Building the Bench:

Developing the Leadership Capacity of Assistant Principals

Jerad J. Crave, Katie C. Elliott, Andrea E. Russell, and Michael E. Swan

Western Carolina University

Acknowledgements

Our disquisition team would like to acknowledge the sacrifices and support of our families, co-workers, and friends during this collaborative project.

Our Revolutionary Disquisition Committee Chair:
Dr. Robert Crow, WCU Associate Professor of Educational Research
Your commitment, guidance, and humor have been a constant source of support.

Disquisition Committee Members:
Dr. Darrius Stanley, WCU Assistant Professor of Educational Leadership
Dr. Siham Lekchiri, WCU Assistant Professor of Human Resources
Dr. Mark Dickerson, Assistant Superintendent of Asheville City Schools
Thank you for your time, ideas, and feedback that strengthened our praxis.

Faculty and Staff of WCU Educational Leadership Program
Thank you for building our capacity, reframing our lenses, and expanding our knowledge as action researchers. Through our participation in this program, grounded in social justice and improvement science, we are stronger scholar practitioners and more reflective professionals.

District support and Administrators in
Asheville City, Burke, Caldwell, and Stanly County Schools
Thank you for allowing our disquisition team to explore professional development, gather data, and discuss findings in this project.

WCU EdD Cohort 5
We thank you for your collaboration, challenge, and collegiality!
Additionally, and finally, beer, wine, and bourbon - it wouldn't be the same without you!

Dedications

This disquisition is made possible because of the many people who love and support me. My family, Jessica, Johanna, and Julia provided countless hours so I could work with the most amazing team of educators I know--Andrea, Katie, and Mike. Thank you! My disquisition journey has been filled with deep thinking, problem solving, a great deal of collaboration, and a lot of fun--I've enjoyed it all. I now see problems not as barriers, but as opportunities for growth and reflection. **--Jerad Crave**

A disquisition is not just a personal sacrifice. Thank you to my supportive family, my husband Bryan, and daughter Addison for your patience over the past three years. My work family has also lifted me up with continuous encouragement and support. I would not have wanted to do this without my team - Andrea, Jerad, and Mike. Our team dedication to this project has yielded results we could not have achieved alone. I am so thankful to have them in my life! **-- Katie Elliott**

To my husband Isaac, children, Ava and Jonah, and extended family who have been my greatest supporters - thank you for your sacrifices, help, and understanding during this journey. To Katie, Mike, and Jerad, with countless hours of fun and hard work, I am so proud of our efforts and final project. Thank you for your teamwork. I look forward to future collaborations with you all. I would like to dedicate this work to all aspiring school leaders. May you experience the support and encouragement I have been lucky enough to have in my professional journey. **-- Andrea Russell**

I dedicate my disquisition work to my family and many friends. A great deal of gratitude to my loving wife Sara, tenacious daughter Hadley, and my steadfast son Walt for their constant words of encouragement and push that resonated with me throughout this process. I also dedicate this disquisition to Andrea, Jerad, and Katie, I am proud to call this team my friends. The countless hours of work and laughter have made us like family. I will always appreciate all they have done. **-- Mike Swan**

Table of Contents

Tables and Figures

Abstract

Our disquisition is founded in both the leadership literature and empirical data from four North Carolina school districts. Our work and the literature suggest that support is needed for assistant principals to develop their leadership capacity and prepare them for the principalship (Chan, Webb, & Bowen, 2003; Leithwood, Louis, Anderson, & Wahlstrom, 2004). We utilized improvement science methods to identify a problem of practice to be addressed with an improvement initiative (Bryk, Gomez, Grunow, LeMaheiu, 2016). Our improvement initiative was employed through a combined framework of succession planning (Lynn, 2001; Peters, 2011) and social justice leadership theory (Theoharis, 2007; 2009). Called the Assistant Principal Professional Leadership Experience (APPLE), our implementation consisted of three components including an orientation session, monthly professional development sessions, and shadowing experiences. Utilizing a PDSA (Plan-Do-Study-Act) approach, we collected data throughout the initiative to make decisions. Using both qualitative (interviews, focus groups) and quantitative instruments (surveys), we analyzed the pre-initiative and post-initiative data to find statistically significant growth in several leadership areas, including: equity, student assessment, teacher evaluation, teacher remediation, data-driven decision making, student decision making, and school safety. The data showed mean increases in assistant principal created goals as well as increases in the pre- and post-measurements of the North Carolina Standards for School Executives. The qualitative and quantitative shadowing data showed positive findings that acknowledged the success of the experience.

Keywords: leadership, assistant principals, administrator support, shadowing, professional development, orientation, succession planning model, social justice leadership

The Collaborative Disquisition

Our team's journey through the disquisition process is both progressive and collaborative. Following recommendations from the Carnegie Project on the Education Doctorate (CPED), we developed our project as an improvement initiative grounded in the creation of knowledge and improvement of practice within the field of education (CPED, 2018). Our team is implementing our improvement initiative measure within each of our four unique contexts to better understand assistant principal support and development. The collaborative process has allowed us to combine collective experience, knowledge, and skills as a disquisition team to apply within our individual school districts as laboratories of practice. Witte and James (1998) support doctoral research partnerships as ways to expand knowledge through 'widening the net' of the research project. We found that although our school districts vary significantly, challenges affect each one of our contexts in similar ways, thereby creating excellent opportunities for comparison while implementing our proposed improvement initiative. In addition to improving growth opportunities for assistant principals within our districts, we wanted to generate knowledge for the field of educational leadership.

The final requirements of the doctoral program are contemporary and relevant to our team's daily work. The culminating project of the Educational Leadership Doctorate program (Ed.D.) at Western Carolina University is a problem-based disquisition, rather than a traditional research-based dissertation (College of Education and Allied Professions Ed.D. Degree, 2018). The disquisition provides a concrete good for the larger community through the dissemination of new relevant knowledge. Using an improvement research approach, the disquisition draws upon a contextualized application of improvement to gather data and analyze findings. As the

Carnegie Project on the Education Doctorate (CPED) states, "The purpose of the Ed.D. is to prepare educators for the application of appropriate and specific practices, the generation of new knowledge and the stewardship of the profession" (Perry, 2012, p. 43). Through the use of improvement science tools, we can provide consistency in our implementation across the different contexts. Additionally, we will be developing our initiatives through frameworks that includes succession planning, (Lynn, 2001; Peters, 2011) and social justice leadership (Theoharis, 2007, 2009). Succession planning engages in a cyclical and continuous model with many similarities to our utilized improvement science tools, such as the causal analysis, and driver diagram, as well as the Plan-Do-Study-Act cycle (Bryk et al., 2016). School districts are facing reduced budgets, greater challenges, and the constant pressure of having to do more with less. When a clear succession plan is not in place, and leadership capacity is not developed before a principal is hired, student achievement may decline. A succession plan that works in educational contexts is necessary for the health of schools and districts.

Introduction

Recollections from an administrator

> *I was in my office, the phone rang and I answered, expecting to hear the voice of one of my students' parents. Instead, it was my Superintendent. The conversation was brief and a wave of emotion flooded my body as I hung up the phone. I remember thinking "did he just say I would be moving from my current position as an assistant principal into the role of a middle school principal?" Reflecting back, I remember feeling prepared for the principalship. However, the proverbial "transitional phase" seemed to hover over me like a black cloud. In reality I did not have the capacity to take on the complex role of the principalship. I was not well prepared and felt like I was drowning once I moved into the new position. I lacked the skill-set to be able to perform the various tasks that were expected of me such as running a faculty meeting, creating observation schedules, budgeting school funds, communicating with parents, and conducting IEP meetings; all while striving to maintain student success. The culmination of my inexperience peaked when a new transgender student and their parents asked me which bathrooms would be available to them and I didn't have the capacity to address the question effectively. Fast forward ten years and knowing what I know now, I would have benefited from more training and support as an assistant principal.*

The story above illustrates the need to work with assistant principals on developing knowledge, skills, and dispositions, before they enter a principalship. Because the role of the assistant principal is often ill-defined, managerial, and supervisory in nature, assistant principals are often lacking the experiences that train them for a principalship (Hausman, Nebeker,

McCreary, & Donaldson, 2002; Koru, 1993). Demands such as managing people, supervision, and discipline, keep assistant principals from investing time and fulfilling responsibilities in the instructional program (Hausman, et al., 2002; Johnson-Taylor & Martin, 2007; Koru, 1993). In fact, "the main responsibility assistant principals have with regard to instruction is remediating problem classroom behavior" (Marshall & Greenfield, 1987, p. 49). Experiences that are primarily managerial in nature can be very frustrating for assistant principals who want to lead their own schools because a 21st century principal has a primary responsibility centered around instructional leadership rather than discipline.

Every assistant principal has unique experiences coming into the principal position, thereby creating knowledge and skill gaps. Much of the assistant principal experience depends on the nature of the supervisory principal and what roles they assign to their assistant principal(s). Many principals keep the instructional leadership and planning tasks to themselves and give the assistant principal the more operational items such as discipline and buses, which do not offer the assistant principal adequate chances to develop skills that lead to affecting systemic change (Zellner, Ward, McNamara, Gideon, Camacho, & Edgewood, 2002). Much of an assistant principal's development is in the hands of their principal and how open the principal is to including the assistant principal on a wide range of task experiences.

Instructional leadership is not the only area where assistant principals do not get the experience necessary to become successful principals. The principal has an important role in defining a vision for their school, supporting teachers, and maintaining a school culture that leads to student success in a continuously changing high-stakes environment (Leithwood & Jantzi, 2000). Principals manage the building, human resources, and are responsible for developing and

evaluating teachers' skills (Bohn, 2013). Despite reported preferences for more responsibility in other areas than they typically handle, the assistant principals are charged with keeping up with the daily management of students (Glanz, 1994). Our disquisition team pulled from personal experiences to develop Table 1 to illustrate differences between the assistant principals' responsibilities and those of the principal. The table highlights the job of the principal that includes instructional leadership as opposed to that of the assistant principal, whose role includes managing discipline and textbooks. Due to the disparity between job responsibilities of principals and assistant principals, assistant principals need training and experiences outside of their job responsibilities in order to be better prepared for taking on a principalship.

Table 1

Examples of Different Responsibilities Between Principals and Assistant Principals

Principal	**Assistant Principal**
Instructional Planning	Student Supervision
Curriculum Development	Student Discipline
Staff Development	Parent Communication
School Culture & Climate	Bus: Drivers, Routes, Behavior
Mission and Vision	Testing Procedures
School Data	Substitute Management
Budget	Textbook Inventory
Community Relations	Locker Management

Assistant principals can have a meaningful impact in their buildings. Assistant principals are in an excellent position to create, foster, and support a social justice orientation among teachers and staff, especially through professional development opportunities and coaching (Boske & Benavente-McEnery, 2012; Theoharis, 2007, 2009). Promoting inclusive

practices in classrooms with teachers through modeling, coaching, and professional development opportunities can lead to a school-wide promotion of social justice approaches (Marshall & Oliva, 2010; Theoharis, 2007, 2009). Leaders who put equity in the forefront improve teacher guidance and student outcomes (Browne, 2012). Current principal preparation programs and most assistant principal experiences do not give opportunity to develop these important skills. Most programs have students take classes in areas such as school law, finance, and curriculum to prepare the next generation of leaders. Fortunately for new administrators, leadership preparation programs, such as Western Carolina University, are promoting a social justice approach and weave the lens through the course content. A social justice orientation is difficult to teach and assess but is just as important as the traditionally taught subjects. Consequently, socially just school leaders will encourage and promote teachers and staff to also be socially just, thereby leading to greater equity and outcomes for students in the school (Theoharis, 2007). We must place emphasis on this area for new school leaders.

A recently published Wallace Perspective report that takes a look back at the foundation's research and field experiences finds that five practices in particular seem central to effective school leadership (The Wallace Foundation, 2012): 1. Shaping a vision of academic success for all students, one based on high standards; 2. Creating a climate hospitable to education in order that safety, a cooperative spirit, and other foundations of fruitful interaction prevail; 3. Cultivating leadership in others so that teachers and other adults assume their part in realizing the school vision; 4. Improving instruction to enable teachers to teach at their best and students to learn at their utmost; and 5. Managing people, data and processes to foster school improvement. Understanding these practices, our definition of a good leader is someone who

establishes a clear vision, cultivates a collaborative learning environment, supports all stakeholders' interests, and exhibits socially just principles prioritizing equity in order to positively impact students.

Problem of Practice: Unprepared Leaders

It may be the students who suffer the most when a district hires a new principal from an assistant principal role and is not adequately prepared. Additionally, hiring principals from outside of the district can be harmful to the stability of the school culture and climate due to not being familiar with district policies. Leading a school is no easy task and requires a diverse range of skills and aptitudes. Regardless of prior training, moving from an assistant principal role to a principal role is a challenging task. Without the proper skills and training, it can be an impossible task.

New principal hires come almost exclusively from the assistant principal ranks and students cannot afford to struggle during the time it takes the new principal to grow into the role. Good principals may seem unlikely superheroes—unless you are a student, teacher or parent. School leaders set the tone for what happens long before the ringing of the opening bell and can turn a troubled school around with a combination of vision, drive, and very hard work (Kantrowitz, 2007). One new principal stated that "my job is to get those students prepared for life - having that run through your head all day long on top of the managerial things that you have to do - it is a very lonely and demanding job" (UNCTV, 2017). The same principal stated, "It is a tremendous feeling to know that others have made it through the first year and you can too" (UNCTV, 2017). The Wallace Foundation (2015) found that support programs are essential

for new administrators to be successful given the rigors of the position and the expectations of districts and schools.

In the public sector of education, top leadership positions are openly competitive but also political in nature. Private sector corporations also use open competition to place top leaders but traditionally integrate more merit-based and competitive testing mechanisms in placement. Additionally, they do a more thorough job of identifying promising leadership candidates early in their careers and developing them into the leaders that the corporations need (Lynn, 2001). In an era where the public education sector is facing continuous upheaval, funding cuts, and increasing organizational complexities, the often-predictable method of leadership capacity development utilized by districts is no longer effective.

When assistant principals and principals do not have proper support, development, and guidance, the effect on students can be significant. Leaders create conditions within their schools, and those conditions can be positive or negative. School leaders are the instructional leaders and guides for teachers and a strong positive presence is essential to student success in schools (Leithwood, Louis, Anderson, & Wahlstrom, 2004). Assistant principals transitioning into a principalship role are often not adequately prepared to lead and struggle in the beginning years of their new leadership role. Because prior experiences as an assistant principal do not always adequately prepare assistant principals to step into the principalship (Chan, Webb, & Bowen, 2003), district leaders can work with assistant principals and provide them with the necessary training and development before they move into the principal role. Districts cannot simply move on to the next candidate because quality candidates are not readily available, especially in rural areas, and the preparation problems are often universal to the pool of

candidates (Bottoms & O'Neill, 2001). Districts can, and should, implement succession planning processes that not only ensure development of potential leaders but also track the progress of the developed competencies and continuously identify additional critical needs to develop (Lynn, 2001). State departments of education can work toward a policy of supporting administrators in similar ways to how they support beginning teachers. Until state policies to support assistant principal development are in place, the onus for assistant principal development is on the districts to utilize succession planning more effectively.

History and Current State - Working Toward Policy.

Broadly speaking, succession planning in school districts does not always align with developing skills in individuals. Very few plans balance capacity development with career skill development because the needs of the individual are second to the overall strategic plan of the school district (Fink, 2010; Peters-Hawkins, Reed, & Kingsberry, 2018; Thompson, 2010). Because the focus is not on developing careers, promising leadership talents are often internally discouraged from pursuing leadership careers (Thompson, 2010). Traditional succession planning can leave some aspiring leaders out of the candidate pipeline, through which most assistant principals are promoted to a principalship, which can affect job performance in their current roles. Good leadership can often inspire others' desire to lead, which is why many leadership development programs in education have been successful (Drew & Ehrich, 2010; Zepeda, Bengtson, & Parylo, 2012). As districts have been cut in funding and personnel, however, this added workload is often resented and the reason why many programs are discontinued (Simkins, Close, & Smith, 2009). Public education is a unique context and while not all strategies from a business context can be applied directly to education, they can be

modified into a strategy that works. Funding and personnel cuts have contributed to larger work-loads for current district leaders. If districts do not have a method of identifying the next generation of leaders, schools will suffer the consequences.

It is important to consider existing policy at the state level when analyzing the need for beginning administrator support programs. In North Carolina, policies are in place requiring districts to provide support systems for beginning teachers (NC General Statute §115C-296(e), 2017) but no such policies for support exist for beginning administrators of any classification. Therefore, support programs for new administrators and leadership development programs for aspiring principals are left to the discretion of the individual districts with no designated funding. This lack of funding can be especially difficult for small rural districts to overcome. Most rural districts have very little local funding provided in comparison to larger districts who often have higher levels of funding due to more local support as well as economies of scale. The state's solution, forced by the Leandro lawsuit (Leandro vs. State, 1997), provided low-wealth and small-school funding but these funds have done little to help the counties that receive them (Crutchfield, 2016). When counties do not provide a high enough tax base, the state cuts the amount of low-wealth funds provided which further negatively impacts local education budgets in rural and conservative areas.

Across the state, certain districts do have programs in place to support beginning administrators, but exact numbers for North Carolina are not currently known. Districts such as Burke County Schools assign mentors to all beginning principals and have new principal seminars (M. Swan, personal communication, March 24, 2018). Large districts, such as Wake County, are able to partner with universities in order to train aspiring administrators from the

very beginning of their graduate programs and then support them with a comprehensive program once they are in place (M. Holland, personal communication, March 26, 2018). Despite these local success stories, many local districts have no programs in place for current beginning assistant principals, principals, or for aspiring leaders. Small rural and remote districts have few resources or partnerships that could help with developing these programs. Large districts are often able to partner with local universities and businesses in order to assist with training, resources, and funding. Districts are divided into regions by the North Carolina Department of Public Instruction and partnerships between districts within regions may help overcome these challenges.

Before exploring options for a beginning administrator support program in North Carolina, it is important to analyze what has been legislated for beginning teachers. The beginning teacher support program has a history of success and scalability and is supported by our North Carolina legislators and all districts in the state are mandated to have a program in place (NC Gen Stat §115C-296, 2017). A program modeled after the beginning teacher support program needs to be in place for assistant principals in order to build the capacity of future leaders. While teachers have the most direct impact on student success, administrator success has a large impact on student success (BEST NC, 2018) and they deserve and need support in many of the same ways that teachers need support. We cannot expect principals with no experience to affect great change for our students without guidance and support during the first years on the job.

In comparison to having no state mandated support for administrators, North Carolina currently requires all teachers new to the profession to have three years of support. State statute

(NC Gen Stat §115C-296, 2017) requires the State Board of Education to maintain policy specifics for the Beginning Teacher Support Program. The policy currently requires a three-year induction period to include a formal orientation, mentor support, observations and evaluation (North Carolina State Board of Education, 2018). Requirements of the program include an orientation prior to the arrival of students, regular formative assessment conferences, a professional development plan in collaboration with the principal, and protected working conditions (North Carolina State Board of Education, 2018). State statute (NC Gen Stat §115C-296(e), 2017) also requires the State Board to develop and coordinate a mentor teacher training program. The Beginning Teacher Support Program Standard 2c, requires programs to provide initial training to mentors regarding their role and responsibilities, ongoing training to advance their knowledge and skills, and opportunities to participate in professional learning communities of mentoring practice (North Carolina State Board of Education, 2018). Districts have flexibility to meet these requirements in ways that work for their individual contexts. The structure of the beginning teacher support program is lacking for administrators but the beginning teacher model can serve as a guide for the development of a model for North Carolina.

Good programs require resources. The General Assembly requires the State Board to allot funds for the Beginning Teacher Support Program (NC Gen Stat §115C-296(e), 2017). Historically this equates to approximately $1000 for each first-through-third year beginning teacher. Many districts also supplement their funding with Title II funds. (D. Johnson, personal communication, March 26, 2018). Regardless of the possible structures that should be developed for a beginning support program for new assistant principals and principals, similar funding at

the state level will be needed in order for it to be possible. We hope to use our research outcomes to advocate for this level of support at the state level.

Comprehensive Review of Principals' Preparedness to Lead

Research supports several factors why principals are not adequately prepared to effectively lead schools. Our team conducted a causal system analysis to identify root causes of our problem of practice. A causal system analysis is a tool used by improvement communities to detail a specific problem, identify why the problem exists, and find a common understanding of the problem (Bryk et al., 2016). Figure 1 depicts a causal analysis highlighting the major factors contributing to five possible causes that affect principals' preparedness to lead. As depicted in the figure, these causes include: (a) lack of understanding of high-quality teaching and learning, (b) ineffective principal preparation programs, (c) lack of clear expectations for leadership from district leaders, (d) lack of leadership capacity development for aspiring leaders, and (e) stressful working conditions. For the purposes of this causal analysis, we focused our attention on the three causes that directly influence our work in the disquisition: Lack of understanding of high-quality teaching and learning, lack of clear expectations for leadership from district leaders, and lack of leadership capacity development for aspiring principals.

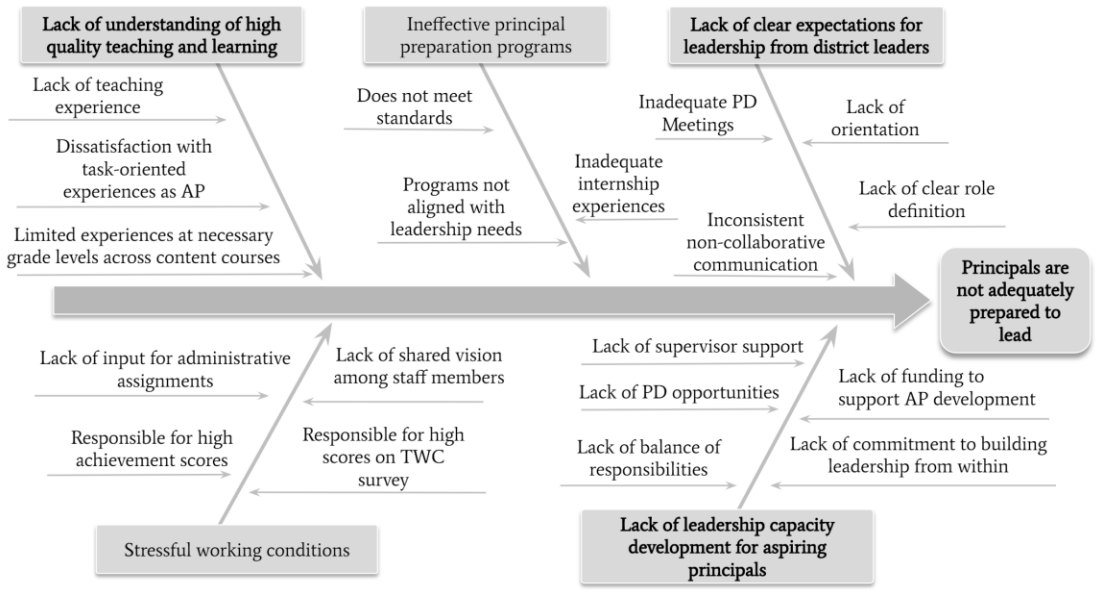


Figure 1. Causal analysis highlighting contributing factors of principals' not being prepared to lead schools.

Causal Analysis Focus Areas

We identified three root causes why principals are not adequately prepared to lead that could be addressed using an improvement initiative. Our initiative was grounded in school leadership research and uses successful district support initiatives for guidance (Wallace Foundation, 2013, 2015). There was a great amount of research that supports the tenets of the causal analysis. Below, we explored the literature that describes these possible causes.

Lack of understanding of high-quality teaching and learning.

The first root cause of our problem of practice is assistant principal's lack of understanding of high-quality teaching and learning. The issues involved in this problem area include limited field experiences at necessary grade levels, a lack of teaching experience, and dissatisfaction with task-oriented experiences as an assistant principal. Those transitioning into the principalship also report experiencing "gaps between what they learned in traditional degree-

earning programs and the skills they find they actually need on the job" (Prothero, 2017, p.10). New principals feel inadequate as leaders because they lack the skills to effectively support staff members while performing on-the-job administrative duties.

High quality teaching and learning are developed over many years of practice. New administrators do not usually work at various grade levels which limits the scope of their experience (Wallace Foundation, 2015). Providing teachers with critical feedback to improve their instruction goes beyond assessment and becomes coaching. A strong administrator can coach teachers to gain perspective and new skills, improving their teaching and student learning (Prothero, 2017). New administrators require the same level of coaching to acquire the skills necessary to become an instructional coach of teachers.

Lack of teaching experience.

An assistant principal's qualifications vary according to their individual experiences. Some enter the principalship without ever stepping foot inside a classroom. Research shows that teaching experience is an essential tool for assistant principals to have both from a personnel perspective, in terms of identifying effective teachers, and an administrative perspective, contributing to instructional knowledge (Hausman et al., 2002). Hausman et al. (2002) analyzed survey data from 125 assistant principals in Maine to find that understanding functions and roles with adequate teaching experience proved paramount to assistant principals reporting higher levels of job satisfaction, preparedness, and relationships with teachers. Similarly, the authors also reported lower levels of confidence and instructional leadership capacity when assistant principals had fewer than 5 years of teaching experience (Hausman et al., 2002). Our intention was to increase assistant principals' levels of confidence and instructional leadership skills.

Not all assistant principals view themselves as instructional leaders. Assistant principals who perceived the role of an administrator as more managerial spent far less time as an instructional leader providing support, feedback, and guidance to teachers in their classrooms (Peters, Gurley, Fifolt, Collins, & McNeese, 2016) "Those [assistant principals] with less teaching experience may not have the skills, knowledge, experience, or confidence to act as instructional leaders, especially when working with older and more experienced teachers. If they lack the skills and experience, assistant principals may not feel comfortable" (Oleszewski, Shoho, & Barnett, 2012, p. 278). An assistant principal with inadequate experience will have a difficult time leading a school to success.

Limited experiences at necessary grade levels or across content courses.

The experiences that assistant principals have as teachers are important to their future knowledge about grade levels and content areas. Assistant principals should have a firm foundation of teaching experience at the level they are an administrator for, yet oftentimes this is not the case (Wallace Foundation, 2013). The Wallace Foundation (2013) used survey and interview data to obtain information about what knowledge, skills, and experiences assistant principals should obtain to be successful. A primary finding was that administrator experiences at various grade levels (elementary, middle, high) is essential for student success. Furthermore, by having field experiences at multiple levels through an administrator preparation program, assistant principals will have the requisite knowledge and understanding to ensure leadership success (Porter, 1996). The suggested approach by Porter (1996) is to provide administrative candidates to work one-week as an "inquiry team" member in an unfamiliar setting, then reflecting with members of their cohort the next week. By gaining experiences in new school

levels, administrators can be better prepared to lead at different school levels (Porter, 1996). In order to gain trust and validity, assistant principals must have expertise in a variety of grade levels and subject areas.

Dissatisfaction with task-oriented experiences as assistant principals.

Much of the dissatisfaction with the assistant principal position lies within the duties assigned to individuals. "An overwhelming amount of tasks related to discipline and student management can have negative effects on assistant principals' effectiveness and job satisfaction" (Oleszewski et al., 2012, p. 277). Management tasks remove assistant principals from instructional leadership and creates divides between teachers and leaders. Many current assistant principals have expressed that they did not feel prepared for the many facets of their roles (Busch, MacNeil, & Baraniuk, 2010). Preparation for the role is integral to assistant principals' confidence, which translates into job satisfaction (Busch et al., 2010). Additionally, many assistant principals have stated that their own professional experiences on the job have not adequately prepared them for the comprehensive nature of the principal role, leading to feelings of isolation, frustration, and being overwhelmed (Wallace Foundation, 2013). The absence of adequate professional experiences relates significantly to a lack of clear expectations from supervisors for assistant principals, which is detailed below.

Lack of clear expectations for leadership from district leaders.

The next root cause in our causal analysis was the lack of clear expectations for leadership from district leaders. Once assistant principals understand the expectations of the organization, they must also learn their job responsibilities. However, this can be difficult because the specific role and responsibilities of an assistant principal are not precise or exact

(Marshall, 2006). In fact, there is no universal role definition for an assistant principal (Weller & Weller, 2002). Instead of a specific job description, the common contractual phrase used for an assistant principal is "performing any and all duties assigned by a superior" (Weller & Weller, 2002, p. xiii). In other words, most assistant principals' responsibilities are determined and assigned by the principal (Oleszewski et al., 2012). Assistant principals need clear guidelines they can follow in order to meet the expectations set forth by their district and school principal.

Unclear directions for assistant principals.

The lack of clear expectations as identified above connects to another root cause of our problem of practice: lack of clear role definition. In most situations, before taking on the role of principal, the majority of principals serve as an assistant principal (Crow & Pounder, 2005). As the role of the assistant principal continues to transform, little research has been done around the assistant principal role and what defines the role more clearly. The literature base does however, document the current status of the assistant principal role as being "very narrowly focused on student discipline, scheduling, and clerical tasks" (Johnson-Taylor et al., 2007, p.23). These tasks are not adequately preparing assistant principals to be strong principals in their districts.

Inadequate professional development meetings.

Our problem of practice focused on providing support to develop assistant principals to be successful beginning principals. However, in addition to role restructuring, additional research is needed in the area of training and professional development of assistant principals. The pathway to the principalship should include professional development opportunities where assistant principals engage in all aspects of how to run a school (Johnson-Taylor et al., 2007).

When assistant principals can participate in all aspects of leading their school, they are sure to gain confidence and competence.

Potential assistant principals should receive training specific to their position. Coursework or training may include instruction in administrative theory and school leadership taught by those with extensive practical experience (Oleszewski et al., 2012). Professional development should focus on the development of skills essential to the assistant principalship and the preparation for career advancement (Kwan, 2009). Programs may include apprenticeships and workshops that focus on "field practice, collaborative inquiry, case study analysis, self-study, individual and group dialogue, and feedback on performance, and action plans" (Oleszewski et al., 2012, p. 270). Through the use of case study analysis and reflective approaches, assistant principals can be better prepared for the challenges of leading a school.

While managerial, budgeting, and other supports are important, districts should invest time and tailor resources that develop the leadership needs of assistant principals that align with the district's mission and vision. When building professional development, districts should also include resources that lead to development in the multiple facets of social justice such as school size, enrollment numbers of students in each classroom, and the demographics and city boundaries that make up the student population (DeMatthews, 2018). Assistant principals need a strong foundation and understanding of what social justice looks like in the structure of not only a school system but also within the school buildings that make up the school system. In considering issues of equity and social justice in schools, administrators are ultimately in charge of the development of the school. Systems of support in many districts are not in place to provide assistant principals with the guidance and skills that are many times not provided to

principals in school leadership training programs (Wallace Foundation, 2007). High quality professional development can provide the necessary knowledge and skills to transform practices for assistant principals.

Lack of orientation to district policies.

An orientation to the assistant principal position seems like a basic offering, but it is not a standard practice in all districts. Often there are no orientation sessions designed to support assistant principals on their pathway to the principalship and this deficit contributes to a root cause in our problem of practice (Wallace Foundation, 2013). Assistant principals are essentially left to fend for themselves with little support (Lashway, 2003). School districts can provide better support in the development stages of assistant principals by implementing an induction program with an orientation component. Lashway (2003) reports, "formal induction programs are too new to have generated a significant body of empirical research, but there is a growing literature that articulates a rationale for induction programs and testimony that induction efforts are well-received" (p.2). Creating an induction program for assistant principals can provide a roadmap to the success of the individual and the school.

One national review of induction programs has identified the needs of newly appointed school leaders and has pointed to the need for induction programs to: Help put into practice the knowledge, skills, and understanding gained from prior experience, assist in forming a strategic view of the development needs of the school, provide support in developing constructive relationships with all stakeholders in school, and provide access to different kinds of learning opportunities (Bush, 2009). An induction program helps provide a smooth transition into the principalship especially when districts focus the context of the program around specific needs

(Lashway, 2003). The value of an induction program can go beyond a school to create a culture of support within a district that encourages collaboration instead of isolation.

Inconsistent, non-collaborative communication from district leaders.

Inconsistent, non-collaborative communication is another contributing factor to our problem of practice. Anecdotally, we have observed many inconsistencies from a lack of communication between the principal and assistant principal. Clear communication is needed for an administrative team to operate efficiently and effectively. The shared duties between principals and assistant principals should be clearly divided and defined (Burch, 2018). Each school is different and, depending on the principal, various approaches can be taken when delegating the work-load. "Principals should explicitly define what their expectations are for the assistant principal" (Burch, 2018, p. 1). Clear expectations and guidelines for duties will provide assistant principals with the necessary information to be successful.

Open communication between a principal and an assistant principal is an important component of creating a strong working relationship within a school. The collaborative relationship between a principal and an assistant principal can help foster positive communication outlets while providing opportunities for principals to learn about releasing responsibilities and delegating (Burch, 2018). An inconsistent non-collaborative communication exchange between principals and assistant principals can lead to chaos and barriers, resulting in a lack of student and school success. Thus, "leadership only succeeds if the leader brings other people along into the same vision, and they are all able to work together and trust one another" (Mitgang, 2012, p.4). Working with assistant principals can be rewarding and great for schools once an open line of communication is formed and a collaborative school culture is established

(Burch, 2018). Assistant principals need to be fully involved in order to effectively serve their schools and districts.

Lack of leadership capacity development for aspiring principals.

The final section of the causal analysis illustrates a lack of leadership capacity development for assistant principals who are aspiring to be principals. The reasons for this lack of development include an overview of the lack of funding to support assistant principal development, lack of supervisor support, lack of professional development opportunities, lack of commitment to building leadership from within the district, and the lack of a balance of responsibilities (Fink & Resnick, 2001; Gurley, Anast-May, & Lee, 2015; Leachman, Masterson, & Figueroa, 2017; Marshall, 2006; Oleszewski, et al., 2012). Districts fail to adequately support assistant principals' development in a variety of ways.

Underfunded fiscal support for assistant principal development.

While districts have been asked to 'do more with less' when it comes to cuts in education budgets, there are fewer resources to spend on meaningful professional development opportunities. Most states are still funding schools below pre-2008 recession levels (Leachman et al., 2017). Lack of funding has led many districts to cut professional development for administrators which fails to provide school leaders with chances to collaborate and grow professionally. Despite these cuts, districts should consider the development of quality leaders as an investment (Oleszewski et al., 2012) and retain programs for administrators. The time and money spent to develop aspiring leaders will offer districts great return, as they continue to build capacity from within.

Inadequate supervisor support for assistant principals.

Assistant principals serve at the discretion of district leaders and may be reassigned between schools and supervisors frequently depending on the needs of the district. Frequent movement brings with it a variation in job requirements in different schools and from year-to-year (Oleszewski et al., 2012). The experiences of the assistant principal depend on which assignments they fulfill each year and the varied expectations of supervising principals. Variation of responsibilities can create role conflict and overload for an assistant principal who is not yet able to perform all required tasks effectively (Marshall, 2006). An assistant principal's professional growth can be affected in positive and negative ways depending on the level of assistance and encouragement they get from their principal. The inconsistency of the expectations from these supervisory relationships adversely affect assistant principals' leadership confidence and development.

Lack of professional development opportunities.

Assistant principals often get caught up in managing day to day activities in school buildings and find themselves uninvited to professional development sessions that are designed for principals or geared toward classroom teachers. There are usually fewer assistant principals in a school district, and fewer opportunities for growth through professional development offered specifically for this group of leaders (Oleszewski, et al., 2012; Allen & Weaver, 2014). In fact, one assistant principal talked about not having the required number of continuing education units (CEUs) to renew his North Carolina educators' license because he had not had the opportunities to participate in an adequate amount of professional development sessions (W. Benson, personal conversation, March 15, 2018). Gurley, Anast-May, & Lee (2015) reiterate how crucial this

development is for districts' futures:

> ...because assistant principals most typically succeed principals in building leadership roles, school districts must do all they can to ensure that assistant principals not only have the desire and motivation to assume key leadership roles but also that they acquire the necessary skills during their experience as assistant principals to be successful in top leadership positions. (p. 216)

The formal training assistant principals receive is usually through a university graduate program. Training is rooted in theory, skill, and law, which does not wholly satisfy the needs of their endeavors to lead an institution (Marshall, 2006). University-based training does not fully prepare all individuals for the multifaceted work of the principalship that includes instructional leadership as a priority, thus requiring ongoing support from districts (Fink & Resnick, 2001). The lack of comprehensive training directly impacts the assistant principal's preparedness to move into leadership roles.

Unbalanced responsibilities from principal.

An assistant principal role varies greatly depending on grade levels in the building, supervisor expectations, and day-to-day activities. In conjunction with inadequate comprehensive training, an abundance of literature supports that the responsibilities of an assistant principal are not clear or balanced (Allen et al., 2014; Crow et al., 2005; Fink et al., 2001; Gurley et al., 2015; Kwan, 2009; Marshall, 2006; Oleszewski et al., 2012; Peters et al., 2016). In addition to the assigned tasks that assistant principals are required to attend to, they also continuously "pick up multiple jobs every hour" (Marshall, 2006). A wide range of tasks encompass any given day, including, but certainly not limited to: Parent and student

conferences, behavior issues, scheduling, public relations, classroom observations, and substituting for the principal.

While assistant principals bear multiple responsibilities, the presence of this professional is crucial to the function of the school. The assistant principal's critical "position lacks a precise job description yet entails numerous tasks to ensure the success of a school" (Oleszewski et al., 2012, p.264). The lack of balance of the responsibilities for assistant principals impacts their well-being, stress and frustration levels, and job performance (Oleszewski et al., 2012). Districts could work with supervising principals and assistant principals to define these roles and balance the tasks in an attempt to elevate the effectiveness of these professionals.

Problem of Practice within Local Contexts

Our research team is comprised of four education professionals who serve four separate public-school districts in North Carolina. Each team member worked with a strategic team of professionals, called a design team, to implement this work in a relevant way in each district. Using leaders from each context allowed implementation, logistics, and guidance to be authentic to the different needs identified in each district. The design teams consist of individuals who help plan the implementation process with each disquisition team member. As shown in Figure 2, the NC districts include Asheville City Schools, Burke County Schools, Caldwell County Schools, and Stanly County Schools.

Figure 2. Implementation will occur in four North Carolina school districts.

Asheville City is the smallest district, is urban, and has a large amount of local funding. Caldwell County and Burke County are neighboring counties similar in size and demographics. Both are rural with many small towns scattered throughout the districts. Stanly County is slightly smaller and rural. Each context is described in more detail below.

Asheville City Schools

Asheville City Schools (ACS) is a small urban district, with approximately 4,400 students within Buncombe County, but operates independently from the much larger Buncombe County Schools district (~25,000 students). Asheville City Schools, established in 1887, has ten PK-12 schools consisting of one traditional high school, one alternative high school, one traditional middle school, one alternative middle school, five magnet elementary schools, and one Montessori elementary school. The Asheville City Schools leadership team is large for a small district (over 30 central office staff) and provides administrative, curricular, and community

support (Asheville City Schools, 2018). The student demographics in Asheville City Schools are diverse with 59% Caucasian, 26% African American, 8% Hispanic/Latino, 6% Asian, and 1% other. Roughly 45% of students qualify for free or reduced-price lunch and the district has one of the largest achievement gaps in the state when comparing African American student proficiency with white student proficiency (N.C. School Report Card, 2018). The urban area and diverse student population that make up Asheville City Schools sets it apart from the other three districts.

Asheville City Schools does not currently have an assistant principal support program. The principal turnover rate for the 2016/17 school year was 25%, as compared with the state average of 8.6% (N.C. School Report Card, 2018). Zero Asheville City Schools principals, including assistant principals, have an advanced degree (Educational Specialist Degree or Doctorate), as compared with the state average of 21.3%. The levels of experience for principals in Asheville City Schools coincide to the state averages (see Figure 3), but is further magnified by the high turnover rate (see Figure 4).

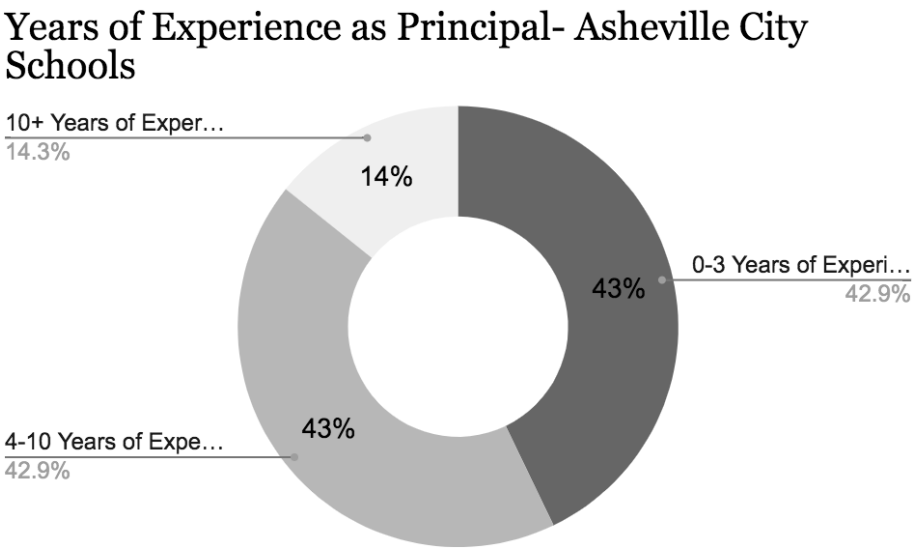


Figure 3. Principals' years of experience in Asheville City Schools for the 2016-17 school year (N.C. School Report Card Report, 2018).

