problems in a professional context and

the need to explore all stakeholders' perspectives, including their attitudes, beliefs, and feelings about the issue of interests (p. 232).

This was an important point because there were several qualitative measures to integrate with the quantitative measure. I have provided the Data Collection Matrix, on the next page.

**Table 3**  
*Data Collection Matrix*

<b>Research Question</b>	<b>Theory/Concept/Framework</b>	<b>Quantitative</b>	<b>Qualitative</b>
RQ 1: How and to what extent does participation in the professional development, a CoP, and coaching influence school leaders' perceptions of (a) knowledge and (b) skills about using data informed decision making?	Community of Practice Social Cultural Theory Collaborative Learning Cycle	Survey	Observations Interview Artifacts Researcher Journal
RQ 2: How and to what extent does participation in the professional development, a CoP, and coaching influence school leaders' perceptions of (c) attitudes and (d) self-efficacy about using data informed decision making?	Self-Efficacy	Survey	Observations Interview Artifacts Researcher Journal
RQ 3: How and to what extent does participation in the professional development, a CoP, and coaching influence school leaders' perceptions of (e)	Community of Practice Social Cultural Theory Collaborative Learning Cycle Self-Efficacy	Survey	Observations Interview Artifacts Researcher Journal

support in their leadership role and (f) intention to stay in the profession?

RQ4: How and to what extent does participation in the professional development, a CoP, and coaching influence school leaders' implementation of a team-based approach to using data-informed decision making?

Collaborative Learning Cycle

Survey

Observations  
Interview  
Artifacts  
Researcher  
Journal

### *Description of Quantitative Instruments*

As part of the professional development process, I used a self-assessment survey developed by Lipton & Wellman (2012) called the Scaled Group Inventory, which measures the seven critical areas for high-performing groups. This data was not used in the dissertation. Instead, it was used with my participants for feedback purposes.

For the dissertation quantitative data collection, I developed a survey to ensure the assessment of the relevant constructs from the research questions. Specifically, I developed five items for the post-intervention assessment to assess knowledge, skills, attitudes, and self-efficacy for using data-informed decision-making. In addition, I crafted three items on principals' perceptions of support during the intervention and three on principals' intention to remain in their role. Finally, I developed five items on their use of a team-based approach to data-informed decision-making with their school team. I modified the items that assessed knowledge, skills, attitudes, and self-efficacy for the retrospective, pre-intervention assessment. An example of a skills item from the post-

intervention assessment was, “After participating in the project, I have the capacity to use data-informed decision-making at my school site.” By comparison, the parallel item for the retrospective, pre-intervention assessment was, “Prior to participating in the project, I had the capacity to use data-informed decision-making at my school site. The complete set of post-intervention assessment survey items and the entire set of retrospective, pre-intervention survey items have been provided in Appendix A.

Using the retrospective, pre-intervention assessment process, which was conducted one week after the post-intervention assessment, avoided ‘response shift bias,’ in which participants would otherwise change to more stringent guidelines when making judgments at the post-intervention assessment, i.e., shifting the criteria by which they make judgments (Hill & Betz, 2005; Lam & Bengo, 2003). For the retrospective, pre-intervention assessment, participants were asked to think back prior to their participation in the intervention and assess their levels of knowledge, skills, and so on.

Participants responded to the items using a 6-point Likert scale where 6 = *Strongly Agree*, 5 = *Agree*, 4 = *Slightly Agree*, 3 = *Slightly Disagree*, 2 = *Disagree*, and 1 = *Strongly Disagree*. Finally, I compared the retrospective, pre-intervention survey responses with the post-intervention responses to determine whether there were changes in the scores.

### ***Description of Qualitative Instruments***

I used the post-intervention interviews as part of the qualitative portion of this study that focused on the effectiveness of the CoP’s support, self-efficacy, collaboration; and to determine whether there was new learning and also measurable action the school leader took to implement the process at their schools. The post-intervention interview

consisted of seven questions with two follow-up items. Examples of two questions were, “Tell me about your understanding of data-informed decision-making,” and “Tell me about your abilities for using data-informed decision-making.” The complete set of interview questions has been provided in Appendix E.

In addition, I included observations, transcriptions of the CoP meetings and one-on-one coaching described in my research journal, and finally, artifacts from the professional development and CoP sessions.

### ***Grounded Interpretive Approach***

I used the grounded interpretive approach to analyze the qualitative data (R. Buss, personal communication, January 15, 2022). Grounded interpretation draws upon grounded theory. Charmaz (2014) maintained,

Grounded Theory consists of systematic yet flexible guidelines for collecting and analyzing qualitative data to construct theories from the data themselves.

Grounded Theory begins with inductive data, invokes iterative strategies of going back and forth between data and analysis, uses comparative methods, and keeps you interacting and involved with your data and emerging analysis (p. 1).

Thus, grounded interpretation is a qualitative approach, which allows researchers to construct meaning and develop insights while analyzing the data to generate a sound interpretation. Further, as described by Coghlan & Brydon-Miller (2014) a grounded theory approach may use the constant comparative technique where there is a continuous back and forth between new data interpretation and determining whether it fits an already existing code/category/theme, or a new code/category/theme is required because the



## **Procedure**

This study began in the summer of 2022. To prepare for the collaborative meetings, two experienced participants in data-informed-decision provided feedback to me about the professional development slideshow and CoP for the whole group. This was a pre-planning meeting on how I would facilitate the PD and CoP. I shared the purpose of the meeting with the two participants who were going to provide me feedback before I presented it to the whole group. In addition, I explained that I needed their expertise to help me examine our current data analysis cycles and wanted their input on how we should move forward before meeting with the larger group. The two participants prepared for the meeting by reviewing the school improvement cycle and the Collaborative Learning Cycle. I reserved a conference room at our district office, created a slideshow, ordered a continental breakfast, and gathered the materials, such as the copies of the improvement cycle chart. The overall learning target for the session was to compare and contrast our current Collaborative Learning Cycle data analysis process with the overall improvement cycle for the data-informed decision-making process to determine our next steps for our elementary team's data-informed decision-making processes for the 2022-2023 school year. The following were the sub-objectives to meet the overarching target: (a) explore the improvement process, (b) examine the practices, and (c) discuss and reflect on current practices and future practices. In our discussions, we considered the CLC to be embedded in the school improvement cycle, and our instructional monitoring cycle is also embedded in the school improvement. We noticed that we had missing parts in our processes. Therefore, we determined that we needed a more systematic, consistent, and clear process for our data-informed school improvement



process. This small group met later in June for a full day to process the information we learned at that point. An assessment calendar was created, types of data and data analysis cycles timelines were determined. Finally, we planned a meeting with the whole group to provide professional development on the CLC with all elementary principals and their instructional coaches in July. Also, we determined that we needed to build assessment literacy with our district and school teams. We each signed up for the 10-hour class offered on the Harvard website to deepen our understanding of the school improvement cycle before meeting with the larger group in July.

To provide some background information for all participants on current research, how to read and use data reports from my organization's adopted formative, benchmark, and summative assessments, participants attended a three-day NWEA Fusion conference where they gained fresh ideas, new perspectives, and collaborated with other organizations that use the NWEA assessment to make data-informed decisions, establish goals, and determine action plans. The other purpose of the conference was to begin team building, where participants form trusting relationships, learning together around a common goal. The conference occurred in Phoenix, Arizona, on June 28-30, 2022. Therefore, participants met for dinner one evening after the conference to discuss, debrief, and get to know each other.

To debrief on the new learnings, review the current data systems using a rubric provided by ADE, and determine the next steps for the team of elementary principals, the participants, met in July for two days. The first day was centered around the Collaborative Learning Cycle professional development, where training was provided after the NWEA Fusion conference. The second day took place later in July, where we

set team goals, established systems, developed expectations, and devised action plans based on the new knowledge from the NWEA conference; their new understanding is based on the CLC work; ADE rubrics; and CoP discussions. During these two days of in-person preparation, team-building activities were infused throughout the workshops.

Regularly, the elementary school leaders meet monthly in person, which is a part of their responsibilities as school leaders in the organization. However, for this research project, there was one additional virtual CoP per month that was incorporated into the study. In August, there was a virtual CoP lasting one hour and one in-person CoP where the CoP reflected and followed up on the decisions and discussions from the July workshops. In addition, I provided individual coaching sessions in August where I observed some leaders implement the CLC and provide immediate feedback. Also, part of the 1:1 coaching included 90-day plans and goal setting.

In August and September, all participants had one virtual and in-person CoP meeting. In October, the leaders conducted peer visits. Two to three school leaders visited another school and provided feedback on the CLC and other leadership practices, such as classroom observations. Also, I continued to provide 1:1 coaching and observations with school leaders. This same procedure was followed each month.

In November, I conducted the post-intervention interviews and collected retrospective, pre-intervention data using the post-intervention survey during a scheduled 1:1 meeting with each leader. Then, I coded and analyzed the data using SPSS to obtain descriptive statistics and used the grounded interpretive method to analyze qualitative data. See Table 3 for a timeline of the procedures.

**Table 4***Timeline and Procedures for the Study*

Timeframe	Actions	Procedures
May/June 2022	Meet with District Leadership to request permissions for the study	Schedule a meeting with District Leadership and follow the protocol to present at the Governing Board meeting if appropriate
May/June 2022	Recruit Participants	Present and share information about the study and recruitment materials at a regularly scheduled School Leader meeting
June 2022	Prepare Professional Development with Experienced School leaders (2 Participants)	Presentation Prepare agenda, handouts, engagement protocols, and strategies for training
June 28-30, 2022	Participants attend Three Day NWEA Data Conference	NWEA is a national conference taking place in Arizona this year on how to read data reports and analyze data to set goals and action plans. NWEA is the assessment used in the organization for elementary schools
July 11, 2022	<i>“Got Juice? Jam Sessions”</i> In-Person Professional Development	1 Day training on Collaborative Learning Cycle infused with team building activities from the 5 Functions of a Team Determine Goals and Focus of NWEA Conference
July 2022	<i>“Got Juice? Jam Sessions”</i> In-Person Community of Practice	Review data system rubric from ADE and decide on goals and criteria for successful data-informed decision making Determine concrete actions for data-informed decision making
August 2022	1 Virtual CoP and 1 in-Person CoP	Participants share and discuss CLC preparation, implementation, documents, and ideas Set up peer observations
August 2022	Observation of CLC	The researcher will observe and coach CLC sessions on campus for school leaders
August 2022	Provide individual coaching sessions	One-one-coaching on CLC and 90 Day Plan sessions

September 2022	1 Virtual CoP and 1 in-Person CoP	Participants share and discuss CLC preparation, implementation, documents, and ideas
September 2022	Observation of CLC	The researcher will observe and coach CLC sessions on campus with leaders
September 2022	Provide individual coaching sessions	One-one-coaching on CLC and 90 Day Plan
September 2022	Researcher conducts coding on qualitative materials	Code CoP transcriptions, observations, agenda notes, and research journal
October 2022	1 Virtual CoP and 1 in-Person CoP	Participants share and discuss CLC preparation, implementation, documents and ideas
October 2022	Peer visits	The researcher takes notes on peer visits and participants' feedback to each other
October 2022	Observation of CLC	Researcher will observe and coach CLC sessions on campus of new leaders
October 2022	Peer visits	Researcher takes notes on peer visits and participants feedback to each other
October 2022	Provide individual coaching sessions	One-one-coaching on CLC and 90 Day Plan
November 2022	Participants complete Post Survey	Quantitative data collection will take place in the last CoP Researcher administers surveys
November and December 2022	The researcher conducts post-interviews with participants and collects retrospective pre-intervention data	Campus visits and one-on-one meetings with the school leaders
January 2022	Researcher codes/Analyzes Qualitative data	The researcher will use SPSS to run descriptive and inferential statistics and use the Grounded Interpretive Method to analyze qualitative data

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## CHAPTER 4

### DATA ANALYSIS AND RESULTS

Trust is about vulnerability. Team members who trust one another learn to be comfortable being open, even exposed, to one another around their failures, weaknesses, even fears.