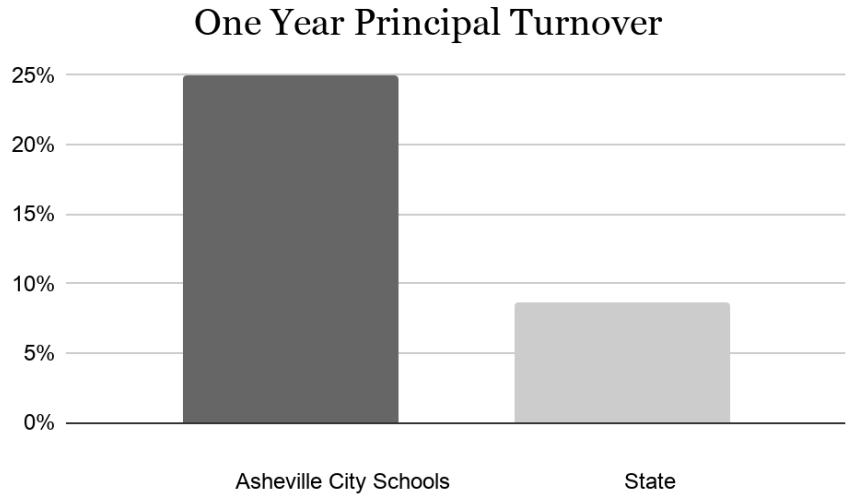


Figure 4. Principal turnover in Asheville City Schools for the 2016-17 school year (N.C. School Report Card Report, 2018).

Inequity, a growing achievement gap, and discipline gap are all challenges that Asheville City Schools must address to provide a comprehensive, fair, and excellent educational experience for all students. Recently, Asheville City Schools has been focusing efforts on reducing the achievement gap through the implementation of an equity audit by Integrated Comprehensive Systems (ICS), an equity training, coaching, and institute (ICS, 2018). Inequity has been identified across several areas of Asheville City Schools including the achievement gap between Black and White students, which is the second largest gap in North Carolina, as well as in disciplinary referrals and suspensions, when comparing Black and White students (Propublica, 2018). Further contributing to the issue of equity in educational opportunities is the fact that Asheville City Schools has the second highest amount of funding, per pupil, in North Carolina, which shows that it is not a funding issue as much as it is a social justice and opportunity gap issue (Propublica, 2018). Darling-Hammond (2010) details the importance of creating inclusive, equitable educational environments through opportunity and access. In order for Asheville City Schools to create more equity to balance achievement, an internal shift must occur that changes the culture and methods from within the schools to sustain change.

Burke County Schools

Burke County Schools (BCS), is a medium sized school district located in the foothills of the Blue Ridge Mountains. The county is made up of 26 schools: Four traditional high schools, one middle college, one alternative school, five middle schools, 14 elementary Schools and one school for students with profound exceptionalities. BCS serve approximately 12,500 students in grades PK-12. The student demographic is predominantly Caucasian with 86.6% of students in this subgroup. The remaining subgroups that make up the student population in BCPS are 6.3%

African American, 6.2% Asian, and 1.7% Multiracial. Fifty-nine percent of the district's students are designated as economically disadvantaged. While the student demographic makeup is predominantly 86.6% Caucasian, it is the minority subgroups that consistently perform below state standards and significantly contribute to increasing the achievement gap.

In the Spring of 2019, BCS Leadership team members discussed at length the district's achievement gap and began the discussion of conducting an equity audit in order to help close the gap. There continues to be many discussions around overrepresented and underrepresented subgroups as well as discussion about how an equity audit would allow leadership members to see those students who are consistently marginalized and which programs and services show students that may be over or underrepresented.

Over the last two years BCS has been in the process of transforming Multi-Tiered System of Supports (MTSS). MTSS focuses on instructional practices, making the core of teaching and learning top priority (NC Live Binders, 2019). This framework allows classroom teachers to focus on core instruction (tier 1). BCS leaders have focused on examining instruction, curriculum, and environment (I-C-E) before looking at the learner; breaking down the categorical subgroup silos. MTSS has started a shift where leaders and teachers strive to be more inclusive of all learners to create instructional equity.

A designated district leadership team is designed to interview and screen potential candidates for any administrative vacancies. In 2017-2018 BCS employed 28 school administrators and 15 assistant principals (North Carolina Department of Public Instruction, 2017). Currently, BCS does not have a formal induction program for assistant principals. However, assistant principals do meet monthly to disseminate information and to collaborate

with other assistant principals. Administrators with 0-3 years of experience make up 48% of BCS principals compared to the state average of 42.7% (see Figure 5). In 2016-2017, the one-year principal turnover rate in Burke County, at 7.45%, was slightly lower than the state average of 8.6% (see Figure 6). Additionally, 29.6% of BCS administrators obtain an advanced degree, as compared to the state average of 21.3%. (NC School Report Card District Snapshot for Burke County Schools, 2017). School leaders in BCS are in need of further support.

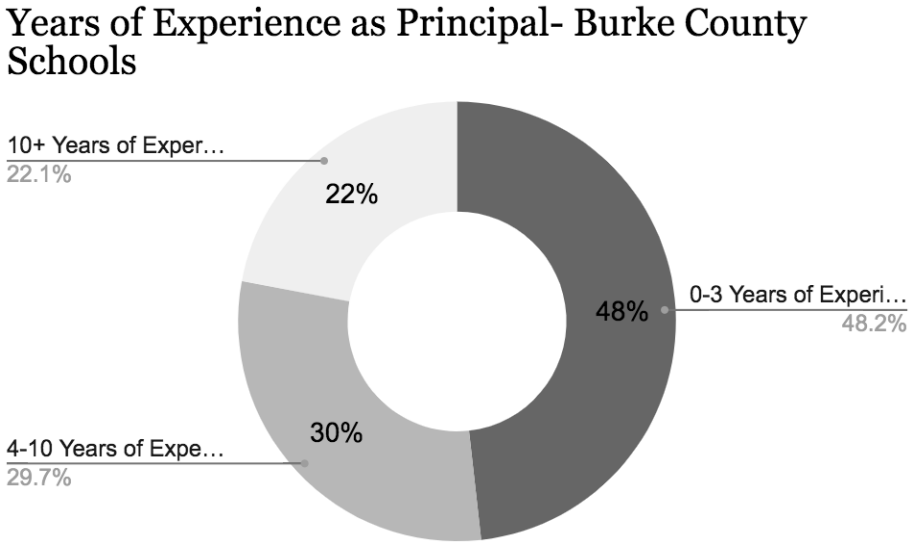


Figure 5. Principals' years of experience in Burke County Schools for the 2016-17 school year (N.C. School Report Card Report, 2018).

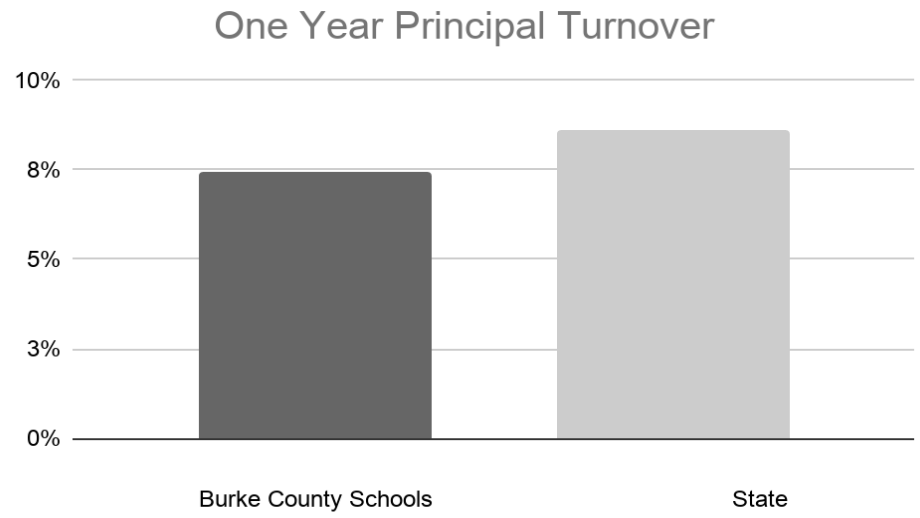


Figure 6. Principal turnover in Burke County Schools for the 2016-17 school year (N.C. School Report Card Report, 2018).

Burke County Schools are governed by a local board of education, made up of 7 elected members who consult with a School Board Attorney. The superintendent is in his 8th year and the assistant superintendent is in his 4th year. A district leadership team meets weekly to discuss pertinent issues within each department.

Caldwell County Schools

Caldwell County School District (CCS) is a medium size district in rural western North Carolina. The district is composed of 26 schools: 11 elementary schools, 4 K-8 schools, 4 middle schools, 3 traditional high schools, 2 specialty high schools, and 2 alternative schools. The student population is 81% Caucasian, 9% Hispanic, 5% African-American, and 4% Multiracial. There has been a consistent decrease in student enrollment since the recession of 2008. The decrease in enrollment corresponds to a decrease in the population as residents have left to find employment elsewhere as the local furniture industry collapsed.

Sixty-two percent of the district's students are classified as economically disadvantaged. Persistent achievement gaps for certain student groups were identified in the district's 2017 AdvancEd accreditation review. Groups with gaps include the Black, Hispanic, economically disadvantaged, and students with disabilities sub-groups (AdvancEd, 2017). Principals have been given goals that center on improving scores and lessening the achievement gap. Despite these interventions, the achievement gap has remained and actually grown in certain areas. In terms of subgroups, the Black, LEP, and SWD subgroups have consistently performed the lowest in the district from 2013 - 2014 to 2016 - 2017 (AdvancEd, 2017). Human and financial resources are allocated to all schools equally, with no specific additions for low-performance except for the two alternative schools.

There is currently no leadership development program or program for aspiring administrators in the county. The outgoing superintendent created a leadership development program for aspiring administrators that was an application-based program designed by district leaders to provide candidates an overview of the system and different administrative roles and expectations. The last cohort of this program attended during the 2013 - 2014 school year. The program ended due to lack of interest from qualified candidates, which may suggest that the district also needs to work on ways to develop interest from teacher leaders throughout the district.

In CCS, administrative vacancies are filled through an interview process or by superintendent appointment. The overwhelming majority of hires and placements are made for employees already employed in CCS. CCS employed 69 school and district administrators in the 2017 - 2018 school year (North Carolina Public Schools Statistical Profile, 2018). Of these 69

administrators, 26 are school principals, and 19 are assistant principals. As of 2016-2017, the majority of principals, 35%, in CCS were in their first three years of being a school leader (see Figure 7). Of the remaining principals, 46% had four to ten years of experience, and 19% had ten or more years of service as a school leader (North Carolina Department of Public Instruction, 2017). As shown in Figure 8, CCS principal turnover rate was slightly less than the state average.

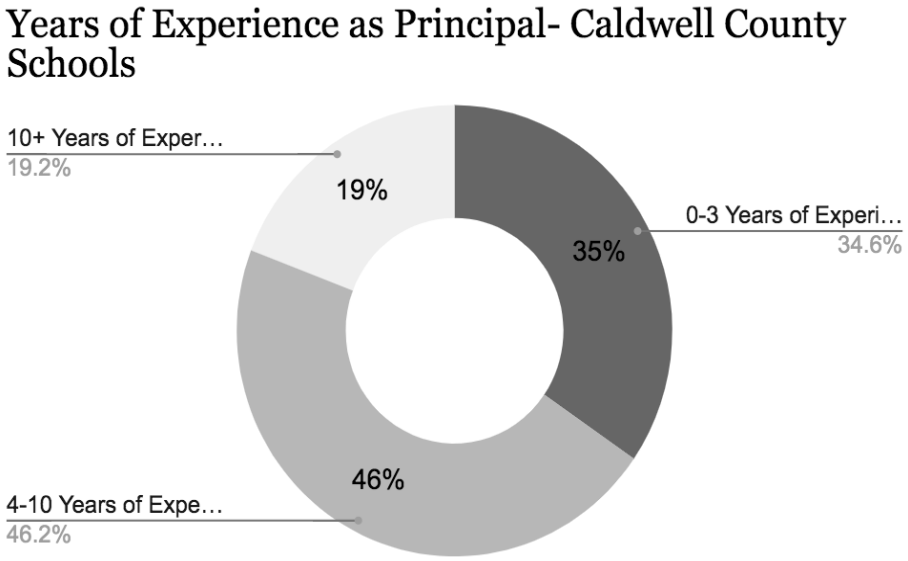


Figure 7. Principals' years of experience in Caldwell County Schools for the 2016-17 school year (N.C. School Report Card Report, 2018).

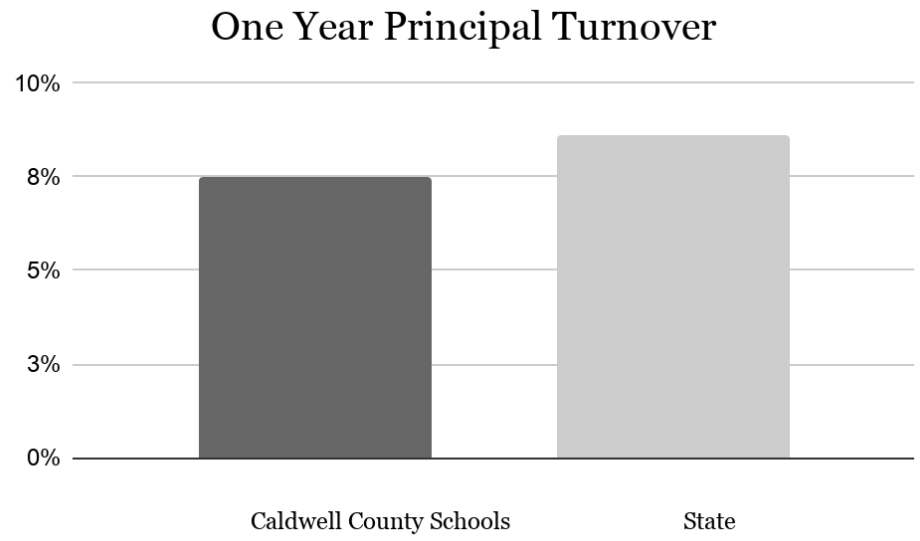


Figure 8. Principal turnover in Caldwell County Schools for the 2016-17 school year (N.C. School Report Card Report, 2018).

Once an administrator is hired, there is no orientation program for those new to his or her particular role. Principals attend two required meetings monthly – a general principals' meeting and a leveled principals' meeting. The general meeting is facilitated by the superintendent and the cabinet and the leveled meeting is respectively facilitated by the elementary, middle, and high school directors. The content of the principals' meetings is typically simple dissemination of information but there are occasional district led trainings that occur during meetings. During the 2017 – 2018 school year these trainings focused on the teacher evaluation process and lesson planning, as well as MTSS implementation (NC Live Binders, 2019). During the 2018 - 2019 year, the trainings focused on budget education.

Stanly County Schools

Established in 1885, Stanly County is a rural district comprised of twenty-two schools that serve approximately 8,300 students. The student population is comprised of 68% White,

14% African American, 9% Hispanic, 5% Multiracial, 3% Asian, 2% American Indian / Alaskan Native, and less than 1% Native Hawaiian / Pacific Islander. There are 11 elementary schools, 4 middle schools, 4 traditional high schools, 1 alternative school, and 2 early college high schools. Stanly County has twelve Title 1 schools that includes all eleven elementary schools and one middle school. Of those, there are six schools that are considered low performing; four elementary schools and two middle schools. Three of these schools have seen recent change in administrators for various reasons (attrition, retirement, leadership placements), and one principal was moved as a result of the continued low performance of one of the elementary schools. In 2018, 46.6% of students tested were proficient at the college and career ready level. Class sizes across the district are below the state average and overall student attendance equals the state average at 95%. Local and federal funding sources are below the state average per pupil, and almost 85% of funds are spent on compensation in Stanly County (NC School Report Card District Snapshot for Stanly County Schools, 2017). Funding has been a focus for district leadership in SCS recently.

Shown in Figure 9, the experience of administrators in Stanly County mirror that of North Carolina. Those with 0-3 years of experience make up 45% of our principals, 4-10 years equals 35%, and 20% of our principals have more than 10 years of experience. North Carolina's numbers are very similar in that 42% of principals have 0-3 years of experience, 41% have 4-10 years of experience and 19% with more than 10 years. Figure 10 shows that the 2017 one-year principal turnover rate in Stanly County, at 9.5%, was slightly lower than NC's rate of 10% (NC School Report Card District Snapshot for Stanly County Schools, 2017). Turnover of the school leaders in SCS has occurred for a variety of reasons.

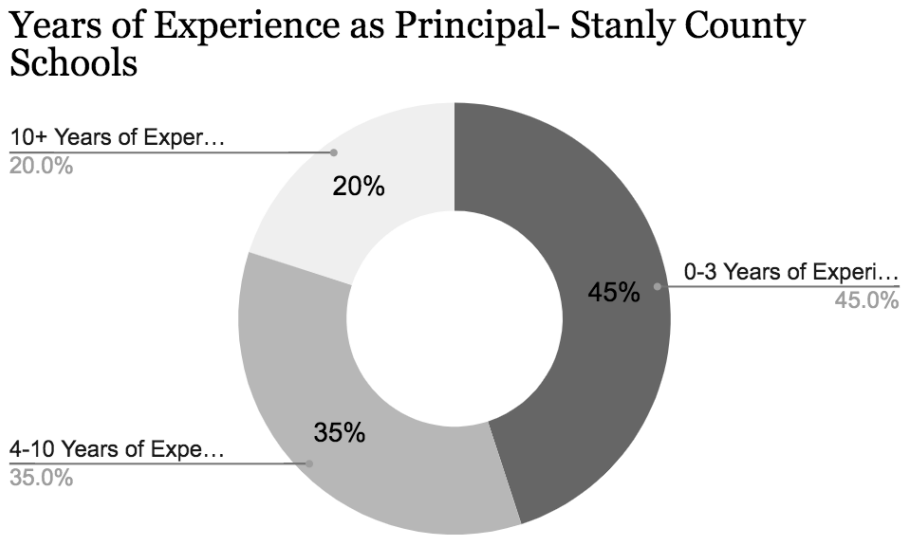


Figure 9. Principals' years of experience in Stanly County Schools for the 2016-17 school year (N.C. School Report Card Report, 2017).

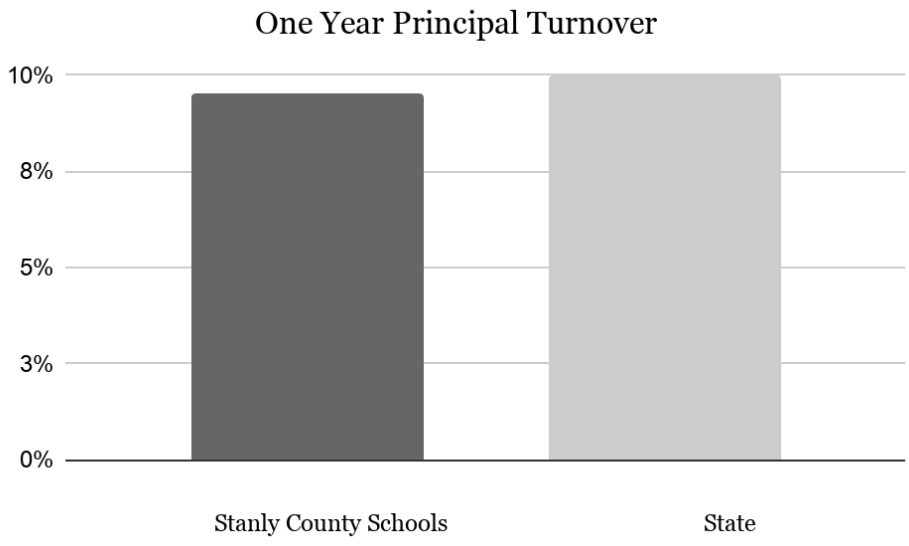


Figure 10. Principal turnover in Stanly County Schools for the 2016-17 school year (N.C. School Report Card Report, 2017).

The district is the largest employer in the county, and the hiring process for personnel in Stanly County Schools (SCS) includes interview processes as well as superintendent placements, depending on district needs and leadership strengths. In previous years, Stanly County Schools has had minimal support in place for the sixteen assistant principals. The support consists of four group meetings for approximately two hours after school. The district has a history of supporting its twenty-one principals with monthly administrators' meetings that included development opportunities. Assistant principals often remain in the schools so that principals can participate in the professional development. During the 2013-2014 school year, assistant principals were invited to participate in professional development specifically for aspiring principals. This experience was led by the assistant superintendent and when she left the district, the program was not continued. Stanly County Schools' assistant principals have been missing out on sustained professional growth opportunities.

Conceptual Framework

Our disquisition work is supported by theoretical models. A conceptual framework provides the improvement initiative with a theoretical lens from which to structure the approach, inquiry, and actions to take place (Dewey, 1938). By providing a conceptual framework using current models and theories, our improvement initiative becomes grounded in empirical research, thereby lending more validity to our work. The conceptual framework for our improvement initiative is founded in the succession planning model often utilized in private industry (Lynn, 2001) and in social justice leadership theory (Theoharis, 2007). These models, used together, serve as building blocks for our disquisition.

The separate frameworks that support our disquisition work together to enhance leadership capacity. The combination of the succession model (Peters, 2011) and social justice leadership (Theoharis, 2007) create the unique conceptual framework, shown graphically in Figure 11, for our improvement initiative. In our graphic, Peters' DLS model (2011) provides a pathway of development and is nested within the social justice leadership model (Theoharis, 2007). Used in conjunction with one another, the frameworks create sustainable and equitable student outcomes. Our intent for this improvement project is to create a support initiative that will help districts develop stronger leaders who will foster a social justice leadership style.

Figure 11. Conceptual framework graphical representation of the combination of Theoharris' (2007, 2009) Social Justice Leadership Model and Peters' (2011) Succession planning Model.

Succession planning creates the structure for our initiative. The model works by ensuring that well-developed assistant principal candidates are identified, trained, and ready to fulfill the principal roles when they become available (Lynn, 2001). Through the local development of leaders, districts are able to train and groom assistant principals for the unique responsibilities of their district. By using a combined approach, districts can create a focused effort toward increasing the social justice and equity lens for leaders, staff, and students. The social justice leadership theory developed by Theoharis (2007) proposes that socially just leaders are coordinated in their efforts to disrupt the status quo and create just and equitable outcomes for all students.

Socially just leaders address and eliminate marginalization in their schools, while creating an inclusive climate, where individual identities are celebrated. Good leaders are not necessarily socially just leaders and need training focused on equity and social justice leadership (Theoharis, 2007, 2009). Conversations about race, ethnicity, identity, and history need to be prioritized by leaders within districts and schools in order to build a culture of social justice and equity that will positively impact staff and students (Khalifa, 2018). Our goal was to develop assistant principals who have a central focus on social justice, which should occur in all interactions with parents, teachers, and students. When school leaders commit to an equity and social justice approach, they enhance teacher guidance and student outcomes (Browne, 2012), which is an aim of the APPLE improvement initiative. Assistant principals can become ‘equity warriors’ and hold high standards for all students through the creation of a common mission of success (Leverett, 2002). Socially just leaders can create a cohesive environment in an organization to support the succession of new leaders.

School leaders need a support system that enhances their craft. As Peters (2011) states, "debunking the notions of the 'super leader' who acts alone as a change agent, such practices lend credence to an understanding of organizational change as a group process, the success of which is contingent upon many (p. 68)." It is important that our districts have leaders in place who can accept a principal role feeling prepared, confident, and ready to lead their schools, teachers, and students effectively. Schools cannot afford for new principals to be trained while on the job; districts must engage in productive and consistent succession planning. Succession planning is a process-based approach to building capacity in employees to ensure stability and continuity in an organization. Goals of the model include capacity development that fits with each individual's strengths, projecting ahead in order to identify lines of succession for particular jobs, and using the prior steps to increase retention of employees in the organization (Rothwell, 2005). While there are different models of the process, the most recent are cyclical rather than linear in nature. In 2011, Peters described a model of succession planning designed specifically for school districts. The model is cyclical and addresses the challenges of context that have larger effects on schools than in private industry.

The Dynamic Leadership Succession (DLS) model has three elements: forecasting, sustaining leadership, and planning. The first element of the DLS model builds from within the organization. Forecasting, which has been discussed in the literature by Lovely (2004) and Normore (2007), defines a method for district leaders to nurture and build capacity in their own employees. Most of our districts' principal hires come from within, so this "in-house" talent development strategy is necessary. Sustaining leadership, the second element, is the acknowledgement that there can be no one super-leader and that capacity must be built across the

school community (Hargreaves and Fink, 2003; Hargreaves, 2005; Lambert 1998). Good leaders help develop other leaders which is key to a viable succession model in schools. The final element of Peter's DLS model is the planning phase. Planning for succession is a challenging undertaking because the phase must be inclusive of both outgoing and incoming leadership, include stakeholders, and not be too complicated (Hargreaves, 2005). Decisions should be made proactively rather than reactively. "Ultimately, each of these actions: forecasting; sustaining; and planning, is key to identifying upcoming vacancies, creating opportunities to support and sustain leaders within their roles and maintaining organizational stability when the leader departs" (Peters, 2011, p. 68). In the planning phase, many of the other aspects of private sector succession planning must be addressed. There should be a continuous connection of identifying the vision, direction, and values of the district with the capacity development and choices of candidates. As districts and funding levels change in size, need versus positions must be analyzed against benefit.

Theory of Improvement

In order to refine and guide our work in each district, we created a theory of improvement, which has guided us in addressing our problem of practice. A theory of improvement encompasses current knowledge and allows our team to make predictions about how our improvement effort will impact the system, giving a basis upon which to build tests and gather data (Langley et al., 2009). In creating our theory of improvement, we utilized a driver diagram as a tool for building a testable hypothesis (Bryk et al., 2016; Langley et al., 2009). For us, this theory was especially important because we work in four districts that have four unique

contexts. Through consensus, we refined our collective beliefs about what needed to change in order to improve experiences for assistant principals in our districts.

While no aspiring principal will be perfectly prepared to take on the principalship, the goal for all districts and state departments of education would be to place candidates that are as prepared as possible to promote student achievement and socially just leadership. Currently, most assistant principals have little support and few chances for capacity development while in their roles as assistant principals. Because most principal hires come from assistant principals in their respective districts, districts should be preparing those individuals for the principalship well before they are given the title (Wallace Foundation, 2013). It is imperative that new principals are ready to lead because principal behaviors can directly affect student achievement through staff and school development (Cotton, 2003; Hitt & Tucker, 2016). Not adequately preparing assistant principals to assume a principalship is a disservice to students and puts our schools at risk of failing.

We wanted to provide assistant principals the knowledge, tools, and capacity to employ socially just leadership within their schools and to foster a collaborative and shared mission of success for all students. Figure 12 represents the importance of school leadership for success and the impact of other organizations on the school as well (Leithwood et al., 2004). As Leithwood et al. (2004) discuss, stability in schools and school leadership is important because of the strong relationship between effective, stable leadership and student success. The importance and interconnectedness of the school leader to the successful functioning of a school cannot be understated and therefore must be addressed prior to assistant principals becoming principals.

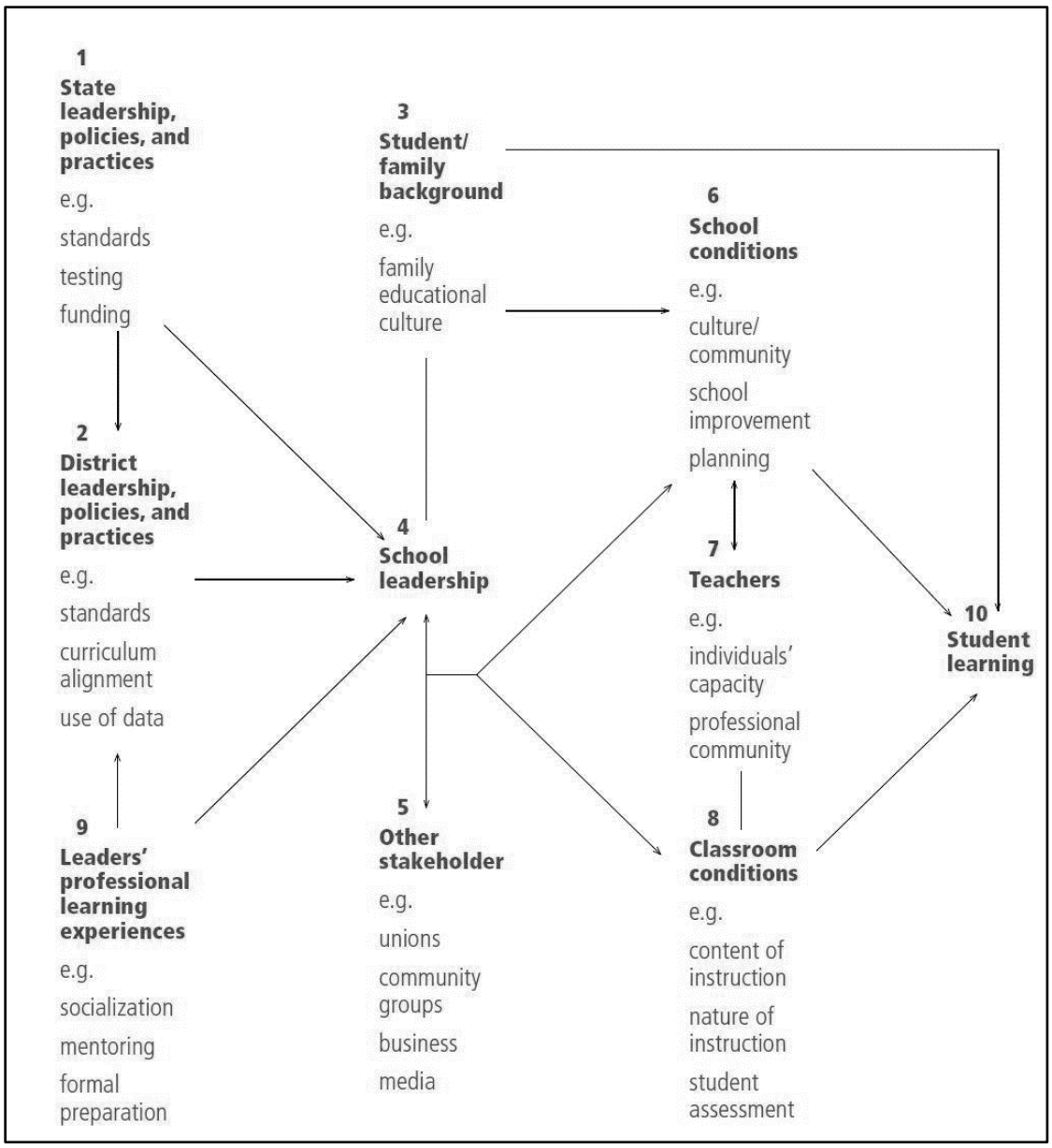


Figure 12. Matrix showing impact and interconnectedness of leadership on student learning (Leithwood et. al., 2004, p. 18). Reproduced with permission from the author.

Our disquisition team perceives that districts and departments of education can improve student success by addressing the support and development of leaders. In addition to affecting student achievement, underqualified new principals also experience large amounts of stress that can affect every student and adult in their school (National Association of Secondary School

Principals & National Association of Elementary School Principals, 2013). Due to our collective experiences in our careers, we joined together as a disquisition team to investigate and implement context-based solutions to the problem of lack of capacity of assistant principals. Our intention was to compare what works in different contexts and advocate for a research-based support program for assistant principals and principals in the state of North Carolina.

Our work created an improved pipeline of prepared leaders within our districts. We designed and implemented an administrator support program entitled Assistant Principal Professional Leadership Experience, (APPLE). Improvement science tools were instrumental to the design of our initiative. A driver diagram organizes the various improvement possibilities, with a focus on primary and secondary drivers as well as possible action steps (Bryk et al., 2015). We utilized a driver diagram, shown in Figure 13, to define the components that we used to make a change in our districts. The diagram depicts the relationship between our goal, the primary drivers that contribute directly to achieving the goal, and the secondary drivers that are necessary to achieve the primary drivers. Clearly defining a goal and its drivers enabled us to have a shared view of our theory of improvement. Our driver diagram represents the changes we thought would cause the desired effects in our school districts. It also guided us in defining which aspects of the improvement initiative should be measured and monitored, helped us to determine effectiveness, and whether our underlying causal theories were correct. Our team used this tool to identify areas where our improvement initiative could have positive impacts on practice.

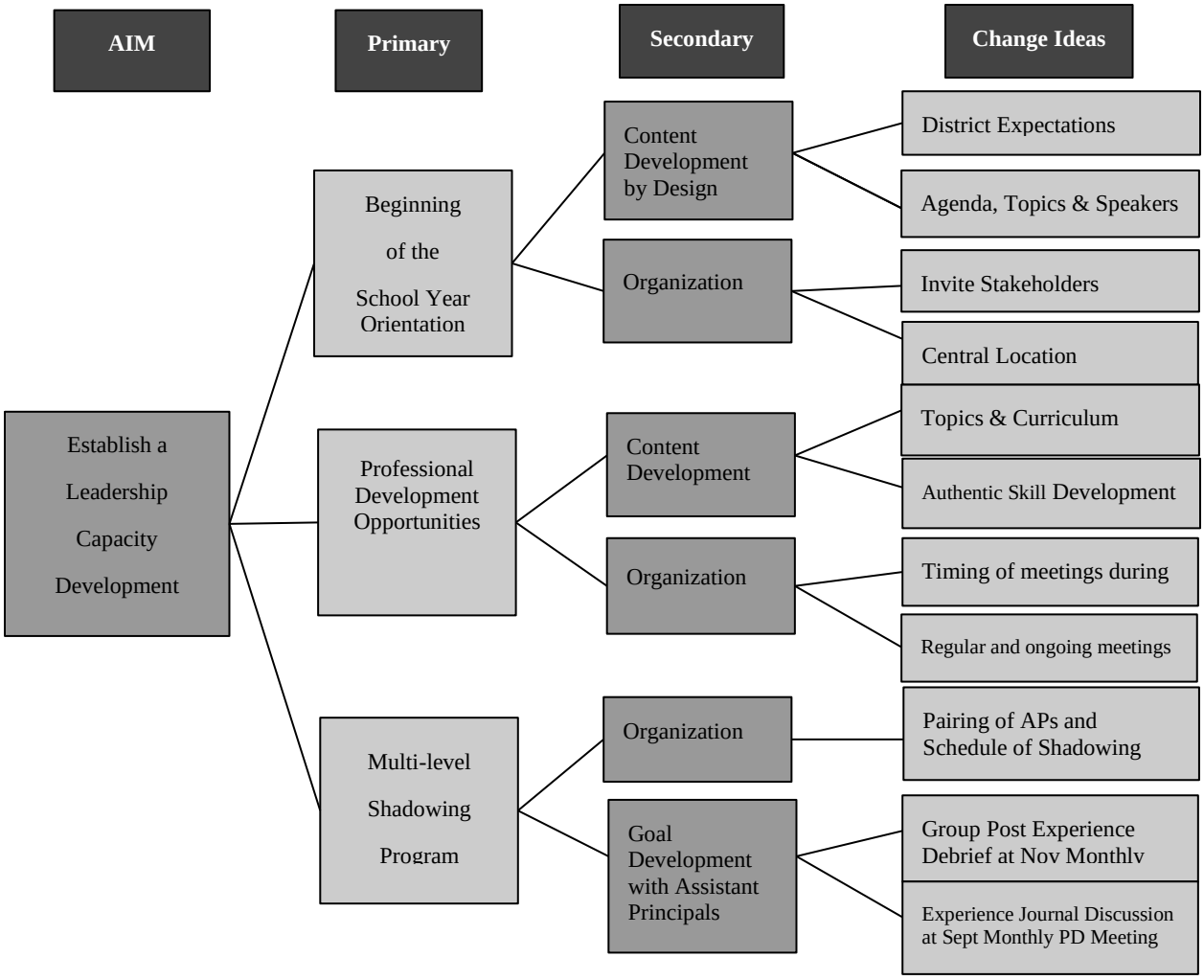


Figure 13. Driver Diagram. A visual display of factors that contributed to our leadership capacity development program for assistant principals.

For the purposes of this disquisition, we focused on developing an orientation program, professional development seminars, and shadowing experiences to provide a robust experience for assistant principals. Our theory of improvement held that if we created a leadership capacity development program for assistant principals, then we would have developed leaders into confidently prepared principal candidates who could promote socially just leadership principles within their schools. Assistant principals who participated in our support system obtained

knowledge, skills, and dispositions that have positively contributed to their growth as school leaders.

Improvement Methodology

The focus of our improvement initiatives was determined by analyzing our causal analysis. Our areas of focus were: professional development for assistant principals, lack of clear expectations from district leaders, and limited field experiences at different grade levels. These areas provided us with the greatest opportunity for improving capacity and support for assistant principals in our districts. Inconsistent graduate preparation programs were unable to be addressed within our local contexts and stressful working conditions are inherent to the job. Our improvement initiative comprised a capacity-development program called Assistant Principal Professional Leadership Experience, or APPLE, for assistant principals in Asheville City Schools, Burke County Schools, Caldwell County Schools, and Stanly County Schools. The specific improvement designs were determined by a design team in each of our local contexts who worked together to finalize the design of the improvement initiative. The design teams oversaw the implementation of the APPLE program in each context. As Figure 14 illustrates, the four design teams implemented an orientation seminar, monthly professional development sessions, and shadowing sessions designed to give assistant principals experience at different grade levels. The professional development sessions were context-based and determined by the individual design teams and district needs.

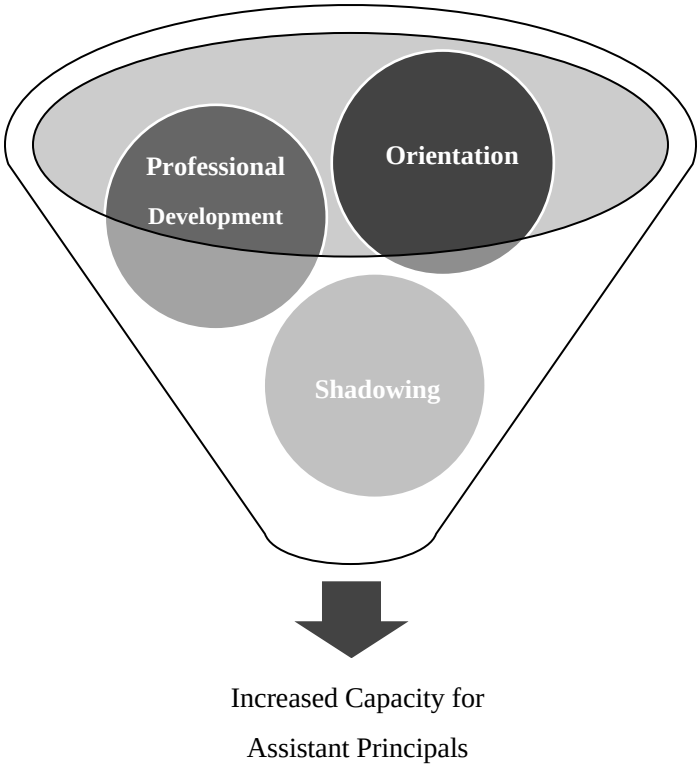


Figure 14. APPLE improvement methodology strategies illustrating the use of three tactics to increase capacity of assistant principals.

Implementation Timeline

Our APPLE research team implemented the program in all four districts once approval from the Instructional Review Board (IRB) at Western Carolina University was granted. Participants volunteered to be part of the program and all necessary consent forms were completed before we included any individual in the program. Figure 15 represents the timeline that was approved by the university disquisition committee and IRB.

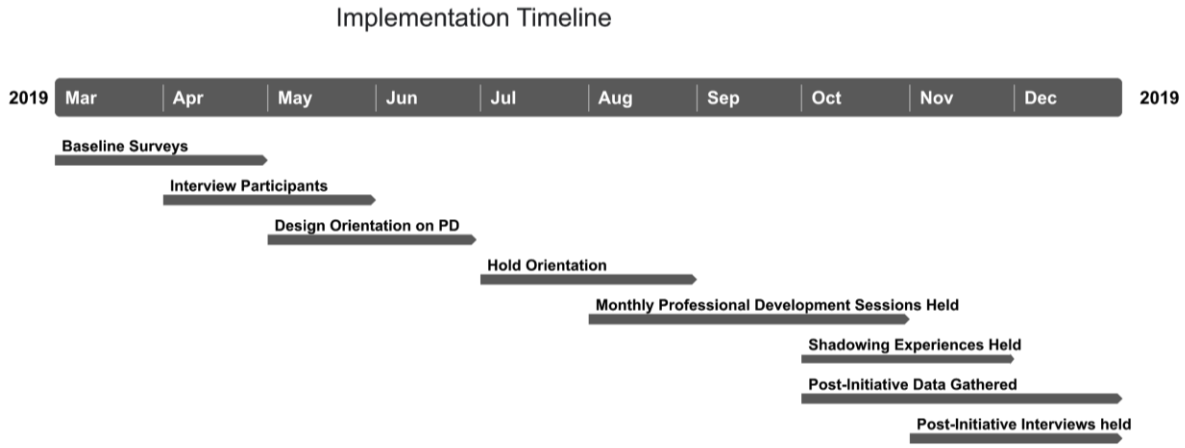


Figure 15. Implementation timeline representing the general sequence of events during the improvement initiative implementation.

The design team in each district worked to finalize the initiative designs and worked together to implement the assistant principal capacity development program. Our goal as a disquisition team was to implement similar interventions in four different contexts in order to make recommendations for similar programs to be implemented in other districts in the future. We analyzed the different experiences and outcomes between our four contexts in order to increase the validity of our work as well as to make policy recommendations for state level administrator support programs.

Table 2

Design Team Members who will oversee APPLE implementation in each context.