—Patrick Lencioni (2018, June 14)

In the previous three chapters, the need and purpose for developing, supporting, and retaining effective school principals serving historically marginalized communities who are skilled in instructional leadership and management was outlined. The theoretical frameworks literature was reviewed informing the rationale and the methodology of this project. Then, the three-part approach to supporting school leaders in a data-informed decision-making process were described to build self-efficacy and develop a collaborative team of school principals to build a support system to improve student outcomes. In this chapter, I present the data analysis processes and procedures. Then, I share the quantitative and qualitative data results. Finally, I have included the summary of my research notes and journal. Using the concurrent, mixed methods design, I collected quantitative and qualitative data to analyze and integrate the data to answer the four research questions (Creswell & Guetterman, 2019; Ivankova, 2015).

RQ 1: How and to what extent does participation in professional development, a CoP, and coaching influence school leaders' perceptions of (a) knowledge and (b) skills about using data-informed decision-making?

RQ 2: How and to what extent does participation in professional development, a CoP, and coaching influence school leaders' perceptions of (c) attitudes and (d) self-efficacy about using data-informed decision-making?

RQ 3: How and to what extent does participation in professional development, a CoP, and coaching influence school leaders' perceptions of (e) support in their leadership role and (f) intention to stay in the profession?

RQ4: How and to what extent does participation in professional development, a CoP, and coaching influence school leaders' implementation of a team-based approach to using data-informed decision-making?

The overarching goal of this study was to determine how professional development, the COP, and one-on-one coaching influenced school principals' plans to remain in the profession and to understand whether these supports built effective leadership practices and self-efficacy.

### **Quantitative and Qualitative Data Sources**

As described previously, this is a mixed-method design research project where quantitative and qualitative data were collected to integrate information to answer the research questions.

#### ***Quantitative Data***

Quantitative data were gathered using three surveys. The first was a demographic survey to understand and describe participants' backgrounds and experiences. This survey was administered independently of the other surveys to keep any identifying information separate from the anonymous surveys. The second survey was a post-intervention survey. At the end of the “Got Juice? Jam Sessions” intervention project, during a regularly scheduled meeting, the participants were asked to complete the post-intervention survey, which contained 31 questions on which the school principals rated their perceptions with respect to the following constructs: (a) knowledge, (b) skills, (c) attitudes, (d) self-

efficacy in data-informed decision making, (e) leader support, (f) intent to stay in the profession, and (g) implementing the team-based approach for data-informed-decision-making using a 6-point Likert scale. Each participant completed the survey on their own time. The third survey was administered one week later at another previously scheduled online meeting. The final survey was a retrospective, pre-intervention survey where the participants answered 20 questions that assessed their perceptions of (a) knowledge, (b) skills, (c) attitudes, and (d) self-efficacy in data-informed decision-making prior to the intervention. For this survey, participants were instructed to think back about themselves before participating in the professional development, “Got Juice? Jam Sessions!”(CoP) and the one-on-one coaching sessions and evaluate their perceptions about the four constructs using the identical 6-point Likert scale. This survey was considered to be a pre-intervention survey, which was used to compare participants' perceptions before and after the intervention.

### ***Qualitative Data***

The qualitative data sources were post-intervention interviews with each participant. These interviews were conducted one-on-one, virtually, or in person and contained seven open-ended questions. Due to scheduling conflicts, seven of the nine interviews were conducted after a day-long school leader meeting, each scheduled back-to-back. This was not ideal, but it was the only efficient option. Other qualitative data that will be summarized included the researcher's journal, which contained anecdotal notes, meeting notes, notes from conversations or emails during coaching sessions, notes on the Community of Practice, and notes on the professional development sessions.

## **Data Analysis Procedures**

Following the intervention, the quantitative and qualitative data were collected and organized. Then, I analyzed my quantitative data before moving to my qualitative data analysis to bring both data types together to interpret the results.

### ***Quantitative Procedures***

With each of my quantitative surveys, the results were transferred into an Excel Spreadsheet where the data was organized so the data could be inputted into SPSS (IBM SPSS Statistics, Version 28.0, 2022). First, the anchor word ratings were changed from the Likert scale of Strongly Agree, Agree, Slightly Agree, Slightly Disagree, Disagree, and Strongly Disagree to numbers to calculate means in SPSS to the following values: 6 = *Strongly Agree*, 5 = *Agree*, 4 = *Slightly Agree*, 3 = *Slightly Disagree*, 2 = *Disagree*, 1 = *Strongly Disagree*. The participants' unique identifier names were matched in both surveys to compare the retrospective, pre-intervention, and post-intervention surveys. Then, the Excel file was transferred to SPSS and saved as an SPSS file to conduct the reliability analyses of the scales for the retrospective, pre-intervention, and post-intervention surveys using Cronbach's alpha reliability coefficients. Finally, descriptive statistics were calculated to determine the means and standard deviations for each construct before and after the intervention.

### ***Qualitative Procedures***

For my qualitative data, I listened to the nine interviews to verify that the transcripts were accurate and that each speaker was identified correctly. Then, I used Qualitative Data Analysis Software (CADAS) and HyperRESEARCH, software version 4.5.4., imported the interviews, and analyzed my data using the four components to



analyze the data. These four components are (a) organize, (b) annotate, (c) search, and (d) display the data. I learned through the analysis of my qualitative data how to reduce the data by coding, tagging, and indexing the data. Additionally, I used the software as a 'metacognitive tool' to expand on the data by adding thoughts, notes, and references to the literature. However, it is essential to note that this software option cannot computerize data. It is more functional than intuitive. Its purpose is to make it easy for the researcher to organize, search and display the data. The software's effectiveness depends on the user and their analysis, not the program. Also, the software program will not save time, but it will help to work with all the data in one place to make connections and show progress.

Silver and Lewin's (2014) chapter one was examined on Qualitative Data Analysis and CAQDAS to help understand how to use the software program. Then, to code the interviews from the research, I used HyperResearch, employing the constant comparative technique where there is a continuous back and forth between new data interpretation and determining whether it fits an already existing code/category/theme, or a unique code/category/theme was required because the element does not fit previously determined codes/categories/themes (R. Buss personal communication, Jan.15, 2023).

The following Table 5 illustrates the coding methods used for the four-step coding process.

**Table 5**

*Approach to Dissertation Data Analysis*

Steps	Approach One
First Cycle Coding	Initial with InVivo Coding
Transition Process	Code Landscaping/Frequency Charts/Code Mapping

Second Cycle Coding	Process Coding (Gerunds “-ing” words)
Transition Process	Code Landscaping/Frequency Charts/Code Mapping
Third Cycle Coding	Focused Coding
Third Cycle Cumulative Coding Method	"Top 10" List

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### **Approach One**

For the first coding cycle, the Initial Coding method was used, defined as open coding, which is used with the grounded theory method. An open-ended approach is a good starting point for coding. As the researcher, I am open to any direction that the data may explore, and the codes can be revised throughout the process as the analysis continues (Saldaña, 2021). I thought this would be a good starting point, and I used In Vivo Coding simultaneously, where I used explicit language from the participant. In Vivo Coding can be used with Initial or Process coding. It is also known as "verbatim coding" and is used in the grounded theory approach for novice researchers (Saldaña, 2021). As I completed the transition process of Code Mapping, I found the Initial Coding process helpful in understanding where my data was taking me as I revised codes and created categories. The categories that emerged are topics that have appeared in my literature reviews. The transition code mapping helped me categorize my 63 codes under six categories.

I decided to incorporate Process Coding independent from my Initial and In Vivo coding so I could concentrate on the action words of the participants to see if I would come up with new codes and a different perspective of the interview transcripts. This extra step helped me examine the participants' words in a new way. I had many of the

same codes, but 40 new codes emerged through coding. I used the Code Mapping transition process again before moving to my second coding cycle.

The second coding process used was the Focused Coding method, also known as "selective coding," to categorize the qualitative data. This method helped me determine the most frequent codes to create categories. As Charmaz (2014) states, focused coding "requires decisions about which initial codes make the most analytical sense" (p.138). From this process, I created six categories to sort my 103 codes.

Finally, the "Top Ten" List was used to extract ten quotes from the interview transcript. I arranged them sequentially to see the data from a different perspective and identify the themes that emerged from the qualitative data.

Completing the different coding processes was an effective way of looking at the data from different perspectives. The Initial Coding process, where I included In Vivo codes, helped me get started on the coding process and be open to patterns or themes. However, I realized that using Process Coding helped me identify the actions in the process, which is essential to my study because I was teaching processes to my participants, and looking at the data in this way, helped to see if the processes and steps came through in the qualitative data. The transition process helped me to organize my thinking by categorizing and using this to organize my data. Finally, cumulative coding methods helped me find the data's themes.

Using the grounded interpretation as my qualitative approach allowed me to construct meaning and develop insights while analyzing the data to generate a sound interpretation. Further, as described by Coghlan & Brydon-Miller (2014), the grounded theory approach may use the constant comparative technique where there is a continuous

back and forth between new data interpretation and determining whether it fits an already existing code/category/theme or a new code/category/theme is required because the element does not fit previously determined codes/categories/themes. Therefore, I used parts of the grounded theory process, such as the constant comparative method with my qualitative data, by coding my interviews to find patterns and themes where I developed codes using a concept or label, categorized these codes into higher-level categories, and aggregated the categories into themes. I did not use the grounded approach to develop a theory. Instead, I used aspects of it to develop a grounded interpretation of the qualitative data. I examined the categories to determine what emerged from the content.

In my research journal, I took brief notes periodically throughout the process after meeting or talking with a school leader. Electronically, I kept track of every professional development session with the Google slideshow, handouts, and agenda notes. I repeated this tracking for the in-person, online Community of Practice sessions and the one-on-one coaching meetings with agenda notes and links to resources or planning tools. I summarized these notes to supplement my quantitative and qualitative data.

### **Quantitative Data Results**

The quantitative data sources were used to answer all four of my research questions using the analysis of the survey data.

### ***Reliabilities of the Survey Instruments***

In this section, I have presented a table of Cronbach's coefficient  $\alpha$  reliability values for all the scales (constructs) on the survey instruments. For participants' perception of their (a) knowledge, (b) skills, c) attitudes, and (d) self-efficacy about using data-informed decision-making, I have provided reliabilities for both retrospective, pre-

intervention, and post-intervention surveys because those constructs were assessed on both occasions. In general, those reliabilities were relatively high and ranged from .88 to .99. Reliabilities exceeding .70 have been considered to be acceptable, and all of these reliabilities exceeded that value. Additionally, I presented reliability data on school leaders' perceptions of (a) support in their leadership role and (b) intention to stay in the profession, and (c) using a team-based approach, which ranged from .80 to .96. See Table 6 for the details.

**Table 6**

*Reliability of Survey Constructs*

	Pre-Intervention Cronbach's alpha	Post-Intervention Cronbach's alpha
Knowledge	0.99	0.96
Skills	0.99	0.94
Attitudes	0.88	0.92
Self-Efficacy	0.95	0.88
Support	-	0.80
Intent	-	0.96
Team-Based Approach	-	0.88

*Descriptive Statistics for Survey Measures*

In Table 7 below, I have presented descriptive data, including means and standard deviations for participants' perceptions of the support they received, their intention to remain as a school leader, and their use of the team-based approach, which were only

assessed at the post-intervention. Again, these scores were quite high, with all three means above 5, indicating participants agreed with the statements.

**Table 7**

*Means and Standard Deviations for Retrospective Pre-Intervention and Post-Intervention*

*Scores for the Dependent Variables from the Surveys (n = 9)*

Perceptions about...	Pre-Intervention		Post-Intervention		GAINS
	M	SD	M	SD	
Knowledge	4.29	1.28	5.22	0.45	0.93
Skills	4.22	1.31	5.18	0.49	0.96
Attitudes	4.87	0.62	5.24	0.68	0.37
Self-Efficacy	4.40	0.93	5.20	0.41	0.80
Support	-	-	5.38	0.42	
Intent	-	-	5.22	0.08	
Team-Based Approach	-	-	5.31	0.44	

### **Qualitative Data Results**

The qualitative data from the interviews and researcher notes provided information helpful in answering the four research questions.

#### ***Qualitative Data Results from Interviews***

The results of the nine interviews with the principals indicated the importance of the three levels of support to grow, retain, and build trust and self-efficacy with school principals to improve student outcomes. In addition, four themes emerged from the coding of the transcripts that exhibited the essential components of building and retaining effective leaders. The themes and assertions have been summarized in Table 8.

**Table 8**

*Themes \*, Theme-related Components, and Assertions*

Themes and Theme-related Components	Assertions
<p><i>Relationships and trust are built through the support of learning together, a CoP, and coaching.</i></p> <ol style="list-style-type: none"><li>1. The time spent in professional development sessions, a CoP, and peer visits sharing expertise, built trust and relationships between the participants.</li><li>2. Participants' sharing of struggles and vulnerability created a sense that leaders were not alone in their challenges.</li></ol>	<ol style="list-style-type: none"><li>1. The trust and relationships built through support created a caring, collaborative, collegial, vulnerable, and safe space for learning, focus, and practice for school leaders.</li></ol>
<p><i>Enhancing the knowledge and understanding of data-informed-decision making (DIDM) through professional development built instructional leadership skills in principals.</i></p> <ol style="list-style-type: none"><li>1. Leaders felt more confident about being instructional leaders on their campuses by employing data-informed-decision using the CLC.</li><li>2. Leaders shared the greatest benefit was a better understanding of the DIDM process using the CLC to improve student learning.</li></ol>	<ol style="list-style-type: none"><li>2. The professional development in data-informed decision-making enhanced understanding and improved support and self-efficacy in leading the school to improve instruction and student outcomes.</li></ol>
<p><i>Coaching cycles promoted more intentionality and productivity in using DIDM</i></p>	<ol style="list-style-type: none"><li>3. The school leaders found the coaching valuable and benefited from increased self-efficacy, trust, and partnership with the coach to improve instruction through DIDM.</li></ol>

1. The coaching promoted accountability to DIDM and allowed time to ask questions and partner in setting goals and monitoring progress.
2. The coaching support, built trust and a partnership between the coach and the participant.

*Challenges affected learning and implementing DIDM.*

1. Allocating time for PD, CoP, and coaching was challenging when managing many other responsibilities.
2. Transferring knowledge of DIDM to teaching it to school teams was difficult.
3. Everyone had different levels of understanding of DIDM.

4. There were various challenges as participants engaged in the intervention and implementing DIDM with their school teams.

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\*Note: Themes are in italics.

**Theme 1—Relationships and trust are built through the support of learning together, a CoP, and coaching.** *Assertion 1-The trust and relationships built through support created a caring, collaborative, collegial, vulnerable, and safe space for learning, focus, and practice for school leaders.* The theme-related components contributing to Theme 1 that guided Assertion 1 were (a) The time spent in professional development sessions, a CoP, and peer visits sharing expertise, built trust and relationships among the participants and (b) participants' sharing of struggles and vulnerability created a sense that leaders were not alone in their challenges.

*Time spent in professional development sessions, a CoP, and peer visits sharing expertise, built trust and relationships among the participants.* The school leaders shared the time they spent together in professional development in the summer and



periodically each month, learning together, participating in get-to-know-you activities such as teambuilders, time together such as traveling, eating together, sharing, collaborating, and discussing new learnings, built trusting relationships. Principal C maintained,

I feel more confident about calling other school leaders and asking, "Do you have a minute?" I have called several leaders in our CoP regularly to ask questions ... So, I think that you have created an environment where we are all coaches to each other, and we all support each other. So, for me, I rely not only on you but also on my colleagues.

Principal D illustrated how she provided coaching and support to her peers to promote collegial support when she acknowledged,

The benefit of the CoP and peer visits was sharing my knowledge and experience with our team. Data-informed decision-making is my strength, and I enjoy helping others. I love learning about data. School leaders from our team call me regularly for help with their data.

These statements exhibited the trust and collegial support between leaders where they called on each other for advice, coaching, and support. In the CoP, setting goals and making decisions based on the new learning from the professional development sessions was another occasion to learn from each other. The CoP provided time for leaders to share their knowledge with each other. Also, during peer visits to colleagues' school sites, leaders spent time observing classrooms and finding and discussing the evidence of what was agreed upon in the CoP. For instance, in the CoP, it was determined that every class

would set class goals based on NWEA MAP data. Therefore, during peer visits, leaders looked for evidence the class goals were readily available in the classrooms.

Additionally, leaders had the opportunity to see similarities across schools and discuss these observations in more casual situations. For instance, most peer visits ended with a debriefing meeting between the leaders, where they went to lunch to discuss the peer observations and provide each other feedback. Leaders typically do not have time to sit and collaborate with other leaders. These opportunities created time for valuable discussions. Principal F explained,

I just feel like we can always get better at what we do. And I think that's why we participate in professional development and trainings and going to conferences and learning from our colleagues and our team because everyone brings something to the table that you can learn from, and I think that's just really important as leaders is that we have to be able to have that growth mindset. But we can always get better at what we do. And, you know, I have always been taught, my mentors have always told me this, and I truly feel this way is that instructional leadership is so important. We wear so many hats and have so many roles and responsibilities. But it's truly important that we make instructional leadership a priority. And so, I guess that has been something that I've really gained from this is that the level of support is one, but two, we can learn from each other. And it really comes down to the leadership. You are [researcher-observer] you're really the glue, the glue that brings us all together. And you play off our strengths, you really pull it out of us. It's that culture and climate that you have set for all of us that there's trust, and there's belief, and there's this

opportunity to continue to grow in what we do in through each other. And I think that's, that's something that I've really found to be advantageous in so many ways. This statement described the importance of learning from other leaders as crucial to building credibility, trust between participants, and building trust with their school teams. As, Principal A, describes, 'I think it's helped me gain rapport with my staff. As a new school leader. Definitely. They know that I'm invested in the information that's been presented to them. And not only that, but I'm willing to sit and go through it with them.'

The team-based approach created an environment of collegial support and collaboration between leaders. Throughout the intervention, the leaders shared experiences, knowledge, and challenges. This started to build collegial support in solving problems, providing each other with strategies and advice, and sharing various perspectives. One leader, Principal C, illustrated this perspective when they claimed,

I think I am the type of school leader that working in teams benefits me more than working as one [individually]... I think that has benefited me a lot more.

Understanding that we all share the same challenges we all share the same successes. I think that that has helped me a lot more I have worked like I mentioned to you before in a large district. And when you don't get this one-on-one, you don't get this collegial group in a coaching group, but here I do feel it even though there is distance, we're not close physically, but I think in a collegial manner, we are close. So that'll benefit me as a school leader.

Another, Principal F, expressed how the team-based approach was beneficial when they affirmed,

Through the team process, I think it's been valuable on so many different levels. For me, personally, as a school leader, through this process, I've been able to dive deeper and been more efficient with my data. And being able to communicate my data and dig into the data with the team. The process has been eye-opening, to be honest with you, because when I think when this whole thing first started, I felt I was kind of set in my ways. And I didn't feel as comfortable as I do now. Just through support, and being able to practice it, being able to have different trainings and professional development to help me and support me through that. But it's an opportunity really to dig into data to really hone into how we are, as a school, the trends that we're seeing, and most importantly, being able to meet the needs of our students. And we use it on so many different levels. But it's an opportunity for us to really see if we're moving in the right direction through the use of data cycles and being able to analyze data.

These quotes illustrated the importance of supporting and talking to others with the same priorities and challenges in leading an elementary school.

*Participants' sharing of struggles and vulnerability created a sense that leaders were not alone in their challenges.* Leaders suggested that being a principal was lonely and many competing priorities existed. Hearing the same struggles from other leaders was helpful in not feeling alone and working with a team to address the challenges that all leaders were experiencing. Principal F expressed,

Well, let me start by saying, you know, as a leader, sometimes it's lonely. And I think through your project and the fact that you are addressing some things that have been going on for a very, very long time. I think is very important. And so, I

applaud you for that. Because it is and it can be lonely, it can be quiet, it can be hard when you are on this so-called Leadership Island, but that's a choice. And I don't say that from a leadership perspective, but maybe for an organizational perspective. And so, the fact that there needs to be a high level of support for leaders out there, whether it's in education, or anywhere else, where we don't have to feel that level of loneliness, and that you can be supported on so many different levels. And you can vent, you can talk, you can, you know, just have a normal conversation because of the level of trust, and the relationships that are being built through support. And so, when those things are present, I really feel like the participation goes to a whole greater and different level.

Leader C shared similar sentiments,

So, I almost feel that we're out there, kind of on an island, trying to figure things out ... But by having these meetings and hearing other school leaders from south Phoenix to east Phoenix, listening to them going through the same challenges as I'm going through, make them [challenges] more okay, we're in a community even though I'm across the valley. They're going through the same things I'm going through, so that was the benefit of the meetings and visits [Community of Practice] of not feeling alone in these struggles.