APPLE Design Teams	
Asheville City Schools ➢ Jerad Crave, Disquisition Team Member ➢ Dr. Terrance McAllister, Assistant Superintendent ➢ Dr. Mark Dickerson, Assistant Superintendent	Burke County Schools ➢ Mike Swan, Disquisition Team Member ➢ Dr. David Fonseca, Assistant Superintendent ➢ Karen Auton, Elementary Education Director ➢ Felicia Simmons, Secondary Education Director
Caldwell County Schools ➢ Katie Elliott, Disquisition Team Member ➢ Dr. Katrina McEllen, Assistant Superintendent ➢ Lisa Vaughn, Principal ➢ Zach Morrow, Assistant Principal ➢ Julie Hall, Assistant Principal	Stanly County Schools ➢ Andrea Russell, Disquisition Team Member ➢ Dr. Alisha Ellis, Secondary Education Director ➢ Erica Thompson, Assistant Principal

Asheville City Schools

The APPLE Improvement Initiative was approved in Asheville City Schools in January and the design team was formed. The design team consisted of Dr. McAllister and Dr. Dickerson, who were both assistant superintendents for the district, and Jerad Crave, researcher. Dr. McAllister is also a member of our disquisition committee and was familiar with the entirety of the improvement project. The first design team meeting was conducted in early May with Dr. McAllister and Dr. Dickerson to plan the orientation session which was held at the leadership retreat in August. Consent was obtained from the assistant principals in the district and we discussed the assistant principal assignment changes that would take place. The conversation around the orientation session was focused on creating a professional expectation of collaboration and emphasizing the importance of school culture and student achievement.

In late June, the design team met to discuss initial data from the Principal and District Administrator Baseline Survey (Appendix A) and the Pre-initiative Assistant Principal Survey (Appendix B), as well as the Pre-Initiative Assistant Principal Interviews (Appendix C) to inform the topics for the August orientation session. There were several topics which came up across the three data collection points including discipline issues, school finance, school culture, and increasing equity for students. The design team decided to focus the fall orientation session on creating a positive school culture and increasing student equity through strong core instruction.

In mid-August the design team met again to discuss initial feedback on Orientation Exit Ticket (Appendix D) and to plan the first professional development session scheduled for September. Taking into account the orientation feedback, the design team decided to focus the first professional development session on the Multi-Tiered Systems of Support (MTSS) implementation, which was a required state initiative for all districts (NC Live Binders, 2019). We ended the design team meeting by contacting individuals to present the district vision for MTSS to the assistant principals.

The mid-September design team meeting was focused on two elements of the improvement initiative: planning the shadowing sessions and the October professional development session. It was decided that the shadowing would take place over two weeks in early November prior to the holiday break. Assistant principals would choose the day to visit another school with the home school assistant principal present. We decided that the October professional development session would be about using the North Carolina Educator Evaluation System (NCEES) as well as school leadership decision making scenarios on topics such as safety, discipline, and human resources. We reviewed feedback from the Professional

Development Session Exit Ticket (Appendix G) to view the feedback from the September professional development.

During the mid-November design team meeting, we discussed the last professional development session, as well as the shadowing logistics. We made plans for the last professional development session to be focused on discipline data and equity. The team determined that the assistant principals would attend a focus group session after the shadowing experiences were finished as well. We discussed the final steps of the data collection process, which consisted of several summative surveys and assistant principal interviews.

The final design team meeting was held in early December after the last professional development session. We reviewed which data that still needed to be collected as well initial findings for the district. The leadership team agreed that the professional development sessions would continue throughout the spring to further support assistant principal development.

Burke County Schools

Burke's first design team met in May and the focus of the conversation was around planning the summer orientation session, sending out surveys to the assistant principals, and creating a template for the monthly professional development sessions throughout the fall. The purpose of the meeting was to outline the APPLE initiative and what it will look like in Burke County. Disquisition work was shared with the team to provide members information regarding the problem of practice and the outline moving forward. Burke County School's design team, consisting of assistant superintendent Dr. David Fonseca, Ms. Karen Auton, Director of Elementary Education, Ms. Felicia Simmons, Director of Secondary Education, and Mike Swan, the researcher.

The second meeting was held at the end of June to review and discuss the Principal and District Administrator Baseline Survey (Appendix A). A plan was established for the upcoming July professional development for assistant principals based on the survey results. The team organized an informal orientation session that was held in July to establish guidelines and introduce participants to the APPLE process.

In mid-September, the design team met to discuss the upcoming September APPLE meeting. Presenters were given the agenda and a timeline to follow with details regarding content. The presentation was guided by results from the Pre-initiative Assistant Principal Survey (Appendix B) with the flexibility given to presenters to incorporate professional experiences.

The BCS design team met at the beginning of October to discuss the upcoming October APPLE meeting. The team discussed input from assistant principals, which drove the decision-making process on content for the October APPLE meeting. The focus for the October meeting was designed around teaching new assistant principals how to have crucial conversations regarding teacher observations and instructional leadership. The design team meeting was also geared towards the final discussion on the assistant principal shadowing experience. Following the shadowing experience, data was collected, discussed and analyzed in order to make future shadowing experiences more beneficial.

Caldwell County Schools

The design team, consisting of Dr. Katrina McEllen, assistant superintendent; Lisa Vaughn, principal; Julie Hall, assistant principal; Zach Morrow, assistant principal; and Katie Elliott, researcher first met in early April. The purpose of the first session was to provide

members of the design team what their role was for the initiative, to present the problem of practice and research, and to give an overview of the proposed improvement initiative. The team reviewed baseline data collection tools and made plans for sending surveys and scheduling interviews.

In June, the team met to review the baseline data from the Principal and District Administrator Baseline Survey (Appendix A), the Pre-initiative Assistant Principal Survey (Appendix B), and some of the Pre-initiative Assistant Principal Interviews (Appendix C). The orientation session was planned based on the results. In discussions, the group appeared to give the principal and district administrator data more weight as the individuals who took it had principal experience. The qualitative data was also more detailed for the principal and district administrator group. The top topics to be included in the orientation were: finance, exceptional children department legalities and guidance, beginning of year transportation information, and a session on how to access and use important computer-based programming. The group decided that the assistant principals would benefit from a "help line" book that defined the roles and expectations of district leaders and included the organizational layout of the education center. A Canvas classroom was created in order to house materials throughout the duration of the program.

Once the orientation session was planned, the group also finalized the content of the professional development sessions that were held during the implementation. They were designing professional develop for adult learners, how to build community relationships, and teacher remediation and difficult conversations. The design team also decided that November would be the shadowing month and proposed that assistant principals would be paired so that

they spend two days at one school and 2 days at the other school.

The design team met in late July to finalize the orientation session details and content. Group members reached out to the facilitators and guided them on the content of the session. The team communicated with the facilitators to set the final schedule and rotation for the orientation session.

During the late August design team meeting, the team determined the final content for the professional development sessions. The first session was identified as the session on how to design professional development session because it aligned with schools selecting school improvement goals. The level directors (elementary, middle, and high school) directors were targeted to assist with the planning and implementation. The second session was on teacher remediation and difficult conversations, which Katie led due to her experience in human resources. The final session was changed to be on instructional leadership and student identification for special services. November did not have a session because that is when the shadowing took place.

The design team met in October to finalize the shadowing experience. The design team was integral to the district's shadowing design. They determined that the November professional development session would be moved to December to free up time for the shadowing to be in November. They also felt that the assistant principals needed to be paired so that collegial relationships could be formed across schools that would carry into the future. Due to time constraints, they reduced the shadowing to two days total, one day at each school.

Stanly County Schools

The Stanly County Schools design team included Dr. Alisha Ellis, director of secondary

education; Erica Thompson, assistant principal; and Andrea Russell, researcher. The team began the process with an initial design team meeting during the first week of June to discuss the work of the disquisition, the role of design team members, and what the implementation of APPLE would look like in our context. The team decided it would be good to begin gathering data at the end of year assistant principal meeting for the district. We were able to introduce APPLE, obtain consent, and gather initial survey data to guide the mid-July design team meeting to plan the orientation session. The team created a shared online folder, making it easy to share documents throughout the initiative.

After a review of the pre-initiative survey results, the Stanly APPLE design team worked to plan an informal orientation session and brainstormed ideas for relevant professional development sessions. MTSS (NC Live Binders, 2019) was identified as the area where assistant principals were least confident in leading. The design team asked district leaders for help with presenting information for assistant principals.

When the Stanly design team met at the beginning of September, we discussed the upcoming professional development session, created an agenda, made contact with the district experts that would help present the information on MTSS, and worked through the logistics for shadowing experiences (NC Live Binders, 2019). For shadowing, the design team worked to be sure all schools were covered by adequate administrators and each assistant principal had an administrator to shadow at the visiting school. The design team made the schedule available to assistant principals to get feedback on possible unknown conflicts in the schedule.

The first October meeting of the Stanly APPLE design team consisted of a short discussion on how the shadowing experiences were going. Assistant principals were in the midst

of the shadowing experiences and there were complications with who was participating and changes in the schedule and placements occurred at the last minute. The design team was able to help with ideas for rescheduling and placement changes and worked on the information needed for the agenda for the October professional development session.

Two additional meetings were held for Stanly in late October and early November to work on the content for the November professional development session, based on previous exit ticket survey results. The secondary director recruited a principal in the district to help with planning and delivery of content for the upcoming session, centered on designing PD. The team created an agenda for that session and shared it on the online folder.

Benchmark Goals for APPLE Implementation

In order to evaluate the program during the implementation process, design teams gathered data as each piece of the APPLE program was completed. The benchmark goals for the assistant principal capacity development program were:

I. Assistant principal's overall sense of readiness for a principalship will increase by a statistically significant amount from the pre-program survey results to the post-program survey results. Post-initiative interviews, qualitative results from the post-initiative surveys, and shadowing journals will provide qualitative data for analysis.

II. Assistant principal's competence in job related skills will increase by a statistically significant amount from the orientation self-assessment to the end of program self-assessment. Post-initiative interviews will provide qualitative data for analysis. Additionally, the assistant principal's supervisor will assist in setting goals for the

assistant principal at the beginning of implementation and will evaluate the goals at the program's conclusion.

III. Assistant principal's connectedness to district personnel and district policies and procedures will increase from the pre-initiative to post-initiative timeframe. Post-initiative interviews and shadowing data will provide qualitative data for analysis.

In addition to measuring the goals above, post-initiative interviews generated data used to evaluate our programs' effectiveness and allowed us to gather feedback that drove decision making for next-steps in each context.

All of the components in our improvement initiative aimed to increase the capacity of assistant principals in order to make them feel more adequately prepared for the principalship. Our initiative helped normalize the assistant principal role by providing a more standardized experience for assistant principals who were assigned to different schools and levels. During shadowing sessions, each assistant principal spent time at a different school which represented a different grade span from which they were employed. The sessions provided the opportunity for the assistant principals to become aware of what level and type of school they would like to lead in the future.

Literature Review of the Improvement Initiative

Orientation Program

An orientation program can help ease the transition into school leadership and also help districts because expectations are set early and standardized for all assistant principals. The first year in a school leadership role is critical to administrators' socialization which is the process by which administrators internalize the skills, values, and dispositions of the profession which in

turn contribute to success in the job (Aiken, 2002; Normore, 2003). An orientation program offers the district the opportunity to set the expectations and influence the direction that new leaders take in their school (Normore, 2003). Assistant principals cannot always choose principals who provide growth opportunities, so this direct district contact can help supplement avenues for growth and development beyond the school level and in a manner that does not compromise the relationship of the principal, or place the assistant principal in jeopardy (Petrides, Jimes, & Karaglani, 2014). Orientation sessions give assistant principals a chance to make connections with each other and create networks for future informal support.

Professional Development

There is a dichotomy of practice within districts. Most do not provide assistant principals with targeted professional development that prepares them for the principalship but they make almost all of their principal hires from their pools of assistant principals (Petrides et al., 2014). If districts know that assistant principals will be the principals of tomorrow, they should invest in the preparation process. Assistant principals often have little familiarity with districtwide operations, policies, and procedures that they need to know in order to get a principal position and be successful in the principalship (Lovely, 2001). Assistant principals also need the opportunity to develop their skills in many areas, including but not limited to: instructional leadership, budgeting, conflict management, curriculum, and personnel matters (Owen-Fitzgerald, 2010; Oliver, 2005). Waiting until the employee is in the principal position to develop these skills puts schools in jeopardy of struggling through the learning curve of the new principal.

Literature on principals is also informative for our improvement initiative because there is limited research on assistant principal professional development needs. Darling-Hammond, LaPointe, Meyerson, Orr, & Cohen (2007) identified several aspects of in-service principal support programs that are most beneficial for principals. The areas include a focus on organizational change and change management, pedagogies that connect theory and practice, coaching, mentoring, visits to other schools, and networked learning communities. Successful districts do not offer a "flavor-of-the-month approach to professional development, they offer an ongoing approach to the development of a holistic, identifiable professional practice" (Darling-Hammond et. al, 2007, pg. 83). Many large districts have designed programs that include summer institutes, bi-monthly half-day seminars, and a principal coach for new principals as well as a series of related professional development opportunities for assistant principals who are aspiring principals. Some even extend these related offerings to experienced principals and aspiring district leaders (Darling-Hammond et al., 2007). School leaders at all levels can benefit from the same professional development.

It was also important for us to think beyond the education realm when developing our assistant principal support program. Many educators have years of experience in curriculum and instruction but not in running the million-dollar enterprises that most school systems have become. Programs, such as the leadership program at Georgetown University, provide principals with training in difficult conversations, negotiating for the benefit of their school, and give principals the ability to model skills for classmates before using them in their buildings (Scott, 2017). This combination of business and education training may help better prepare leaders for

the many different roles they encounter in the principalship and allows them to advocate effectively for all of their students and their school.

Shadowing Experiences for Assistant Principals

Our disquisition team incorporated a shadowing program into our professional development because many assistant principals receive a principalship in a grade level in which they have no experience. During shadowing, assistant principals follow other school leaders in schools that serve a different population or grade level than the one in which the assistant principal currently leads (Soguero, Condon, Packard, & Easton, 2015). Leaders whose careers include previous experience working with student populations demographically similar to those of the school which is recruiting and selecting them have been found to function at higher levels (Hitt, Tucker, & Young, 2012). In addition to teacher experiences, internship and shadowing programs can help provide this experience. Many assistant principals are given limited responsibilities by their principal and only see a specific grade level (Searby, Browne-Ferrigno, & Wang, 2016). A shadowing program can help overcome that reality and grow principals who are more prepared to lead.

From personal experience within our contexts, we know that most assistant principal jobs are at the high school level and most principal jobs are at the elementary level. It is often difficult to get a principalship if all of your experience and background is high school based. When administrators do switch from a high school to elementary school, there is often a steep learning curve in order to become well-versed in different grade levels. A shadowing experience of an appropriate amount of time further developed a sense of understanding in these separate contexts. The Succession Model (Peters, 2001) supports the use of shadowing through providing

experiences and connectedness in professional learning to increase preparedness for leaders within the district. Research on this topic is limited.

Improvement Initiative Design - APPLE

Orientation Program Design

The first part of our proposed plan for improvement was to create an orientation program for all assistant principals in our districts. The orientation sessions were slightly different in each district, planned by design teams, and based on feedback gathered in the pre-initiative surveys and interviews with assistant principals. A brief discussion of the design of the individual orientation sessions is below.

Asheville City Schools.

Asheville City Schools conducted an orientation session for assistant principals as part of the leadership retreat, which was held in late July and concluded in early August. The orientation consisted of a half-day session about equitable leadership from Dr. Jones, an educational leadership consultant. The second part of the orientation was about multiple topics consisting of: MTSS, discipline, professionalism, and school culture. After the orientation session, a survey was given to gauge the usefulness of the orientation session. The orientation meeting was used to introduce the APPLE initiative and outline the data collection instruments including surveys, interviews, and the goal setting survey.

Burke County Schools.

The orientation meeting for Burke County Schools was held in conjunction with the district's annual administrators' retreat. The first portion of the two-day orientation session was held in mid-July. The first day began with a welcome speech focused around leadership and was

given by Burke County Superintendent, Dr. Larry Putnam. The rest of day one was spent with introductions of participants, a summary of what the APPLE program entailed, and a detailed description of participant expectations.

On day two of BCS's orientation, participants engaged in discussions which were led by district leaders from various departments in the school system. District leaders utilized an online platform to share advice with APPLE participants regarding school administration. The initial meeting was used as a means to increase the networking capacity of assistant principals as well as to introduce participants to the APPLE program. The orientation session covered topics such as assistant principal expectations, principal and assistant principal relationships, and planning for the future by gaining curriculum credibility.

Caldwell County Schools.

Caldwell County Schools held their orientation session in early August. The design team assisted with the planning and helped present at the session. The session began with a welcome and introductions from new assistant principals. They played a *Get to Know You* game and then did a testing overview by levels so that assistant principals would be familiar with the requirements at each level. Assistant principals who were in attendance were split into two groups based on qualitative data from the interviews and surveys and round robin sessions completed the dat.

The first round of sessions was finance, presented by the chief financial officer and exceptional children's best practices presented by the exceptional children's director. The finance session reviewed funding sources, how principals can best utilize funds, and accounting procedures. The exceptional children's session focused on legalities, best practices, and

scenarios geared toward providing principals with tools to protect their students and themselves. The sessions were informal so that attendees could ask questions as they arose.

The second rotation of sessions was split between transportation department personnel and design team members. Transportation specialists covered beginning of year information and new procedures for transporting exceptional children within Caldwell County. A session was held in the computer lab that introduced assistant principals to the various programs that are used within the district and how they can help make the job more efficient. Assistant principals were able to verify login information and make sure they could access programs. The session wrapped up with both groups back together to discuss how the rest of the program would proceed.

Stanly County Schools.

Stanly County Schools' design team gathered with assistant principals for orientation at the beginning of August. The meeting occurred the week following the district's formal administrators' retreat where all principals, assistant principals, and district leaders worked together on district initiatives for three days. The orientation session for assistant principals was an informal gathering that was geared to introductions, district information, sharing initial survey data, and networking opportunities. Design team members used this meeting to introduce the plans for the APPLE initiative for assistant principals who were new to the district. It was a unique opportunity for assistant principals to network with colleagues, familiarize themselves with district procedures, review policies, and ask questions.

Professional Development Design

Each district held monthly professional development sessions for assistant principals that focused on skill and career development. Before planning the curriculum for these meetings in our design team groups, we surveyed administrators at all levels to help determine different topics for professional development. Veteran principals know what they struggled with when they first got the job and district level leaders were able to reflect on areas of weakness within the districts. District-level administrators who evaluate principals had a unique take on weaknesses of new principals. Design teams used the self-assessments, goals, and interviews to determine the curriculum for the professional development sessions.

Based on feedback from previous district trainings, the sessions were designed to be interactive, involved multimedia presentation styles, and allowed for assistant principals' time to work together, share, and ask questions. The design teams met to review feedback after each monthly meeting and adjust subsequent meetings accordingly. All training materials were kept online and made easily accessible for future reference or to be used for school-level trainings. The sessions were designed to be flexible and adaptive enough to address the ever-changing needs of an assistant principal.

Asheville City Schools.

Asheville City Schools first professional development session was held in September at the central office. The meeting consisted of two parts. The first was about the state initiative of strengthening the MTSS (NC Live Binders, 2019) processes in every school within the district, as well as an overview of the introduction of a district technology monitoring software. The

second session provided an opportunity for assistant principals to collaboratively role play and problem solve difficult scenarios that may occur in their schools.

The second professional development session occurred in late-October and was focused on human resources and the NCEES (North Carolina Educator Evaluation System) rubric. The conversation was centered on being objective and reading through the exemplars put forth in the rubric. Problem solving and possible scenario conversations followed the overview of the rubric. The next component of the session reviewed the policies and procedures for Asheville City Schools to ensure compliance at each school.

The third professional development session took place in late-November and the content centered on discipline procedures and analyzing suspension rates at individual schools, as well as the district as a whole. Efforts were made to ensure greater equity in disciplinary outcomes and more standardized procedures to eliminate subjectivity. The second component of the session was more informal and focused on individual school issues and collaborative problem-solving approaches.

Burke County Schools.

Burke County Schools conducted the first professional development session in mid-September. The meeting began by having each member to share their experiences about the opening of the school year. Following the sharing session, a session was hosted by Dr. Larry Putnam on developing a new circle of trust within school leadership. This session focused on the crucial role of what assistant principals share with other staff members and the importance of not sharing personnel matters. A session entitled *Student Services, Not Staff Convenience,* was

conducted by Dr. David Fonseca which focused on the importance of having a lens focused on the student.

The focus of the second professional development, held in October, was on difficult conversations revolving around instructional feedback. The session began with introductions and feedback expectations from the director of elementary and secondary education. Each director shared pitfalls that many new assistant principals make when delivering evaluation feedback after a classroom observation. They shared from personal experience that it was often times easier to give higher rankings to avoid the difficult conversations associated with lower rankings. The purpose of this specific topic was designed to provide assistant principals the necessary common language to address difficult conversations.

Burke County held its third professional development session in late November. The focus of the professional development was centered on student needs. The session began with the group taking a field trip to visit two schools in Burke County that have demographically different populations of students. The purpose of this field trip was to show participating assistant principals the various needs within each school setting and the importance to have a focus on student needs rather than staff conveniences. Upon returning to the meeting location, assistant principals had a round table discussion on the recent field trip. Each participant felt like the trip was an important component of the APPLE program, worthwhile experience that allowed them to see that some schools have differences but the focus is still on student needs.

Caldwell County Schools.

Caldwell County Schools' first professional development session was held in September. Based on input from the design team, the level directors did an interactive session on how to best

design professional development for adult learners. The session addressed the following questions:

- What makes professional development work?
- How do you address the needs of your learners?
- How do you address the needs of your school?

Mid-October marked the second professional development session for Caldwell County. The focus was on teacher remediation and handling difficult conversations with staff members. The session started with strategies for coaching teachers who are willing and able to improve their practice. For teachers who are not willing to improve, documentation strategies for termination were covered. A packet of information was provided that included sample letters of remediation. The assistant superintendent for human resources joined the meeting to add his perspective about teacher remediation.

The third and final session was in December. This meeting was used to gather post initiative data and to give general district updates. Multiple presenters worked with assistant principals at this session. The superintendent started the day discussing the importance of instructional leadership. Participants in the session worked to develop a collective definition of instructional leadership. The superintendent shared that in the following months, district staff members would be visiting each school to get an idea of the instructional strategies used within the district. The results will guide the district toward strategies for improving learning experiences for all students.

After the superintendent spoke, there was a focus group session about the shadowing experiences. The district psychologists led an informational session about the new legalities of

identification of students with learning disabilities. At the end of the session, there was a lengthy question and answer session on the topic. Various directors gave the assistant principals updates on relevant information. There was time for fellowship after the meeting, which has been a request from the group because they rarely have time together for discussion and to build relationships.

Stanly County Schools.

Stanly County Schools implemented APPLE for assistant principals alongside a new leadership development initiative. The district contracted an outside source to guide assistant principals and teacher leaders through a six-session series on developing school culture and effective leaders. The superintendent supported the implementation of the APPLE program in conjunction with this series. The design team agreed that we would lengthen the meeting, participate in the district session during the morning, provide a light lunch, and present APPLE related topics during an afternoon session. We agreed that assistant principals would prefer to stay at one meeting longer rather than attend a separate session for APPLE.

The September professional development session was created based on the results of the pre-initiative survey completed by assistant principals in early stages of implementation. The design team asked the district lead for the multi-tiered systems of support (MTSS) to present the role of administrators in that initiative (NC Live Binders, 2019). The director prepared about a presentation that included a program overview, a discussion of the assistant principals' role, and ended with a question and answer session. Participants were encouraged to share their experiences with the MTSS framework, school improvement, and student support (NC Live

Binders, 2019). The session provided a way to identify assistant principals who had confidence in their leadership skills with MTSS and gave those who were less confident a contact person.

Stanly County's October session of professional development, led by the consultant hired by the district, was centered around building a strong school culture. The session was followed by a focus group discussion about the shadowing experiences. Participants discussed their experiences during the shadowing days and responded to the questions in a focus group that our research team wrote (Appendix K). The session ended just before lunch and assistant principals returned to their schools.

Stanly County's November professional development was a full day session that continued with school culture in the morning session and designing professional development. The presenters of the afternoon session were experts from within the district. The director of secondary schools and the principal of the early college programs led assistant principals through a series of strategies on how to design relevant professional development for their staff groups, including new tools and protocols for use in large group settings. The secondary director led assistant principals through an analysis of the classroom walkthrough data for their schools, followed with a discussion of how to choose and design possible professional development for their staff based on that data. The principal talked about setting expectations for staff and making them clear through professional development.

Shadowing Design

In order to overcome the catch-22 of not being able to get a principalship due to lack of experience at the grade level where most job openings occur, we worked with our design teams to implement a shadowing schedule where assistant principals had time to shadow at different

grade levels. The shadowing program was explained and discussed during one of the early professional development seminars and took place in the months following. This looked differently in each district based on design team decisions. Participants took a survey at the beginning and at the end of the program, and also journaled during the experience in order to provide data. At the seminar following the shadowing experience, assistant principals discussed and reflected upon their shadowing experiences in a focus group setting. In addition to the experiences at different grade levels, this experience gave the beginning assistant principals networking opportunities so that participants were able to make connections, ask questions, and better prepare themselves for a principalship.

Asheville City Schools.

Assistant principals in Asheville City Schools took an informal survey to provide data specifying the grade level in which they preferred to shadow. The ACS design team used the survey data to create a schedule for assistant principals to shadow at different schools over two weeks. The design team agreed to minimize the impact to individual schools by spacing out the experiences for schools over the course of two weeks. The decision-making process of the design team was to create new opportunities and experiences for assistant principals to grow as leaders through shadowing at other levels.

Burke County Schools.

The shadowing experience was discussed by the BCS design team. The team felt the experience would benefit the assistant principals by giving them a different lens to view the same job at different locations. Participants were surveyed for their shadowing preferences and were given the opportunity to select two different dates that would work for them to participate in the

shadowing experience. After reviewing survey results, the design team finalized the placements and notified participants and school principals of their shadowing placement. Shadowing preferences were considered but were ultimately decided by the design team based on the team's experience working with each assistant principal in order to give the assistant principals a meaningful shadowing experience.

Caldwell County Schools.

The design team in Caldwell decided to schedule the shadowing experience during November. The team members were concerned about time out of the building if shadowing was held during the same month as a professional development session, so the third professional development session was moved to December. A survey was sent to all assistant principals in order to determine shadowing preferences. The team then met to pair up the assistant principals based on their preferences. The pairs then spent two days together, one day at each school. Some of the pairs were at the same level, especially for the newer or struggling assistant principals. Other pairs were at different levels for those who were closer to becoming principals. Once the assistant principal received their match, they worked together to schedule the experiences at a time that worked best for them.

Stanly County Schools.

The Stanly County Schools' superintendent approved the use of multiple days in the semester for assistant principals to experience a day in schools different from their own. The design team informally asked assistant principals what their preferences were for the shadowing experience. The majority of assistant principals responded that they would prefer a broader view of multiple schools at multiple levels, if possible. Scheduling shadowing on Monday, Tuesday,

and Wednesday, the design team used the goal of placing assistant principals in two different locations, honoring the desire for multiple levels (i.e. elementary, middle, or high schools) where applicable. The schedule was shared with assistant principals and principals and had to be rearranged minimally to meet the demands of unique school situations. Much effort was put into making sure an administrator was present at every school and all schools were aptly covered each day.

Evaluation of Improvement Methodology

Our initiative was designed to increase assistant principals' career readiness and skill-based capacities so that new principals are better prepared to lead successful schools and foster better learning opportunities for the students in each district. *The Improvement Guide: A Practical Approach to Enhancing Organizational Performance* (Langley, Moen, Nolan, Nolan, Norman, & Provost, 2009) outlines a model of improvement that we followed when designing and implementing our initiative. The model is guided by a series of three questions, (a) "What are we trying to accomplish?," (b) "How will we know that a change is an improvement?," and (c) "What changes can we make that will result in improvement?" (Langley et al., 2009, p. 24) that provide a consistent framework for our improvement initiatives.

The Plan-Do-Study-Act (PDSA) Cycle (Langley et al., 2009) was used throughout the implementation of APPLE. In the *plan* phases, the design teams in each district finalized each component of the APPLE program within their context. The planning of the program components was slightly different in each district; however, the overall framework included an orientation session, recurring professional development, and a shadowing experience for all assistant principals. During the *do* phases, the various components were implemented

specifically for each district's needs, and data were collected. Design teams were directly involved in the action of carrying out orientation and professional development. During the *study* phases, the data was collected, reviewed, and compared with predictions. Data analysis was conducted by design teams to inform future decisions for the following steps of each component. The *act* phases allowed each design team to implement changes and determine where to start for the next PDSA Cycle. As part of improvement science, the PDSA Cycle is iterative in nature, meaning the cycles continued throughout the timeline of the improvement initiative. Though the details were slightly different in each district, the following PDSA cycles provide a visual representation of the work completed by all design teams.

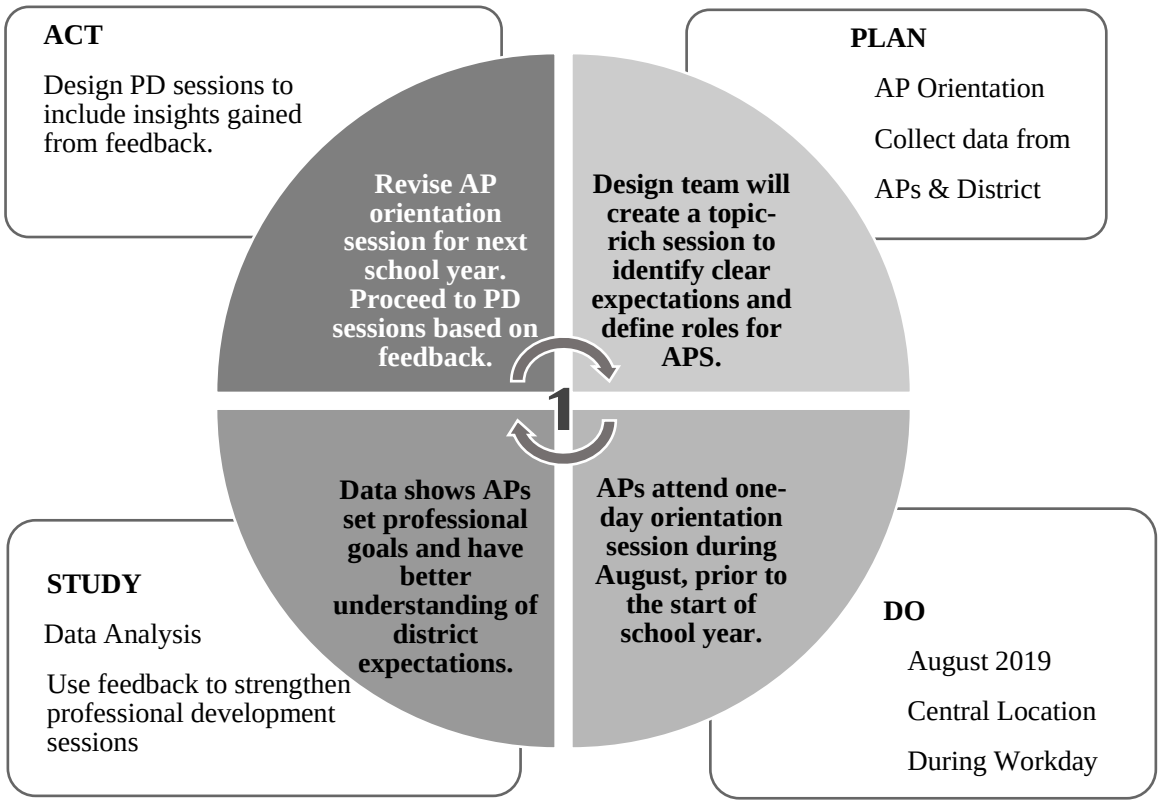


Figure 16. PDSA cycle illustrating the process of implementing the orientation session.

Our first PDSA cycle, depicted in Figure 16, began with a *plan* stage during the summer months when the design teams met multiple times and finalized plans for all parts of our improvement initiative. In the *do* section of this cycle, we held the orientation for assistant principals, data was collected using the Principal and District Administrator Baseline Survey (Appendix A), the Pre-initiative Assistant Principal Survey (Appendix B), and Pre-initiative Interviews with Assistant Principals (Appendix C). Each disquisition team member kept detailed field notes of progression. Next, the design teams met to enact the *study* phase in order to analyze the success of the orientation and finalize planning for the first professional development session. The teams analyzed initial interview transcripts, self-assessments, and goal-setting forms. In the *act* phase, the teams made adjustments to the first professional development seminar, which then lead into a second PDSA cycle. These adjustments were made based on feedback from exit tickets from the orientation sessions.

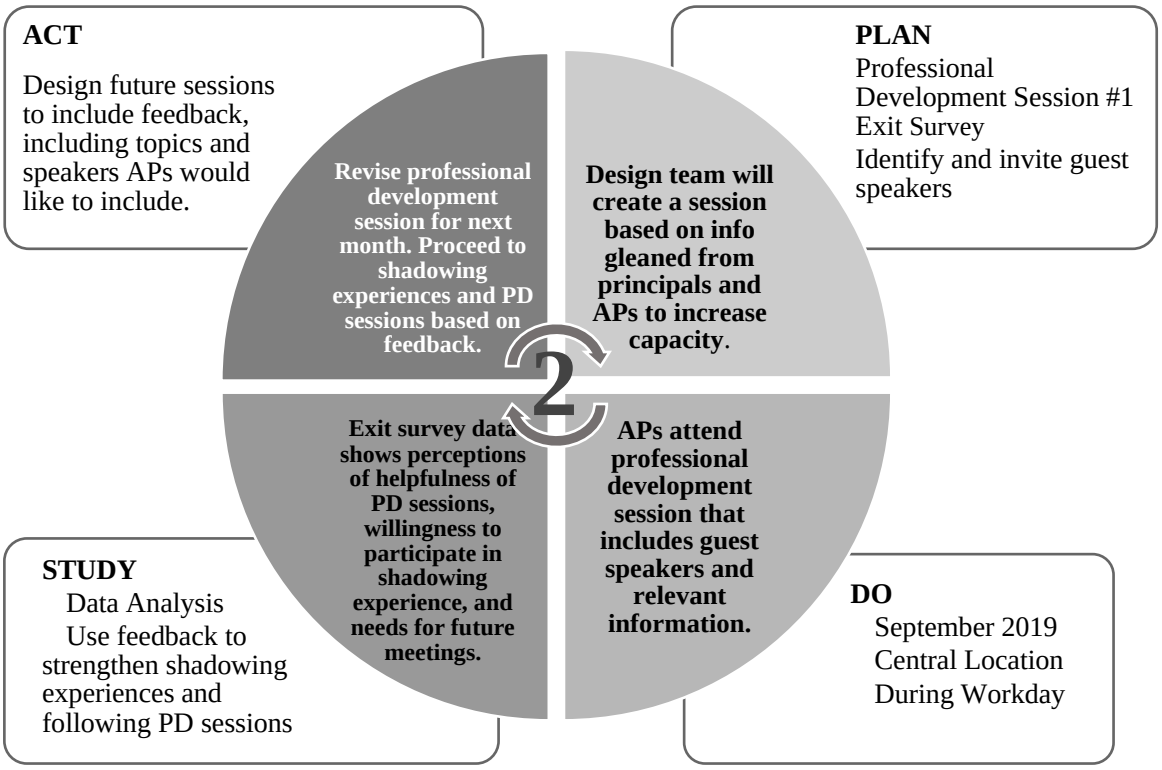


Figure 17. PDSA cycle illustrating the first iteration of the implementation process of the professional development session.

Figure 17 represents the implementation of the first professional development session in September, the preparation for the October professional development session, and shadowing experiences. In the PLAN phase, data from initial surveys and interviews were considered to design relevant topics for the first professional development session. Assistant principals attended the first professional development session and provided more feedback through exit tickets regarding the APPLE program. The cycle shows that we gathered data through exit tickets to evaluate the program's effectiveness, to inform future decisions. In the STUDY phase, the design team reviewed the feedback to evaluate and plan future professional development

sessions. This cycle continued to refine the professional development sessions through feedback from principals and assistant principals, as well as further information to strengthen the shadowing experience.

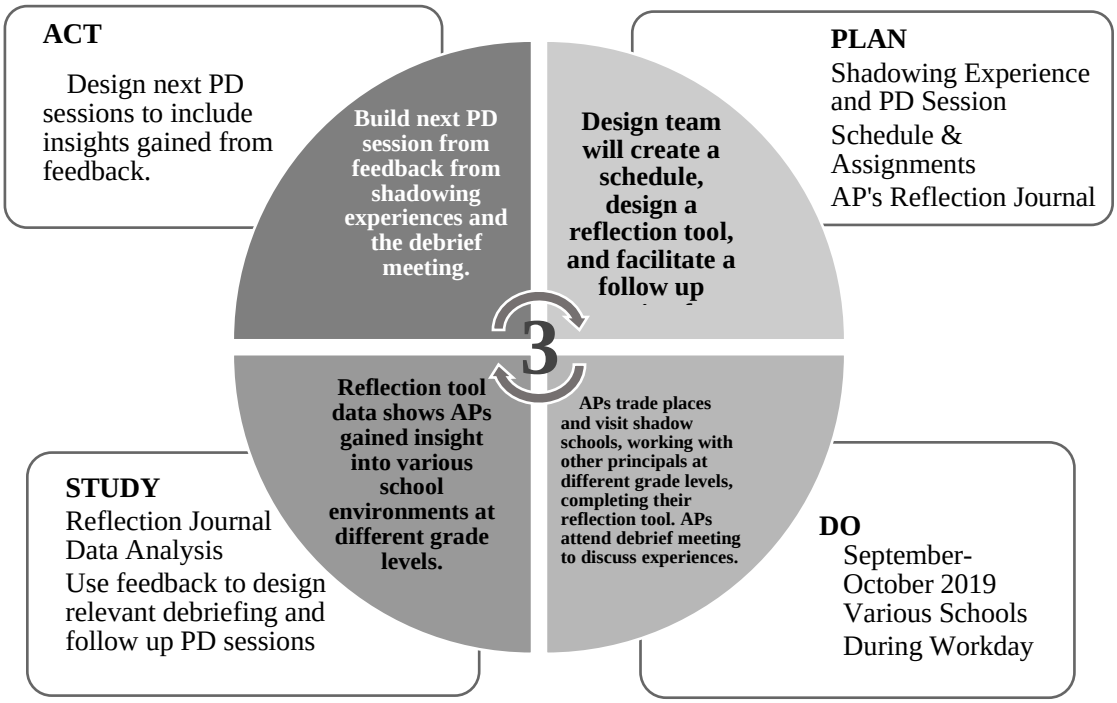


Figure 18. PDSA cycle illustrating the planning process of the shadowing experience.

Figure 18 reflects the October professional development session, planned with feedback from exit surveys and final adjustments to shadowing experiences. In the PLAN phase, data from previous sessions were reviewed and logistics for shadowing were discussed. Assistant principals participated in the assigned shadowing experiences during the DO phase, and provided feedback through reflection journals and a focus group session. In the STUDY phase, the design team used data from the journals and exit tickets to evaluate and revise the program. During the ACT phase, final preparations for the last professional development session and culmination of the APPLE program were made at this time.

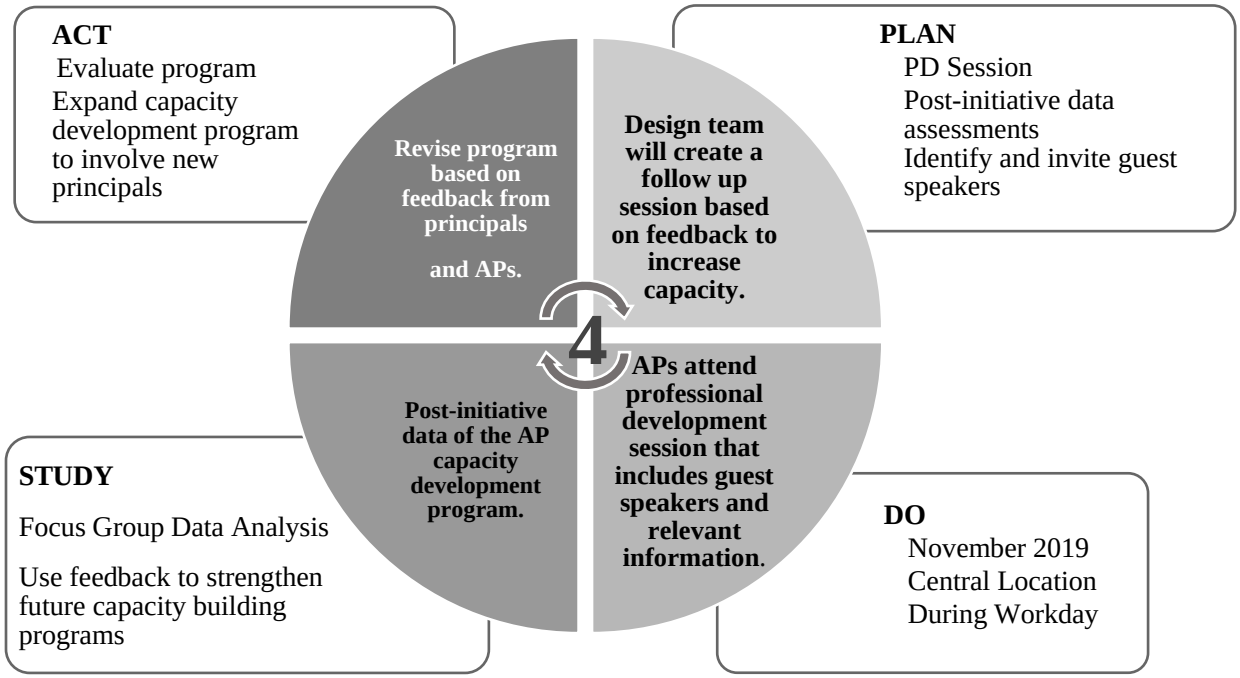


Figure 19. PDSA cycle illustrating the second iteration for implementation of the second professional development session.

Figure 19 represents the implementation of the final November sessions and the evaluation of the program. We used this tool to plan professional development based on feedback we gathered throughout the cycle. In the PLAN phase, data was considered to design relevant topics for discussion. Following the previous cycle, assistant principals attended the professional development session and provided more feedback about participating in the APPLE program. The cycle shows that we gathered data through focus group discussions and surveys to evaluate the program's sustainability. In the STUDY phase, the design team uses data and feedback to evaluate and revise the program and future professional development sessions. We continuously collected data throughout the cycles in order to evaluate the implementation of our initiative in each of the four districts.

Formative Evaluation of Improvement Methodology

During implementation, the disquisition teams utilized both qualitative and quantitative research methods to measure the success of all components of the initiatives. Using a mixed-methods approach gives a more complete and synergistic utilization of data, rather than separate quantitative and qualitative data collection and analysis (Creswell, 2012). The mixed-method approach also provided robust data for driver and outcome measures such as pre-and post-surveys, journal data, and pre- and post-interviews (Rubin & Rubin, 2005). Langley et al.'s (2009) model for improvement is comprised of the following questions:

- What are we trying to accomplish?
- How will we know that a change is an improvement?
- What changes can we make that will result in improvement?

While following Langley et al.'s (2009) model for improvement, we included process and balancing measures (Bryk et al., 2016). Process measures allowed us to analyze whether our implementation was being implemented with fidelity. Measurement from exit tickets from sessions and facilitator assessments allowed us to analyze our initiative as it unfolded and continuously monitored our efforts to increase the capacity of assistant principals. The data gathered from process measures ensured that our procedures were implemented as intended. Balancing measures, such as check-ins with the assistant principal's supervisors, helped us to ensure that we did not cause unintended consequences through the implementation of our initiatives.

The evaluation of the APPLE program fits with the widely accepted framework for training evaluation known as the Kirkpatrick Evaluation Model (Kirkpatrick, 1959; Kirkpatrick

& Kirkpatrick, 2009). The evaluation of participants' perceptions of the APPLE program components conforms to the first two levels of Kirkpatrick's model, known as the reaction and learning levels. We used exit tickets at the end of each session to measure the immediate reaction of assistant principals to the orientation and professional development sessions. The feedback gathered from the exit tickets evaluated the learning environment and experience of the assistant principals. The pre and post-initiative interviews and surveys, taken by assistant principals at the beginning and the end of the program were used to evaluate at the second level of Kirkpatrick's model, measuring their learning. The final two levels, behavior and results, require a longer time to evaluate and may be possible with future and continued iterations of the APPLE program.

Planning Data

The disquisition team collected data from principals and district leaders to inform the PDSA cycles through an anonymous survey (Appendix A). The purpose of the survey was to identify strengths and weaknesses in leadership competencies among principals and district leaders when they first became principals. Design teams used the qualitative and quantitative data to inform planning for the APPLE initiative.

We used a survey (Appendix A) to gather information from principals and district leaders regarding their personal experiences when they became school leaders. Surveys are systematic, low cost, and can reach a large number of people with ease. Anonymity can be protected, which encourages honesty and response rates (Olsen, 2012). The intent was to use their information to help bolster topics for planning professional development that would be relevant and useful. Design teams used these results in conjunction with assistant principal responses to a similar

survey (Appendix B) to plan the summer orientation and professional development sessions. Table 3 shows overall qualitative data spanning all four districts, but it is important to note that each district had slightly different frequency which led to the planning of different professional development sessions. Design teams were able to identify results that were reported in each district. Table 3 shows a compilation of data gathered from all four districts. Budget, exceptional children programs (EC), and teacher evaluations were the top three topics that principals and district leaders were least prepared for as new school leaders, and thought were most relevant for assistant principal development.

Table 3

Principals and District Administrator Qualitative Survey Results

Topic	**Number of Occurrences**	**Interesting comments**
Budget	9	Please review financial procedures.
EC	7	Legalities of EC/IEP/504 processes.
Evaluations	7	Using the teacher evaluation instrument to provide feedback for growth.
Communication	6	especially to teachers with feedback and parents with discipline
CYA Legal BP	4	Always think "liability."
School Improvement	4	Using the school improvement planning and leadership team to drive school improvement.
Familiarity with District-level staff	4	Introduction to personnel in ALL Support Services Depts, School Budgets and budgeting
		All of the processes involving the different departments at the District Leadership level.
		Information about the district director positions and

		how they are related to the principalship
Community Relations	3	Sharing community relationships and allowing them to build a relationship with one another would be a great resource for one another.
Decision-Making	3	Decision-making and its impact at the district level
Discipline protocols and strategies	3	How to communicate with parents when handling student discipline.
Instructional Leadership	3	
Mental Health	3	How to deal with meeting mental/emotional health needs of students (and families).
Safety	3	Safety procedures - know what to do when the Principal is out of the building,
Scheduling	3	Mapping out or scheduling for the year; Being proactive and planning ahead!
Self-Stress Management	3	Stress management and how to's for balancing your work and family is important for a new principal.
AP/Principal Relationship	2	The relationship between a principal and assistant. The challenges of staff trying to get things approved through an AP without speaking to the principal. Communication is key. It's okay not to give an answer when asked questions. The importance of school safety and knowing your building.
Data Analysis	2	
Hiring	2	Hiring practices, how to choose good people
School Community and Culture	2	
System Vision	2	
Designing PD	1	
Program Training	1	

Software Training	1
Testing	1
Time Management	1

Table 4 represents the quantitative data for the initial survey of principals and district leaders. The table includes data from all districts, with designing professional development (M=2.62), teacher remediation (M=2.68), and school improvement planning (M=2.78) reported as the areas of highest need. School leaders also reported they were most comfortable with student discipline (M=3.86), school safety (M=3.49), and staff management (M=3.49), thus giving design teams areas to avoid when planning professional development. Teacher remediation (M=2.68) was the only item in which no principal or administrator ranked themselves as a 5, on a scale of 1-5.

Table 4

Principals and District Administrator Quantitative Survey Results by Greatest Need

Principals and District Administrators	**Mean**	**Range**	**Minimum**	**Maximum**
Designing Professional Development	2.62	4	1	5
Teacher Remediation	2.68	3	1	4
School Improvement Planning	2.78	4	1	5
Stress Management	2.95	4	1	5
Instructional Leadership	2.97	4	1	5
Data-driven Decision Making	3.08	4	1	5
Scheduling	3.11	4	1	5
Student Assessment	3.14	3	2	5
EC/IEP/Student Placement	3.24	4	1	5

Time management	3.27	3	2	5
Equity	3.27	3	2	5
Teacher Evaluation	3.30	4	1	5
School Culture and Climate	3.35	4	1	5
Community Relationships	3.38	4	1	5
Staff Management	3.49	4	1	5
School Safety	3.49	3	2	5
Student Discipline	3.86	3	2	5

Note. Scale = 1-5, 1 is least confident and 5 is most confident.

Table 5 compares the female and male results of the quantitative data, highlighting the differences in ranking of each leadership competencies. The results for females and males were divergent and suggest consideration is needed when designing professional development for administrators. Female (M=3.65) and male (M=4.12) school leaders agree that student discipline is an area of confidence for new school leaders. Female leaders (M=2.94) reported they were not as comfortable with community relationship as the males (M=3.82) were. The top need reported by male leaders (M=2.18) was designing professional development which did not get the same mention by female respondents (M=3.00). Teacher evaluation was a topic the female respondents (M=3.53) were confident in as opposed to male leaders (M=3.06) who were less confident in that area.

Table 5

Principal and District Administrator Quantitative Survey Results by Gender

Leadership Competencies	Gender	Mean	Range	Minimum	Maximum
Community Relationships	F	2.94	4	1	5
	M	3.82	3	2	5
Data-driven Decision Making	F	3.35	4	1	5
	M	2.76	3	1	4
Designing Professional Development	F	3.00	3	1	4
	M	2.18	4	1	5
EC/IEP/Student Placement	F	3.41	4	1	5
	M	3.18	3	2	5
Equity	F	3.29	3	2	5
	M	3.29	2	2	4
Instructional Leadership	F	3.47	3	2	5
	M	2.47	3	1	4
Scheduling	F	3.53	4	1	5
	M	2.76	4	1	5
School Culture and Climate	F	3.12	4	1	5
	M	3.65	3	2	5
School Improvement Planning	F	2.94	4	1	5
	M	2.59	1	2	3
School Safety	F	3.29	3	2	5
	M	3.65	3	2	5
Staff Management	F	3.47	3	2	5
	M	3.59	4	1	5
Stress Management	F	2.88	4	1	5
	M	3.06	2	2	4
Student Assessment	F	3.41	3	2	5
	M	2.82	3	2	5
Student Discipline	F	3.65	3	2	5
	M	4.12	2	3	5
Teacher Evaluation	F	3.53	4	1	5
	M	3.06	2	2	4
Teacher Remediation	F	2.76	3	1	4

	M	2.59	3	1	4
Time management	F	3.06	3	2	5
	M	3.35	3	2	5

Note. Scale = 1-5, 1 is least confident and 5 is most confident.

Baseline Data

Our baseline data were collected through interviews and surveys of assistant principals prior to implementation of the initiative (see Appendices B and C). This data was also analyzed and utilized by the design teams to plan the beginning portions of the implementation. Coding was used to analyze data through the categorization of words and phrases which provide common meaning and findings (Miles, Huberman, & Saldaña, 2014). The interview transcriptions were coded in order to identify the needs of the assistant principals in relation to both skill and career development. The data were used to help determine subsequent strategies for increasing the capacity of assistant principals. For example, feedback from the pre initiative survey was used to determine relevant topics for orientation and professional development sessions. The data were also utilized at the end of our implementation in order to assess our outcome measurements.

The goals that were used to evaluate our improvement initiative included (a) a reported increase in assistant principals' overall sense of readiness for a principalship; (b) an increase in assistant principal's competence in job related skills, and (c) a reported increase in assistant principals' connectedness to district personnel and district policies and procedures. Table 6 shows the tools and data analysis our team employed to evaluate the success of the benchmark goals.

Table 6

Outcome Measures and Planned Analytical Strategies

Goals	Tools	Analysis 1	Analysis 2
I	AP pre and post surveys B & M	Paired samples t-test	Compare qualitative data to quantitative data
I & III	AP interviews, Shadowing Journals, qualitative data from surveys M & P	Coding (Theme, in-vivo, evaluative)	
II	AP self-assessment pre and post E & O	Paired samples t-test	Compare qualitative data to quantitative data
II	Principals evaluation of goals post F & P	Paired samples t-test, Coding	

Note. Letters B, M, P, E, O, & F correspond to titles of appendices where the surveys are located.

Orientation Data

The orientation session was the first of our three primary drivers of our implementation. Primary drivers are components shown in the driver diagram (Figure 13) that provide steps towards improvement of the overall aim. An exit survey (Appendix D) was used as a formative assessment of the session and included qualitative open-ended questions as well as Likert-type scale response options for a quantitative analysis. Assistant principals completed a self-assessment (Appendix E) using the North Carolina Rubric for School Executives (North Carolina State Board of Education, 2013) that was used for session planning as well as for outcome measurement data. Process measures for the orientation included structuring the session so that there was time for participants to ask clarifying questions and to discuss any concerns that they may have had.

We anticipated some initial apprehension and negativity about the session from the group of assistant principals. Assistant principals may not see the need to come in during the summer

and their principals may be defensive of district staff giving them orientation in place of doing it at the school level. To balance these possible unintended consequences, we had various roles represented on the design teams and used principals to help with training. We wanted all parties to be comfortable with the program and not feel threatened by it. Clear communication of the goals and structure of the program in the months leading up to it also helped to mitigate these possible concerns. As depicted in Table 7, there were several opportunities for gathering data to ensure implementation of the orientation session was as intended.

Table 7

Formative Orientation Measures

Driver:	Exit survey
Process:	1. Structure of session to allow questions from participants 2. Have facilitators assess the orientation session
Balance:	The session will be designed by principals and district leaders and communicate clearly in the weeks leading up to the sessions. Goal: to mitigate initial apprehension and negativity about the session

Orientation Session Exit Survey Results.

The orientation sessions took place in July for Burke County and in August for Asheville, Caldwell, and Stanly County Schools. We surveyed the assistant principals after attending the orientation session to determine the effectiveness and value of the experience.

In Asheville City Schools, there were a variety of written responses regarding what could be improved with the orientation session, as well as what went well. The responses for the question, “what could be improved about the presented content?” ranged from “nothing,” to “more information about preparing for the year to start would have been beneficial.” When

given the question, “what worked best?,” assistant principals appreciated the collaboration time with other administrators, as well as the featured trainer who spoke about leadership with equity. The final question asked was, “what could be improved for future meetings?,” and participants overwhelmingly spoke about having more time to collaborate with colleagues. Overall, the Asheville City Schools’ assistant principals felt that orientation activities were very beneficial to them, as seen in Figure 20.

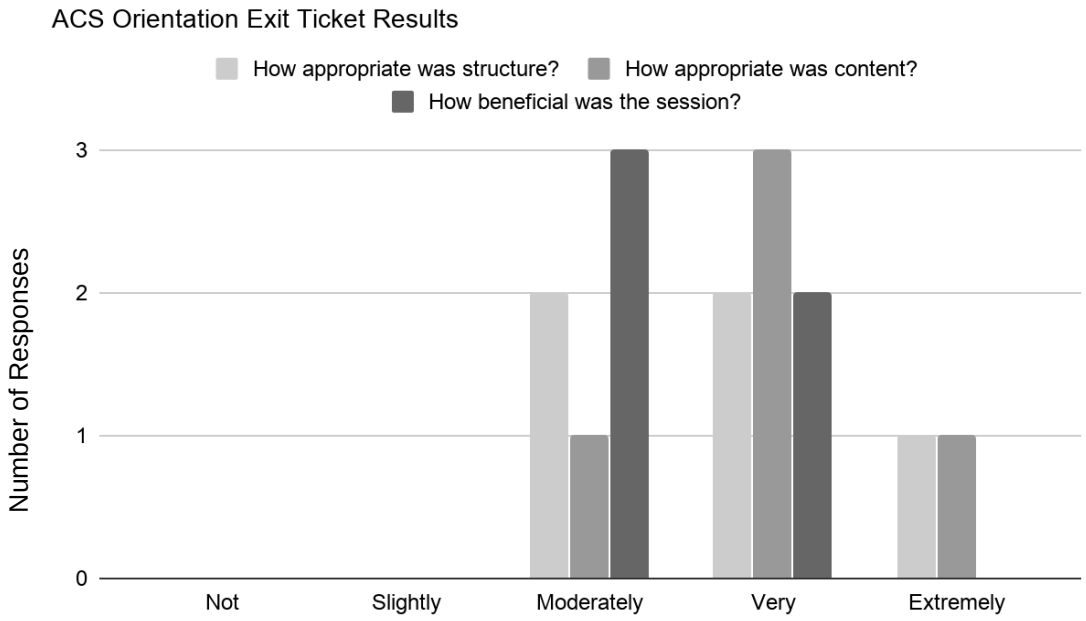


Figure 20. Results from the formative evaluation survey completed at the end of the orientation session to show benefit of session in ACS.

In Burke County, the feedback and data received from the orientation survey revealed that assistant principals would like to increase time spent in collaborative group discussions instead of listening to presenters discuss the negative aspects of school administration. The group of assistant principals felt there was a heavy emphasis on the negative aspect of interactions between teachers and administration and felt that this issue could have been

addressed in a more positive manner. Five participants felt that the orientation session was a great starting point, extremely beneficial in content and structure (see Figure 21), and important information was shared with the entire group. Another finding from survey data revealed that more activities that included movement would have been more beneficial to the overall group.

The assistant principal group felt that the content of the orientation session was appropriately planned, however there was room for improvement with future meetings. Improvement recommendations included having a more intense focus on instructional time and suggestions were made to have the overall sessions on different dates. Participants felt that the second half-day sessions that followed the district administrators' retreat were overwhelming because of all the information that was being shared.

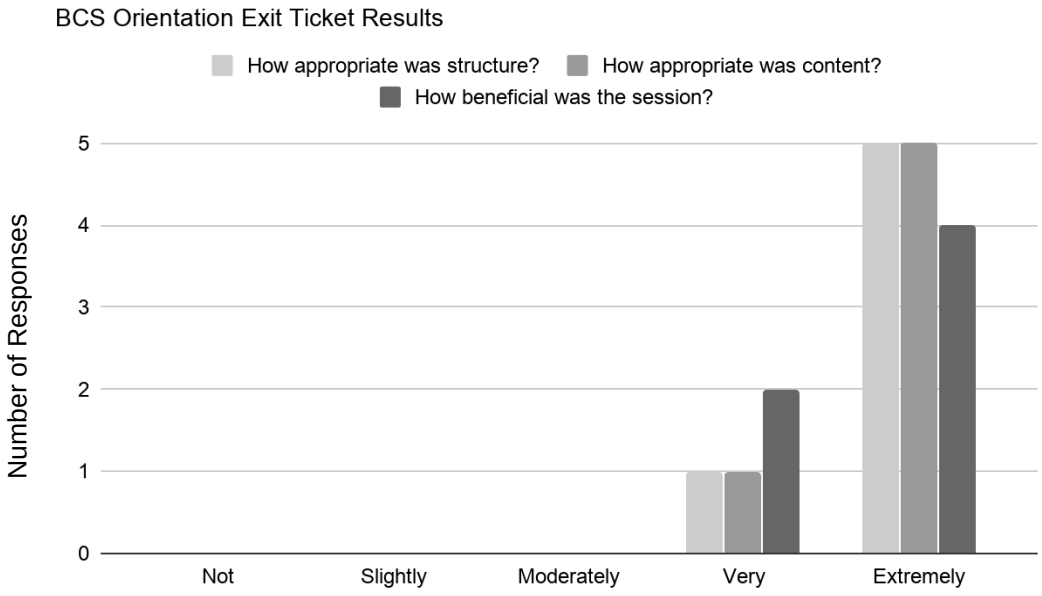


Figure 21. Results from the formative evaluation survey completed at the end of the orientation session to show benefit of session in BCS.

In Caldwell County, the results from the orientation session, depicted in Figure 22, was well received by the assistant principals. The session took place before school started back, so time pressures at school were not an issue. The participants appreciated the small groups and rotations because the environment was conducive to discussion and gave the opportunity for question and answers. Participants appreciated that the content was specific to their roles rather than being broad in nature. However, one assistant principal new to their position reported that "*for a new AP the volume of information presented was somewhat overwhelming - but, I guess that should be expected. Also, it is somewhat difficult to prioritize the "things to do" when I am not that familiar with programs, applications, data, etc."* This quote, and others, revealed that at the beginning of the school year, assistant principals want and need specific guidance on how to start school, rather than broad professional development.

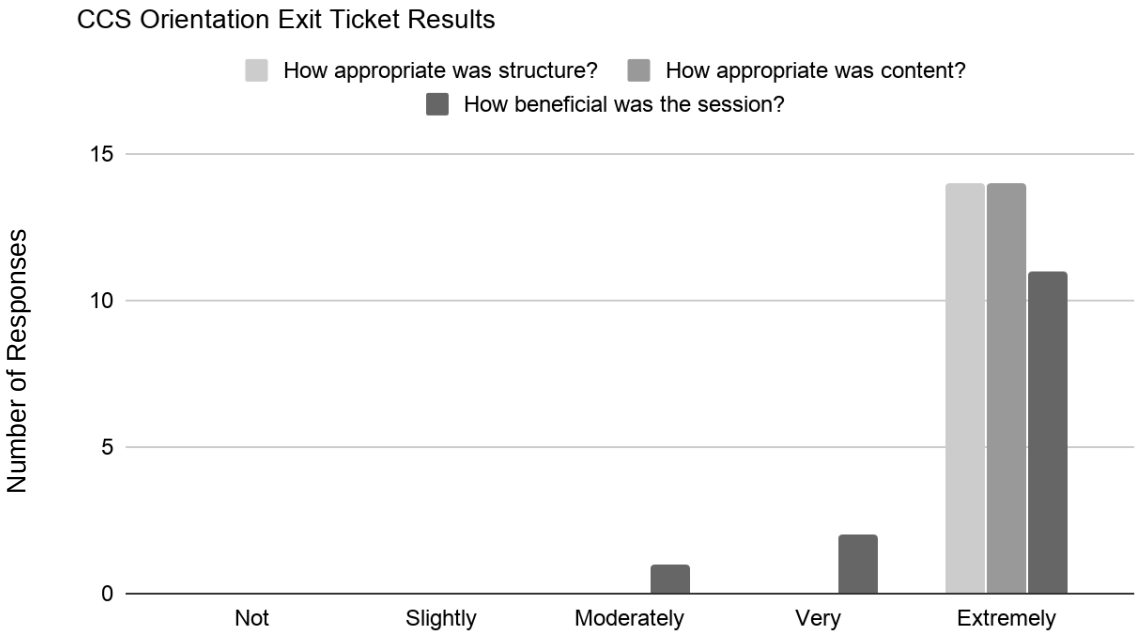


Figure 22. Results from the formative evaluation survey completed at the end of the orientation session to show benefit of session in CCS.

Stanly County Schools orientation feedback, shown in Figure 23, revealed that assistant principals appreciated the designated time to network with other professionals, but at least one participant would like to have seen more opportunities for active engagement in the presentation. The orientation session was situated in a high school media center around one large table. The relaxed, informal environment gave everyone a chance to engage in the conversation and share with others. The setting garnered some positive feedback in the survey, where assistant principals reported that they appreciated the chance for professional collaboration.

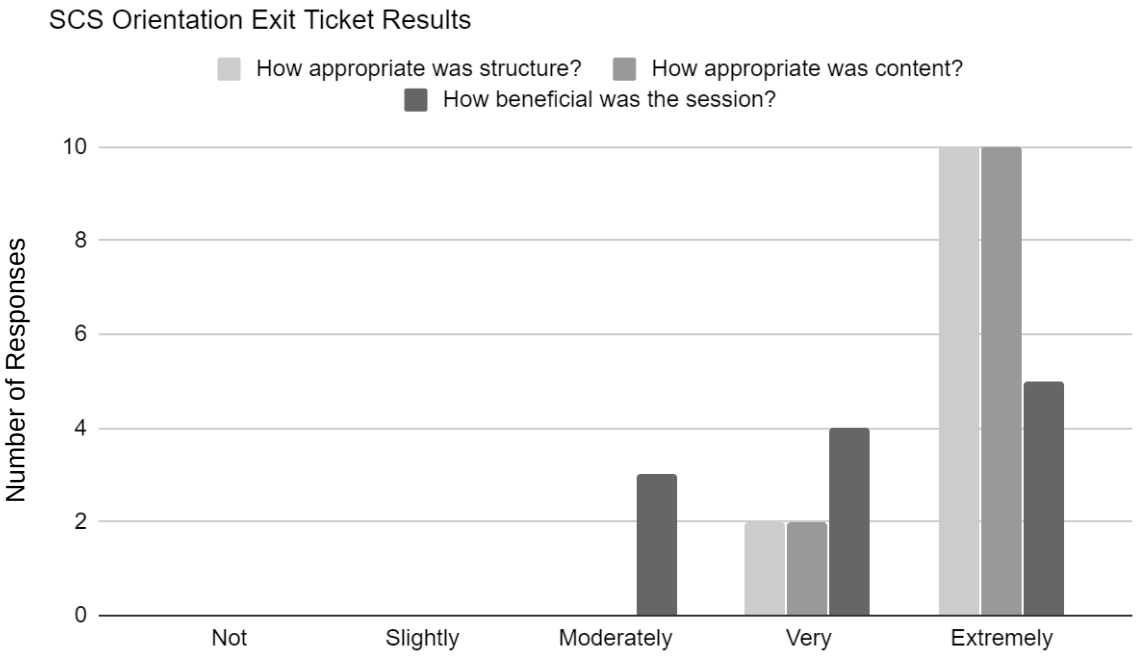


Figure 23. Results from the formative evaluation survey completed at the end of the orientation session to show benefit of session in SCS.

Professional Development Session Data

For the professional development sessions, exit surveys for participants and facilitators (see Appendix G) from each session were used as the driver and process measures. The exit

surveys allowed the disquisition team to make sure our processes were having the anticipated impact. The data yielded new learning that guided necessary adjustments to the subsequent professional development sessions. To check for unintended consequences, our balancing measures for the professional development sessions were monthly supervisor surveys (see Appendix H) that were sent to the assistant principal's immediate supervisor to ensure that they are comfortable with the assistant principal's goal progress and did not have any other concerns about the program. The program took the assistant principals out of the building more than usual and we needed to determine if that caused unintended consequences at the school level.

As an additional balancing measure for the professional development sessions, the assistant principals took brief, weekly surveys (see Appendix I) to check stress levels during the implementation. Results from these check-ins were analyzed by the disquisition team. Table 8 shows how data was gathered during the professional development session. Decisions for the professional development were made based on feedback from previous exit tickets and participants were encouraged to ask questions and provide data during each session. Survey data were gathered and used to monitor assistant principal participation to ensure there were no unintended consequences at school and personal levels.

Table 8

Professional Development Formative Measures

Driver:	Exit surveys
Process:	Structure of session to allow questions from participants
Balance:	1. Monthly surveys sent to AP's supervisors to ensure that time away from school and the program are not having any unintended consequences 2. Weekly stress level surveys monitored monthly by the design team.

Balance measures.

Surveys sent to the assistant principal supervisors as a balance measure to check for unintended consequences shows that the supervisors noticed the APPLE program did have an impact on assistant principal daily job requirements. The majority of the supervisors responded that the APPLE program had moderate to high impact (see Figure 24). As presented in the histogram, the supporting data revealed that principals see the value of having an assistant principal involved in professional growth opportunities.

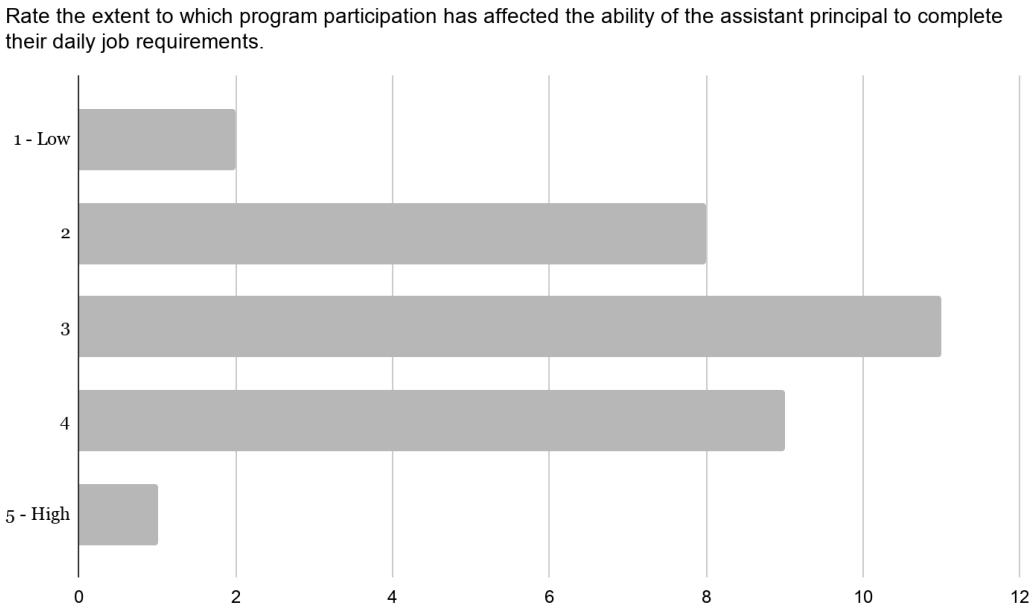


Figure 24. Principal responses about how APPLE has affected assistant principals' ability to perform job duties.

The data in Figures 25 and 26 illustrate support for the idea that having the APPLE program had a positive impact on the daily operations of the school. Of the respondents, the overwhelming majority rated the positive impact on the school as being moderate to high. When

asked about the negative impact on the school, most respondents rated it moderate to low.

Supervisors acknowledged the positive impact the APPLE program had on their school.

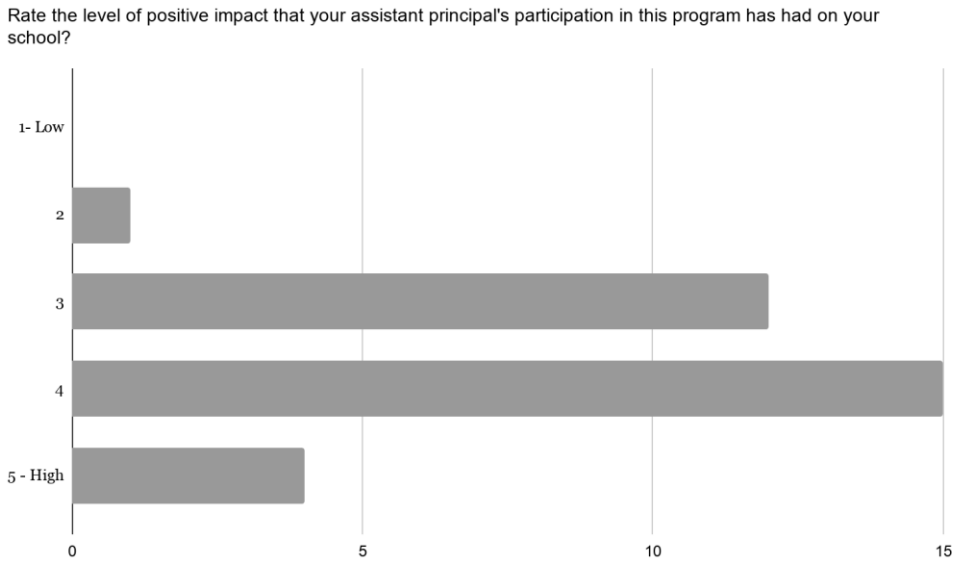


Figure 25. Principals' perception of positive impact participation in the APPLE program had on their school.

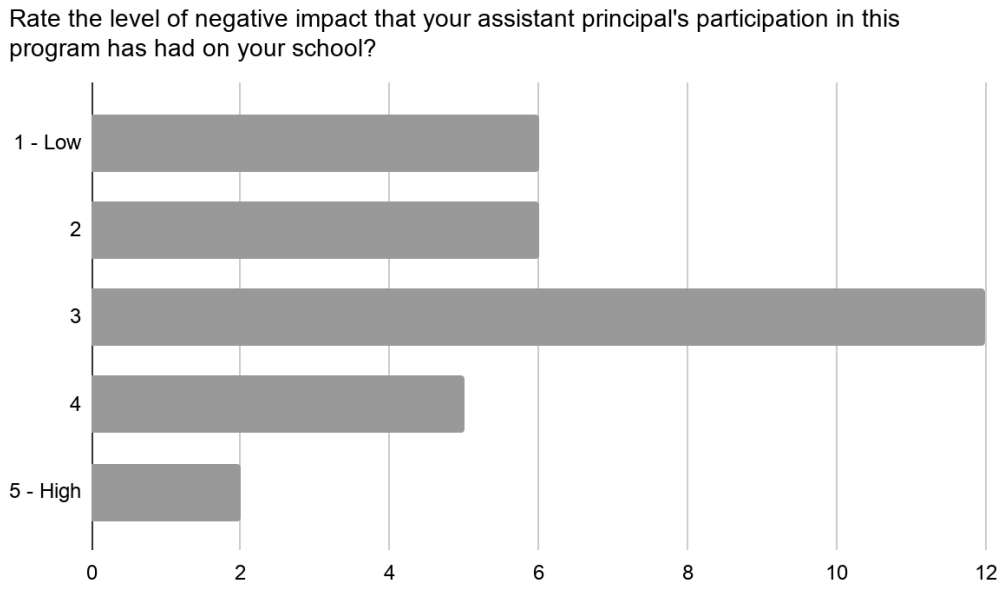


Figure 26. Principals' perception of negative impact participation in the APPLE program had on their school.

There were 330 responses from assistant principals in all four districts to the weekly stress survey that was used as a balancing measure (see Figures 27 - 29). The overwhelming response to the survey showed that 239 participants did not feel that their stress level increased due to participating in the APPLE program. Sixty-nine of the respondents felt that they experienced a small amount of stress by participating in the APPLE program. A small percentage of respondents did say that their participation in the APPLE program contributed in some way to their overall stress level.

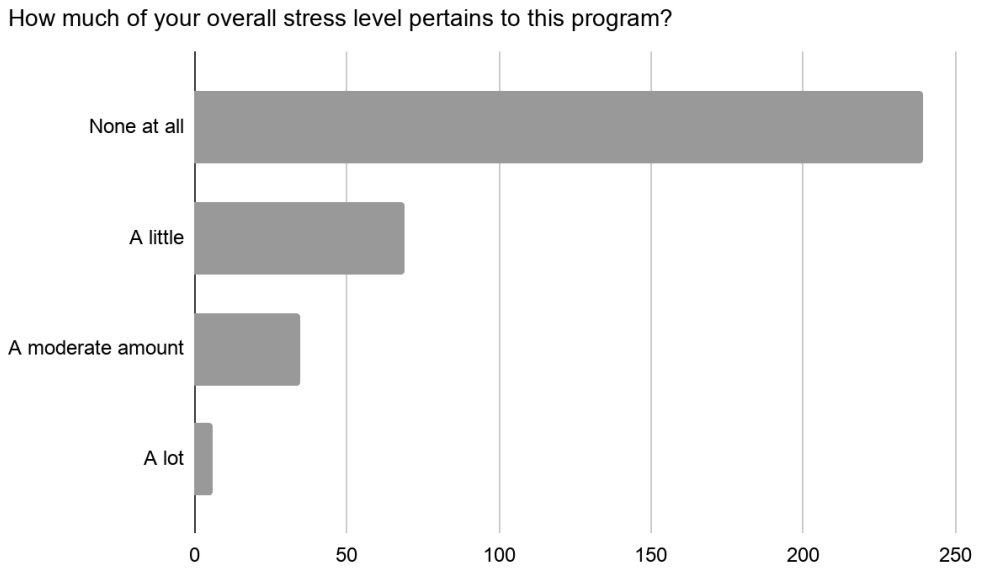


Figure 27. Results from the weekly stress level survey completed by all participants pertaining to the APPLE program.

Figure 28 illustrates the overall stress levels by district. There were similar stress levels reported in Asheville City Schools, Caldwell County Schools and Stanly County Schools, at a level six out of ten, where ten was the highest possible response, representing the most stress. Burke County responses were around five, showing a slightly lower level of stress among assistant principals during the APPLE initiative.

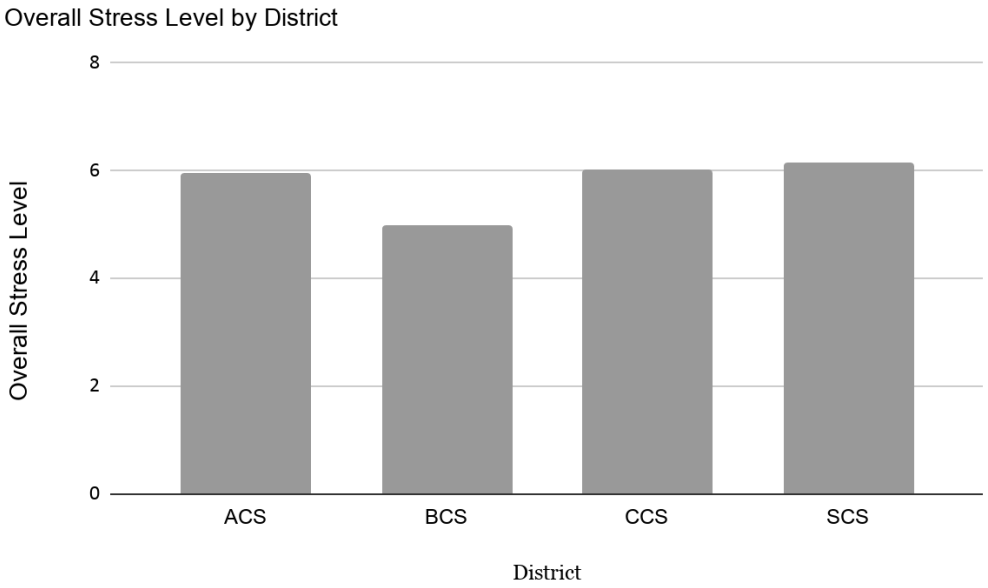


Figure 28. Results of overall stress level of participants from each district. Range from 0-10.

Figure 29 shows that the different components of the APPLE program did not greatly influence stress levels over time. The levels remained fairly constant throughout the implementation, showing that the timing of each component: orientation, shadowing, and professional development, may not have had a great impact on assistant principals' stress.

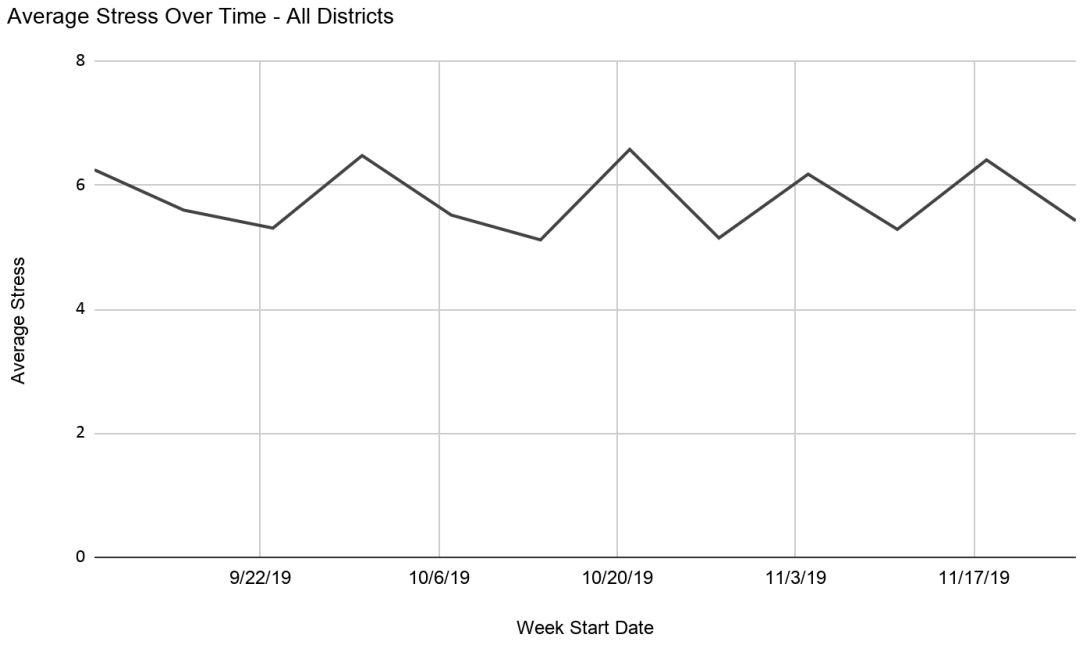


Figure 29. Average Stress Levels across all districts reported by participants throughout the study.

Professional Development Exit Ticket Data

Asheville City Schools.

The first professional development session for Asheville City Schools, held in September, focused on the implementation of MTSS (NC Live Binders, 2019) as well as training of a new technology monitoring system. Figure 30 shows the results of the September professional development session in Asheville City Schools, in which 7 people said the content was either very or extremely appropriate. The participants used a game to apply principles of the MTSS model for application in school-based situations. Assistant principals found the game to be beneficial and wrote positive comments regarding the MTSS activity. Several assistant principals noted that having more time to collaborate with other assistant principals would have

been beneficial. Participants enjoyed the professional development session, exemplified by the following quote, "*I enjoyed the format and presentation. No suggestions for improvement."*

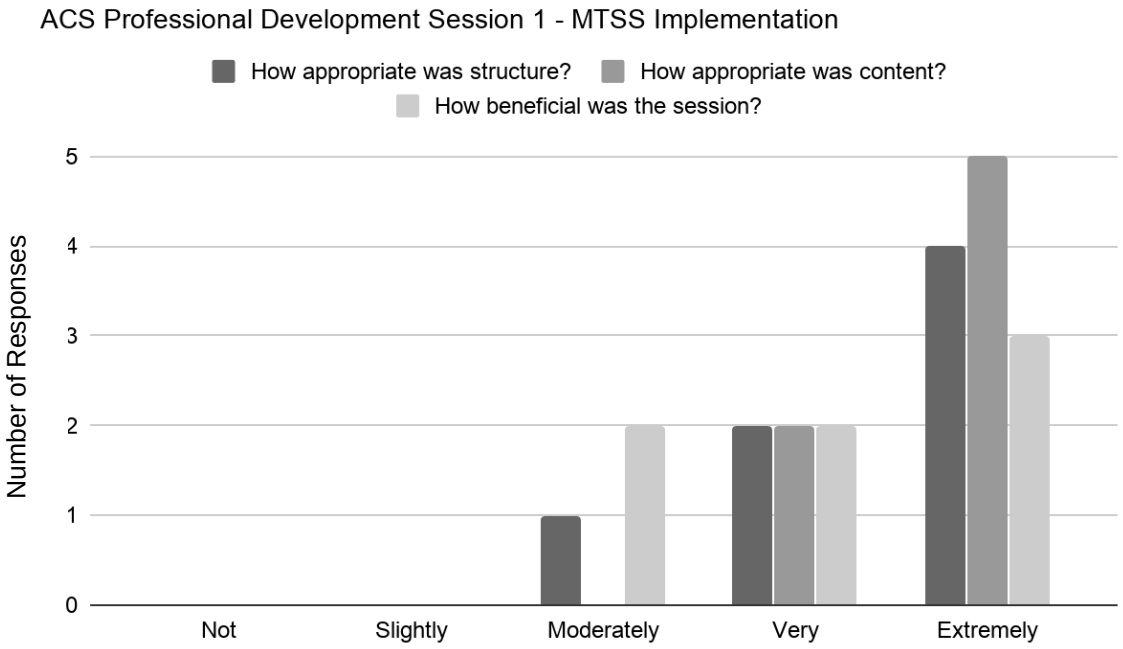


Figure 30. Results from participants from ACS professional development session 1 on MTSS implementation held in September.

The October professional development session for Asheville City Schools focused on human resources, specifically using the North Carolina Teacher Evaluation Instrument (NCEES). The second part of the session was dedicated to school-based decision making through role playing activities. Similar to the first professional development session, the feedback received referred to the use of the human resource presentation involving teacher evaluations. The later session consisted of a role-playing game of situations that could occur at the school level and brainstorming the approach assistant principals would take to address the situation. Figure 31 shows that six assistant principals felt that the professional development session was either

extremely appropriate or very appropriate. Specific feedback from participants pointed to the relevancy of the training and the application of the tools.