Leaders shared that working together is less overwhelming and lonely. The school leader's role has been isolating because of all the work and competing priorities. It has been challenging to meet with other leaders and build relationships when there were so many other items leaders were trying to juggle. Principal E commented,

The benefit for me is, for me being so far away to be on the same page with everybody. You know, I think it's a benefit to everybody in all our schools, we're all have different populations that we serve, but to still come together and see where we're all working on the same things.

These quotes highlight the trust built in the CoP learning together, that they are not alone in implementing DIDM, and that it is a shared commitment.

**Theme 2—Enhancing the knowledge and understanding of data-informed-decision making through professional development built instructional leadership skills in principals.** *Assertion 2- The professional development in data-informed decision-making enhanced understanding and improved support and self-efficacy in leading the school to improve instruction and student outcomes.* The theme-related components that led to Assertion 2 about enhancing knowledge were (a) leaders felt more confident about being instructional leaders on their campuses by employing data-informed-decision using the CLC, and (b) leaders shared the greatest benefit was a better understanding of the DIDM process using the CLC to improve student learning.

*Leaders felt more confident about being instructional leaders on their campuses by employing data-informed-decision using the CLC.* School leaders had a variety of experiences with understanding and using data-informed decision-making and implementing it on campuses with their teams. Most leaders claimed the new knowledge they gained from DIDM helped them to see the data analysis process from a new perspective, including the more experienced leaders. The newer leaders felt more confident delivering professional development on campus with DIDM after the trainings. One of the newer leaders, Principal A, affirmed, “My data-informed decision-making

abilities are good. They're not great yet, but I am brand new. But after the training, I think that now I'm able to look at the data and identify where the needs are. And that's clear to me, that is completely clear to me.” Principal C, one of the more experienced leaders, conveyed similar sentiments when they acknowledged,

The professional development, so absolutely, like I mentioned before, I think, before I knew the importance of data in the data decision-making process. After you mentioned it, I thought it was a good idea to go back and review the data decision-making process through the team approach. It reminded me that not only do I need to know the data, but also my teachers and my support team also need to know that data and the students. So that professional development, I like how we had to do one step at a time to slow things down and I was able to understand it first myself before I taught it to the support staff. Then the support staff understands the vision, and then we're able to do it with our teachers and eventually teach the process to the students. I think I always had confidence but after going through this training with you, I think I feel more confident, more focused; it was a good way to redirect my thinking.

Principal I described the professional development opportunities as the most beneficial,

“I think the greatest benefit was some of the sessions at the NWEA conference because it focused on things that, as school leaders, we don't really dive as deeply into, so being able to understand the RIT score, being able to understand the cut scores and using that as kind of an objective measure of performance.”

During the CoP, leaders had the opportunity to discuss and practice the CLC steps, which allowed them to get feedback and learn from their colleagues before attempting to

transfer the new knowledge to their school teams. For a few leaders, during the coaching process, I observed the leader prepare and implement the process of DIDM with their staff, and I would provide immediate feedback as they facilitated the DIDM, or I would facilitate the data-informed cycle with their staff for leaders who wanted and needed more support. Two leaders asked for this type of support and wanted me to model the process with their staff. Principal A described the support as, "... I feel that it is something that's not complicated anymore. It's not as complicated. So, it's easier for me even if it's not an assessment or tests that I'm familiar with, it's easy to start to figure out what the data is trying to tell me. So, the benefits of it were definitely that I got to learn more about how to use data and that was, that was the ultimate benefit there. And then, more importantly, I was able to then carry that information to the staff and have them take a friendlier approach [CLC] to looking at data." This comment shows how the leader felt more confident in DIDM with her team after the support. The more experienced leaders felt more comfortable delivering professional development about the DIDM process independently. One of the experienced leaders, Principal F, shared,

I think for my abilities, it's it comes down to having that level of comfort and being able to really lead in a different capacity. Truly being able to be the instructional leader that I've always wanted to be through data. And being able to analyze data and go through the Collaborative Learning Cycle has been almost to the point of enlightening because I'm able to do it in a whole different way than maybe what I did 10, 15, or 20 years ago, as an educator or as an administrator. I've felt every time that I do it, I get better at it. And I think I have the mindset that as we continue to practice, we are going to get better at it, whether it's



through my leadership or being able to lead in a professional development or training, or most importantly, our team. And being able to practice and analyze data, be able to use the data in the right way to really inform us on making those decisions that is really good for kids and our school. I feel like our ability and my ability has continued to grow and get stronger each and every time we do it.

These comments indicate the importance of professional development sessions to build confidence and self-efficacy in new and seasoned leaders.

***Leaders shared the greatest benefit was a better understanding of the DIDM process using the CLC to improve student learning.*** Using the CLC process, leaders learned how to facilitate DIDM through a step-by-step approach using a collaborative, team-based method with activities that supported each step. We modeled each step in the professional development, so the leaders experienced and practiced the steps. Then, school leaders could employ these same steps and activities with their staff. One of the leaders, Principal G, indicated how she translated the training for her staff when she asserted,

I used the opportunities of what I learned at the NWEA summer conference, the professional development [CLC] ... to get my team to understand and dig into data a little bit more deeper, versus it being one or two people digging into the data and they give the team the data instead of the team understanding how to get the data and to be able to look at data and break down each piece, student by student versus just looking at their class, understand it from all perspectives. So that's what we've been working on this year starting and then beginning to work on next year and making sure that it's done more regularly.

This quote demonstrates how the leader was able to transfer the knowledge from the trainings and implement it on her campus to improve student learning. Another leader Principal F responded by saying,

Through the collaborative cycle and analyzing data, I think the feeling really comes down to setting the goals that we have every time that we do some type of data dig and that sense of accomplishment, that feeling of accomplishment, whether it is for our teachers, most importantly, the feeling of when our kids are feeling a sense of accomplishment and of attaining their goals. That is the best feeling in the world when we want to talk about feelings. And then as a leader, knowing that your school and your teachers and your students are all growing and moving in a positive direction. That is a really good feeling too. And I think that that sense of knowing and feeling confidence in leading that that charge of data and assessment and being able to have that level of confidence once again, of putting things in place that is going to have your data going into a positive direction, I think is really important.

In this comment, the respondent expressed how the DIDM process supported the idea that it improved student learning. Principal I described the training as gaining a new skill of understanding, “I think it made me more conscious of kind of understanding that goes behind an assessment score and what goes into kind of more of the assessment design, I think that's something that's overlooked and underestimated as a skill to learn.”

**Theme 3—Coaching cycles promoted more intentionality and productivity in using DIDM.** *Assertion 3- The school leaders found the coaching valuable and benefited from increased self-efficacy, trust, and partnership with the coach to improve instruction*

*through DIDM.* The theme-related components that guided the development of the theme and Assertion 4 were (a) the coaching promoted accountability to use DIDM and allowed time to ask questions and partner in setting goals and monitoring progress, and (b) the coaching support, built trust and a partnership between the coach and the participant.

***The coaching promoted accountability in using DIDM and allowed time to ask questions and partner in setting goals and monitoring progress.*** The participants discussed the importance of the coaching sessions. The “coach on campus,” a name the principals gave to me, built a trusting relationship with the leader and shared an understanding of the school team and the school's needs, and held the leader accountable for the shared goals and action steps. Leaders felt that the coach and leader were partners in meeting the goals. Principal H communicated,

We've committed as a team to doing them [DIDM], and we all came together, whether it was in our small group or our K-8 team, I felt like it was always beneficial [*Got Juice?* Sessions]. I feel like the last year and a half with the coaching cycle, and especially the coaching cycles coming in, I feel like it's been more productive. And I feel like it's been easier for us to work together {K-8 Principals], and I don't feel overwhelmed when I leave [*Got Juice?* Meetings]. ... We share it, and we have time to go over the information [data] with each other. We see other team members [data], and we have no shame and no blame. It's all of ours, and we just use it, but I feel like it's given us the opportunity to really just take our blinders off from everything happening on campus, and we focus on what we're here to do. And so, I feel like it has a lot more benefits.

The CoP held the leader accountable for employing DIDM. The peer visits and working together in the CoP held participants accountable for the shared decisions and goals of the group. Leaders expressed that the CoP kept DIDM in the forefront, and they wanted to be prepared for each meeting, which encouraged them to facilitate the DIDM work on their campus and be ready to share. Principal D explained,

The CoP was just a chance to focus on you know, a set time to focus on looking at data and using the data, collecting the data, you know, our purpose for that time. Just having that set time to do it just keeps the forefront of your mind, so you don't let it you know totally go on the backburner with all the other stuff that's going on.

As Leader E described, “I would say that it's made me a leader that made sure to make sure data is a priority. And to be real with the data. ... it really made it a priority, to make sure that that was happening and to understand it better. ... to follow through with it, you know, this year we've really made sure that we're hitting that data cycle. In the past, the teachers would implement [DIDM] more at each grade level, and now it's the team. We even broke it down with teams at our school so that they're working together with the data and sharing data.”

*The coaching supports, built trust and a partnership between the coach and the participant.* The time spent with each leader at their campus, observing in classrooms, observing the leader facilitate trainings, providing feedback, and working side-by-side on the goals built the partnership. Principal C shared during an on-site coaching session, “ I appreciate our discussion and the clarity and trust that we have built. I used to get nervous when you visited the campus, and now I want you to come to campus to provide

feedback and get your perspective. I completely trust you and your expertise.” Principal F expressed this sentiment when they claimed,

But it really does start with the relationships that you have built with the level of trust. Knowing that you believe in our team, and you believe in me and you believe in what we're trying to do for kids and families at each individual school means a lot to us. And it means a lot to me. And when we've established that good things are going to happen. And I don't feel that sense of loneliness anymore. Or I don't feel like I'm on that island anymore, that if I do feel like I'm on an island, you're there to either bring out a lifeboat or throw me a life preserver, knowing that I'm not going to sink. And then I'm going to keep floating despite any challenge or obstacle that comes my way.

Also, Principal H sent me the following email on November 7, 2022, after one of our coaching visits, “Thank you for listening to me and taking an interest in the busyness, you know all too well. It means a lot to be able to just share it at times and be heard. Not sure if this is a part of your schooling, but this meeting began differently than most of our other meetings. Not that the other times we met were not super supportive - it was just a different supportive meeting on Friday. Thank you, and have a great week!!!” These statements expressed the importance of building trust between the coach and leader. During a one-on-one coaching meeting in October, Principal G shared concerns and issues. The leader was appreciative of the listening ear, support, and advice about the challenges happening on the campus. Without trust and being present on campus, this supportive conversation may not have occurred.

**Theme 4—Challenges affecting learning and implementing DIDM.** *Assertion*

*4- There were various challenges as participants engaged in the intervention and implementing DIDM with their school teams.* The theme-related components that led to Assertion 5 included (a) allocating time for PD, CoP, and coaching was challenging when managing many other responsibilities, (b) transferring knowledge of DIDM to teaching it to school teams was difficult, and (c) everyone had different levels of understanding DIDM.