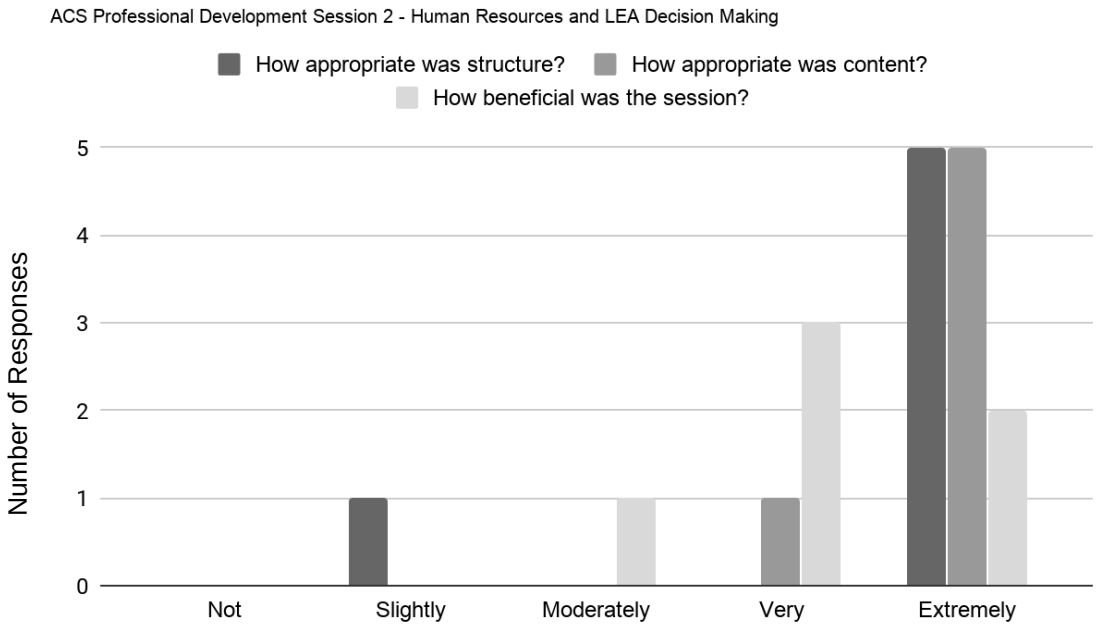


Figure 31. Results from participants from ACS professional development session 2 on the North Carolina Teacher Evaluation Instrument held in October.

The third professional development session for Asheville City Schools took place in November and focused on discipline and suspension numbers using Educator's Handbook data. The assistant principals used their own discipline referral and suspension numbers in Educator's Handbook to analyze the data, as well as brainstormed possible solutions for reducing suspensions. Figure 32 shows a range of answers from the assistant principals. Many stated that the session was both appropriate and beneficial, but a few individuals voiced concern over the structure and content of the session and felt that they did not gain any benefit from the session. One particular assistant principal said, "*the content was not worth being out of the building for*."

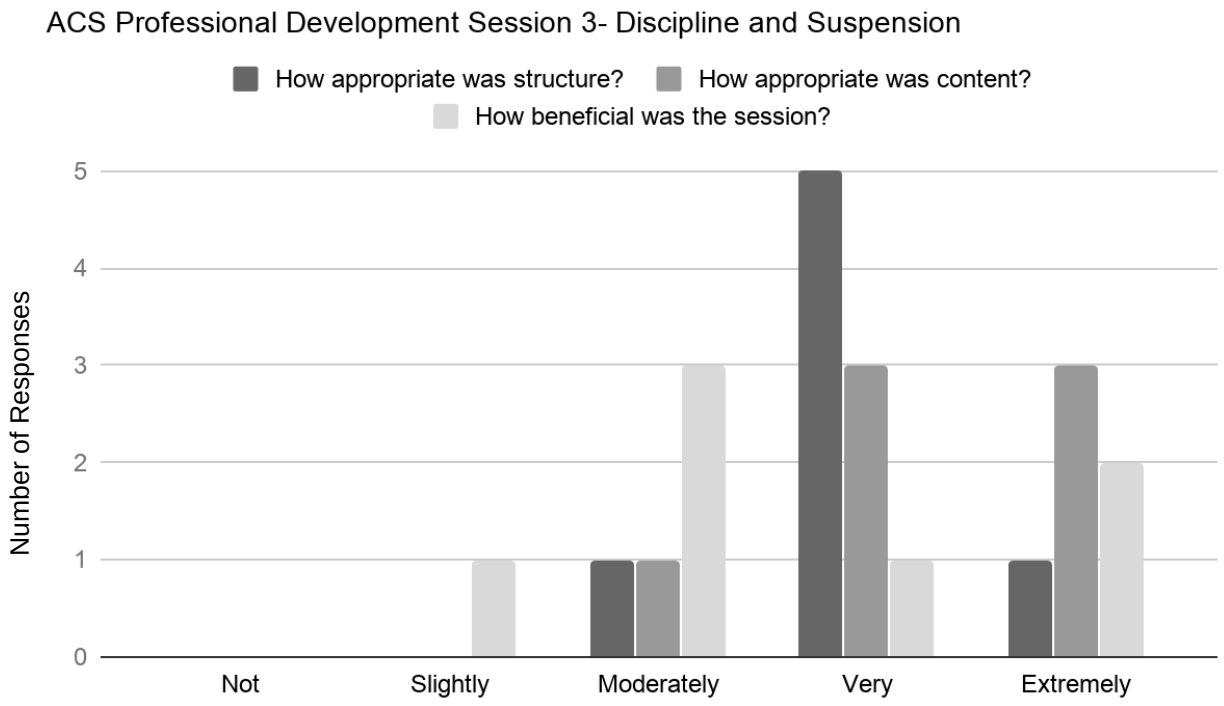


Figure 32. Results from participants from ACS professional development session 3 on Student Discipline and Suspension data held in November.

Burke County Schools.

Burke County Schools' first professional development session, which focused on developing assistant principals' ability to differentiate between student services and staff conveniences, was held in mid-September. After reviewing survey results from the session, a majority of the participants felt that the content, structure, and overall purpose of the session was extremely beneficial. The data from the survey did show that one assistant principal noted scheduling as an issue and requested more time to discuss this topic with colleagues during a future APPLE training. This particular participant expanded on her response by sharing a problem of practice related to the topic of the session. Her concern was that some staff members wanted to change the master schedule in order to best meet their needs rather than the needs of

students. Figure 33 demonstrates the ratings by assistant principals where 15 respondents reported the content of the opening professional development session was extremely appropriate. Participants voiced that they were looking forward to future training and appreciated having time to collaborate with their colleagues.

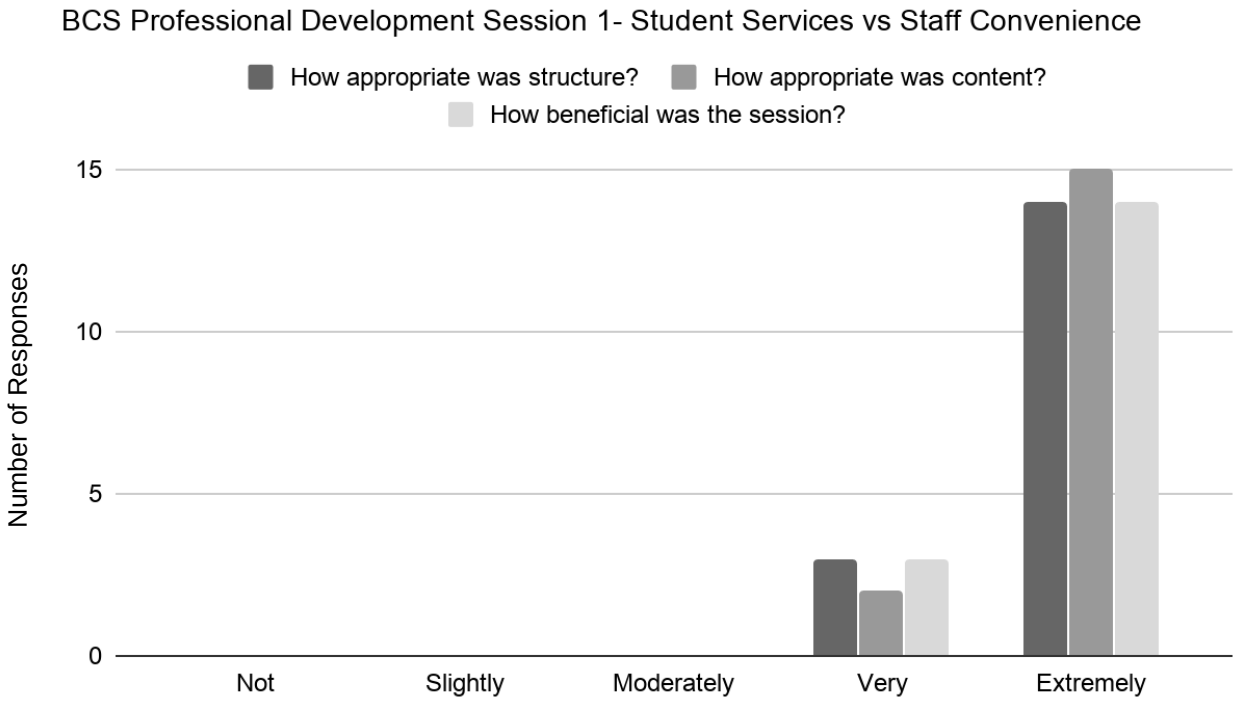


Figure 33. Results from participants from BCS professional development session 1 on Student Services vs. Staff Convenience held in September.

Burke County held its second APPLE professional development session in October. The focus for this session was supporting assistant principals as they navigate difficult conversations and instructional leadership. Participants worked in collaborative groups and shared situations where they found themselves having difficult conversations with staff or students' parents. During the session, district leaders were also in attendance and contributed to the discussion by role playing scenarios. The assistant principals had to work in their groups to come up with

dialogue they would use and strategies for how to approach and navigate the conversation being presented. Figure 34 reveals that the majority of participants reported that the session was extremely beneficial noting that the content and structure was relevant to their learning and practice. Assistant principals reported that what worked best for the professional development was "*time to share and collaborate*," in the form of "*small group discussions*" and "*group activities*." The data did show that one participant felt that this session was not as beneficial as the first, ranking it moderately beneficial to their growth and practice.

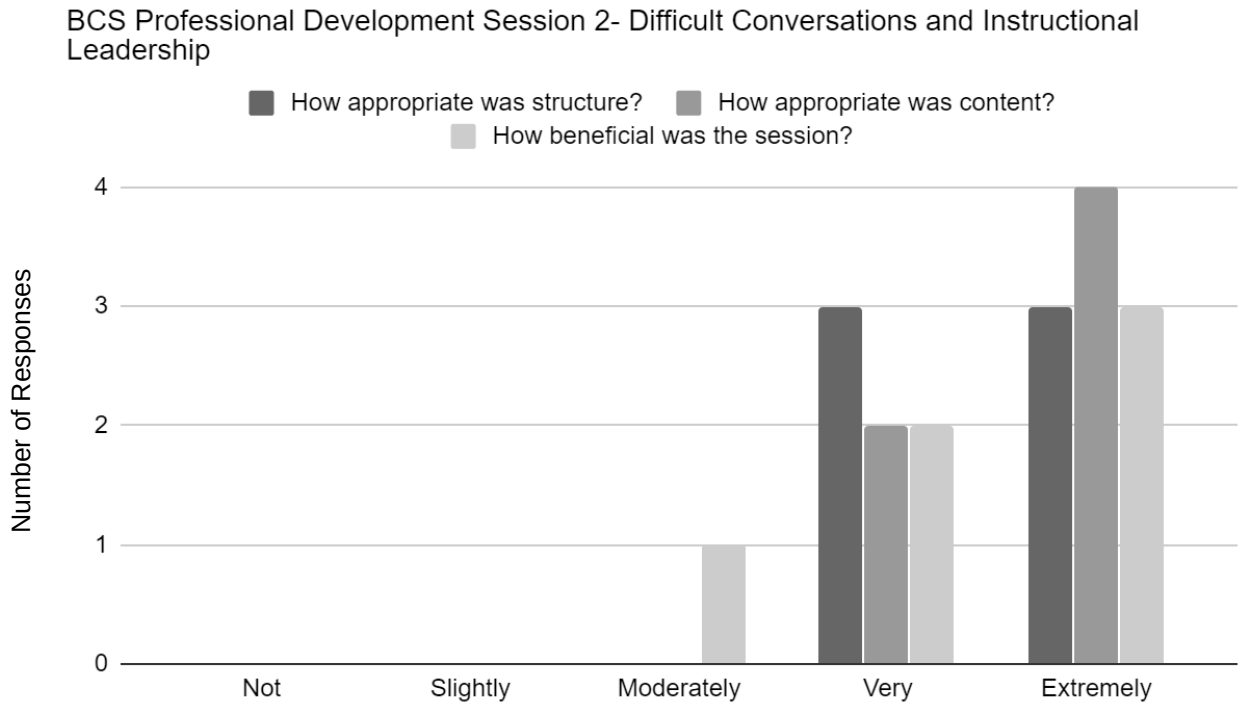


Figure 34. Results from participants from BCS professional development session 2 on Difficult Conversations and Instructional Leadership held in October.

The focus of Burke County's November professional development was centered around students with a variety of different learning styles. The session began with the group taking a field trip to visit two schools in Burke County that have contrasting student needs and learning

styles. Our first stop was at the alternative school, Hallyburton Academy, and our second stop was at the district's profound Exceptional Childrens' school, North Liberty. The purpose of the field trip was to give assistant principals a chance to experience first-hand the needs of the students that make up BCS and how these needs can vary. Several participants commented on how beneficial and eye opening the trip was because they had not realized the student variances BCS children bring with them each day to our schools. The session was well received and some assistant principals stated that they enjoyed getting out and about and into the schools. The data in Figure 35 confirms that ten of the 11 participants reported that components of the professional development were extremely beneficial to their learning.

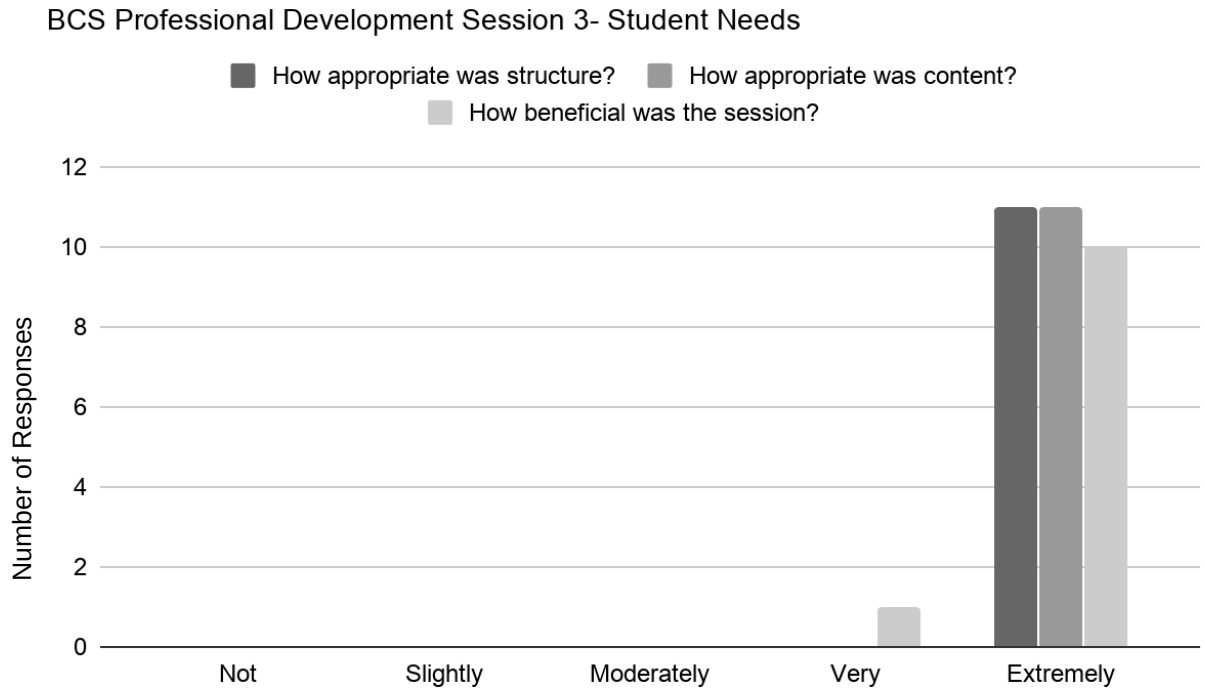


Figure 35. Results from participants from BCS professional development session 3 on Student Needs held in November.

Caldwell County Schools.

Caldwell County's first session, held in September, was on best practices for designing professional development. As seen in Figure 36, the majority of the participants felt that the structure (10 out of 13) and content (9 out of 13) were extremely appropriate and that the session was extremely beneficial (8 out of 13). The assistant principals were in groups during the sessions and appreciated the collegial time together to discuss the topics. One respondent wished that the session was more targeted to the specific needs of an assistant principal. They also wanted a specific list of professional development resources to be able to reference. The design team worked on gathering that data after the session and shared it via email and on the Canvas classroom. The session incorporated scenarios which were one of the most valued portions of the session based on participant feedback. The assistant principals would have liked to have had the information before the meeting so that they could have looked over it and prepared questions.

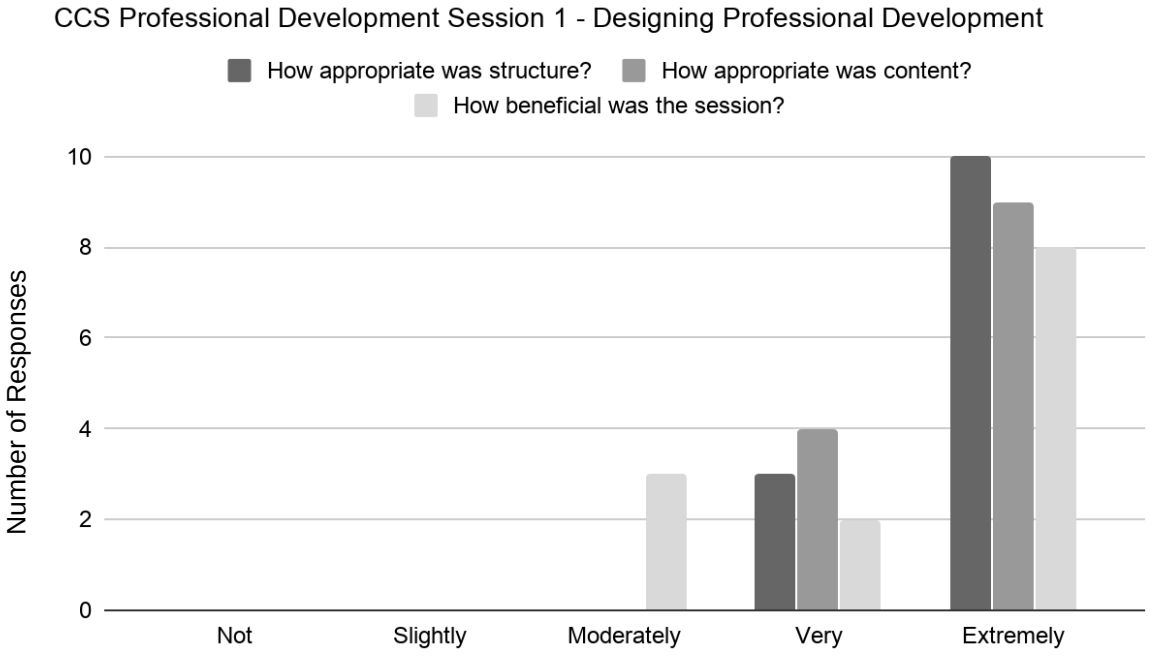


Figure 36. Results from participants from CCS professional development session 1 on Designing Professional Development held in September.

Caldwell County's second session, held in October, was on teacher remediation and difficult conversations. As seen in Figure 37, the majority of the participants felt that the structure (9 out of 11) and content (10 out of 11) were extremely appropriate and that the session was extremely beneficial (8 out of 11). The session was well received. The assistant principals appreciated the pace of the session and working to align types of employee conduct with the evaluation standards. They enjoyed the scenarios and requested more modeling of difficult conversations. The session included time for discussion and a new assistant principal mentioned that they learned a lot from a more experienced assistant principal.

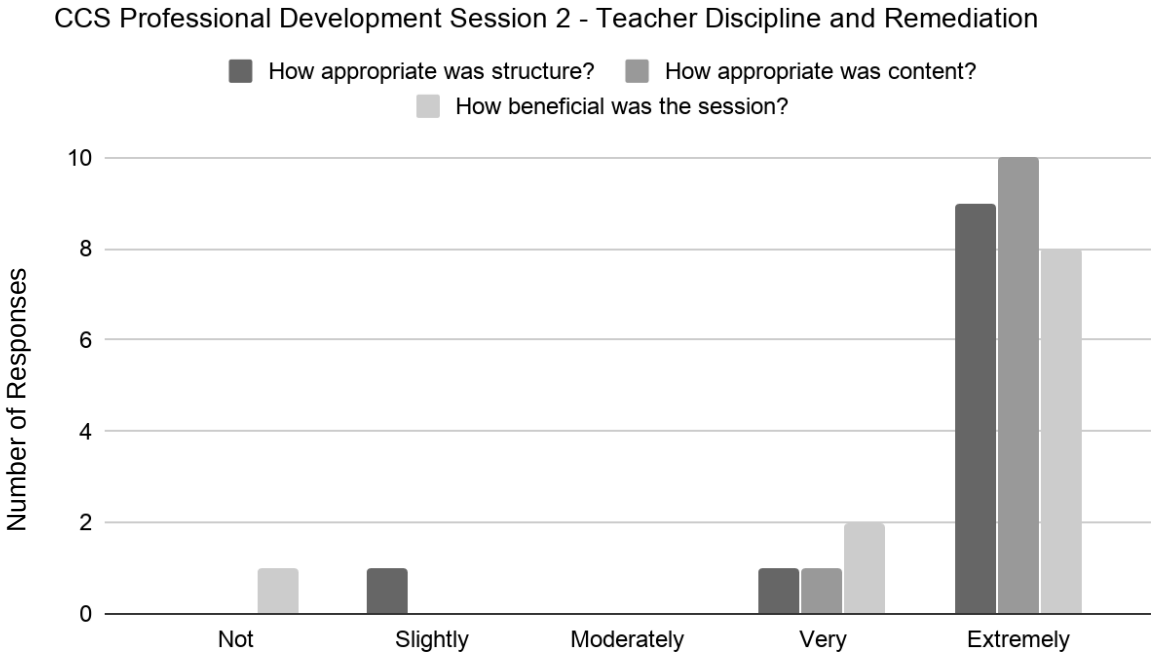


Figure 37. Results from participants from CCS professional development session 2 on Teacher Discipline and Remediation held in October.

Caldwell County's third session, held in December, was on instructional leadership and student placement. As seen in Figure 38, the majority of the participants felt that the structure (10 out of 16) and content (10 out of 16) were extremely appropriate. However, this session was slightly less well-received than they previous two sessions, with only six out of 16 reporting that the session was extremely beneficial. Assistant principals enjoyed the time to collaborate and share ideas. The meeting was held at a school and the assistant principals enjoyed visiting classrooms. They asked to get material before the meetings so that they could review it beforehand. The student identification information presented by the psychologists was reported to be dense and too long for the time that the meeting was originally scheduled. Balance between getting information to principals and keeping meetings short should be a focus moving forward.

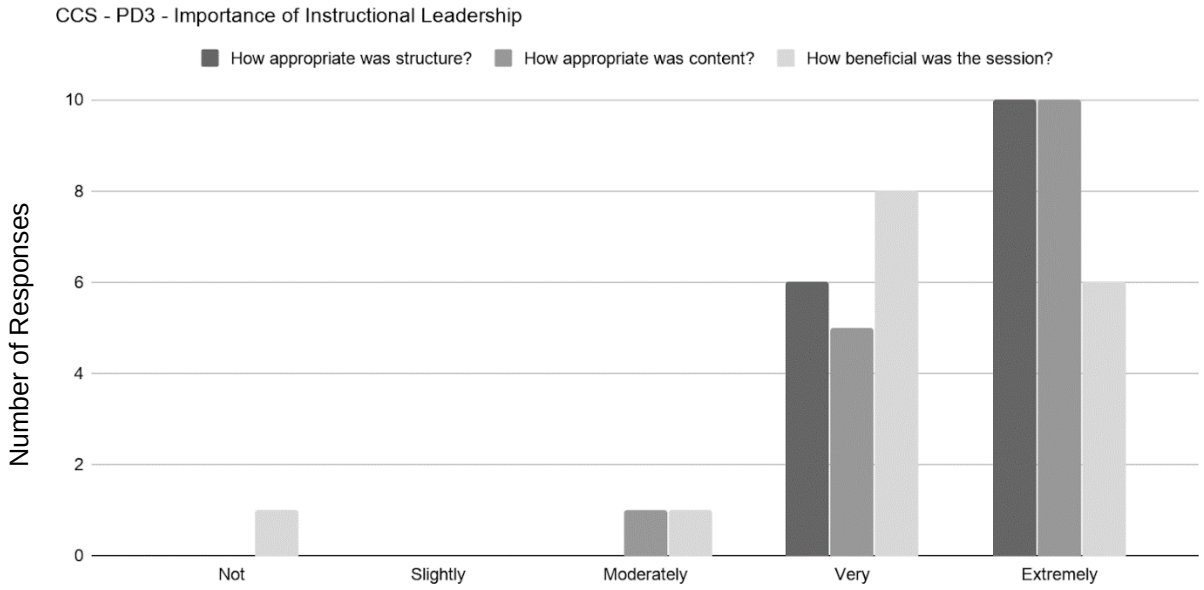


Figure 38. Results from participants from CCS professional development session 3 on Instructional Leadership held in December.

Stanly County Schools.

Stanly County's data from the first professional development session had varied results that supported the different comfort levels from the assistant principals. Some assistant principals are confident with MTSS (NC Live Binder, 2019) because their previous experience includes MTSS, whereas other assistant principals are not as confident with the program. The data supported these variations with participant comments such as, "*the content of [the] presentation on MTSS was extremely useful and the opportunity to discuss concerns/gaps in the system will hopefully bring about some structural adjustments."* While another assistant principal said, *"as someone who is knowledgeable in MTSS and has led teams in another district, I felt that I could have benefited from getting more information on the platform or in another topic area."* Despite these conflicting views, Figure 39 shows the content was

considered either very or extremely appropriate for assistant principal professional growth, as reported by all 15 participants.

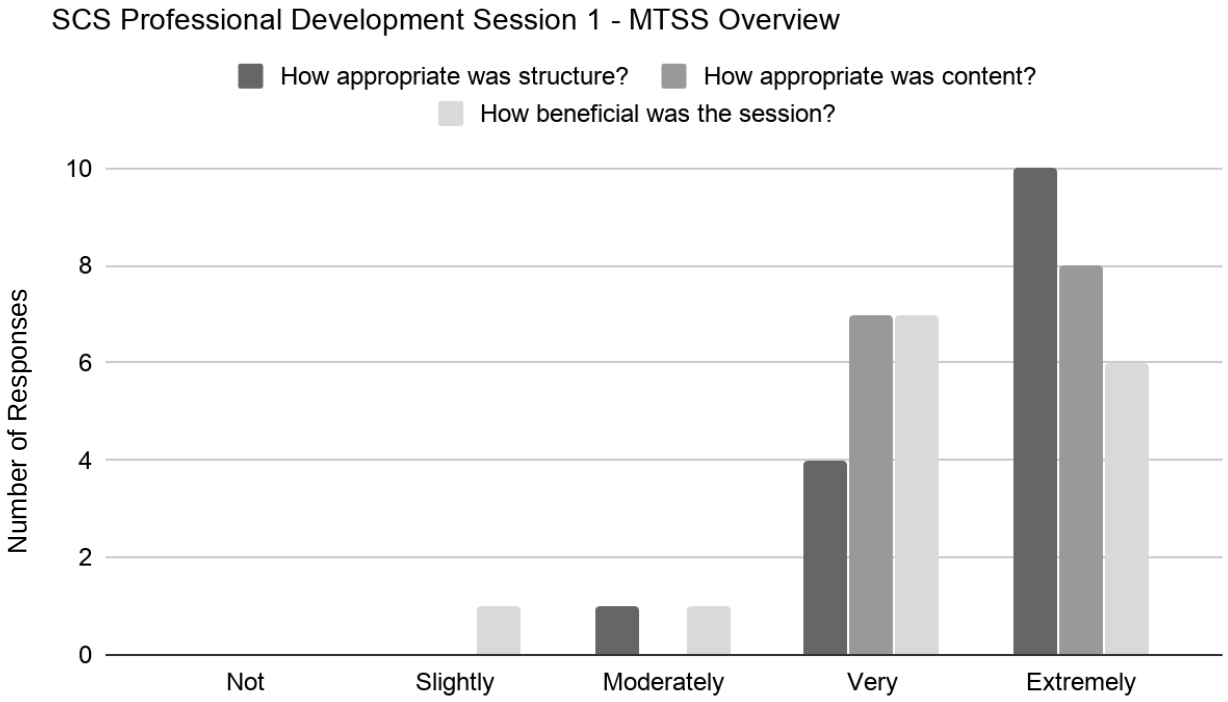


Figure 39. SCS participant survey results on professional development session 1 on Multi-Tiered Systems of Support Overview held in September.

The data from the exit ticket for the October session reflected feedback that was extremely appropriate in structure (9 out of 13) and content (7 out of 13), as shown in Figure 40. When asked about what worked best about the session, of the 13 assistant principals who responded, six comments were made regarding an appreciation for the time to collaborate with other professionals and two others commented positively about the time of reflection. Overall, the session was regarded as being very beneficial (8 out of 13) and extremely beneficial to 3 participants.

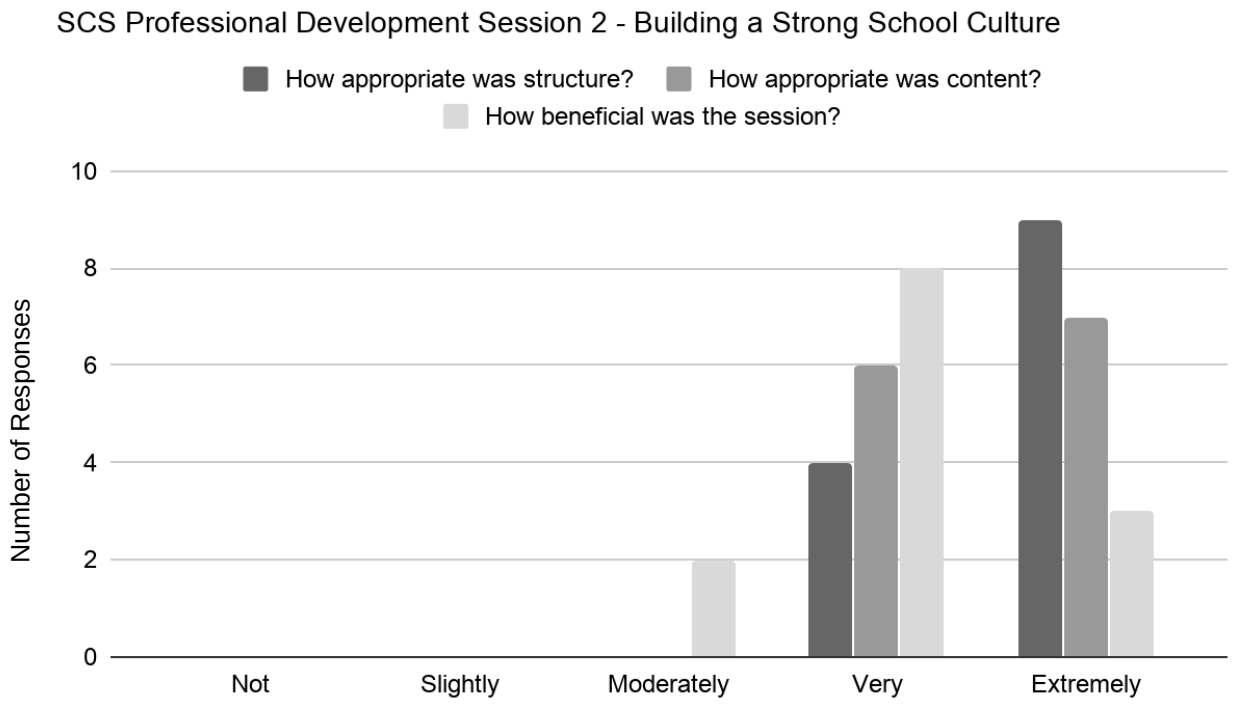


Figure 40. SCS participant survey results on professional development session 2 on Building a Strong School Culture held in October.

The qualitative data from the third professional development session in Stanly County was positive overall (Figure 41). Assistant principals remarked in their feedback that they appreciated the opportunity for collaboration and the practical information shared by someone currently filling the principal role. One assistant principal reported, "*I loved the chance to talk with peers about ideas and strategies to address culture/climate and how to develop PD."* Their responses show the session on designing professional development was extremely appropriate in structure (10 out of 13) and content (10 out of 13) for their professional growth.

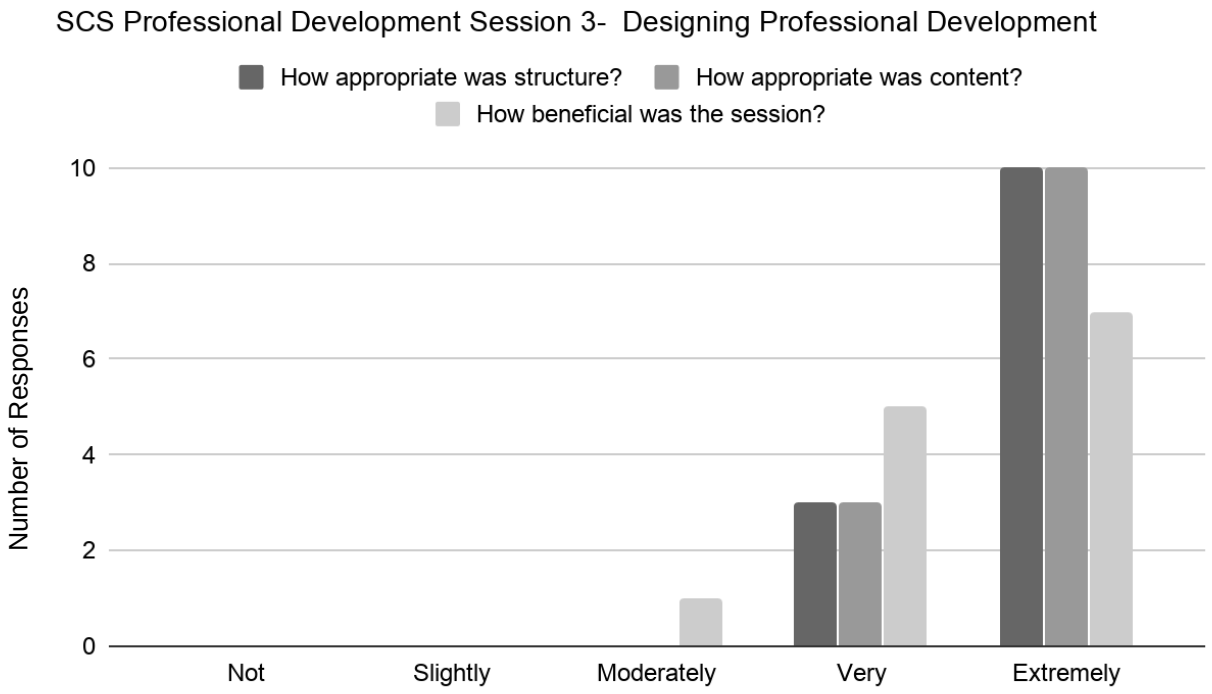


Figure 41. SCS participant survey results on professional development session 3 on Designing Professional Development Overview held in November.

Formative Evaluation of Shadowing

As part of the APPLE program, assistant principals shadowed in a school at a different grade level other than their assigned school and teaching background. Before the shadowing occurred, the assistant principals were given a series of prompts (Appendix J) to guide their reflection on the process. At the end of each day of shadowing, they wrote in a reflection journal. The journals provided the driver measures for the shadowing experience portion of the initiative and were analyzed for trends through coding (Miles, Huberman, & Saldaña, 2014) which has allowed the teams to label the experiences and opinions of the assistant principals as they went through the process. At the professional development session following the shadowing experience, a research team member facilitated a focus group discussion (Appendix

K) that highlighted ways the school visits were beneficial and difficult for assistant principals. As a process measure, the exit survey (Appendix L) from the meeting included questions about the structure and organization of the shadowing program.

As a balancing measure for the shadowing program, disquisition team members sent short surveys (see Appendix H) to participating school principals throughout the implementation to see if the experience went well and if they needed assistance with anything in their buildings. Balancing measures ensure that the APPLE program is not causing unintended consequences. We wanted this to be a positive experience that helped assistant principals get a better understanding of different grade level schools and not a hindrance to the normal operation of the schools involved.

All of the above formative evaluation measures were used by the improvement initiative disquisition team throughout the PDSA cycles. The data gave the team the knowledge of how the program was progressing and what needed to be adjusted during the different sessions to better serve the participants, their cooperating principals, and district leaders. A graphical representation of the process and balancing measures of the shadowing experiences are presented in Table 11.

Table 11

Shadowing Experience Formative Measures

Driver:	1. Journal 2. Focus Group
Process:	Exit ticket from October PD session
Balance:	Short check-in survey with principals during shadowing

Data were gathered using shadowing journals completed by assistant principals at the end of each shadowing day. The shadowing journals included the following prompts:

1. Describe your day.
2. How does your experience today compare with your regular daily duties?
3. What was beneficial about your experience today?
4. What were the most challenging parts of the day?
5. What were your takeaways?

Exit tickets that were completed by assistant principals for the professional development session that followed the shadowing experiences included survey questions that provided quantitative data. The survey asked assistant principals to report on the level of impact the shadowing experience had on their daily responsibilities. Brief descriptions of contextual implementation will follow this section, with more discussion of data gathered and implications.

Asheville City Schools.

In Asheville City Schools, the shadowing experiences took place over two weeks in November and were arranged according to the preferences of the assistant principals. In each case, the assistant principal shadowed another assistant principal and/or principal at a different school level. Ten assistant principals responded to the shadowing journal after participating in the experience. All ten of the assistant principals who participated spent the entire day in another school and noted similarities and differences between the schools. Not all of the assistant principals participated in the shadowing experience.

Burke County Schools.

In Burke County Schools, the shadowing experience took place in late October and concluded in mid-November. Participating assistant principals were given assignments based on previous experience and personal preferences. Assistant principals spent time shadowing another assistant principal. Burke County had 10 assistant principals who participated in the shadowing experience. After the shadowing experience, each participant recorded the events of the day in an online shadowing journal. The data were used to discuss the impact that the shadowing experience had on each participant.

Caldwell County Schools.

In Caldwell County Schools, shadowing experiences took place in the month of November. Assistant principals were paired up based on their requests and they spent two days together, one at each school. The majority of assistant principals were able to participate but a few ended up backing out due to emergencies and time constraints. Some spent entire days shadowing and others only part of a day. A focus group was held at the last professional development session in order to discuss the experience.

Stanly County Schools.

In Stanly County Schools, the shadowing experiences were spread over three days in early October. Using preference feedback gathered from assistant principals, the APPLE design team scheduled each assistant principal two shadowing assignments over the three days. The expectation was that the 17 participants would begin and end the days at the assigned schools, reflecting on their experiences using the online shadowing journal. Assistant principal participation varied despite the scheduled opportunities and approval by the superintendent.

Shadowing Data

Shadowing Journal Data and Exit Ticket Results.

Data gathered from the shadowing journals included descriptions of how assistant principals spent their time at the school they visited. The data showed a variety of experiences for assistant principals in each district, offering experiences outside their regular job duties. Figures 42 - 45 represent how assistant principals spent their time during shadowing. One assistant principal said, "*The day was filled with classroom visits, discussions with students, teacher PLC meetings, student team meeting, discussions in improvement with communications. Busy, but [a] great day. [The] admin [was] very involved with teachers and students."* Another participant in Stanly said, "*I think we went everywhere and did everything - every grade level, walk throughs, pre-observation conference, observation, significant discipline. We spent time talking about the school's challenges in specifics and in general."* Figures 42-45 show that shadowing time was mainly spent in supervisory and curriculum support capacities.

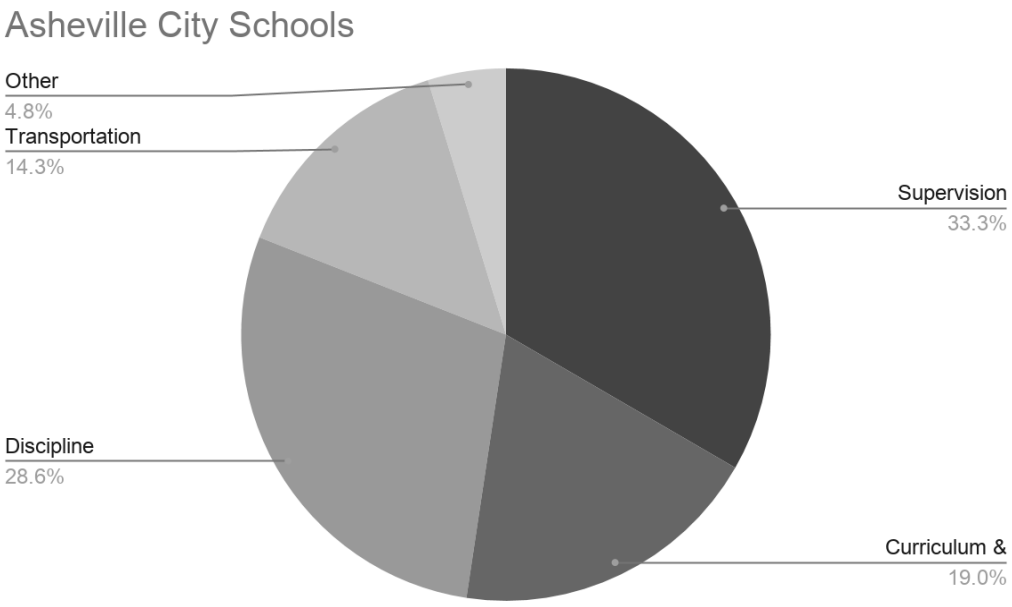


Figure 42. Activities APs participated in during shadowing in ACS.

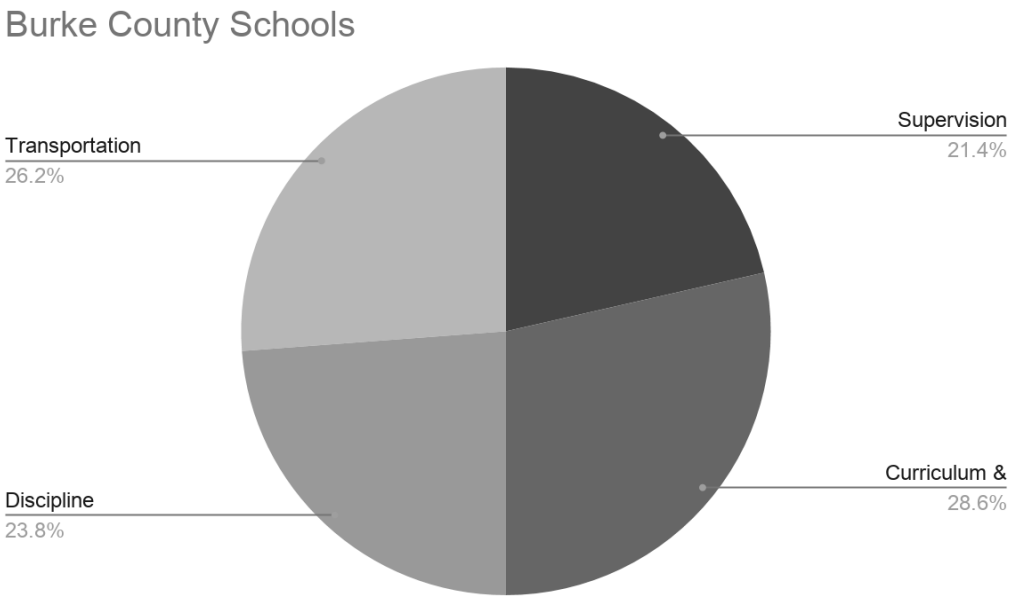


Figure 43. Activities APs participated in during shadowing in BCS.

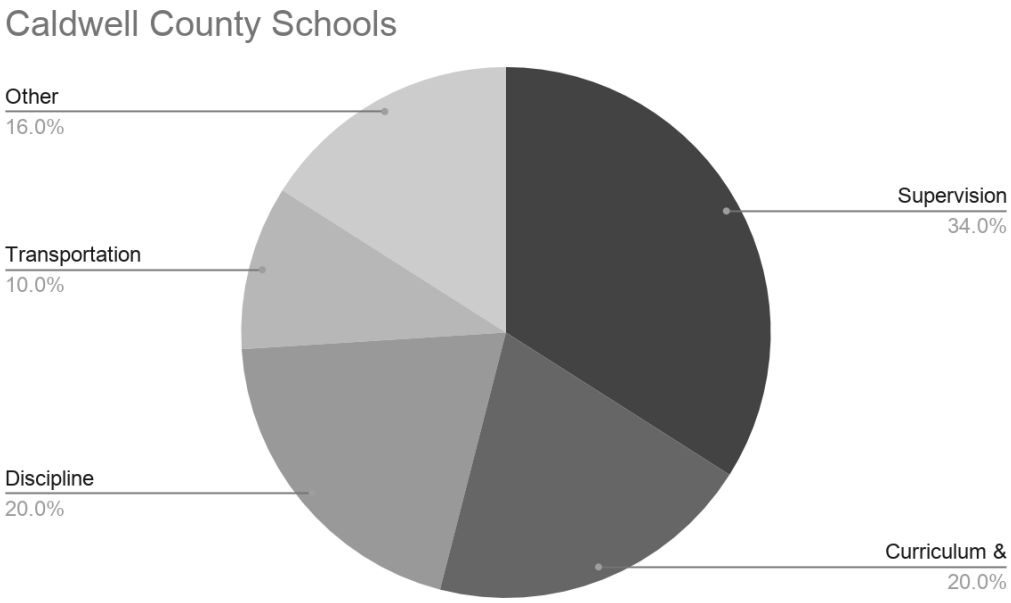


Figure 44. Activities APs participated in during shadowing in CCS.

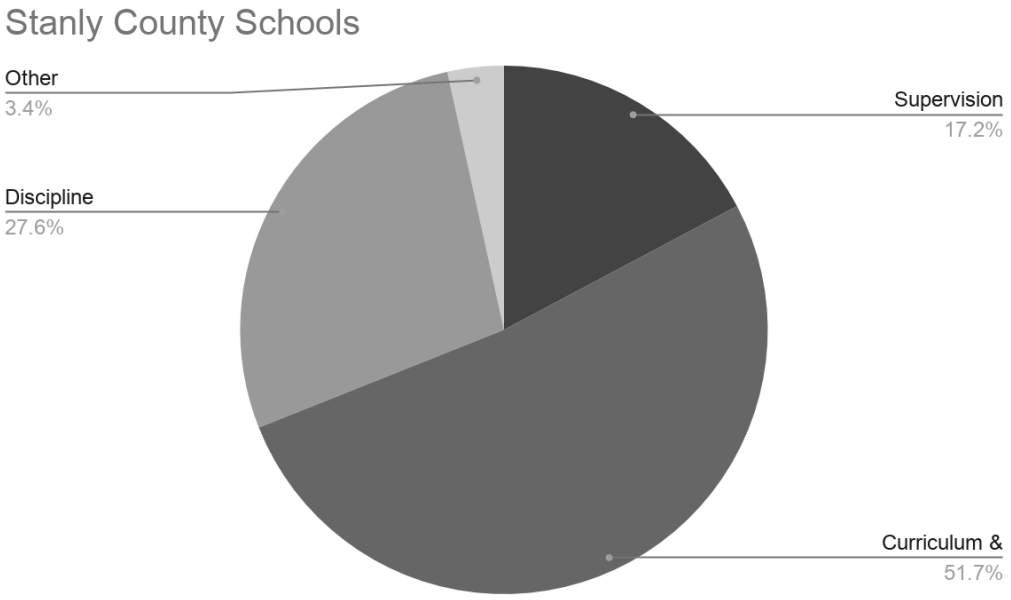


Figure 45. Activities APs participated in during shadowing in SCS.

In the professional development session that followed shadowing experiences in each district, the disquisition team used an exit ticket survey to gather quantitative data to gauge the benefits and impact of the experiences. Each participant was asked to rank the beneficial impact of their shadowing experiences on a scale of one to ten. Ten represents an extremely beneficial experience and one represents that the experience had no benefit to the participant. Survey results, shown in Figure 46, revealed that a majority of the participants felt that the shadowing experience had a beneficial purpose. Participants recommended that the shadowing experience continues in each district.

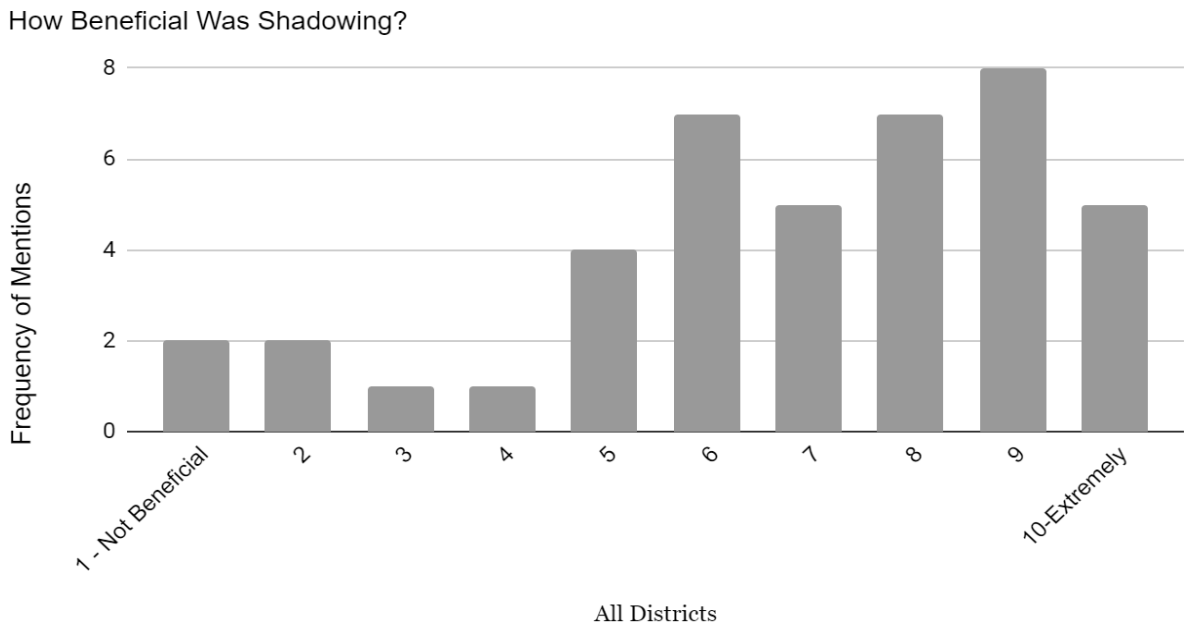


Figure 46. Benefit of the shadowing experience to assistant principals.

The data gathered from the shadowing journals also supported these survey findings. One participant from BCS stated, *"It was beneficial to experience a different atmosphere than I normally work in daily. I have been in middle school level education for 17 years."* Time was spent

discussing both positive and negative experiences of the shadowing experience. Another participant from BCS stated, *"The most beneficial experience was to see how different the school cultures are at a middle grades school versus elementary"* showing the often-mentioned appreciation for time at a level different than the one the assistant principal is assigned. Taking the experience even further, a CCS participant stated, *"my experience was beneficial in seeing the "big picture" planning and supervision of a larger school. I was able to see how important communication is among an admin team and the importance of constant supervision throughout the school".*

There were other comments that illustrate the overall benefit of the experience. A CCS assistant principal agrees, *"Yes, it was very beneficial. I was able to sit down with another school-based administrator and have time to discuss how things are done at another school. It provided me with ideas on how to possibly make things more efficient at my school. It also gave me more ideas on how things work and to make them mine when I become a principal."* This reflection supports the overall benefit to assistant principals to have the opportunity to visit other schools to see a snapshot of the daily operations of another school.

Participants were also given the opportunity to rank their experience of disruption at their home school. While assistant principals reported in Figure 47 that there was minimal disruption to their home school setting, several participants acknowledge some form of disruption. Comments from assistant principals show that while their home school may not have experienced great disruption, the disruption is created by their absence. One participant stated, *"being away from my school and there not being an administrator there"* created a disruption for their school, as the principal was also not at the school on that specific day. Another assistant principal responded, acknowledging the difficulty "*of getting away from [my home school] ...there*

is typically so much to do." Although some participants commented that the experience caused some disruption at their home school, the majority of the participants ranked that there was little disruption.

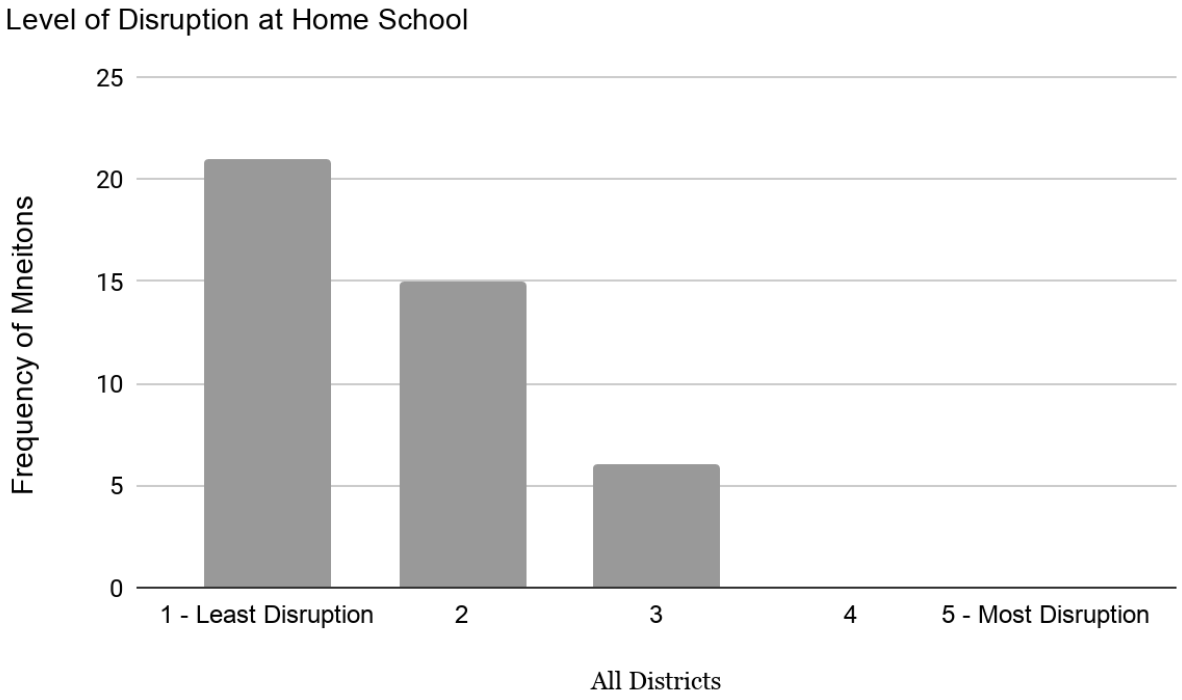


Figure 47. Disruption at home school across all districts.

The level of disruption reported at schools across all districts where assistant principals visited during shadowing was mostly minimal based on survey results. One reason mentioned by an assistant principal that caused some of the disruption was a result of how the shadowing was scheduled, removing multiple assistant principals on the same day. She said, *"The principal's AP was out of the building for the day [also participating in shadowing at a different school], which led to disruptions she would have otherwise not had."* The data, shown in Figure 48, supports some level of disruption when an administrator's role changes.

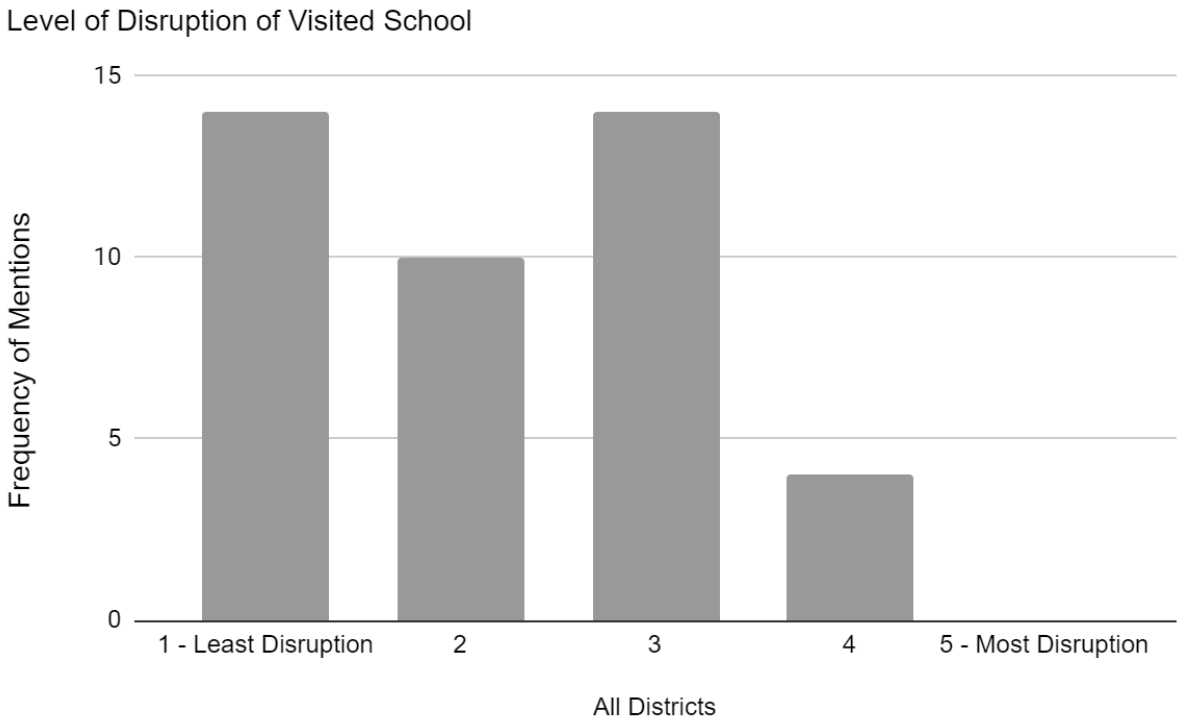


Figure 48. Reported levels of disruption at visited schools across all districts.

Assistant principals reported that the shadowing experience had a great impact on their regular job duties. In fact, regular duties were the most reported reason some assistant principals felt they could not participate. During the scheduled experience, a Stanly assistant principal reported, "*I was not able to make either of my visits due to discipline issues that consumed multiple days of investigation and follow-up."* The overall results report that the benefits of the experience outweigh the negative impact on regular duties. Figure 49 shows assistant principals' perceptions of the impact the shadowing experience had on their regular daily duties.

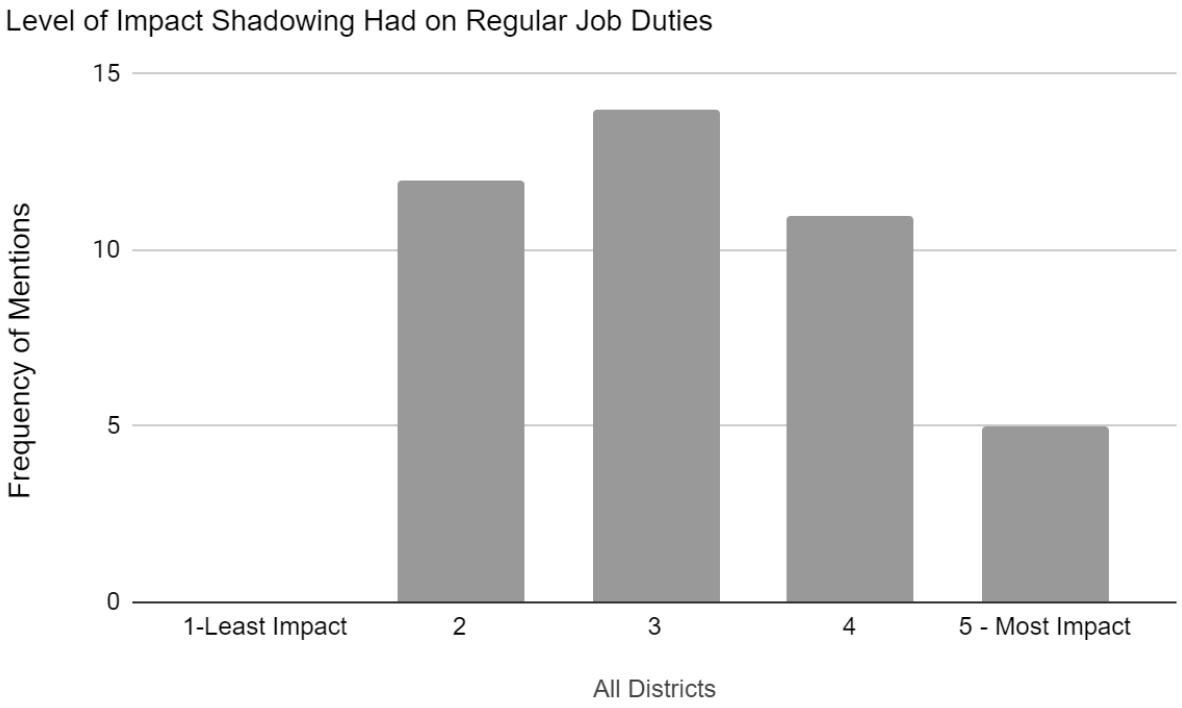


Figure 49. Level of impact on assistant principals' regular duties across all districts.

Shadowing Focus Group Data.

In the professional development session that followed the completion of the shadowing experiences in each district, design team members facilitated a focus group discussion (Appendix K). The focus group sessions were recorded, transcribed, and coded for important themes that emerged in each district. There were multiple ideas that assistant principals talked about, however the information in Table 10 highlights the top two themes for each question based on the highest number of mentions during the focus group discussions.

Table 10

Post-shadowing Focus Group Top Themes

Focus Group Questions	Themes	Mentions
What was beneficial about your shadowing experience?	Observing different grade levels	8
	Seeing different school procedures	6
What was difficult about your shadowing experience?	Leave home school	3
	Being in a different environment	2
How does shadowing help prepare you for a principalship at a different level?	Experience different school cultures	4
	Getting experience at another grade level	3
Do you have any takeaways?	Seeing different leadership styles	4
	Seeing similarities between grade levels	4
Does this help you with job interviews?	Confidence building for interviews	2
	Provides knowledge of a different grade level	1
How could the process be improved?	Shadow principals directly	7
	Visit another school at a different level	5

Assistant principals discussed the aspect of observing different grade levels during the shadowing component as being the most valuable because it gave them a view of a different grade level, different school procedures, and seeing different school cultures other than the one they have been assigned to. Assistant principals spoke about these valuable areas and the need to have them incorporated into the assistant principal training program. The group of assistant principals discussed the importance of building relationships with staff and students which has a direct impact on school culture. They appreciated the opportunity to see the different leadership styles of administrators at different grade levels. The chance to collaborate allowed assistant principals the opportunity to explore processes such as scheduling, bus routes, and communication among administrative teams.

While several assistant principals found it difficult to leave their daily responsibilities, there were several mentions of an appreciation for the chance to observe another environment. The experience built assistant principals' confidence when it came to interviewing and preparing to become a principal. Assistant principals mentioned that, as a result of this experience, they could advocate for themselves confidently during an interview, having experienced some time in a variety of settings.

The assistant principal groups in each district also offered areas of improvement for the shadowing process. Assistant principals in want more time to shadow principals directly, with more guidelines shared with principals for the event. In Stanly, it was reported that not all principals understood exactly what was supposed to happen during the shadowing or what was expected of them. Many assistant principals spent time with another assistant principal, but acknowledged that it is the principal's job they were more interested in.

In addition to spending more time with the principal, assistant principals also talked about the logistics of the experiences. Shadowing was done differently in each district, so the number of mentions were sporadic, however assistant principals would like flexible scheduling, more opportunities to visit other schools, and longer time spans to spend shadowing other administrators. While the experiences were different between districts, the focus group discussions were thematically similar.

Summative Evaluation of Improvement Methodology

Our disquisition team used quantitative and qualitative research methods in order to measure the overall success of our change initiative and compare results across our four geographical contexts. Summative evaluation measures based on the data from outcome measurement tools gave us our overall comparison of our baseline data and the end of the initiative results. The overall focus and long-term goal were to better prepare assistant principals for the principalship and to gather data that was necessary to advocate for policy change at the state level. The team recommends utilization of student assessment and school growth data in the two years after the implementation of the program in order to measure the long-term success of the change initiative. This longitudinal data and its subsequent analysis could be delayed until the North Carolina Department of Instruction releases appropriate data.

All assistant principals from each of the four districts were invited to participate in the summative evaluation process. Many assistant principals in each district completed final surveys and interviews. Our team found that some did not take the time to complete the data collection, which posed small challenges for the research team. Principals who directly supervise study participants were involved in the completion of the post-initiative goal measurement survey.

Each district design team was indirectly involved in the data collection processes by asking participants to complete surveys and interviews.

Data were collected continuously throughout the study by members of our disquisition team. We used an online platform to collect responses for surveys, journal entries, and exit tickets. The platform made keeping responses consistent between districts easier for our team when qualitative analysis became necessary. We collected data from assistant principals, principals, and some district leaders in the form of pre- and post-surveys, weekly stress check surveys, reflection journals for recording experiences, and surveys for feedback on professional development sessions.

Our disquisition team members used face-to-face meetings and phone calls to conduct interviews with participants, recording the conversations on voice recorders for transcription purposes. In addition to interviews, disquisition team members facilitated focus group sessions with study participants following the shadowing experiences in each district. The focus group discussions were recorded and transcribed for coding and analysis. We worked diligently to collect survey data and conduct final interviews, sometimes feeling like an annoyance to busy assistant principals. Researchers sent numerous emails to whole groups of assistant principals, as well as personal emails with direct links to surveys, hoping assistant principals would take the time to complete the short surveys.

The design team experiences varied for disquisition team members, especially during the summative data collection experience. In Asheville City Schools, the design team met early in December to discuss the timeline of the summative data collection, but the design teams did not formally meet in December in Burke, Caldwell, or Stanly County Schools. One of the

challenges each design team faced was that of prioritizing the time to meet together. We were able to overcome this challenge in a variety of ways, including conference calls, impromptu hallway conversations, and email communication, thus making decisions in more informal meetings. In all four districts, design team members remained committed to seeing the process through to completion, even though the final steps were less formal than those in the planning stages. Disquisition team members took the lead role in following up with data collection in all four districts.

The APPLE initiative collected a great deal of data from assistant principals and therefore involved a large commitment of time for the surveys, journals, focus groups, and interviews. Many assistant principals were very willing to complete the necessary surveys, but each researcher had difficulties collecting data from every participant for every step in the process. Our research team agreed that assistant principals were initially eager to begin a program together that focused on professional growth and willfully completed surveys, however as the school year progressed, assistant principals got busy in their responsibilities, it was difficult for them to fully participate and complete every data collection piece we requested. Our team was able to get combined data from all four districts that allowed us to compare and draw conclusions for our study. Despite the data collection challenges, the summative data we did receive from participants about the initiative were mostly positive about their experiences and participants overwhelmingly want to see the APPLE support initiative continue.

Summative Evaluation of Benchmark Goals

Goal 1: Assistant Principal Readiness for a Principalship.

The first benchmark goal for our improvement initiative was that the assistant principal's overall sense of readiness for a principalship would improve by a statistically significant amount when comparing pre-program survey results to post-program survey results. This goal was measured by a post-initiative survey (see Appendix M) that was identical to the pre-initiative survey (Appendix B). The survey queried principals on the extent to which they felt prepared to become a principal, based on common principal tasks, rated on a Likert-type scale of 1 - 5. Demographic questions were also included on the survey. To test for significance, we analyzed the pre-and post-mean scores using a series of paired-samples t-tests (Tanner, 2012). The results, displayed in Table 11, show the assistant principals' ratings of readiness per task and compared the results to the initial baseline collection taken prior to implementation of the improvement initiative. Significant values are bolded and those that are very close to being significant are italicized. Through the collected demographic data, we analyzed results by gender and age. We broke down age by generation, as suggested by the Pew Research Center (2019), dividing the generations by Millennials and younger (born after 1981) and Generation X and older (born 1981 or before 1981).

Table 11

Quantitative Pre-and Post-Initiative Assistant Principal Survey Significance Comparison

	ALL	*ACS*	*BCS*	*CCS*	*SCS*	*Female*	*Male*	*Born 1981 or before*	*Born after 1981*
Instructional Leadership	0.1620	0.5000	0.2764	0.0822	0.3445	0.1781	0.3614	0.0448	0.2582
Student Assessment	**0.0291**	0.1955	0.1384	*0.0519*	0.5000	**0.0279**	0.2518	**0.0049**	0.0852
School Improvement Planning	0.0734	0.5000	0.5000	0.1356	**0.0150**	**0.0348**	0.5000	0.0644	0.5000
Scheduling	0.1714	0.5000	0.0961	**0.0481**	0.2036	0.1533	0.5000	0.1902	0.3659
Staff Management	0.1892	0.1955	0.2942	0.0866	0.3018	0.1163	0.2931	**0.0086**	**0.0056**
Teacher Evaluation	**0.0037**	0.3588	0.0834	**0.0030**	0.0862	**0.0364**	**0.0086**	**0.0152**	**0.0398**
Teacher Remediation	**0.0291**	0.1955	0.3380	**0.0145**	0.1780	**0.0348**	0.2931	*0.0550*	0.1753
Data-driven Decision Making	**0.0056**	0.2475	0.2203	**0.0001**	0.1447	**0.0021**	0.3772	**0.0102**	0.1753
Community Relationships	0.1518	0.5000	0.3380	0.2908	**0.0150**	0.2249	0.2518	0.1031	0.1753
Designing Professional Development	0.2494	n/a	0.2529	0.1671	0.3679	0.3016	**0.0086**	**0.0415**	0.1425
Student Discipline	**0.0016**	0.0908	*0.0520*	0.0681	0.0862	**0.0025**	0.1375	**0.0078**	**0.0398**
School Safety	**0.0155**	0.1955	0.1704	0.1920	*0.0515*	**0.0348**	0.1375	**0.0217**	0.2256
Time management	0.5000	0.5000	0.0961	0.1947	0.3445	0.1014	0.1205	0.5000	0.5000
School Culture and Climate	0.1223	n/a	0.2942	**0.0447**	0.5000	0.4011	0.0686	**0.0448**	0.3813
Stress Management	0.2779	0.1955	0.5000	0.3872	0.3445	0.2249	0.5000	0.3313	0.3423

EC/IEP/ Student Placement	0.3838	n/a	0.0834	0.1356	0.5000	0.3731	0.5000	0.3726	0.5000
Equity	**0.0087**	0.1955	0.5000	**0.0096**	**0.0150**	**0.0288**	0.0876	**0.0194**	0.1425
RTI/MTSS	0.1892	0.0908	0.3380	0.1671	0.1780	0.2249	0.3371	0.1902	n/a

Note. Statistically significant results are bolded; results close to significance are italicized.

Goal 1 Quantitative Data Analysis.

Multiple categories showed positive and statistically significant improvement over the course of the initiatives. There were variations between districts which were expected because each district had different professional development offerings and initiative designs. While no direct trainings were held on student assessment and student discipline, instructional leadership and MTSS trainings were held throughout all districts (NC Live Binders, 2019). For student assessment, the mean difference from pre to post initiative was 0.22 and a one-tailed paired-samples t-test revealed that the improvement was statistically significant, $t(36)=1.96$, $p=0.0291$. Student discipline had a mean difference of 0.35, $t(36)=3.16$, $p=0.0016$. The MTSS trainings were impactful on the data-driven decision making category which had a mean difference from pre to post initiative of 0.380, $t(36)=2.67$, $p=0.0058$.

All districts held professional development on teacher evaluation and teacher remediation and both categories were statistically significant using a one-tailed paired-samples t-test. Teacher evaluation had a mean difference of 0.35, $t(36)=2.84$, $p=0.0037$. Teacher remediation had a mean difference of 0.22, $t(36)=1.96$, $p=0.0291$. Interestingly, while no direct trainings were held on equity and school safety, both categories were statistically significant overall and in multiple districts. Equity had a mean difference of 0.35, $t(36)=2.49$, $p=0.0087$ and school safety had a mean difference of 0.27, $t(36)=2.25$, $p=0.0155$.

The mean increases for women were statistically significant in the following categories: student assessment (p=0.0279), school-improvement planning (p=0.0348), teacher evaluation (p=0.0364), teacher remediation (p=0.0348), data-driven decision making (p=0.0021), student discipline (p=0.0025), school safety (p=0.0348), and equity (p=0.0288). The mean increases for men were statistically significant only in teacher evaluation (p=0.0086) and designing professional development (p=0.0086). Similarly, this measurement tool showed that the older group of administrators were more positively impacted by the initiative than those born after 1981. The mean increases for individuals born 1981 or before were statistically significant in the following categories: student assessment (p=0.0049), staff management (p=0.0086), teacher evaluation (p=0.0152), data-driven decision making (p=0.0102), student discipline (p=0.0078), school safety(p=0.0217), school climate and culture (p=0.0448), and equity (p=0.0194). Those born after 1981 had statistically significant increases in staff management (p=0.0056), teacher evaluation (p=0.0398), and student discipline (p=0.0398).

Goal 1 Qualitative Data Analysis.

In addition to administering the post-initiative survey, participants were interviewed at the end of the initiative (see Appendix N). Qualitative responses from the surveys and interviews were coded using in-vivo, descriptive, and evaluative coding strategies that revealed themes related to readiness for a principalship (Miles et al., 2014). In-vivo coding allowed phrases to be pulled from the transcriptions in the participant's own words. Descriptive coding revealed themes in the data related to the goal. Evaluation coding provided validity to the previous two coding strategies - either positive or negative in nature. In addition to data related directly to our goals, we also coded process-related data on the quality of the implementation.

The process related data was reported in the formative data evaluation section of the disquisition. Knowing what can be improved will be essential to the future success of the program or similar programs.

Positive aspects of the program and their frequency of discussion during the post interviews are listed in Table 12. The most discussed topic during the post interviews was collaboration among administrators. The participants not only grew on task related skills, they felt that the opportunity to network and grow relationships with other school and district level administrators made them much more ready to lead a school of their own. The shadowing also provided opportunities for administrators to see grade levels and demographics that were different from their home school. Assistant principals overwhelmingly want the program to continue and felt that it was essential to being successful in the role. One participant from Stanly County noted, "through the shadowing time, I was able to envision myself in many levels of education."

Table 12

Qualitative Post-initiative Assistant Principal Interview Data

Positive Aspects of the Initiative	
Collaboration among Administrators	26
Shadowing	25
Monthly PD Sessions	15
Professional growth	8
Reflective practitioner	7
Decision making skills	5

Specific to AP needs	5
Orientation	1

Note. Numbers represent number of mentions by assistant principals during interviews.

In addition to the post-initiative interviews, there were qualitative questions on the post-survey. The questions asked the assistant principals what tasks they felt most confident about, and the results are reported in Figure 50. The topics with the five highest means on the post-initiative quantitative data were student discipline (M=4.05), equity (M=3.97), teacher evaluation (M=3.89), student assessment (M=3.86), school safety (M=3.86), and data-driven decision making (M=3.84). All were statistically significant.

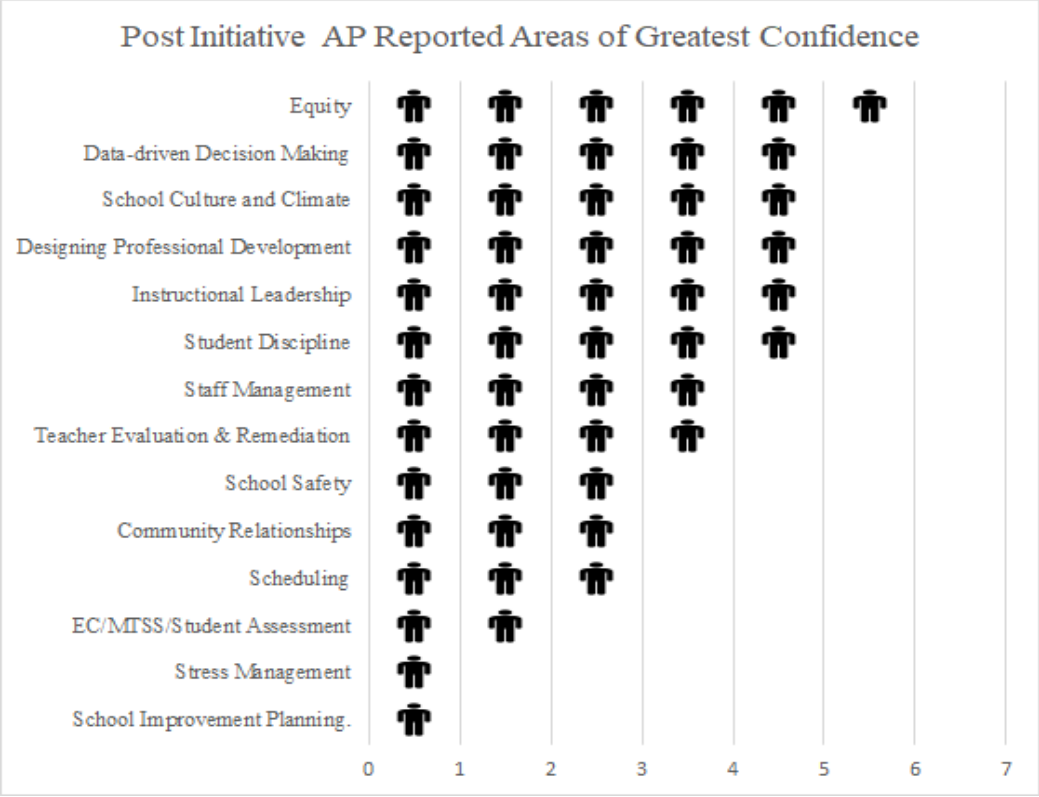


Figure 50. Qualitative, post-initiative interview data for areas of greatest confidence.

As represented in Figure 51, the five areas with the lowest means were RTI/MTSS (M=3.27), teacher remediation (M=3.27), school improvement planning (M=3.35), stress management (M=3.41), and designing professional development (M=3.43). Equity, student discipline, and data-driven decision making had alignment between data types for areas of greatest confidence. For greatest need, MTSS shared lower means and was by far the highest area of need. Teacher remediation and designing professional development were also well-aligned between data types for greatest needs.

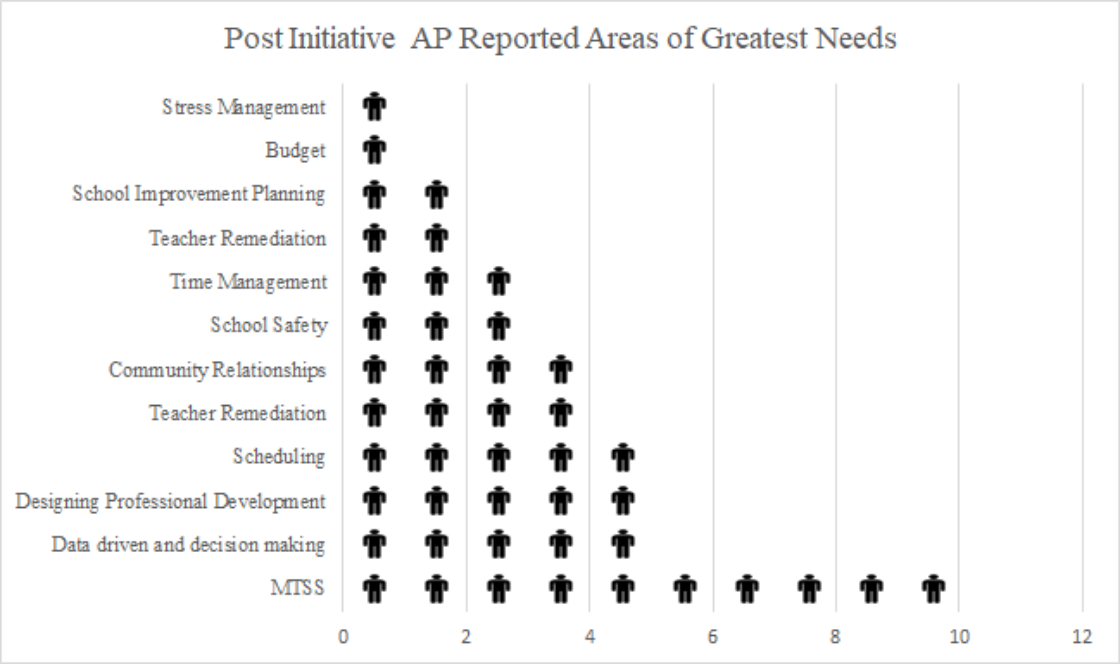


Figure 51. Qualitative, post-initiative interview data for areas of greatest need.

Goal 2: Assistant Principals' Skill Competence.

The second benchmark goal is that assistant principals' competence in job related skills will increase by a statistically significant amount from the orientation self-assessment to the end of program self-assessment (see Appendix O). This goal was measured through a series of

paired-samples t-tests (Tanner, 2012) and are reflected in Table 13. In addition to the self-assessment, the assistant principal's supervisor rated the assistant principal's growth on the goals set at the beginning of the year (see Appendix P). At the beginning of the year and at the end of the initiative, supervisors described the assistant principal's achievement of the goal as well as their current level of performance on a scale of 1-5. We performed a paired samples t-test on the quantitative data in order to measure the improvement (Tanner, 2012). Qualitative responses from the supervisors were coded and a final comparison was made between the qualitative and quantitative outcomes (Miles et al., 2014). Comparing data types increases validity.