*Allocating time for PD, CoP, and Coaching was challenging when managing many other responsibilities.* Leaders shared that the biggest challenge for the process was dedicating the time for the support, mainly since the nine schools were spread across the valley and Arizona. We compensated for the distance through virtual meetings. However, in-person meetings were more valuable to participants. Also, leaders indicated that it was a time-consuming process. Principal E shared, "The challenge was time, that was one of our challenges, for sure would just be time, but I know in person is so much better. Yeah, then virtual." Principal G described it as I don't really like it [DIDM] because it sometimes can be tedious and a lot of repetition and paperwork... And then, in regards to the coaching, it's just about finding the time to make sure it happens or being open enough to ask a question that you have concerns with." Also, Principal B, said, "The other challenge would be sometimes concentration in the virtual calls, I would lose track because I prefer in person. Yeah. Well, virtually, I can easily get distracted, but that was a challenge for me." The statements indicate the DIDM is already a time-consuming process, and at the same time, meeting in person was more valuable for this process, but in-person CoPs require more of a time commitment and travel.

***Transferring knowledge of DIDM to teaching it to school teams was difficult.***

Although several leaders felt they were gaining knowledge and competence in data-informed decision-making, they felt it was challenging to go from knowledge and understanding of DIDM to presenting and acting on it. One of the more experienced leaders, Principal H, shared, “My abilities, I would say, are probably more skillful than what's implemented, but I think we always have room to grow....So I would say what implementation I would wish was stronger.” One of the new leaders, Principal I, explained,

Independently, I am competent. I think again, it's more about being able to translate that or get other people to routinely look at the data and break it down and then you know, put that into some sort of action step. Again, I think it's just being able to translate that and get other people to kind of get on board with the same level of thinking, I think some of the stuff like the Data Wise, being able to activate, engage and breaking it down into those steps I think was a lot more helpful. Understanding it yourself and then being able to have other people kind of take it with the same measure of importance is kind of more of the difficult parts. I think it's just getting that collective teacher efficacy with data or data-informed decision-making. That's tough.

These statements illustrate the importance of knowledge, but the action of implementing DIDM is more challenging.

***Everyone had different levels of understanding DIDM.*** All the school principals came with different levels of understanding and experiences with DIDM, so working with a group where people were at all levels was challenging. Principal D said that

several experienced leaders have been conducting DIDM and have been through training, so it was a challenge for the newer leaders to "catch up" to this same level of knowledge.

As Principal B shares,

“I feel that I've developed some knowledge in the sense that I'm able to collect the data that I actually need but then not fully dissect it, but I'm able to understand it better and share with the team from there....I feel confident enough to share the data that I require. However, if I'm using a new resource where I'm collecting that data, I'm not that confident until I understand it by somebody training me, and then I was like, Okay, now I get it, then I can go ahead and feel confident in using it.”

Several of the newer leaders, including Principal B, needed more training to be at the same level as the most experienced leaders and reached out for more help when implementing DIDM.

### **Summary of Interviews**

The themes that emerged from the interviews all center around the importance of trust, relationships, and the team approach to build productive, collaborative CoP and coaching cycles to improve the knowledge and self-efficacy of school leaders in their use of DIDM to improve student outcomes. The support may not have been as effective without these relationships and teamwork.

### **Summary of Research Journal**

Throughout the process of providing school leaders with the three types of support, (a) professional development, (b) Community of Practice, and (c) one-on-one coaching, as the research participant, I took notes during coaching sessions, observations,



professional development sessions, and CoP. Also, I jotted down comments shared with me by outside observers. Overall, the notes show a progression of leadership, confidence, and self-efficacy from the participants in DIDM. For instance, at an organization-wide meeting, one of the elementary leaders presented and shared with the whole group, including corporate directors, staff, and high school leaders, how our elementary leaders worked together to conduct DIDM using the data inventory and CLC. This was an example of building confidence and self-efficacy. Also, my notes contained feedback from the participants throughout the process of how they felt and how the DIDM work was going. For example, I received a phone call from a school leader sharing that the CLC PD went well with the staff. The leader shared that it was a great collaborative discussion, and the process valued their work and appreciated the training to implement the steps with their staff. These examples were illustrative of leaders' growth throughout the study.

The quantitative and qualitative data combined illustrate the intervention, “*Got Juice? Jam Sessions!*” provided a system of support for school leaders in various ways and contexts that improved leaders' perceptions of their knowledge, skills, attitudes, self-efficacy, and intent to stay in the profession and implement the team-based approach to data-informed decision-making. The quantitative data illustrates this by improving means scores on the surveys. The qualitative data enhanced the quantitative data, where leaders expressed through the interviews, and research notes why the leaders' perceptions of the six constructs improved.



## CHAPTER 5

### DISCUSSION

The most effective leadership today isn't about technical expertise and having all the answers. It's about being human, showing vulnerability, connecting with people, and being able to unleash their potential.

–Hortense le Genti, *Harvard Business Review*

The purpose of this action research project, which was implemented through the “*Got Juice? Jam Session!*” intervention, is to provide a system of support for elementary school leaders to build self-efficacy and retention in the role of the school principal and to develop practical leadership skills. Based my experience as a school leader, my work with school leaders, and on information from the literature, the evidence suggests there is a need for more support to retain, develop, and grow elementary school leaders. In Chapter 3, I described the three-pronged approach to providing support to school leaders through professional development, a CoP, and coaching as well as descriptions of each support and how they were executed. Moreover, in the study, I examined how these supports influenced leaders' perceptions of their knowledge, skills, attitudes, self-efficacy, level of support, and intent to stay in the profession and apply the team-based approach of data-informed decision-making (DIDM). The study utilized a mixed-methods action research (MMAR) approach that includes quantitative data from surveys and qualitative data from interviews and researcher notes. In this chapter, I will discuss the complementarity of the quantitative and qualitative data, explain the findings of the study, and describe implications for practice and future research.

## **Complementarity of the Quantitative and Qualitative Data**

The application of a MMAR approach includes gathering quantitative and qualitative data to aid in answering the research questions. Quantitative data is concrete and specific and affords researchers the opportunity to interpret it numerically by comparison qualitative data is broader and more holistic in nature. Notably, qualitative data can be used to dig deeper to explain the "why" of the quantitative data and thus provides for a better understanding of the data (Ivankova, 2015). By bringing these two data types together and interpreting the results, researchers examine the complementarity of the results, that is to say, whether both types of data point to similar outcomes or whether there are discrepancies in the results (Greene, 2007). Using two kinds of data enhances the study by capitalizing on the strengths of both data types. Generally, qualitative results are used to ‘unpack,’ that is to say, explain the quantitative results.

For instance, in this study, the quantitative data demonstrate an increase in knowledge, skills, and self-efficacy for DIDM from the retrospective, pre-intervention survey to the post-intervention survey. In addition, the theme-related concepts and themes that emerged from the qualitative data corroborate the quantitative findings. In particular, participants shared that their knowledge grew, they felt more competent in delivering data-informed decision-making to the school teams, and the support helped them grow in their skills with the use of DIDM. Further, qualitative results indicate they believe they are better instructional leaders because they learned new skills in the PD sessions and were able to practice them and receive feedback during the CoP and the coaching sessions, which tracks with the increases in the quantitative data.

In the study, I also examine school leaders' perceptions of support, their intent to stay in the profession, and implementing the team-based approach with their school teams using DIDM. Questions about these constructs were only asked after the intervention. Scores on these quantitative items are all relatively high. Again, the qualitative data helps to explain these scores because the interpretation of the qualitative data shows participants' responses during the interviews indicate the three levels of support were critical to the success participants attained in the study. In particular, the three levels of support were where participants learned together, built trust and relationships, and served as the 'glue' that helped to improve all areas.

### **Discussion of the Findings**

The intervention in this study focuses on providing various types of support to increase school leaders' knowledge and skills in data-informed decision-making to build self-efficacy in leading their schools as instructional leaders with a clear vision, mission, values, and beliefs to empower a team to meet shared goals. Results demonstrate the team approach to learning and solving problems together decreased the stress and isolation experienced by school leaders. "*The Got Juice? Jam Sessions!*" provided a system of support for school leaders in various ways and contexts that improved leaders' perceptions of their knowledge, skills, attitudes, self-efficacy, and intent to stay in the profession and implement the team-based approach to data-informed decision-making. Discussion of the findings is presented in three sections: (a) participants reported the trust and relationships built through support provided a safe space for learning, focus, and practice, (b) professional development in data-informed decision-making through the CoP and coaching strengthened understanding, skills, and self-efficacy in leading the

school to improve instruction, (c) school principals valued the team-based approach for support, purpose, and accountability for DIDM to improve student outcomes and instructional leadership. Links to the literature and theoretical perspectives are incorporated into these sections.

### ***Trust and Relationships Are Built Through Support***

The participants reported that the trust and relationships built through the support of the PD, CoP, and coaching provided a safe, focused learning place as well as a space to practice their skills. This outcome is consistent with the five areas for high-functioning teams espoused by Lencioni (2002) who maintained trust is the foundation for building a productive community where participants feel safe in asking questions, requesting help, providing feedback, and offering ideas and advice. In particular, Lencioni suggests the community is collaborative instead of competitive. In a competitive community, members are more hesitant to share ideas because it is their idea and theirs only. In a collaborative community, members are vulnerable, share ideas, and want to help each other achieve goals together. In this study, leaders shared that learning together and from each other helped to build a caring and collegial team where they were supporting each other acting as coaches. In particular, one leader shared, "So, I think that you have created an environment where we are all coaches to each other, and we all support each other. So, for me, I rely not only on you but also on my colleagues." Leaders also indicated the one-on-one coaching also builds trust. As the researcher-participant, I acted as their partner in helping them reach our shared goals by being present at their school, meeting with the leader in their environment, meeting with their school team, observing

in classrooms together, exploring data and setting short-term goals, and continually checking on progress. During a visit, one leader affirmed,

I appreciate our discussion and the clarity and trust that we have built. I used to get nervous in my previous organization when someone from the district office visited, and now I want you to come to my campus to provide feedback, see the progress we have made since the last visit, and get a different perspective that I am not seeing. I completely trust your advice.

As Knight (2018) described in his coaching model, building trust and relationships are the key components of the coaching cycle. Knight considers the coaching process to be a partnership approach where the coach's contribution includes strategic knowledge that is helpful to the learner, such as understanding data-informed decision-making and the practices that would help the learner meet the goal they establish. Both Knight (2018) and Lencioni (2002) discuss the importance of building trust and relationships when working as a coach or as a team.

***Professional Development is Offered Through the CoP and Coaching Strengthens Understanding, Skills, and Self-Efficacy***

In the interviews, participants claimed that gaining new knowledge about DIDM and how to implement the process at their schools was the greatest benefit from the professional development sessions. As indicated in the quantitative data, knowledge, skills, attitudes, and self-efficacy improved from the retrospective, pre-intervention survey to the post-intervention survey. Notably, increases in these areas likely played a role in participants' successful enactment of the Collaborative Learning Cycle (CLC), first within this group and subsequently at school sites. For example, according to the

interview codes, improving skills and self-efficacy are referenced 20 times as participants discuss becoming stronger instructional leaders. Specifically, one participant states, "Truly being able to be the instructional leader that I've always wanted to be through data. ... go[ing] through the Collaborative Learning Cycle ... [was] enlightening." Another leader notes, "So that professional development, I like how we had to do one step at a time to slow things down, and I was able to understand it first myself before I taught it to the support staff." These comments illustrate the importance of professional development and practicing it in the CoP before translating it to the school team, which fosters the growth in self-efficacy.