Table 13

Quantitative, Summative Pre-and Post-Initiative Self-assessment Significance Comparison

	ALL	*ACS*	*BCS*	*CCS*	*SCS*	*Women*	*Men*	*Born 1981 or before*	*Born after 1981*
1A *School Vision, Mission and Strategic Goals*	*0.0667*	0.1816	0.1694	0.1678	0.5000	**0.0156**	0.2931	0.2448	**0.0409**
1B *Leading Change*	0.0842	**0.0378**	0.0955	0.0824	**0.0398**	0.1059	0.2931	0.3727	**0.0194**
1C *School Improvement Plan*	*0.0549*	0.1816	0.0955	0.2173	0.0852	**0.0281**	0.5000	0.2684	**0.0194**
1D *Distributive Leadership*	**0.0012**	0.3706	0.2931	**0.0032**	**0.0166**	**0.0151**	**0.0130**	**0.0237**	**0.0058**
2A *Focus on Learning*	0.2106	0.3054	0.2931	0.1361	0.0852	0.2684	0.3074	0.1876	**0.3974**
2B *Focus on Instructional Time*	**0.0416**	0.1816	0.2931	0.1678	**0.0166**	0.1631	**0.0409**	0.1631	**0.0409**
3A *Focus on Collaborative Work Environment*	**0.0198**	0.3054	0.1694	*0.0555*	0.2992	**0.0077**	0.5000	0.1631	**0.0130**
3B *School Culture and Identity*	**0.0198**	0.5000	0.0955	0.1678	*0.0518*	**0.0448**	0.1375	0.1011	**0.0480**

3C *Acknowledge Failures; Celebrates Accomplishments and Rewards*	**0.0241**	0.0873	0.0830	**0.0481**	0.0852	0.0681	0.0955	0.1631	**0.0086**
3D *Efficacy and Empowerment*	**0.0029**	0.0873	0.2191	**0.0138**	0.1753	**0.0349**	**0.0086**	**0.0480**	**0.0135**
4A *Professional Development& Learning Communities*	0.1002	0.1816	0.1694	0.2173	0.5000	0.1277	0.2931	0.2866	**0.0409**
4B *Recruiting, Hiring, Placing, and Mentoring of staff*	0.0915	**0.0378**	0.1694	0.1089	**0.0398**	0.1876	0.1694	0.3129	**0.0194**
4C *Teacher and Staff Evaluation*	**0.0441**	0.1478	*0.0520*	**0.0274**	0.0852	0.0805	0.1694	0.2384	**0.0086**
5A *School Resources and Budget*	0.1282	0.1816	**0.0409**	0.5000	0.0852	**0.0448**	0.0830	0.5000	**0.0269**
5B *Conflict Management and Resolution*	**0.0044**	0.3054	**0.0194**	0.5804	**0.0246**	**0.0001**	0.3614	**0.0289**	**0.0194**
5C *Systematic Communication*	**0.0298**	0.3476	**0.0086**	0.3601	**0.0518**	**0.0048**	0.3614	0.2384	**0.0034**
5D *School Expectations*	0.0915	0.1816	**0.0269**	0.3357	0.1753	0.0848	0.3614	0.4008	**0.0086**
6A *Parent and Community Involvement and Outreach*	**0.0038**	0.3476	0.0830	0.1361	**0.0056**	**0.0216**	**0.0480**	**0.0364**	**0.0086**
6B *Federal, State and District Mandates*	0.2692	0.3054	0.2191	0.3761	0.0985	0.1159	0.2191	0.4008	0.0830
7 *Micro-political Leadership*	0.0842	0.1816	**0.0409**	0.3601	0.0852	**0.0355**	0.1525	0.5000	**0.0480**

Note. Statistically significant results are bolded; results close to significance are italicized.

Goal 2 Quantitative Data Analysis.

The pre- and post-assessment showed positive outcomes for goal 2. The self-assessment that was used is the North Carolina Rubric for School Executives (North Carolina State Board of Education, 2013). We analyzed the overall results, results by county, gender, and age in the same manner as the goal 1 quantitative analysis. Only one of the standards was not statistically significant in at least one of the categories, 6B, Federal, State, and District Mandates. All but

one other standard, 4A, Professional Development and Learning Communities, was statistically significant in multiple categories.

For the overall results, the following standards were statistically significant: 1D, Distributed Leadership with a mean difference of 0.40, $t(39)=3.25$, $p=0.0012$; 2B, Focus on Instructional Time with a mean difference of 0.15, $t(39)=1.78$, $p=0.0416$; 3A, Focus on Collaborative Work Environment with a mean difference of 0.25, $t(39)=2.13$, $p=0.0198$; 3B, School Culture and Identity with a mean difference of 0.25, $t(39)=2.13$, $p=0.0198$; 3C, Acknowledges Failures, Celebrates Accomplishments and Rewards with a mean difference of 0.23, $t(39)=2.04$, $p=0.0241$; 3D, Efficacy and Empowerment with a mean difference of 0.30, $t(39)=2.93$, $p=0.0029$; 4C, Teacher and Staff Evaluation with a mean difference of 0.20, $t(39)=1.74$, $p=0.0441$; 5B, Conflict Management and Resolution with a mean difference of 0.30, $t(39) = 2.76$, $p=0.0044$; 5C, Systematic Communication with a mean difference of 0.23, $t(39)=1.94$, $p=0.0298$; and 6A, Parent and Community Involvement and Outreach with a mean difference of 0.33, $t(39)=2.82$, $p=0.0038$.

Similar to the analysis of the data in Goal 1, women had mean increases that were statistically significant more often than men. The category with the most statistically significant results were individuals who were born after 1981, which is a difference from the analysis of goal 1. The younger administrators had positive mean differences that were statistically significant in all standards except 6B, Federal, State, and District Mandates.

After the orientation, assistant principals met with their principals in order to set two personal goals for the semester (see Appendix F). The goals were aligned to the North Carolina Rubric for School Executives (North Carolina State Board of Education, 2013). Together the

assistant principals and principals discussed the self-assessment, set goals, and reviewed the curriculum of the upcoming professional development sessions. The goals were reviewed again at the culmination of the program in order to provide outcome measurement data. Assistant principals rated themselves on goals of their choosing (on a scale of 1 to 10) at the beginning of the initiative. Principals, in collaboration with the assistant principals, rated the same goals for each of the assistant principals. No assistant principal chose to make standard 7 a goal but the other goals are represented in Table 14. All were statistically significant except Standard 1. The mean increases were larger than the disquisition team anticipated. When you compare data from the beginning of the APPLE program to the end, assistant principals reported growth in 6 of the 7 standards in the NC Rubric for School Executives (North Carolina State Board of Education, 2013). Standard 2 is Instructional Leadership (p=0.0000) and the reported growth is statistically significant. Standard 5, Managerial Leadership (p=0.0001), also showed statistically significant growth.

Table 14

Quantitative Pre and Post-initiative Goal Settings Comparison Results by Standard

	Standard 1	*Standard 2*	*Standard 3*	*Standard 4*	*Standard 5*	*Standard 6*
Pre-Mean	4.50	5.07	4.13	5.25	4.67	5.25
Post Mean	7.25	8.70	8.00	7.88	9.56	9.25
Mean Difference	2.75	3.63	3.88	2.63	4.89	4.00
SD Pre	1.73	2.02	3.04	2.12	2.00	1.89
SD Post	2.75	1.61	1.77	1.55	0.73	1.50
n	4	27	8	8	9	4
t	1.42	9.51	4.15	2.68	6.19	3.46

P(T<=t) one-tail	0.1248	**0.0000**	**0.0022**	**0.0159**	**0.0001**	**0.0203**

Note. Statistically significant results are bolded.

A breakdown of the quantitative data from the pre and post-initiative goal setting tasks for all participants and by district is represented in Table 15. The overall mean difference was 3.69 with t(59)=11.94, p=0.000. After participation in the APPLE program, participants reported significant growth overall (p=0.0000), showing that the primary drivers were successful in their intended purpose which was to increase leadership capacity of assistant principals. All four districts showed statistically significant growth (CCS (p=0.0000), BCS (p=0.0001), SCS (p=0.0009), ACS (p=0.0039)). The data aligns with exit survey results from orientation and professional development sessions and qualitative post-initiative data.

Table 15

Quantitative Pre and Post-initiative Goal Settings Comparison Results by District

	All Districts	*ACS*	*BCS*	*CCS*	*SCS*
Pre-Mean	4.88	4.67	5.10	4.50	5.75
Post Mean	8.57	8.67	7.65	9.15	7.65
Mean Difference	3.68	4.00	2.55	4.65	1.90
SD Pre	2.11	3.14	2.45	3.06	1.64
SD Post	1.67	1.37	1.87	1.58	3.27
n	60	5	20	26	8
t	11.94	4.30	4.52	11.12	4.89
P(T<=t) one-tail	**0.0000**	**0.0039**	**0.0001**	**0.0000**	**0.0009**

Note. Statistically significant results are bolded.

Goal 2 Qualitative Data Analysis.

In order to add validity and a broader perspective to the goal two data, opportunities for qualitative comments were included on the post-initiative goal rating survey completed by assistant principals' supervisors. A sampling of quotes from principals about the initiative are included in Table 16. Comments from the supervisors were supportive and complimentary of the APPLE program and align well with the large positive mean differences on the goal ratings reported in Table 15.

Table 16

Post-initiative Quotes from Principal Supervisors Regarding the APPLE Program

"What a great way to develop leadership capacity!"
"I'm glad the district is committing to this!"
"My assistant principal has been more intentional about her own professional growth and is aware of the different responsibilities among the levels of administration."
"Has become more confident in the position."
"I wish he could visit more schools. I feel this allows for people to get a glimpse and brainstorm with others on how to best handle situations."
"Program has prepared AP for unseen obstacles and has provided a sound platform for becoming a principal."
"Program's emphasis on leadership and instructional leadership are excellent for preparing APs for the demands of being a principal."

Goal 3: Assistant Principals' Connectedness.

The third benchmark goal is that assistant principal's familiarity with their district personnel, policies, and procedures will increase from the pre-program survey results to the post-program survey results. The goal is holistic in nature are more difficult to measure. We theorized that familiarization with personnel and policies make assistant principals more successful in getting a principalship as well as being successful once in a principalship. We analyzed post-initiative qualitative data through coding measures that were described in goal one. In hindsight, we should have created and used a quantitative measurement tool with participants to measure progress towards this goal. However, we hope to measure this goal over a longer period of time by analyzing how many participants get jobs as principals and how they perform as principals. Many participants shared their positive progress on goal three. One participant said:

> *The program allowed me to exchange dialogue and conversation starters and offer me a chance to ask questions openly in a safe environment. It's a non-judgmental environment where I can also build relationships. I think the relationship piece with district personnel specifically has helped me feel more comfortable as a leader. Specifically, the apple program opened up that dialogue for me where I felt comfortable as a new AP.*

Qualitative data from shadowing are in Table 17 and Table 18. We also analyzed post-interview data, which is in Table 12. Assistant principals reported that the most beneficial thing about shadowing was the familiarization with different levels. Another participant said:

> *I would like to see more shadowing experiences, maybe shadowing principals or even directors, just to see the full scale of it because I think the more you learn about what*

other people do and how it gets the students from Kindergarten to 12th grade you're able to see that broader picture and make better decisions. And also see ideas that you might not have thought about how to deal with the situation. So I thought that was something out I actually would like to do more of because I don't get a chance to work in other schools and like I said 18 years in a high school setting. You know I've never worked in elementary school. I don't know necessarily what to expect. And so having even more of those opportunities I think would be really beneficial.

Assistant principals did not discuss specific skill related items that they learned; they appreciated more career-related relationship-based items. During the shadowing focus groups, and in the journals, they discussed the importance of seeing different levels in relation to job development.

Table 17

Qualitative Post-initiative Shadowing Data – Most Beneficial

Seeing different levels	21
Administrative Team & Duties	9
Collaboration	6
Observe different Culture	4

Note. Numbers represent number of mentions by assistant principals of experiences that were most beneficial during the APPLE program.

Table 18

Qualitative Post-initiative Shadowing Data - Takeaways

Administration Processes	14
Collaboration/Different Perspective	12
Similarities at Different Levels	7

Relationships are Key	3
Need for Continuous PD	3
Confidence in Self	2

Note. Numbers represent number of mentions by assistant principals of their key takeaways from participation in the APPLE program.

Before the initiative, assistant principals in our districts rarely had time to even speak to each other, much less have meaningful discussions about their professions and work experiences. Familiarizing themselves with administrative processes at the district level and within other schools was one of the top takeaways, along with collaboration. An assistant principal said *"I think being able to collaborate with everyone because we really haven't been able to do that in the past at the elementary level. Now, as an assistant principal in general I am able to network with them and I feel more comfortable being able to reach common ground."*

Some even mentioned that it was positive to see the similarities between other schools and administrators because it made them feel less alone within their own role. A participant in Caldwell County said *"I enjoyed the shadowing experience, it was nice to see that things aren't always different and everyone's got the same issues that we feel sometimes that we get down on ourselves that why can't we do this, this, and this. Everyone struggles with that so that was nice to see."* The collaboration and familiarization with district procedures and policies has been overwhelmingly positive in all four districts. A new assistant principal summed up the success of the program when asked, "Did the APPLE program contribute to your professional growth?"

> *Absolutely. Then the program specifically afforded me the opportunity to collaborate specifically with other educators outside my school building in which I served and I had the opportunity to learn about various policies. I had the opportunity to learn to generate*

ideas. It also provided me the opportunity to challenge my own thinking and grow as an educator and really inspire me to become a better leader and a better educator. One of the things it also did was afforded me the opportunity to look and broaden my horizons beyond our school specifically in our students and it provided exposure to nontraditional and unfamiliar settings.

Summative Evaluation Conclusion

The research undergirding the pathway to the principalship holds that effective principals are an attributing factor to the overall success of a school. Louis, Leithwood, Wahlstrom, & Anderson (2010) sum up a consistent theme weaving throughout our research findings in claiming, "leadership is second only to classroom instruction as an influence on student learning" (p. 9). In fact, effective principals can help to raise the achievement of students in their schools within two to seven months growth, in a single school year and ineffective principals can potentially lower student achievement by the same amount (Branch, Hanushek & Rivkin, 2013). Though final lessons and impact of our work may be many years away, immediate findings are incredibly positive and promising.

Our theory of improvement held that if we created a leadership capacity development program for assistant principals, then we will have developed leaders into confidently prepared principal candidates who can promote socially just leadership principles within their schools. Assistant principals who participated in our support system obtained knowledge, skills, and dispositions that have positively contributed to their preparation as strong and successful leaders. Our specific goals for the program were to increase assistant principals' readiness for the

principalship, increase assistant principals' competence in job related skills, and to increase assistant principals' connectedness to district personnel, policies, and procedures.

According to the data cited above for the APPLE initiative, our theory of improvement was upheld with respect to assistant principal preparation as measured by several surveys given to participants to evaluate the implementation. Additionally, pre- and post-initiative surveys showed that assistant principals increased their knowledge, skills, and understanding of equity and social justice in both quantitative as well as qualitative data. Given the findings, we can confidently say that our theory of improvement was upheld.

Our team did achieve the goals we had set forth to accomplish at the start of our improvement initiative design. Using pre- and post-initiative surveys employing the North Carolina School Executive Standards, assistant principals reported a statistically significant increase in several of the standards, thereby showing increased readiness for the principalship. The North Carolina School Executive Standards survey, as well as the goal setting survey showed increases in several categories of job-related skills. The third goal of increasing the connectedness to district personnel, policies, and procedures, was met as evidenced by qualitative pre- and post-initiative interview data, shadowing journals, and the shadowing focus group.

Each of us work in different roles within our districts. Jerad is a reading specialist in Asheville City Schools, Mike is a director in Burke County Schools, Katie, with Caldwell County Schools, moved from a position in human resources to a principal position at the start of the initiative, and Andrea is an assistant principal in Stanly County Schools. Mike has the most access to top district personnel, which made planning and compliance of the initiative smoother

for him. As action researchers, we had to be cautious of the political ramifications of our work. At times it was difficult to get information from our participants because they were co-workers. We conducted a substantial study while being employed full-time in stressful positions within our districts. Even access to statistical programs that most researchers have access to were issues for us. For example, we used hand calculations and Excel rather than SPSS because of the ease of access and availability when data analysis occurred. We would have benefitted from a research assistant and an editor, but did not have the luxury of that kind of help.

Approval for the initiatives in each district were the first hurdle to clear. Programs for assistant principals were few to non-existent, so creation of the initiatives took significant groundwork in each district. The design teams were composed of district leaders and administrators, so finding time for everyone to meet was difficult. Once the initiatives were laid out and approved, the team members had to communicate the design and purpose of the initiatives to participants and collect baseline data. Some potential participants were hesitant to participate and had trouble feeling comfortable sharing their data with co-workers. Research team members were able to ease this initial anxiety with clear explanations of the study and purpose of data collection.

Logistical details of APPLE implementation varied in each district, creating challenges and scenarios that required some intricate planning from each design team. The orientation sessions were relatively easy to schedule and plan as they occurred outside of the school year. A large hurdle was making sure presenters and participants were present and not on vacation. Scheduling professional development sessions varied in difficulty by district. In Asheville City Schools, Jerad was able to add extra time to existing meetings to add content that was requested

by the assistant principals. Mike was able to work with his district leadership to schedule appropriate content and time for his initiative. Katie was able to control and completely plan some two-hour sessions, but had to share time at other sessions. Also, dates got changed so flexibility was paramount. In Stanly County, Andrea had to work around an outside consultant who already had sessions planned. It was helpful that the sessions were already planned, but there was limited time to add material relevant to the initiative.

Overall, the shadowing sessions were the most difficult portion of the initiatives to schedule. Shadowing was different in each district, ranging from a pretty strict three-day schedule in Stanly, to a two-week more flexible window in Caldwell, Burke, and Asheville City Schools. Regardless of how the experience was scheduled, some assistant principals had a difficult time following through with participation. The bottom line is that no matter how beneficial shadowing is for assistant principals, it is never easy to leave the building and daily responsibilities during the school year. Though we all tried to schedule shadowing at the least busy times, it was not a smooth process for everyone. Despite the difficulties, the assistant principals who participated were overwhelmingly thankful for the opportunity.

Data gathering was more difficult in Asheville City and Stanly than in Burke and Caldwell. Jerad and Andrea had to ask for survey responses many times with efforts including emails, personal requests, and phone reminders. Mike and Katie usually only had to make one extra request. Also, Asheville and Stanly are the smaller of the four districts and therefore had fewer participants to get final data from.

We are unique in our work because we have conducted action research and are doing a large study of four different districts. We are thankful to have worked together and have had a

productive working relationship, forming valuable friendships with great respect for each other. We do not live in close proximity to one another, so we have to travel to work together on a monthly basis and meet virtually when we could not travel. We greatly appreciate the accountability we have to one another, for regular meetings, data collection, and writing tasks. We each bring unique experiences and personal strengths and weaknesses to the work and have formed a strong work ethic that supports our differences. Due to the collaborative nature of our writing, we work in shared Google documents which allows us to all contribute at the same time. As our project has grown, the document struggles to keep up with the amount of data and work we do within it. While our collaborative work has challenged us, none of us would have wanted to go through the process without each other.

Recommendations for Leadership Practice and Continued Scholarship

The APPLE program had a positive impact in all four districts. Participants spoke highly of the support and training they received as well as the experience as a whole. North Carolina has had a steady decline in the national education ratings over the past ten years. "There's been an attack on public education in North Carolina. When you adjust for inflation, public school funding is still well below pre-recession levels. They've basically put us in a permanent recession level while they continue to give tax cuts to corporations and millionaires" (Hui, 2019). During this time, professional development for leaders, aspiring leaders' programs, coaches, and mentors have been cut across the state. Assistant principals who aspire to be principals have been left to sink or swim.

Regardless of the state of education in North Carolina, our students need strong and equitable leaders in schools. The APPLE program has created a support system for assistant

principals in our districts that has replaced the void of support left by the current educational crisis in North Carolina. It will benefit our districts to continue the programs and to share our successes with other districts across the state. The education specific succession planning model of Peters (2011) has been an excellent framework for our initiative. Its cyclical nature aligned well with our PDSA cycles. It contains three elements: forecasting, sustaining leadership, and planning. The forecasting piece of the framework (Lovely, 2004; Normore, 2007) has given us a method to grow our own "in-house" talent. We have built capacity throughout the districts, and capacity has exceeded basic skills to become an authentic network of leaders who now know each other well enough to be a constant support for each other outside of the official meeting structure. In some ways, the simple act of building relationships between the participants will help sustain the program moving forward.

District leaders should also help sustain the programs moving forward. Despite the relationships that have been built, authentic training still needs to be provided to assistant principals so that they are more confident principals. While many of the leadership competencies measured throughout the program showed statistically significant growth, not all did. For instance, none of the districts in the program had significant growth in strategic leadership, standard 1, and this was a self-reported area of need by our assistant principals. To sustain the programs, district leaders must employ the third portion of our framework, planning, which can be difficult due to the transient nature of district leaders. The data from our study should be used when planning the next semester of the program. Next summer, plans for the next year should be easier to make due to the groundwork that has been laid by our initiative. The succession planning model and the APPLE initiative are excellent guidance for district

leaders who have to keep constant tabs on the vision, direction, and values of a district when they are identifying candidates for leadership positions. Strong leaders commit time to grow other leaders, despite challenges.

Our four districts agreed to the APPLE program due to an apparent need. Though there was no policy put in place to initiate our programs, we feel that policy could be useful because it would help guarantee the continuation of leadership development programs within the school districts of North Carolina. We have been excited to see the positive changes within our own contexts and are looking for ways to share and expand our work to other districts. However, as practitioners, we have many other responsibilities and we have to pass on responsibility for our APPLE programs to others in our districts. The strong momentum we currently have is always at risk due to lack of funding, changing job roles, and world events beyond our control.

The beginning teacher program in North Carolina is mandated by General Statute 115C-300.1. The statute requires the State Board of Education to "develop a new teacher induction program to provide ongoing support for teachers entering the profession (NC General Statute §115C-300, 2017)." The state has eight regional educator facilitators whose role includes helping local educational agencies provide quality induction programs that nurture and support the professional growth of a beginning teacher. Local education agencies get monitored once every five years. Programs throughout the state vary in their details while still following guidelines from the State Board of Education.

We feel a similar set-up would be effective for beginning administrators. A three-year program that scaffolds new administrators from high support to lower support by the end of the time period should be required by statute. Beyond the requirement to have a program, details of

programs should be left to local education agencies. A rural setting will have very different needs from a larger urban environment. We also think that most local educational agencies, especially to smaller ones, could partner with institutes of higher education. Most hires in rural areas come from within the districts and can be identified early using a succession planning model. Local educational agencies and institutes of higher education can develop new leaders in tandem thereby keeping the specific needs of districts in the forefront rather than an afterthought after graduation.

The APPLE program has been designed to partner with institutes of higher education in an effort to mitigate the disconnect in the types of course work college prep programs offer. This partnership will assist in ensuring that the dialogue continues between prep programs with a focus on prep programs providing course work that aligns to building assistant principal capacity so that assistant principals are prepared to take on leadership roles.

The district leaders within our contexts currently have Memorandums of Understanding (MOUs) with local community colleges and surrounding four-year institutions. The MOUs have helped open the doors for joint meetings to be held between colleges and districts with conversations focusing around workforce development and ways high school students can earn college credit and job skills. The established partnerships and MOUs our districts have in place with surrounding universities will be a viable resource in the future success of the APPLE program. MOU's will be focused on collaboratively working with aspiring leaders while working on their master's programs. This type of collaboration will allow support during the assistant principals first three years. The hope is that we will be able to start the discussion of

using the APPLE program as an enrichment piece to established school administrator preparation programs.

The data gained from the four school districts used in the research and implementation phase of the APPLE program supports that the program works and participants on all levels were appreciative of the experience. It is our team's goal to keep the momentum going and to inform surrounding stakeholders of the potential benefits the APPLE program could have in conjunction with prep programs already in place. We will continue to build positive relationships and network not only within our own districts but with neighboring counties as well.

It is clear to us that the assistant principals who participated in APPLE were very thankful and happy to receive additional support and training beyond informational meetings that occurred as needed. One assistant principal stated, *"It makes me feel like an administrator, like I'm an assistant principal, not an assistant to the principal."* This quote exemplifies the level of professionalism and support that assistant principals were afforded through the APPLE program. Another assistant principal, stated that, "*I've become a more reflective practitioner because of having the opportunity to think about my practice and examine my decisions to get better."* Our loudest supporters have been the assistant principals who have said over and over again how beneficial APPLE had been to their professional development as leaders. We recommend that other school districts use the APPLE model to implement a similar support program to enhance leadership development within their districts through succession planning (Lacey, 2003; Peters, 2011). The APPLE program can be modified to support succession planning in other school districts.

Each of our districts is unique, not only in the number of students each serves or the number of schools, but also in the demographics of students and the population density of the district. Asheville City Schools is the only urban district in Western North Carolina and one of only 15 city districts in North Carolina (NC DPI, 2020). The challenges that exist in Asheville City Schools are unique to its urban context and create differences in how the district operates, as well as how assistant principals and principals lead schools. Given that Burke, Caldwell, and Stanly County School districts are mostly rural, the dichotomy of the two settings cause us to consider the implications of the APPLE initiative in an urban versus rural environment such as personnel turnover rates, availability of new ideas, depth of candidate pool, and length of tenure.

The APPLE initiative fostered strong growth in the areas of equity and social justice as based upon the comparison of pre- and post-initiative ratings on the assistant principal survey as well as within interviews. Assistant principals showed an increase in competency in the area of equity ($p=0.0087$), throughout the APPLE improvement initiative. One session that all four districts provided professional development in that has an equity lens, is MTSS (McCart & Miller, 2019). McCart and Miller (2019) argue that MTSS, by definition, increases the equity for all students by providing additional support and guidance beyond core instruction where needed.

The conceptual framework that guides this disquisition is a combination of the succession planning and social justice leadership models. Part of that framework for APPLE is the social justice leadership model (Theoharis, 2007, 2009), which is connected to our findings of increased competency in equity among assistant principals who participated in the APPLE improvement initiative. The relationship between social justice and equity is an extremely

positive result for the APPLE program moving forward, but needs further exploration to determine how to ensure equity competency for assistant principals can continue to increase. Our findings support our theory of improvement and confirm the strength of our conceptual framework.

Despite having extremely positive growth in the program for equity as a leadership competency, we feel there needs to be more work done on how to purposefully instill principles of equity in future school leaders. Many of our reflective discussions have centered on what the definition of equity is for school leaders. Our training sessions may have helped prepare assistant principals for leadership, but how can they be reframed in the future so that social justice principles are explicitly developed rather than have them remain in the background? We feel more research is needed to make this a core focus of future iterations of our initiative.

In our post-initiative interviews, we asked the assistant principals to give recommendations for the program moving forward. Table 19 highlights the top six recommendations that were mentioned by assistant principals multiple times in post-initiative interviews. Many of the participants wanted the programs to be more differentiated. Each of our districts has brand new assistant principals and others that have been in the role for a much longer time. While this recommendation would be difficult to accomplish due to economies of scale, more planning is needed to better differentiate our sessions and shadowing. Assistant principals asked for more flexibility in the logistics and content of both professional development and shadowing experiences. Perhaps districts could consider the longevity of assistant principals when planning relevant content for future professional development opportunities.

Table 19

Qualitative Post-initiative Shadowing Data - Recommendations

Logistics (timing, frequency, location, etc.)	21
Content	10
Shadow Principals	6
Differentiation	4
AP focus rather than Principal focus	2
Structure of meetings	2

Note. Numbers represent number of mentions by assistant principals for recommendations for improvement of the APPLE program.

Collaborative professional development sessions were more well-received than 'sit-and-get' sessions and participants asked that they have more time to work together and discuss problems of their own practice. They also loved sessions that included scenarios and role play. Many assistant principals asked for more time and more topics - they wanted more professional development and shadowing days. However, other assistant principals really struggled with leaving their buildings for professional development and shadowing. More work should be done on instilling the importance of taking time for professional growth regardless of the everyday challenges of the job. The job is inherently stressful and feeling like you cannot leave your building for growth opportunities is not healthy or sustainable. Offering more opportunities for collaboration among administrators would be well received by assistant principals.

The shadowing was a positive experience for the vast majority of participants. In the post-interviews, many asked for additional shadowing opportunities. Most only had the chance to shadow at one school level during this iteration of the program. Multiple assistant principals wanted to see other levels, and to shadow with a principal, not just another assistant principal. At one of the focus groups that was held after the shadowing, an assistant principal

recommended reformatting the shadowing experience with a specific goal focus. If there was an area of growth needed for an assistant principal, a school and an administrator could be targeted so that the assistant principal could be purposeful with their shadowing time and be out of their building less. Perhaps shadowing experiences could be flexibly woven into a district's opportunities for all assistant principals more frequently throughout the school year.

Conclusion

The APPLE program in was a successful improvement initiative in a number of ways for each of our four districts. As a disquisition team we were extremely pleased with the implementation and outcomes of the project, and our feedback reveals that the assistant principals who participated gained skills that will enhance their leadership capacity to be successful principals in the future. Our design teams supported the APPLE program through planning, scheduling, and implementing sessions for participants, which supported the use of improvement science to create change in our districts.

In the APPLE program we used improvement science to work within our districts to support assistant principals. A comprehensive development program assists in developing the capacity of assistant principals so that they are more prepared to become successful principals (Wallace Foundation, 2013; 2015). Design teams within each district developed orientation sessions, professional development sessions, and coordinated shadowing experiences that were ideal for each context. We studied the outcomes with a mixed-methods approach in order to gauge the success of the initiatives and to make recommendations for future iterations of the program.

During the planning, scheduling and implementation stages, each research team member faced challenges associated with each step of the process. Compromises were made based on the uniqueness of each district and the varied job responsibilities of each design team member. Decisions differed between districts in regards to logistics and topic choices, sometimes meeting district needs rather than the requests of assistant principals who participated in the study. The compromises made in each district did not detract from the success of the program or the positivity of the feedback from participants. Rather, the challenges provided a chance for our research team to gain a broader insight into the requirements of districts and the needs of assistant principals. We were able to consider contextual differences as a strength of the study because we were able to all meet the same end goal despite having to use different approaches in our work with district leadership.

Our theory of improvement stated that assistant principals transitioning into a principalship are not adequately prepared to lead and struggle in the beginning years of a principalship. Lack of funding and educational turmoil within the state of North Carolina over the past decade have led to cuts in support and development programs for administrators (Public Schools First NC, 2018). Our team set out to create an affordable and easily scalable model for supporting assistant principals within our districts. It is evident that the implementation of a support initiative is a challenge. Our framework provides the structure needed for districts to implement their own iterations of a support program. Moving forward, we hope to advocate for widespread support and development programs for assistant principals, including funding and policy change from the state of North Carolina that makes programs like this common.

Assistant principals often request professional development, but then have a hard time leaving the building when it is offered. Private industry implements succession planning strategies in a much more robust manner than do local education agencies (Peters, 2011). In order to overcome the less predictable nature of promotion to leadership roles that exists in the public sector, districts should build a framework for aspiring leaders that is more transparent in nature than what currently exists. As a solution to both of the above problems, districts could build the development techniques into the assistant principal job itself. If the first three years of an assistant principal's experience included a rotation to different schools with varying grade levels and demographics, they would not have to leave the building for shadowing experiences. Professional development could be brought into schools rather than having assistant principals travel to central offices for those opportunities. District leaders should spend more time forecasting future openings, identifying specific traits needed for the schools with openings, and which assistant principals would be the best candidates to lead at the schools with openings.

A strong positive outcome of our study was that assistant principals were able to build strong relationships with district leaders. Before the programs, assistant principals rarely got the opportunity to interact with district leaders. The benefit of this effect is two-fold. District leaders are now much more familiar with the pool of assistant principals, so when they are forecasting for future openings, district leaders will make more informed decisions on promotion. Assistant principals are better able to advocate for themselves, their schools, and students because they have established relationships that allow for dialog on a variety of topics.

By working on district initiatives together, assistant principals feel more connected to district leaders in their work outside of their individual schools.

Leadership competencies that were consistently confirmed were collaboration and reflection. As a result of the collaborative APPLE experience, assistant principals were more familiar with their peers and were able to build networks of support with each other that previously did not exist. Participants were very appreciative for the dedicated time to collaborate with other assistant principals and reflect on their professional practice. Reflection was valuable for assistant principals who said the APPLE program offered the opportunity for reflection on their practice, goals, and professional development. Through reflection, assistant principals were able to think deeply about their work and growth as leaders.

Taken together, orientation, shadowing, and professional development gave assistant principals the knowledge and skills they needed and serves as a scalable model for improvement for other school districts in North Carolina. If other districts provide support to assistant principals while they are training to be principals, assistant principals will learn what it takes to be a successful principal, with the help of a collaborative team. The benefits of a support program for assistant principals go beyond instilling confidence, skills, and knowledge, by decreasing teacher turnover (Ronfeldt, Lankford, Loeb, & Wycoff, 2013), decreasing administrator turnover (Miller, 2013), and increasing student achievement (Wallace Foundation, 2007, 2013). When assistant principals have the proper support and guidance, they can become proficient principals who can create positive change in their schools and communities.

One particular area of growth for the assistant principals in the APPLE initiative was in equity competence, which helps support our conceptual framework model of social justice

leadership (Theoharis, 2007). We do not know how or why assistant principals' feelings of equity competence increased, but we find the results to be very promising. If, through support and additional professional development, assistant principals can develop stronger skills and competence related to equity, the benefits will improve school, staff, and student outcomes (Theoharis, 2007, 2009). In future iterations of the APPLE program, our recommendation would be to place a stronger emphasis on the topics of equity and social justice.

A strong takeaway for each research team member was the positive experience of completing a collaborative disquisition within four public school districts. Working together has not been an easy task due to geographical location differences, time constraints, professional obligations, and personal responsibilities, but the effort has yielded much more than each one of us could have accomplished individually. Our team had increased accountability to one another and to each of our districts, keeping us on task and within the confines of our intended timeline. The relationships we built afforded us the respect and honesty necessary to endure the arduous writing and editing process. The teamwork provided us with a larger scope for the study, and produced more robust and valid results. Our professional collaboration through this process has challenged us academically and left us with lasting friendships.

Our work confirmed several assumptions that were present prior to the implementation of the APPLE initiative. The first being that assistant principals have a difficult job in schools and secondly, they frequently do not have the support or training they need to become well-prepared principals (Chan et al., 2003; Leithwood et al.; 2014; Lewis et al., 2010; Mitgang, 2012). It is apparent that creating a succession model approach to supporting, developing, and training assistant principals within the districts they work in creates a pipeline for leaders to continue to

improve outcomes for parents, staff, and students once they become principals (Peters, 2011). Ultimately, our students and communities will benefit the most by having well-prepared, confident principals to lead schools.

References

AdvancED. (2017). Report of the external review team for Caldwell County School System. Alpharetta, GA.

Aiken, J.A. (2002). The socialization of new principals: Another perspective on principal retention. *Education Leadership Review, 3*(1), 32-40.

Allen, J. G., & Weaver, R. L. (2014). Learning to lead: The professional development needs of assistant principals. *NCPEA Education Leadership Review, 15*(2), 14-32.

Asheville City Schools (2018). *Leadership team.* Retrieved from: http://www.ashevillecityschools.net

Beginning teacher support program. North Carolina State Board of Education. LICN-004. (2018)

Bohn, J. (2013). First-year hurdles. *Educational Leadership. 70*(7). Retrieved from: http://www.ascd.org/publications/educational_leadership/apr13/vol70/num07/First-Year_Hurdles.aspx

Boske, C., & Benavente-McEnery, L. (2012). The quiet roar: Assistant principals leading for social justice. In A. R. Shoho, B. G. Barnett, & A. K. Tooms (Eds.), *Examining the assistant principalship: New puzzles and perennial challenges for the 21st century* (pp. 125-152). Charlotte, NC: Information Age Publishing.

Bottoms, G. & O'Neill, K. (2001). *Preparing a new breed of school principals: It's time for action.* Atlanta, GA: Southern Regional Education Board.

Branch, G. F., Hanushek, E. A., & Rivkin, S. (2013). School leaders matter: Measuring the impact of effective principals. *Education Next, 13*(1). Retrieved from https://www.educationnext.org/school-leaders-matter/

Browne (2012). *Walking the equity talk: A guide for culturally courageous leadership in school communities*. Thousand Oaks, CA: Sage Publications.

Bryk, A. S., Gomez, L. M., Grunow, A., & LeMahieu, P. G. (2016). *Learning to improve: How America's schools can get better at getting better.* Cambridge, MA: Harvard Education Press.

Burch, K. (2018). *How to supercharge your relationship with your assistant principal.* Retrieved from School Leaders Now: https://schoolleadersnow.weareteachers.com /working-with-assistant-principals/

Busch, S.D., MacNeil, A.J. and Baraniuk, M.S. (2010, January). *Critical advice from practicing assistant principals for assistant principal preparation.* Paper presented at the Hawaii International Conference on Education, Honolulu, HI.

Business and Education Success Transformation (BEST) NC (2018). Transforming Principal Preparation in North Carolina. Retrieved from http: //best-nc.org/wp-content/uploads/2018/02/Transforming-Principal-Preparation-FINAL.pdf.

Bush, T. (2009). Leadership development and school improvement: Contemporary issues in leadership development. *Educational Review*, *61*(4), 375-389.

Chan, T. C., Webb, L., & Bowen, C. (2003). *Are assistant principals prepared for principalship? How do assistant principals perceive?* Kennesaw State University, Annual meeting of the Sino-American Education Consortium. Kennesaw, GA: ERIC.

College of Education and Allied Professions Ed.D. Degree. (2018). Retrieved from Western Carolina University: https://www.wcu.edu/learn/departments-schools-colleges /ceap/humanserv/ed-leadership/edd-degree-program.aspx

Cotton, K. (2003). *Principals and student achievement: What the research says.* Alexandria, VA: Association for Supervision and Curriculum Development.

CPED (2018). Carnegie project on the educational doctorate. Retrieved from: www.cpedinitiative.org

Creswell, J. W. (2012). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (4th ed.). Boston, MA: Pearson.

Crow, G., & Pounder, D. (2005). Sustaining the pipeline of school administrators. *Educational Leadership, 62*(8), 56-60.

Crutchfield, K. (2016). *Funding our schools: The small county and low wealth allotments.* Retrieved from EducationNC: https://www.ednc.org/2016/04/27/24873/

Darling-Hammond, L. (2010). *The flat world and education: How America's commitment to equity will determine our future*. New York: Teachers College Press.

Darling-Hammond, L., LaPointe, M., Meyerson, D., Orr, M. T., & Cohen, C. (2007). *Preparing principals for a changing world: Lessons from effective school leadership programs.* San Francisco, CA: John Wiley & Sons, Inc.

DeMatthews, D., (2018). Social justice dilemmas: Evidence on the successes and shortcomings of three principals trying to make a difference. *International Journal of Leadership in Education, 21(*5*),* 545-559.

Dewey, J. (1938). *Logic: The theory of inquiry.* New York: H. Holt & Co.

Drew, G. M., & Ehrich, L. C. (2010). A model of organisational leadership development informing succession development: Elements and practices. *Academic Leadership Online Journal, 8*(4), 42.

Fink, D. (2010). *The succession challenge: Building and sustaining leadership capacity through succession management.* New York, NY: Sage.

Fink, E., & Resnick, L. B. (2001). Developing Principals as Instructional Leaders. *Phi Delta Kappan, 82*(8), 598-606.

Glanz, J. (1994). Redefining the roles and responsibilities of assistant principals. *The Clearing House, 67*(5), 283-287.

Gurley, D. K., Anast-May, L., & Lee, H. T. (2015). Developing instructional leaders through assistant principals' academy: A partnership for success. *Education and Urban Society, 47*(2), 207-241.

Hausman, C., Nebeker, A., McCreary, J., & Donaldson, G. (2002). The work life of the assistant principal. *Journal of Educational Administration, 40*(2), 136-157.

Hargreaves, A. (2005). Leadership succession. *The Educational Forum, 69(*2), 163–173.

Hargreaves, A., & Fink, H. (2006). *Sustainable leadership.* San Francisco, CA: Jossey-Bass.

Hitt, D. H., & Tucker, P. D. (2016). Systematic review of key leader practices found to influence student achievement: A unified framework. *Review of Educational Research, 86*(2), 531-569.

Hitt, D. H., Tucker, P. D., & Young, M. D. (2012). *The professional pipeline for educational leadership. A white paper developed to inform the work of National Policy Board for educational administration.* University Council for Educational Administration. Charlottesville, VA: ERIC.

Hui, T., (2019). Education week graded North Carolina's education system. See where NC ranks in 2019. The News & Observer. Retrieved from: https://www.newsobserver.com/news/local/education/article234788117.html

Integrated Comprehensive Systems for Equity (2019). ICS Equity. Retrieved from: https://www.icsequity.org/

Johnson-Taylor, C., & Martin, M. B. (2007). Next in line: Preparing assistant principals for the principalship. *Principal Leadership, 7*(8) 22-25.

Kantrowitz, B. (2007). The principal principle. *NewsWeek.* Retrieved from http://www.newsweek.com/principal-principle-101017

Khalifa, M. (2018). *Culturally responsive school leadership.* Cambridge, MA: Harvard Education Press.

Kirkpatrick, D.L. (1959) Techniques for evaluating training programs. *Journal of ASTD, 13*(11), 3-9.

Kirkpatrick, J., & Kirkpatrick, W. K. (2009). *The Kirkpatrick four levels: A fresh look after 50 years 1959-2009.* Atlanta, GA: Kirkpatrick Partners, LLC.

Koru, J. M. (1993). The assistant principal: crisis manager, custodian, or visionary? *NASSP Bulletin, 77*(556), 67-71.

Kouzes, J. M., & Posner, B. Z. (2017). *The leadership challenge: How to make extraordinary things happen in organizations* (6th ed.). Hoboken, NJ: John Wiley & Sons, Inc.

Kwan, P. (2009). The vice-principal experience as a preparation for the principalship. *Journal of Educational Administration, 47*(2), 191-205.

Lacey, K. A. (2003). Succession planning in education. Retrieved from: http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.495.7625&rep=rep1&type=pdf

Lambert, L. (1998) How to Build Leadership Capacity. *Educational Leadership*, *55*(7), 17-19.

Langley, G. J., Moen, R. D., Nolan, K. M., Nolan, T. W., Norman, C. L., & Provost, L. P. (2009). *The improvement guide: A practical approach to enhancing organizational performance* (2nd ed.). San Francisco, CA: Jossey-Bass.

Lashway, L., (2003). Inducting school leaders. *ERIC Clearinghouse on Educational Management,* Eugene, OR. 1-7. Retrieved from https://files.eric.ed.gov/fulltext /ED479074.pdf

Leachman, M., Masterson, K., & Figueroa, E. (2017). *A punishing decade for school funding.* Washington, DC: Center on Budget and Policy Priorities.

Leandro vs. State, 488 S.E.2d 249, (N.C. 1997).

Leithwood, K. & Jantzi, D. (2000). The effects of transformational leadership on organizational conditions and student engagement with school. *Journal of Educational Administration*, *38*(2), 112–129.