As Bandura (1977, 1997) suggests, self-efficacy is the belief that individuals have the capacity, skills, and knowledge to succeed in meeting their goals. Self-efficacy is influenced by successful, i.e., mastery, experiences, observing others, and social persuasion. Learning in the CoP fostered these elements where team members had opportunities to practice their skills and attain some level of mastery while encouraging each other. Also, through the CoP, leaders could observe how others operate under the CLC guidelines. Finally, through the one-one-coaching, I was able to provide modeling, encouragement, and accountability to implement DIDM. My belief in each leader and my provision of coaching fostered self-efficacy. For example, one leader said,

You play off our strengths, you really pull it out of us. It's that culture and climate that you have set for all of us that there's trust, and there's belief, and there's this opportunity to continue to grow in what we do through each other.

This comment exemplifies the role of coaching in building self-efficacy.



### ***Team-Based Approach Affords Support, Purpose, and Accountability***

The school principals valued the team-based approach (TBA) because it provided support, purpose, and accountability for using DIDM to improve student outcomes and instructional leadership. This TBA created an environment of collegial support and collaboration between leaders for a common purpose. It kept DIDM at the forefront, and working together was less overwhelming and helped to overcome the isolation and loneliness that can accompany being a leader. The TBA and CoP are the most frequently referenced concepts in the interviews with the school leaders. Often, the TBA is woven into many responses of the participants. In one way or another, usually the TBA is mentioned regardless of the interview question. For instance, if a question was about their perception of knowledge, the TBA of learning together and from each other was mentioned. Overall, the TBA is the second highest mean on the surveys with a value of 5.31, which indicates a high degree of value being attached to it.

This high value for the TBA appears throughout the intervention, when school leaders willingly shared experiences, knowledge, and challenges. This action afforded opportunities to build collegial support in solving problems, offering other strategies and advice, and sharing various perspectives. One leader maintained, "I think I am the type of school leader that working in teams benefits me more than working as one [individually]." Notably, the results on the TBA are consistent with Lencioni (2002), who maintains the critical elements of building a highly effective team are creating trust, honoring diverse perspectives in the group, sharing commitments, holding each other accountable, and focusing on results.

Moreover, these five critical elements from Lencioni's (2002) work closely align with Wenger's (1998) Community of Practice definition and components. Wenger asserts a CoP is a group of people sharing a common purpose or interest in a subject matter where they work together consistently to improve outcomes in their work as they learn collaboratively. Both emphasize building relationships, working, and learning towards a common goal, collaborating, and holding each other accountable for the results. Finally, Fullan et al. (2015) indicate that promoting internal accountability starts with a shared vision, focus, collective capacity, and responsibility. Markedly, the TBA requires each team member to take ownership of the goal and accountability measures. It starts with the internal accountability of the individual and progresses to group responsibility. During the implementation of the CoP and coaching sessions, holding each other accountable for shared decisions to meet school goals, is a key element that emerges.

### **Limitations and Approaches to Building Validity and Trustworthiness**

As in any research study, there are potential threats to validity and trustworthiness. When making inferences about the research result, threats to validity represent specific alternatives that can be used to explain the study's outcomes rather than the proposed intervention (Creswell & Guetterman, 2019). To make action research more rigorous, it must be valid, reliable, and easily replicated (Ivankova, 2015). Validity and reliability are defined as the accuracy of the instruments, data, and research findings, which affect the study's credibility and dependability (Mertler, 2020). In this section, I will discuss possible limitations and actions I took to increase credibility and trustworthiness. There are several limitations that I considered including the

confirmability of the qualitative data, my relationship with participants, sample size, and length of the study.

For my study, I triangulate the data by using a combination of multiple data sources such as surveys, interviews, researcher observations from coaching sessions, notes from the CoP, and the researcher's journal, which enhances the study's credibility (Ivanova, 2015). A key component to improving the rigor is allowing participants to review the data to clarify, add more information, and share their perspectives. Therefore, throughout the study, I shared notes from the professional development sessions and CoP with all participants.

Additionally, I use multiple perspectives when interpreting the study. Consequently, I coded the interviews several times using different approaches to explore the data from different perspectives. After the initial and second coding approaches, I created frequency charts to determine more concretely which codes are used the most. I also conducted code landscaping twice to determine which phrases stand out the most. Finally, it is essential to debrief participants on the findings to gather more information as well. Therefore, I shared the code landscaping with the participants to communicate the results and ask them what patterns they observed in the coding results. They pointed to the key areas I describe in the previous findings section, which are also consistent with my interpretations. For the quantitative data, I conducted reliability analyses to ensure that survey responses are consistent and warranted further analyses. These steps were taken to increase the probability that the data and their interpretations are trustworthy.

A second potential limitation of the study is my relationship with the participants. Specifically, because I worked closely with them, outcomes might be due to an experimenter effect because I served as the participant-researcher, where I simultaneously participated in and facilitated professional development, the CoP, one-on-one coaching, and data collection in the study. Additionally, my role as the nine participants' supervisor, coach, and our positive relationship could have influenced the participant's intent to implement data-informed-decision-making, attendance for the PD and CoP, and particularly their responses on the surveys, and interviews to be more favorable for the project because they were interested in the project being successful. A crucial component of the project was building trusting relationships with and between the participants and me for the learning to be successful. Although these relationships could influence the results, it was a part of the purpose of the CoP and coaching. To mitigate this limitation, the quantitative surveys were anonymous, so participants were able to give honest ratings. In the interview, I avoided leading questions. Further, in the qualitative analysis of the interviews, I employed (a) analytic memos to guide my efforts, (b) systematic processes to ensure data support interpretations, and higher-level interpretations are supported by data, and (c) careful examination and reflection at each step of the process (Guba, 1981).

The third limitation incorporates two matters related to the study—the limited sample size and the length of the project. In the study, there were nine participants with whom I regularly worked and for whom the intervention was relevant. With nine participants, the statistical tests are somewhat limited because the power of the tests is compromised. Another limitation is the length of the study. The study began in late June

2022 and ended in mid-November 2022. This was approximately five months. The ideal amount of time would be at least one full academic school year, say from June 27, 2022, to June 30, 2023, to determine the effectiveness of the intervention by understanding whether, for example, schools meet their year-long school improvement goals and to investigate whether the supports for DIDM indirectly influence instruction and student outcomes. All in all, it is challenging to alleviate all factors that potentially influence the validity and trustworthiness of this action research project. Nevertheless, to the extent possible, I tried to mitigate these factors.

### **Implications for Practice**

In this next section, I will share how my research findings can inform practice, policy, and theory. The data in the study confirm the importance of the team-based approach (TBA) to DIDM. In particular, the Community of Practice, where a group of people work towards a common goal and learn together is a powerful approach that warrants consideration as for those considering how to implement DIDM work in their settings. Using the Collaborative Learning Cycle that focuses on DIDM with a school team also has great potential for those working on implementing DIDM in their school settings.

Each school leader in my study had different needs, experiences, background knowledge, and slightly varying approaches to using DIDM, but the collective group of leaders shared the same beliefs and goals, which is essential in making progress toward achieving a goal. The project also illustrates the importance of building trust and relationships in supporting leaders. In particular, trust is built through spending time together, being vulnerable/open, engaging in positive conflict, demonstrating

competence, being accountable, caring for one another, and committing to excellence. Another key component of building trust and relationships is having fun. We built in fun through using a year-long theme, making music available in meetings, and providing food. Also, we began the meetings with get-to-know-you activities or teambuilding actions and ended meetings with a positive launch.

Further, I anticipate the intervention in this study can be replicated in other schools to support school principals. It is essential to take care of our school leaders for their well-being, to move our schools forward, and to ensure the best principals serve our historically marginalized communities. We can change the statistics of principal turnover by creating environments where principals are supported, and the most influential, dynamic principals serve in our traditionally underserved schools. The advantage of the school improvement process using the TBA is the shared beliefs, values, vision, and supportive leadership. During the study, the relational factors and the structural elements associated with the CoP allowed us to find times to meet and work together to learn and prepare to share DIDM with school staff members. In this type of TBA, it is crucial to identify a shared goal, implement PD that supports the goal, and set up times to meet periodically to check on progress, coach, and create a collegial environment of trust to learn from each other. The challenge is prioritizing these when other matters get in the way throughout the year. I also recommend dedicating a position or someone's role in the organization to support principals. The common and collective focus and responsibility where the participants are reflective learners, growing and learning from each other can influence the development, retention, and self-efficacy of school principals, which has the potential to influence student outcomes across an organization.

## **Implications for Research**

Based on the results of this study, I have three recommendations for further research with respect to retaining, supporting, and developing influential school leaders that I will discuss in this section. First is the need to examine the project from a different theory perspective using Hall & Hord's (2006) stages of concern (SoC) and levels of use (LoU). Second, using the CoP and coaching model examine the influence of trust on the use of DIDM processes. Finally, examine the relations among the current study's constructs and examine how they synergistically influence one another.

When reflecting on the limitations of my study, one being my influence over the participants due to my role, I believe additional research is warranted in which Hall & Hord's (2006) stages of concern (SoC) and levels of use (LoU) can be used to examine the supports provided in this study. Specifically, SoC can be used to identify the levels of concern for each participant, that is, how the participants feel about the intervention. The SoC questionnaire could be used prior to the beginning of the implementation process and throughout the process to examine and understand participants' levels of concern for the change with regard to the intervention and how support with the new PD, CoP, and coaching affect those levels of concern. Further, throughout the implementation process, Hall & Hord's levels of use, LoU, could be used to understand the extent to which participants actually implement the DIDM process. The SoC can be used to explore participants' affective outlooks on the change. The LoU can be used to interpret participants' behaviors or actions toward the transition and implementation of the supports for DIDM. Understanding the SoC and the LoU will help facilitate the change

process and support participants based on how they feel about DIDM and the participants' actions related to using DIDM, such as their implementation of the TBA to DIDM.

In a second area, researchers might explore the role of trust and relationships in support of learning and implementing the DIDM process. It would be interesting to determine how trust or its absence functions in the supportive process. For instance, to build supportive conditions throughout my research process, norms were created collaboratively, and teambuilders were conducted as a part of the meeting. The norms included listening, setting aside judgment, asking questions, and being a reflective learner. As part of the norms, we encouraged conflict or opposing perspectives as an important part of learning and growth, where varying perspectives are honored and explored. Teams that do not engage in conflict have artificial harmony, where spirited discussions that are critical to teams' successes are avoided. For teams to engage in conflict, it is important to acknowledge that conflict is productive and that healthy debate helps teams develop new ideas or solutions. Also, holding others accountable to the established norms and revisiting them periodically is essential. Moreover, it is critical to set aside time during the PD, CoPs, and coaching to connect and build relationships founded on trust, openness, and caring among team members to support collaboration and working together towards a common goal. It would be interesting to answer how and to what extent these trust-building activities relate to the perceptions of the supports and actions of the school leader.

Finally, a third area of study might be conducted to examine the influence of the supports on the constructs to determine the relations among knowledge, skills, attitudes, self-efficacy, support, and intent to implement the team approach of DIDM. For example,



a potential research question could be, "How and to what extent do knowledge, skills, and attitudes relate to self-efficacy, support, and the intent to implement the team-based approach?"

### **Personal Lessons Learned**

As I reflect on my study, I learned about the effects action research has on me in my context, where I am transformed from a practitioner to an instrumental, scholarly practitioner. The purpose of action research is for a practitioner to conduct research in their context by translating research into effective practice to aid in resolving some situations. As described by Henricksen & Mishra (2019), there is typically a gap between research and dissemination of research to influence actual practice. In my research, I address the challenge of developing, supporting, and retaining effective school principals highly skilled in instructional leadership and managing schools as they serve historically marginalized communities. I define concrete methods for building an influential, collaborative, high-functioning Community of Practice (CoP; Wenger, 1998; Wenger et al., 2002) to foster effective leadership practices and team support. In my role in K-12 education, I anticipate replicating and sharing this knowledge and these concrete actions with school systems to stop the cycle of losing our best leaders in the most challenging school contexts. There is a great need to stop this cycle of principal turnover in our most underserved schools by providing professional learning opportunities, support, and feedback. Sharing the research on what works with others in leadership positions will help save time and support and protect our school principals.

At the beginning of this project, I created a list of what I wanted to learn through this process. I wanted to learn how to analyze research data, write effectively, and

organize my ideas and new understandings. Most importantly, I wanted to learn from my professors' expertise, my cohort team's experiences, and my dissertation committee's knowledge as they guided me in working on my problem of practice. I experienced how to tackle my problem of practice while implementing action research through several cycles. I learned to appreciate the importance of rigorous action research and various research methods. I came to understand that action research is a cyclical process composed of four steps: planning, acting, developing, and reflecting (Mertler, 2020). I repeated this cycle several times to develop a comprehensive action plan for my problem of practice.

Through the program, I gained an understanding of the systems perspective. When examining the research from a systems perspective, I was transformed so that I now read the research with a new lens and have a better understanding of problems in the workplace settings are interconnected. In addition, examining the problem through a systems lens led me to consider how the intended outcome might affect the entire system. The ultimate goal was to improve and develop new solutions and innovations continually.

The biggest surprise in reflecting on my professional practice was that action research was interwoven into my work. This process has helped me examine my current professional role, the system within which I work, and what influence I have had in addressing problems in my environment using research and asking more questions. Moreover, I have more carefully considered my decisions and how they affect our schools, teachers, students, and families.

After interviewing the participants for my project, I spent some time engaging in self-reflection about my beliefs, biases, and perspective on effective school leadership

practices using DIDM. Notably, self-reflection was essential throughout this process to narrow the focus on the root of the problem so I could lay the groundwork for understanding how to improve and address the issue in future research and practice.

Finally, the concept of time influenced my perspective because small changes during each stage of the action research were transformed into powerful influences over time. Throughout the project, I contemplated each step of the cycle to determine how time had influenced my work. I recognized my problem of practice had developed over time. Therefore, I realized it would take a considerable amount of time to make a change, but I had a finite amount of time to complete my project. Therefore, I will continue my efforts as a scholarly and influential practitioner to implement change in my context. Timescales are long (Weick, 1984), whereas we have typically been afforded only short periods where we can see learning or a problem from a bird's eye to a worm's eye view. During this project, I went back and forth between these two perspectives, and I will continue to examine the problem in this way.

## **Conclusion**

I have been presenting for most of my career in K-12 educational settings to students, parents, colleagues, new teachers, the Governing Board, the Charter Board, the Arizona Department of Education, administrators, instructional coaches, principals, and at conferences on various topics. I am excited to explore new contexts and ways I can share what I learned in my research study. Practitioners and policymakers must devote time and resources to preventing principal turnover by investing in evidence-based practices to reduce principal attrition. Based on the review of the research evidence, it is clear there is a need to support our school leaders.

To summarize, there are numerous reasons for principal turnover. One is the need for high-quality professional learning opportunities to develop principals with the needed skills and competencies for school leadership, which I enacted in this study using (a) professional development on DIDM, (b) a community of practice approach, and (c) one-on-one coaching. Results indicate this combination of approaches is successful for increasing participants' knowledge, skills, attitudes, and self-efficacy for using DIDM at their school sites. Nevertheless, there is still more to learn on how to support better our school principals and clarify promising practices to reduce principal turnover.

I am optimistic that by working with school districts, charter school systems, and external accountability agencies such as the Department of Education and education associations, I can help with small changes. I also anticipate that this will give me a deeper understanding of educational policy, the dynamics of education finance, and accountability standards to effect change in my organization and possibly across Arizona for our schools and communities to support our school principals. I will continue to move forward with these steps to decrease the gap between research and practice as we work to reduce principal turnover.

Part of my motivation to implement this study is to stop the cycle of losing our most talented educators and keep the best school leaders in our schools serving traditionally underserved populations where they are most needed to improve student success. This process allowed me to take a step back, see things from a new context, reflect, and contemplate alternatives. As I shared at the beginning of Chapter 1, I lost my hearing during my first year as a principal. I always saw this as a deficit. However, I can tell you what people are saying across a loud, busy school cafeteria. I learned to see

through the noise literally by reading lips but metaphorically by focusing on my research project to understand how to support school leaders. Strengths and solutions are hiding in plain sight. By participating in this scholarly and influential practitioner experience, I actualized several realizations that encapsulated my experience implementing action research in my context. The process structure, data collection, documentation of experiences, and research offers opportunities to test my ideas by helping me switch perspectives, examine the problem from different angles, understand new possibilities, and, most importantly, see through the noise of how to support our elementary school principals.

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APPENDIX A

SCHOOL LEADER POST-INTERVENTION SURVEY

## School Leader Post-Intervention Survey

This survey is being used to assess the effectiveness of the professional development, “*Got Juice? Jam Sessions,*” and one-on-one coaching provide a system of support for you as a school leader. The survey will take approximately 20 minutes to complete. Your responses will be anonymous. Please develop a unique identifier only known to you; use the first three letters of your mother's name. For example, if your mother's name was Susan, the code would be "Sus." This will allow us to connect responses from the second survey you will complete. Your unique identifier: \_\_\_\_\_ (e.g., Sus).

### Likert Scale Items

**INSTRUCTIONS: When you respond to these items, think about yourself as you are now, following participation in the professional development of data-informed decision-making, “*Got Juice? Jam Sessions!*” and the one-on-one coaching.** Please rate your level of agreement with the statements using this 6-point Likert Scale. Even though the items may sound similar, please respond to each one.

6 = *Strongly Agree*, 5 = *Agree*, 4 = *Slightly Agree*, 3 = *Slightly Disagree*, 2 = *Disagree*, 1 = *Strongly Disagree*

### Knowledge

1. After participating in the project, I know how to use data-informed decision-making processes at my school site.
2. After participating in the project, I understand how to use data-informed decision-making at the school site.
3. After participating in the project, I know how to apply appropriate techniques to implement data-informed decision-making.
4. After participating in the project, I know how to employ data-informed decision-making at my school site.
5. After participating in the project, I am aware of what I need to know to employ data-informed decision-making at my school.

### Skills

1. After participating in the project, I have the skills to use data-informed decision-making processes.
2. After participating in the project, I possess the ability to use data-informed decision-making at my school site.
3. After participating in the project, I am able to implement data-informed decision-making.
4. After participating in the project, I have the capacity to use data-informed decision-making at my school site.

5. After participating in the project, I am proficient in applying data-informed decision-making to  
at my school.

#### Attitude

1. After participating in the project, I believe data-informed decision-making will help to meet the needs of our students.
2. After participating in the project, I think data-informed decision-making will inform instruction.
3. After participating in the project, I feel data-informed decision-making will benefit my school.
4. After participating in the project, I consider data-informed decision-making is a valuable tool for meeting school goals.
5. After participating in the project, I enjoy talking about data-informed decision-making.

#### Self-Efficacy

1. After participating in the project, I am sure I can use a data-informed decision-making process at my school site.
2. After participating in the project, I am confident I can use data-informed decision-making at my school.
3. After participating in the project, I am certain I can use sound approaches to implement data-informed decision-making.
4. After participating in the project, I am sure I can implement appropriate methods for data-informed decision-making.
5. After participating in the project, I am confident I can apply data-informed decision-making at my school site.

#### Support

1. I feel/felt supported by the intervention that included professional development, Community of Practice, and one-on-one coaching.
2. During my participation in the project, I was supported by the professional development sessions, Community of Practice, and coaching.
3. With the professional development, Community of Practice, and coaching, I felt supported in my role as a school principal.

## Intent

1. I intend to stay in my current role serving as the school principal at my school.
2. I intend to come back as a principal at my school.
3. Next year, I will return to my role at my school.

## Team-Based Approach

1. I was able to implement a collaborative approach to data-informed decision-making with my staff at my school site.
2. I was able to apply a team-based approach with my staff when making data-informed decisions.
3. I conducted a practical team-based approach to data-informed decision-making with my staff at my school site.
4. I implemented a team-based approach to data-informed decision-making with my school team.
5. I facilitated an effective team-based approach to data-informed decision-making with my staff at my school site.

Thank you for completing the survey.

APPENDIX B

RETROSPECTIVE, PRE-INTERVENTION SURVEY

## Retrospective, Pre-Intervention Survey

Please provide the unique identifier you created previously. This is an identifier that should only be known to you; use the first three letters of your mother's first name and any four digits. This will allow us to connect responses from the two surveys while keeping data anonymous. Your unique identifier: \_\_\_\_\_ (e.g., Susa4237).

**INSTRUCTIONS: When you respond to the following questions, think about yourself prior to participating in the professional development, “Got Juice? Jam Sessions!” and the one-on-one coaching sessions.** Please rate your level of agreement with the statements using the 6-point Likert Scale. Even though the items may sound similar, please respond to each one.

6 = *Strongly Agree*, 5 = *Agree*, 4 = *Slightly Agree*, 3 = *Slightly Disagree*, 2 = *Disagree*, 1 = *Strongly Disagree*

### Knowledge

1. Prior to participating in the project, I knew how to use data-informed decision-making processes at my school site.
2. Prior to participating in the project, I understood how to use data-informed decision-making at school site.
3. Prior to participating in the project, I knew how to apply appropriate techniques to implement data-informed decision-making.
4. Prior to participating in the project, I knew how to employ data-informed decision-making at my school site.
5. Prior to participating in the project, I was aware of what I needed to know to employ data-informed decision-making at my school.

### Skills

1. Prior to participating in the project, I had the skills to use data-informed decision-making processes.
2. Prior to participating in the project, I possessed the ability to use data-informed decision-making at my school site.
3. Prior to participating in the project, I was able to implement data-informed decision-making.
4. Prior to participating in the project, I had the capacity to use data-informed decision-making at my school site.
5. Prior to participating in the project, I was proficient in applying data-informed decision-making at my school.

### Attitude

1. Prior to participating in the project, I believed data-informed decision-making would help to meet the needs of our students.



2. Prior to participating in the project, I thought data-informed decision-making would inform instruction.
3. Prior to participating in the project, I felt data-informed decision-making would benefit my school.
4. Prior to participating in the project, I considered data-informed decision-making would be a valuable tool for meeting school goals.
5. Prior to participating in the project, I enjoyed talking about data-informed decision-making.

#### Self-Efficacy

1. Prior participating in the project, I was sure I could use a data-informed decision-making process at my school site.
2. Prior to participating in the project, I was confident I could use data-informed decision-making at my school.
3. Prior to participating in the project, I was certain I could use sound approaches to implement data-informed decision-making.
4. Prior to participating in the project, I was sure I could implement appropriate methods for data-informed decision-making.
5. Prior to participating in the project, I was confident I could apply data-informed decision-making at my school site.

APPENDIX C  
SCALED GROUP INVENTORY

## Scaled Group Inventory

The scaled group inventory measures leadership practices in building a collaborative data-informed decision-making team built on trust to achieve a shared vision, mission, and goals. The scaled group inventory will take 15 to 20 minutes to complete. Please reflect on your current school team then rate your team on the 7 characteristics of a high-performing group. The scaled group inventory has been adapted from Lipton and Wellman's book *Got Data? Now What?* (2012).

Quality	Questions for Groups	Always	Usually	Sometimes	Rarely	Very Rarely	Never
<b>Maintain a clear focus.</b>	Are we clear about our desired results in both the short and long term?						
	Do we have clear and shared criteria for determining success?						
	Do we have strategies for getting back on track if the focus is lost?						
<b>Embrace a spirit of inquiry.</b>	Do we ask questions for which we have no immediate answers?						
	Do we search for and honor other perspectives?						
	Are we willing to ask questions that might cause discomfort?						
<b>Put data at the center.</b>	Do we use data to calibrate and inform our conversations?						
	Do we use multiple types and sources of data to add to our thinking?						
	Do we have methods for ensuring shared understanding?						
<b>Honor commitments</b>	Are our conversations student-centered?						

<b>to learners and learning.</b>	Do we continually assess our current learning goals (for students and for ourselves as a group)?						
	Do we set meaningful goals for our own learning as a group?						
<b>Cultivate relational trust.</b>	Do we clarify and communicate high expectations for ourselves as a group?						
	Do we make it safe not to know?						
	Do our actions reflect our commitments?						
<b>Seek equity.</b>	Do we use structures and protocols to ensure balanced participation?						
	Do all group members have an equal voice?						
	Do we challenge our own preferences and judgments in order to consider other ideas?						
<b>Assume collective responsibility.</b>	Do we believe that our collective action makes a greater difference in student learning than our individual efforts?						
	Are we willing to be answerable for the choices we are making?						
	Do we push past <i>good enough</i> to challenge ourselves continually?						

Got Data? Now What? © 2012 Solution Tree Press • solution-tree.com Visit [go.solution-tree.com/teams](http://go.solution-tree.com/teams) to download this page.

APPENDIX D

ELEMENTARY SCHOOL LEADER DEMOGRAPHIC SURVEY

## Elementary School Leader Demographic Survey

Thank you for taking the time to complete this survey. The purpose of this survey is to provide some background and demographic information about each of the school leader participants. The information will be reported in a summary not individual response. This is a separate survey so YOU as the participant cannot be identified on the research surveys throughout the project to keep the information anonymous. This demographic survey information will be kept separate. This survey will take approximately 15 minutes to complete. Please complete by DATE.

1. What are your pronouns?

she/her  
she/they  
he/him  
he/they  
they/them  
prefer not to answer  
Other:

2. Which of the following best describes your racial or ethnic background?

American Indian or Alaskan Native  
Asian  
Black or African American  
Hispanic or Latino or Spanish Origin of any race  
Native Hawaiian/Other Pacific Islander  
White (not of Hispanic origin)  
Two or more races  
Race or ethnicity unknown  
Prefer not the answer  
Other:

3. What is your primary language? (Language spoken at home)

English  
Spanish  
Other:

4. What is your age?
5. Highest level of education completed:

Bachelor's degree  
Master's degree  
Doctorate  
Other:

6. What area was your major field of study for your degree/s by the University or College?

7. Do you have an Arizona non-teaching, teaching or principal certification?

Yes, I have a teaching certificate in Arizona.

Yes, I have a teaching and principal certificate in Arizona.

Yes, I have a teaching certificate from another state.

Yes, I have a teaching and principal certificate from another state.

I have a non-teaching certificate (Counselor, Psychologist, and/or Social Worker)

I do not have a certificate

Other:

8. If you have certification, what endorsements are on your certificate/s?

9. In your prior experience in education did you work for:

another charter organization

a traditional school district

private school or private organization

I have only worked for TLG.

non-profit organization

I worked outside of education prior to working for TLG.

Other:

10. Number of years as a teacher:

11. Number of years as an instructional coach, reading specialist, math specialist, or similar role:

12. Number of years in an administrative position such as assistant principal, dean of students, office manager, social worker, or counselor:

13. How many years have you served as a school principal for your current school or any other school? (Count part of a year as one.)

14. How many years have you served as a principal at your current school?
15. How many years have you worked for The Leona Group?
16. How many of those years are as the school principal?
17. Have you participated in a mentoring program for your principal role such as the TLG Aspiring Administrators program or in another organization?

Yes  
No  
Maybe  
Other:

Thank you for your time and for completing this survey.



APPENDIX E  
INTERVIEW QUESTIONS

## Interview Questions

1. Tell me about your understanding of data-informed decision-making.
2. Tell me about your abilities for using data-informed decision-making.
3. Tell me about how you feel about data-informed decision-making.
4. Tell me about your confidence in using data-informed decision-making.
5. What were the benefits and challenges of participating in the project?
  - a. How did participation in the workshop, CoP, and coaching sessions benefit you?
6. How has participation in the project affected you as an educational leader?
  - a. How has participation in the workshop, CoP, and coaching sessions influenced thoughts about your future work?
7. How has participation in the project affected your use of data-informed decision-making with your staff?

APPENDIX F

IRB-APPROVED STUDY DOCUMENTS



EXEMPTION GRANTED

[Ray Buss](#)  
[Division of Educational Leadership and Innovation - West Campus](#)  
602/543-6343  
RAY.BUSS@asu.edu

Dear [Ray Buss](#):

On 7/6/2022 the ASU IRB reviewed the following protocol:

Type of Review:	Initial Study
Title:	Got Juice? Jam Session? Data-Informed Decision Making through Collaborative Teams
Investigator:	<a href="#">Ray Buss</a>
IRB ID:	STUDY00016206
Funding:	None
Grant Title:	None
Grant ID:	None
Documents Reviewed:	<ul style="list-style-type: none"><li>• Four Measures, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions);</li><li>• IRB Protocol, Category: IRB Protocol;</li><li>• Letter of Support, Category: Off-site authorizations (school permission, other IRB approvals, Tribal permission etc);</li><li>• Recruitment Consent Letter, Category: Consent Form;</li></ul>

The IRB determined that the protocol is considered exempt pursuant to Federal Regulations 45CFR46 (2) Tests, surveys, interviews, or observation on 7/6/2022.

In conducting this protocol you are required to follow the requirements listed in the INVESTIGATOR MANUAL (HRP-103).

If any changes are made to the study, the IRB must be notified at [research.integrity@asu.edu](mailto:research.integrity@asu.edu) to determine if additional reviews/approvals are required.

Changes may include but not limited to revisions to data collection, survey and/or interview questions, and vulnerable populations, etc.

*REMINDER - Effective January 12, 2022, in-person interactions with human subjects require adherence to all current policies for ASU faculty, staff, students and visitors. Up-to-date information regarding ASU's COVID-19 Management Strategy can be found [here](#). IRB approval is related to the research activity involving human subjects, all other protocols related to COVID-19 management including face coverings, health checks, facility access, etc. are governed by current ASU policy.*

Sincerely,

IRB Administrator

cc:

Lorisa Pombo

Dear Colleague:

My name is Lorisa Pombo and I am a doctoral student in the Mary Lou Fulton Teachers College (MLFTC) at Arizona State University (ASU). I am working under the direction of Dr. Ray Buss, a faculty member in MLFTC. We are conducting a research study on developing, supporting, and retaining effective school principals who are skilled in instructional leadership and managing schools in historically marginalized communities. In this study, I aim to understand better and provide concrete methods for using data-informed decision-making and building an effective, collaborative, high-functioning community of practice to foster effective leadership practices and team support.

We are asking for your help, which will involve your participation in completion of an online survey on two occasions (7-10 minutes, each), completion of a demographic survey (5 minutes), and a telephone interview (about 20 to 25 minutes) concerning your knowledge, experiences, attitudes, and beliefs about data-informed decision-making. Participants for the interviews will be randomly selected.

Your participation in this study is voluntary. If you choose not to participate or to withdraw from the study at any time, there will be no penalty. Choosing not to participate in the study does not affect your standing with your employer. You must be 18 or older to participate in the study.

The benefit to participation is the opportunity for you to learn strategies and practices related to data-informed decision-making, which have the potential to benefit your students. There are no foreseeable risks or discomforts to your participation.

In the surveys, to protect your confidentiality, I will ask you to create a unique identifier known only to you. To create this unique code, use the first three letters of your mother's first name and the last four digits of your phone number. Thus, for example, if your mother's name was Sarah and your phone number was (602) 543-6789, your code would be Sar 6789. The unique identifier will allow us to match your post-intervention survey responses and your retrospective, pre-intervention responses when we analyze the data. The demographic survey is anonymous and will not be connected to the other surveys.

For those randomly selected for the interviews, I will request to audio record your responses. The interview will not be recorded without your permission. Please let me know if you do not want the interview to be recorded; you also can change your mind after the interview starts, just let me know. I will ask for your oral consent at the time of the interview for those who are selected.

Your responses will be confidential. Results from this Study may be used in reports, presentations, or publications but your name will not be used. Data from this Study will not be shared with others.

If you have any questions concerning the research study, please contact the research team – Lorisa Pombo at [lorisa.pombo@asu.edu](mailto:lorisa.pombo@asu.edu) or (480) 340-7915 or Dr. Ray Buss at [ray.buss@asu.edu](mailto:ray.buss@asu.edu) or (480) 585-3802.

Thank you,

Lorisa Pombo, Doctoral Candidate  
Ray Buss, Professor

If you have any questions about your rights as a participant in this research, or if you feel you have been placed at risk, you can contact Ray Buss at (480) 585-3802 or the Chair of Human Subjects Institutional Review Board through the ASU Office of Research Integrity and Assurance at (480) 965-6788