Leithwood, K., Louis, K. S., Anderson, S., & Wahlstrom, K. (2004). *How leadership influences student learning.* New York, NY: The Wallace Foundation.

Leverett, L. (2002). Warriors to advance equity: An argument for distributing leadership Spotlight on student success (Vol. 709). Calverton, MD: Mid-Atlantic Regional

Louis, K., Leithwood, K.,Wahlstrom, K., & Anderson, S. (2010). *Learning from leadership: Investigating the links to improved student learning. Final report of research findings*. New York, NY: The Wallace Foundation.

Lovely, S.D. (2001). Leadership scaffolds for an administrative career ladder. *School Administrator, 58*(10), 42–43.

Lynn, D.B. (2001). Succession management strategies in public sector organizations: Building leadership capital. *Review of Public Personnel Administration, 21*(2), 114 - 132.

Marshall, C. (2006). What is special about assistant principals? In C. Marshall, & R. M. Hooley, *The Assistant Principal: Leadership choices and challenges* (1-25). Thousand Oaks, CA: Corwin Press, Inc.

Marshall, C., & Greenfield, W. (1987). The dynamics in the enculturation and the work in the assistant principalship. *Urban Education, 22*(1), 36-52.

Marshall, C. & Olivia, M. (2010). *Leadership for social justice: Making revolutions in education (2nd ed.)*. Washington, DC: Pearson.

McCart, A. & Miller, D. (2019). Leading equity-based MTSS for all students. Thousand Oaks, CA: Corwin Press.

Miles, M. B., Huberman, A. M., & Saldaña, J. (2014). *Qualitative Data Analysis* (3rd ed.). Thousand Oaks, CA: SAGE Publications, Inc.

Miller, A. (2013). Principal turnover and student achievement. *Economics of Educational*

Mitgang, L. (2012). *The making of the principal: Five lessons in leadership training*. New York, NY: The Wallace Foundation.

National Association of Secondary School Principals and National Association of Elementary School Principals. (2013). *Leadership Matters: What the research says about the importance of principal leadership.* Reston, VA: NASSP, Alexandria, VA: NAESP.

NCGA §115C-296. (2016). *Board sets licensure requirements; reports; lateral entry and mentor programs*. Retrieved from https://www.ncga.state.nc.us/enactedlegislation /statutes/html/bysection/chapter_115c/gs_115c-296.html

NC Live Binders (2019). NC MTSS implementation guide. Retrieved from: https://www.livebinders.com/play/play?id=2052295

Nichols, S.L., Glass, G.V., & Berliner, D.C. (2012). High-stakes testing and student achievement: Updated analyses with NAEP data. *Education Policy Analysis Archives, 20*(20). 1-35.

Normore, A. H. (2003, January). *Professional and organizational socialization processes of school administrators: A literature review*. Paper presented at the Hawaii International Conference on Education. Honolulu, HI.

North Carolina School Report Card District Snapshot for Asheville City Schools. (2018). Retrieved from North Carolina School Report Cards: https://ncreportcards. ondemand.sas.com/src/district?district=111LEA&year=2017&lang=english

North Carolina School Report Card District Snapshot for Burke County Public Schools. (2017). Retrieved from North Carolina School Report Cards: https://ncreportcards. ondemand.sas.com/src/district?district=120LEA&year=2017&lang=english

North Carolina School Report Card District Snapshot for Caldwell County Schools (2017). Retrieved from North Carolina School Report Cards: https://ncreportcards. ondemand.sas.com/snapshots/140LEA_2017_LEA.pdf

North Carolina School Report Card District Snapshot for Stanly County Schools. (2017). Retrieved from North Carolina School Report Cards: https://ncreportcards.ondemand.sas.com/src/district?district=840LEA&year=2017&lang=english

North Carolina State Board of Education. (2013). *North Carolina standards for school executives.* Raleigh, NC.

North Carolina Public Schools Statistical Profile. (2018). Public school personnel summary Caldwell County Schools school year 2017-18 [Data file]. Retrieved from http://apps.schools.nc.gov/ords/f?p=1:109:2201890013301301::NO::P109_SELECTYEAR:2018

Oleszewski, A., Shoho, A., & Barnett, B. (2012). The development of assistant principals: A literature review. *Journal of Educational Administration, 50*(3), 264-286.

Oliver, R. (2005). Assistant principal professional growth and development: A matter that cannot be left to chance. *Educational Leadership and Administration, 17,* 89-100.

Olsen, W. (2012). *Data collection: Key debates and methods in social research*. Los Angeles, CA: Sage.

Owen-Fitzgerald, V. (2010). *Effective components of professional development for assistant principals*. (Doctoral dissertation). California State University, Fullerton, CA.

Perry, J. A. (2012). To EdD or not to EdD? *Phi Delta Kappan, 94*(1), 41-44.

Peters, A. L. (2011). (Un)planned failure: Unsuccessful succession planning in an urban district. Journal of School Leadership, *21*(1), 64-86.

Peters-Hawkins, A.L., Reed, L.C., & Kingsberry, F. (2018). Dynamic leadership succession: Strengthening urban principal succession planning. *Urban Education, 53*(1), 26-54.

Peters, G. B., Gurley, D. K., Fifolt, M., Collins, L., & Mcneese, R. (2016). Assistant principals' perceptions regarding the role and the effectiveness of an educational leadership program. *International Journal of Higher Education, 5*(1), 183-189.

Petrides, L., Jimes, C., & Karaglani, A. (2014). Assistant principal leadership development: A narrative capture study. *Journal of Educational Administration, 52*(2), 173–192.

Pew Research Center. (2019). Defining generations: Where Millennials End and Generation Z begins. Retrieved from: https://www.pewresearch.org/fact-tank/2019/01/17/where-millennials-end-and-generation-z-begins/

Porter, J.J. (1996). What is the role of the middle level assistant principal and how should it change? *NASSP Bulletin, 80(*578), 25-30.

Propublica (2018). Miseducation: North Carolina: Asheville City Schools. Retrieved from: https://projects.propublica.org/miseducation/district/3700270

Prothero, A. (2017). Niche training aims to fill gaps. *Education Week, 36*(19), 9-11.

Public Schools First NC (2019). Education budget. Retreived from: https://www.publicschoolsfirstnc.org/know-the-issues/education-budget/

Rothwell, W.J. (2005). *Effective succession planning: Ensuring leadership continuity and building talent from within* (3rd ed.). American Management Association: New York, NY.

Rubin, H. J., & Rubin, I. S. (2005). *Qualitative interviewing: The art of hearing data* (2nd ed.). Thousand Oaks, CA: SAGE Publications, Inc.

Ronfeldt, M., Lankford, H., Loeb, S., & Wycoff, J. (2013). How teacher turnover harms student achievement. *American Education Research Journal, 50*(1), 4-36.

Scott, A. (Producer). (2017). What school principals can learn from CEOs. Marketplace. Podcast retrieved from: https://www.marketplace.org/2017/09/20/education/what-school-principals-can-learn-from-ceos

Searby, L., Browne-Ferrigno, T. & Wang, C. (2016). Assistant principals: Their readiness as instructional leaders. *Leadership and Policy in Schools. 16*(3), 397-430.

Simkins, T., Close, P., & Smith, P. (2009). Work-shadowing as a process for facilitating leadership succession in primary schools. *School Leadership & Management, 29,* 239-251.

Soguero, M., Condon, D., Packard, C., & Easton, L.B. (2015). Shadowing. In L.B. Easton (Ed.), *Powerful designs for professional learning* (3rd ed.). Oxford, OH: Learning Forward.

Tanner, D. (2012). *Using statistics to make educational decisions.* Thousand Oaks, CA: SAGE Publications, Inc.

The Wallace Foundation (2015). Report '15: Continuous Improvement. Retrieved from: https://www.wallacefoundation.org/about-wallace/annual-reports/Annual%20Reports/Wallace-Annual-Report-2015-Continuous-Improvement.pdf

The Wallace Foundation (2013). The school principal as leader: Guiding schools to better teaching and learning. Retrieved from: http://www.wallacefoundation.org/knowledge-center/pages/overview-the-school-principal-as-leader.aspx

Theoharis, G., (2007). Social justice educational leaders and resistance: Toward a theory of social justice leadership. *Educational Administration Quarterly, 43*(2), 221-258.

Theoharis, G., (2009). *The school leaders our children deserve: Seven keys to equity, social justice and school reform.* New York, NY: Teachers College Press.

Thompson, K., (2010). How strategic is the school-based planning for leadership succession? International studies in educational administration. *Commonwealth Council For Educational Administration & Management, 38,* 98-113.

UNCTV. (2017). Supporting new principals in the early years. *The role of support systems for new principals*. Public Broadcasting System. Retrieved September 22, 2017, from https://unctv.pbslearningmedia.org/resource/wall13.pd.lead.supporting/supporting-new-principals-in-the-early-years/#

Weller, L. D., & Weller, S. J. (2002). The assistant principal: Essentials for effective school leadership. Thousand Oaks, CA: Corwin Press.

Witte, J.E. and James, W.B. (1998), Cohort Partnerships: A Pragmatic Approach to Doctoral Research. New Directions for Adult and Continuing Education, 1998: 53-62.

Zellner, L., Ward, S. M., McNamara, P., Gideon, B., Camacho, S. & Edgewood, S. D. (2002). The Loneliest Job in Town: Sculpting the Recruitment and Retention of the Principal. 2002-02-15. Paper presented at the annual meeting of the Southwest Educational Research Association, Austin, TX, February 14 – 16, 2002.

Zepeda, S. J., Bengtson, E., & Parylo, O. (2012). Examining the planning and management of principal succession. *Journal of Educational Administration, 50*(2), 136-158.

Appendix A – Principal and District Administrator Baseline Survey

---

Start of Block: Principal and District Administrator Baseline Survey

What gender do you identify with?

- ○ Male (1)
- ○ Female (2)
- ○ Transgender (4)
- ○ Other (3)

What is your ethnicity?

- ○ White/Caucasian (1)
- ○ American Indian (2)
- ○ African American (3)
- ○ Asian (4)
- ○ Hispanic/Latino (5)
- ○ Mixed Ethnicity (6)
- ○ Other (7)

What year were you born?

_____

How many years were you a teacher?

_____

How many years were you an assistant principal?

_____

How many years were you a principal?

_____

What is your current role?

_____

Looking back on when you first became a principal, rate yourself on the following items?

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)
Instructional Leadership (1)	○	○	○	○	○
Student Assessment (2)	○	○	○	○	○
School Improvement Planning (3)	○	○	○	○	○
Scheduling (4)	○	○	○	○	○
Staff Management (5)	○	○	○	○	○
Teacher Evaluation (6)	○	○	○	○	○
Teacher Remediation (7)	○	○	○	○	○
Data-driven Decision Making (8)	○	○	○	○	○
Community Relationships (9)	○	○	○	○	○
Designing Professional Development (10)	○	○	○	○	○
Student Discipline (11)	○	○	○	○	○
School Safety (12)	○	○	○	○	○
Time-management (13)	○	○	○	○	○
School Culture and Climate (14)	○	○	○	○	○

Stress Management (15)	○	○	○	○	○
EC/IEP/Student Placement (16)	○	○	○	○	○
Equity (17)	○	○	○	○	○

What district level information should be included in a summer orientation session for assistant principals?

_____

End of Block: Principal and District Administrator Baseline Survey

Appendix B - Pre-initiative Assistant Principal Survey

Start of Block: Pre-initiative Assistant Principal Survey

What is your name?

_____

What gender do you identify with?

- Male (1)
- Female (2)
- Transgender (4)
- Other (3)

What is your ethnicity?

- White/Caucasian (1)
- American Indian (2)
- African American (3)
- Asian (4)
- Hispanic/Latino (5)
- Mixed Ethnicity (6)
- Other (7)

What year were you born?

_____

How many years were you a teacher?

_____

How many years were you an assistant principal?

_____

How many years were you a principal?

_____

What is your current role?

_____

Rate your current level of readiness to lead as a principal in the following leadership competencies.

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)
Instructional Leadership (1)	○	○	○	○	○
Student Assessment (2)	○	○	○	○	○
School Improvement Planning (3)	○	○	○	○	○
Scheduling (4)	○	○	○	○	○
Staff Management (5)	○	○	○	○	○
Teacher Evaluation (6)	○	○	○	○	○
Teacher Remediation (7)	○	○	○	○	○
Data-driven Decision Making (8)	○	○	○	○	○
Community Relationships (9)	○	○	○	○	○

Designing Professional Development (10)	○	○	○	○	○
Student Discipline (11)	○	○	○	○	○
School Safety (12)	○	○	○	○	○
Time-management (13)	○	○	○	○	○
School Culture and Climate (14)	○	○	○	○	○
Stress Management (15)	○	○	○	○	○
EC/IEP/Student Placement (16)	○	○	○	○	○
Equity (17)	○	○	○	○	○
RTI/MTSS (18)	○	○	○	○	○

Of the leadership competencies above, which is your area of greatest need at this time?

_____

Of the leadership competencies above, in which area are you most confident in your ability?

_____

End of Block: Pre-initiative Assistant Principal Survey

Appendix C - Pre-initiative Assistant Principal Interview Questions

1. What areas of school administration are lacking in principal preparation programs?
2. In what areas of administration were you least prepared?
3. What type of ongoing professional development do you think would prepare assistant principals to be successful principals?
4. How can district officials support your growth as a school leader?

Appendix D - Orientation Exit Ticket

Start of Block: Orientation Exit Survey - Appendix D

Your participation in today's orientation session was as a:

- Participant (1)
- Facilitator (2)

How would you describe the structure of today's session?

- Extremely appropriate (1)
- Somewhat appropriate (2)
- Neither appropriate or inappropriate (3)
- Somewhat inappropriate (4)
- Extremely inappropriate (5)

How would you describe the content of today’s meeting?

- ○ Extremely appropriate (1)
- ○ Somewhat appropriate (2)
- ○ Neither appropriate or inappropriate (3)
- ○ Somewhat inappropriate (4)
- ○ Extremely inappropriate (5)

How beneficial was today's meeting?

- ○ Extremely beneficial (1)
- ○ Very beneficial (2)
- ○ Moderately beneficial (3)
- ○ Slightly beneficial (4)
- ○ Not beneficial (5)

What could be improved about the presented content?

_____

What worked best?

_____

What could be improved for future meetings?

_____

End of Block: Orientation Exit Survey - Appendix D

Appendix E – Pre-initiative Assistant Principal Self-Assessment Rubric

Start of Block: Basic Information

What is your name?

_____

End of Block: Basic Information

Start of Block: Standards

Standard 1 - Strategic Leadership

	Developing (1)	Proficient (2)	Accomplished (3)	Distinguished (4)
School Vision, Mission, and Strategic Goals (1)	○	○	○	○
Leading Change (2)	○	○	○	○
School Improvement Planning (3)	○	○	○	○
Distributive Leadership (4)	○	○	○	○

Standard 2 - Instructional Leadership

	Developing (1)	Proficient (2)	Accomplished (3)	Distinguished (4)
Focus on Learning and Teaching, Curriculum, Instruction and Assessment (1)	○	○	○	○
Focus on Instructional Time (2)	○	○	○	○

Standard 3 - Cultural Leadership

	Developing (1)	Proficient (2)	Accomplished (3)	Distinguished (4)
Focus on Collaborative Work Environment (1)	○	○	○	○
School Culture and Identity (2)	○	○	○	○
Acknowledges Failures; Celebrates Accomplishments and Rewards (3)	○	○	○	○
Efficacy and Empowerment (4)	○	○	○	○

Standard 4 - Human Resource Leadership

	Developing (1)	Proficient (2)	Accomplished (3)	Distinguished (4)
Professional Development/Learning Communities (1)	○	○	○	○
Recruiting, Hiring, Placing and Mentoring of staff (2)	○	○	○	○
Teacher and Staff Evaluation (3)	○	○	○	○

Standard 5 - Managerial Leadership

	Developing (1)	Proficient (2)	Accomplished (3)	Distinguished (4)
School Resources and Budget (1)	○	○	○	○
Conflict Management and Resolution (2)	○	○	○	○
Systematic Communication (3)	○	○	○	○
School Expectations for Students and Staff (4)	○	○	○	○

Standard 6 - External Development Leadership

	Developing (1)	Proficient (2)	Accomplished (3)	Distinguished (4)
Parent and Community Involvement and Outreach (1)	○	○	○	○
Federal, State and District Mandates (2)	○	○	○	○

Standard 7 - Micro-political Leadership

	Developing (1)	Proficient (2)	Accomplished (3)	Distinguished (4)
School Executive Micro-political Leadership (1)	○	○	○	○

End of Block: Standards

Appendix F – Pre-initiative Assistant Principal Goal Setting Template

Start of Block: Goal Setting Template

What is your name?

_____

List one goal that you will work on this school year?

_____

What standard aligns with this goal?

- Strategic (1)
- Instructional (2)
- Cultural (3)
- Human Resource (4)
- Managerial (5)
- External Development (6)
- Micro-political (7)

What measures will you use to know that you have achieved your goal?

_____

Rate your current performance on this goal as determine in collaboration with your supervisor.

	0 1 2 3 4 5 6 7 8 9 10
Goal 1	

List a second leadership goal that you will work on this school year?

_____

What standard aligns with this goal?

- ○ Strategic (1)
- ○ Instructional (2)
- ○ Cultural (3)
- ○ Human Resource (4)
- ○ Managerial (5)
- ○ External Development (6)
- ○ Micro-political (7)

What measures will you use to know that you have achieved your goal?

_____

Rate your current performance on this goal as determine in collaboration with your supervisor.

	0	1	2	3	4	5	6	7	8	9	10
Goal 2											

End of Block: Goal Setting Template

Appendix G - Professional Development Session Exit Ticket

Start of Block: Professional Development Exit Survey

Your participation in today's orientation session was as a:

- Participant (1)
- Facilitator (2)

How would you describe the structure of today's session?

- Extremely appropriate (1)
- Somewhat appropriate (2)
- Neither appropriate or inappropriate (3)
- Somewhat inappropriate (4)
- Extremely inappropriate (5)

How would you describe the content of today’s meeting?

- ○ Extremely appropriate (1)
- ○ Somewhat appropriate (2)
- ○ Neither appropriate or inappropriate (3)
- ○ Somewhat inappropriate (4)
- ○ Extremely inappropriate (5)

How beneficial was today's meeting?

- ○ Extremely beneficial (1)
- ○ Very beneficial (2)
- ○ Moderately beneficial (3)
- ○ Slightly beneficial (4)
- ○ Not beneficial (5)

What could be improved about the presented content?

_____

What worked best?

_____

What could be improved for future meetings?

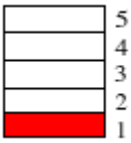
_____

End of Block: Professional Development Exit Survey

Appendix H - Monthly Supervisor Survey

Start of Block: Default Question Block

Rate the level of *positive* impact that your assistant principal's participation in this program has had on your school?



1 (1)

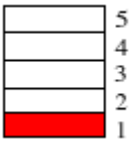
2 (2)

3 (3)

4 (4)

5 (5)

Rate the level of *negative* impact that your assistant principal's participation in this program has had on your school?



1 (1)

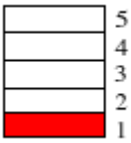
2 (2)

3 (3)

4 (4)

5 (5)

Rate the extent to which program participation has affected the ability of the assistant principal to complete their daily job requirements.



1 (1)

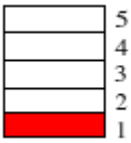
2 (2)

3 (3)

4 (4)

5 (5)

Rate the extent to which the assistant principal development program has had a *positive* effect on you as a principal?



1 (1)

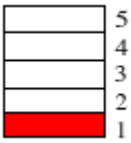
2 (2)

3 (3)

4 (4)

5 (5)

Rate the extent to which the assistant principal development program has had a *negative* effect on you as a principal?



1 (1)

2 (2)

3 (3)

4 (4)

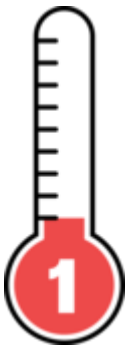
5 (5)

End of Block: Default Question Block

Appendix I - Weekly Assistant Principal Stress Level Survey

Start of Block: Default Question Block

Rate your overall stress level this week.



0 (0)

1 (1)

2 (2)

3 (3)

4 (4)

5 (5)

6 (6)

7 (7)

8 (8)

9 (9)

10 (10)

How much of your overall stress level pertains to this program?

	None at all	A little	A moderate amount	A lot
Stress due to this program	○	○	○	○

Do you have more or less stress than last week?

○ More (1)

○ Less (2)

○ The same amount (3)

End of Block: Default Question Block

Appendix J - Assistant Principal Shadowing Journal Prompts

1. Describe your day.
2. How does your experience today compare with your regular daily duties?
3. What was beneficial about your experience today?
4. Where were the most challenging parts of the day?
5. What were your takeaways?

Appendix K – Post-experience Focus Group Questions - Shadowing

1. What was beneficial about your shadowing experience?
2. What was difficult about your shadowing experience?
3. How does visiting different grade levels help prepare you for a principalship at a different level?
4. Do you have any takeaways to share with the group?
5. Does this help you with job interviews?
6. How could the process be improved?

Appendix L - Professional Development Exit Ticket with Shadowing

Start of Block: Professional Development Exit Survey - Appendix D

Your participation in today's orientation session was as a:

- Participant (1)
- Facilitator (2)

How would you describe the structure of today's session?

- Extremely appropriate (1)
- Somewhat appropriate (2)
- Neither appropriate or inappropriate (3)
- Somewhat inappropriate (4)
- Extremely inappropriate (5)

How would you describe the content of today’s meeting?

- ○ Extremely appropriate (1)
- ○ Somewhat appropriate (2)
- ○ Neither appropriate or inappropriate (3)
- ○ Somewhat inappropriate (4)
- ○ Extremely inappropriate (5)

How beneficial was today's meeting?

- ○ Extremely beneficial (1)
- ○ Very beneficial (2)
- ○ Moderately beneficial (3)
- ○ Slightly beneficial (4)
- ○ Not beneficial (5)

What could be improved about the presented content?

_____

What worked best?

_____

What could be improved for future meetings?

_____

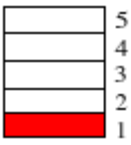
End of Block: Professional Development Exit Survey - Appendix D

Start of Block: Shadowing Experience Survey

Please rate the level of disruption at each school caused by your shadowing experiences.

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)
Level of disruption at your home school (1)	○	○	○	○	○
Level of disruption at the visited school (2)	○	○	○	○	○

Please rate the level of impact the shadowing experience had your ability to complete your regular job duties.



1 (1)

2 (2)

3 (3)

4 (4)

5 (5)

Was another AP able to fill in at your school while you shadowed?

- Yes (1)
- No (2)

Skip To: Q12 If Was another AP able to fill in at your school while you shadowed? = No

Is so, rate their ability to complete your job duties while they were at your school?

1 (1)

2 (2)

3 (3)

4 (4)

5 (5)

Rate how beneficial the shadowing experience was for you.

0 (0)

1 (1)

2 (2)

3 (3)

4 (4)

5 (5)

6 (6)

7 (7)

8 (8)

9 (9)

10 (10)

End of Block: Shadowing Experience Survey

Appendix M - Post-initiative Assistant Principal Survey

Start of Block: Post-initiative Assistant Principal Survey - Appendix M

What is your name?

_____

What gender do you identify with?

- Male (1)
- Female (2)
- Transgender (4)
- Other (3)

What is your ethnicity?

- White/Caucasian (1)
- American Indian (2)
- African American (3)
- Asian (4)
- Hispanic/Latino (5)
- Mixed Ethnicity (6)
- Other (7)

What year were you born?

_____

How many years were you a teacher?

_____

How many years were you an assistant principal?

_____

How many years were you a principal?

_____

What is your current role?

_____

Rate your current level of readiness to lead as a principal in the following leadership competencies.

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)
Instructional Leadership (1)	○	○	○	○	○
Student Assessment (2)	○	○	○	○	○
School Improvement Planning (3)	○	○	○	○	○
Scheduling (4)	○	○	○	○	○
Staff Management (5)	○	○	○	○	○
Teacher Evaluation (6)	○	○	○	○	○
Teacher Remediation (7)	○	○	○	○	○
Data-driven Decision Making (8)	○	○	○	○	○
Community Relationships (9)	○	○	○	○	○

Designing Professional Development (10)	○	○	○	○	○
Student Discipline (11)	○	○	○	○	○
School Safety (12)	○	○	○	○	○
Time-management (13)	○	○	○	○	○
School Culture and Climate (14)	○	○	○	○	○
Stress Management (15)	○	○	○	○	○
EC/IEP/Student Placement (16)	○	○	○	○	○
Equity (17)	○	○	○	○	○
RTI/MTSS (18)	○	○	○	○	○

Of the leadership competencies above, which is your area of greatest need at this time?

_____

Of the leadership competencies above, in which area are you most confident in your ability?

_____

End of Block: Post-initiative Assistant Principal Survey - Appendix M

Appendix N - Post-Initiative Assistant Principal Interview Questions

1. Did the APPLE program contribute to your professional growth? If so, how?
2. Were there certain areas covered that you benefited from the most?
3. After participation in the APPLE program, do you feel more prepared to lead a school?
4. Which component of the program (orientation, shadowing, PD sessions) was most/least beneficial? Please briefly explain.
5. How can the APPLE program be improved?

Appendix O - Post-initiative Assistant Principal Self-Assessment Rubric

Start of Block: Basic Information

What is your name?

_____

End of Block: Basic Information

Start of Block: Standards

Standard 1 - Strategic Leadership

	Developing (1)	Proficient (2)	Accomplished (3)	Distinguished (4)
School Vision, Mission, and Strategic Goals (1)	○	○	○	○
Leading Change (2)	○	○	○	○
School Improvement Planning (3)	○	○	○	○
Distributive Leadership (4)	○	○	○	○

Standard 2 - Instructional Leadership

	Developing (1)	Proficient (2)	Accomplished (3)	Distinguished (4)
Focus on Learning and Teaching, Curriculum, Instruction and Assessment (1)	○	○	○	○
Focus on Instructional Time (2)	○	○	○	○

Standard 3 - Cultural Leadership

	Developing (1)	Proficient (2)	Accomplished (3)	Distinguished (4)
Focus on Collaborative Work Environment (1)	○	○	○	○
School Culture and Identity (2)	○	○	○	○
Acknowledges Failures; Celebrates Accomplishments and Rewards (3)	○	○	○	○
Efficacy and Empowerment (4)	○	○	○	○

Standard 4 - Human Resource Leadership

	Developing (1)	Proficient (2)	Accomplished (3)	Distinguished (4)
Professional Development/Learning Communities (1)	○	○	○	○
Recruiting, Hiring, Placing and Mentoring of staff (2)	○	○	○	○
Teacher and Staff Evaluation (3)	○	○	○	○

Standard 5 - Managerial Leadership

	Developing (1)	Proficient (2)	Accomplished (3)	Distinguished (4)
School Resources and Budget (1)	○	○	○	○
Conflict Management and Resolution (2)	○	○	○	○
Systematic Communication (3)	○	○	○	○
School Expectations for Students and Staff (4)	○	○	○	○

Standard 6 - External Development Leadership

	Developing (1)	Proficient (2)	Accomplished (3)	Distinguished (4)
Parent and Community Involvement and Outreach (1)	○	○	○	○
Federal, State and District Mandates (2)	○	○	○	○

Standard 7 - Micro-political Leadership

	Developing (1)	Proficient (2)	Accomplished (3)	Distinguished (4)
School Executive Micro-political Leadership (1)	○	○	○	○

End of Block: Standar

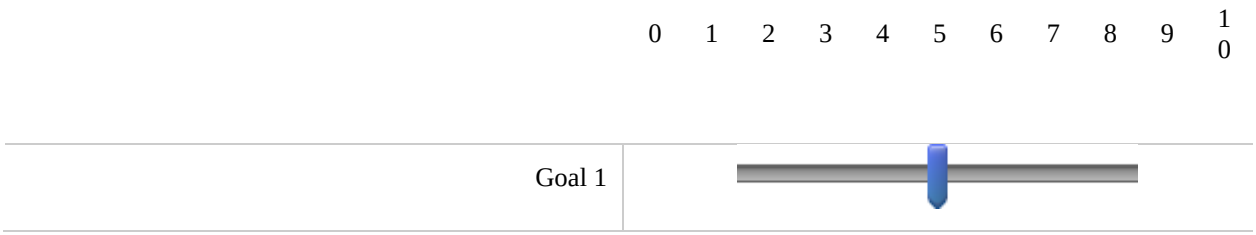
Appendix P - Post-initiative Supervisor Goal Measurement Survey

Start of Block: Post-initiative Goal Measurement Survey for Supervisor

What is your assistant principal's name?

_____

Rate your assistant principal's current performance on Goal 1.



Give a specific example of how your assistant principal has exhibited professional growth on this goal through this experience.

_____

What measurements were used to make this rating?

_____

Rate your assistant principal's current performance on Goal 2.

	0	1	2	3	4	5	6	7	8	9	10
Goal 2											

What measurements were used to make this rating?

_____

Give a specific example of how your assistant principal has exhibited professional growth on this goal through this experience.

_____

Please share any additional details about your assistant principal's progress in this program.

_____

End of Block: Post-initiative Goal Measurement Survey for Supervisor

Appendix Q – Pre and Post-initiative Assistant Principal Survey Quantitative Analysis Results

		ALL	*ACS*	*BCS*	*CCS*	*SCS*	*Female*	*Male*	*Born 1981 or before*	*Born after 1981*
Instructional Leadership	n	37	4	11	15	7	25	12	29	8
	Pre-Mean	3.62	3.75	3.55	3.60	3.71	3.72	3.42	3.69	3.38
	Post Mean	3.76	3.75	3.73	3.87	3.57	3.88	3.50	3.93	3.13
	Mean Difference	0.14	0.00	0.18	0.27	-0.14	0.16	0.08	0.24	-0.25
	Pre SD	0.83	0.96	0.69	0.91	0.95	0.89	0.67	0.85	0.74
	Post SD	0.86	0.50	1.01	0.74	1.13	0.78	1.00	0.84	0.64
	t	1.00	0.00	0.61	1.47	-0.42	0.94	0.36	1.76	-0.68
	P	0.1620	0.5000	0.2764	0.0822	0.3445	0.1781	0.3614	0.0448	0.2582
Student Assessment	n	37	4	11	15	7	25	12	29	8
	Pre-Mean	3.65	4.00	3.73	3.53	3.57	3.68	3.58	3.69	3.50
	Post Mean	3.86	4.25	4.00	3.80	3.57	3.92	3.75	4.03	3.25
	Mean Difference	0.22	0.25	0.27	0.27	0.00	0.24	0.17	0.34	-0.25
	Pre SD	0.75	1.15	0.79	0.64	0.79	0.80	0.67	0.81	0.53
	Post SD	0.75	0.96	1.00	0.56	0.98	0.86	0.75	0.73	0.89
	t	1.96	1.00	1.15	1.74	0.00	2.01	0.69	2.77	1.53
	P	**0.0291**	0.1955	0.1384	*0.0519*	0.5000	**0.0279**	0.2518	**0.0049**	0.0852

School Improvement Planning	n	37	4	11	15	7	25	12	29	8
	Pre-Mean	3.16	3.50	3.36	3.07	2.86	3.12	3.25	3.24	2.88
	Post Mean	3.35	3.50	3.36	3.27	3.43	3.40	3.25	3.48	2.88
	Mean Difference	0.19	0.00	0.00	0.20	0.57	0.28	0.00	0.24	0.00
	Pre SD	0.90	0.58	0.81	0.96	1.07	0.73	1.22	0.99	0.35
	Post SD	0.95	1.29	0.92	0.80	1.27	0.91	1.06	0.99	0.64
	t	1.48	0.00	0.00	1.15	2.83	1.90	0.00	1.57	0.00
	P	0.0734	0.5000	0.5000	0.1356	**0.0150**	**0.0348**	0.5000	0.0644	0.5000
Scheduling	n	37	4	11	15	7	25	12	29	8
	Pre-Mean	3.38	3.50	3.45	3.47	3.00	3.48	3.17	3.41	3.25
	Post Mean	3.51	3.50	3.18	3.80	3.43	3.68	3.17	3.55	3.38
	Mean Difference	0.14	0.00	-0.27	0.33	0.43	0.20	0.00	0.14	0.13
	Pre SD	1.11	1.29	1.13	1.13	1.15	1.05	1.27	1.18	0.89
	Post SD	0.99	1.00	0.98	0.94	1.13	0.90	1.11	1.02	0.92
	t	0.96	0.00	-1.4	1.78	0.89	1.04	0.00	0.89	0.36
	P	0.1714	0.5000	0.0961	**0.0481**	0.2036	0.1533	0.5000	0.1902	0.3659
Staff Management	n	37	4	11	15	7	25	12	29	8
	Pre-Mean	3.43	3.75	3.55	3.33	3.29	3.28	3.75	3.45	3.38
	Post Mean	3.54	3.50	3.64	3.67	3.14	3.48	3.67	3.76	2.75
	Mean Difference	0.11	-0.25	0.09	0.33	-0.14	0.20	-0.08	0.31	-0.63

	Pre SD	1.04	0.50	1.13	0.90	1.50	0.94	1.22	1.12	0.74
	Post SD	0.99	0.58	1.12	0.82	1.35	0.87	1.23	0.95	0.71
	t	0.89	-1.00	0.60	1.44	-0.55	1.22	-0.56	2.53	3.42
	P	0.1892	0.1955	0.2942	0.0866	0.3018	0.1163	0.2931	**0.0086**	**0.0056**
Teacher Evaluation	n	37	4	11	15	7	25	12	29	8
	Pre-Mean	3.54	4.00	3.55	3.47	3.43	3.56	3.50	3.62	3.25
	Post Mean	3.89	3.75	3.91	4.00	3.71	3.88	3.92	3.97	3.63
	Mean Difference	0.35	-0.25	0.36	0.53	0.29	0.32	0.42	0.34	0.38
	Pre SD	0.93	0.82	0.93	0.83	1.27	0.96	0.90	0.94	0.89
	Post SD	0.91	0.96	1.04	0.65	1.25	0.88	1.00	0.91	0.92
	t	2.84	-0.40	1.49	3.23	1.55	1.88	2.80	2.28	2.05
	P	**0.0037**	0.3588	0.0834	**0.0030**	0.0862	**0.0364**	**0.0086**	**0.0152**	**0.0398**
Teacher Remediation	n	37	4	11	15	7	25	12	29	8
	Pre-Mean	3.05	3.25	3.27	2.93	2.86	2.96	3.25	3.21	2.50
	Post Mean	3.27	3.50	3.36	3.40	2.71	3.24	3.33	3.41	2.75
	Mean Difference	0.22	0.25	0.09	0.47	-0.14	0.28	0.08	0.21	0.25
	Pre SD	1.03	0.50	1.10	0.96	1.35	0.98	1.14	1.05	0.76
	Post SD	0.93	0.58	1.03	0.74	1.25	0.93	0.98	0.95	0.71
	t	1.96	1.00	0.43	2.43	-0.18	1.9	0.56	1.65	1.00
	P	**0.0291**	0.1955	0.3380	**0.0145**	0.1780	**0.0348**	0.2931	*0.0550*	0.1753

Data-driven Decision Making	n	37	4	11	15	7	25	12	29	8
	Pre-Mean	3.46	4.00	3.45	3.33	3.43	3.40	3.58	3.52	3.25
	Post Mean	3.84	3.50	3.64	4.07	3.86	3.92	3.67	3.93	3.50
	Mean Difference	0.38	-0.50	0.18	0.73	0.43	0.52	0.08	0.41	0.25
	Pre SD	0.87	0.82	1.04	0.82	0.79	0.91	0.79	0.91	0.71
	Post SD	0.87	1.29	0.92	0.70	0.90	0.81	0.98	0.80	1.07
	t	2.67	-0.77	0.80	4.78	1.16	3.16	0.32	2.46	1.00
	P	**0.0056**	0.2475	0.2203	**0.0001**	0.1447	**0.0021**	0.3772	**0.0102**	0.1753
Community Relationships	n	37	4	11	15	7	25	12	29	8
	Pre-Mean	3.43	3.50	4.00	3.33	2.71	3.40	3.50	3.62	2.75
	Post Mean	3.57	3.50	3.91	3.47	3.29	3.52	3.67	3.83	2.63
	Mean Difference	0.14	0.00	-0.09	0.13	0.57	0.12	0.17	0.21	-0.13
	Pre SD	1.17	1.00	1.10	1.11	1.25	1.08	1.38	1.21	0.71
	Post SD	0.83	0.58	0.70	0.83	1.11	0.77	0.98	0.66	0.74
	t	1.04	0.00	-0.43	0.56	2.83	0.77	0.70	1.29	-1.00
	P	0.1518	0.5000	0.3380	0.2908	**0.0150**	0.2249	0.2518	0.1031	0.1753
Designing Professional Development	n	37	4	11	15	7	25	12	29	8
	Pre-Mean	3.35	3.50	3.55	3.27	3.14	3.56	2.92	3.38	3.25
	Post Mean	3.43	3.50	3.73	3.40	3.00	3.48	3.33	3.59	2.88

	Mean Difference	0.08	0.00	0.18	0.13	-0.14	-0.08	0.42	0.21	-0.38
	Pre SD	0.98	1.29	0.52	1.03	1.35	0.87	1.08	1.05	0.71
	Post SD	1.04	1.29	0.79	1.12	1.15	1.05	1.07	1.05	0.83
	t	0.68	0.00	0.70	1.00	-0.35	0.53	2.80	1.80	-1.16
	P	0.2494	n/a	0.2529	0.1671	0.3679	0.3016	**0.0086**	**0.0415**	0.1425
Student Discipline	n	37	4	11	15	7	25	12	29	8
	Pre-Mean	3.70	3.75	3.64	3.80	3.57	3.68	3.75	3.83	3.25
	Post Mean	4.05	4.25	4.00	4.13	3.86	4.08	4.00	4.17	3.63
	Mean Difference	0.35	0.50	0.36	0.33	0.29	0.40	0.25	0.34	0.38
	Pre SD	1.05	0.50	1.29	0.77	1.51	0.95	1.29	1.07	0.89
	Post SD	0.85	0.50	1.10	0.52	1.21	0.76	1.29	0.85	0.74
	t	3.16	1.73	1.79	1.58	1.55	3.1	1.15	2.58	2.05
	P	**0.0016**	0.0908	*0.0520*	0.0681	0.0862	**0.0025**	0.1375	**0.0078**	**0.0398**
School Safety	n	37	4	11	15	7	25	12	29	8
	Pre-Mean	3.59	3.75	3.73	3.67	3.14	3.48	3.83	3.72	3.13
	Post Mean	3.86	4.00	3.91	3.87	3.71	3.76	4.08	4.00	3.38
	Mean Difference	0.27	0.25	0.18	0.20	0.57	0.28	0.25	0.28	0.25
	Pre SD	0.98	0.50	1.01	0.90	1.35	0.82	1.27	1.03	0.64
	Post SD	0.92	0.00	1.14	0.64	1.38	0.78	1.16	0.93	0.74
	t	2.25	1.00	1.00	0.90	1.92	1.90	1.15	2.12	0.80

	P	**0.0155**	0.1955	0.1704	0.1920	*0.0515*	**0.0348**	0.1375	**0.0217**	0.2256
Time management	n	37	4	11	15	7	25	12	29	8
	Pre-Mean	3.70	4.00	4.09	3.47	3.43	3.84	3.42	3.83	3.25
	Post Mean	3.70	4.00	3.82	3.73	3.29	3.64	3.83	3.83	3.25
	Mean Difference	0.00	0.00	-0.27	0.27	-0.14	-0.20	0.42	0.00	0.00
	Pre SD	0.81	0.82	0.70	0.83	0.79	0.62	1.08	0.80	0.71
	Post SD	0.88	0.00	1.08	0.59	1.25	0.70	1.19	0.93	0.46
	t	0.00	0.00	-1.40	0.89	-0.42	-1.31	1.24	0.00	0.00
	P	0.5000	0.5000	0.0961	0.1947	0.3445	0.1014	0.1205	0.5000	0.5000
School Culture and Climate	n	37	4	11	15	7	25	12	29	8
	Pre-Mean	3.62	4.00	3.82	3.40	3.57	3.68	3.50	3.69	3.38
	Post Mean	3.78	4.00	3.73	3.87	3.57	3.72	3.92	3.93	3.25
	Mean Difference	0.16	0.00	-0.09	0.47	0.00	0.04	0.42	0.24	-0.13
	Pre SD	0.79	0.00	0.87	0.63	1.13	0.69	1.00	0.81	0.74
	Post SD	0.75	0.00	0.90	0.64	0.98	0.61	1.00	0.70	0.71
	t	1.18	0.00	-0.56	1.82	0.00	0.25	1.60	1.76	0.31
	P	0.1223	n/a	0.2942	**0.0447**	0.5000	0.4011	0.0686	**0.0448**	0.3813
Stress Management	n	37	4	11	15	7	25	12	29	8
	Pre-Mean	3.32	3.25	3.73	3.20	3.00	3.20	3.58	3.34	3.25

	Post Mean	3.41	3.50	3.73	3.27	3.14	3.32	3.58	3.41	3.38
	Mean Difference	0.08	0.25	0.00	0.07	0.14	0.12	0.00	0.07	0.13
	Pre SD	0.75	0.50	0.90	0.41	1.00	0.58	1.00	0.77	0.71
	Post SD	0.98	0.58	0.90	0.96	1.35	0.80	1.31	1.05	0.74
	t	0.59	1.00	0.00	0.29	0.42	0.77	0.00	0.44	0.42
	P	0.2779	0.1955	0.5000	0.3872	0.3445	0.2249	0.5000	0.3313	0.3423
EC/IEP/ Student Placement	n	37	4	11	15	7	25	12	29	8
	Pre-Mean	3.49	3.50	3.55	3.47	3.43	3.56	3.33	3.55	3.25
	Post Mean	3.51	3.50	3.36	3.67	3.43	3.60	3.33	3.59	3.25
	Mean Difference	0.03	0.00	-0.18	0.20	0.00	0.04	0.00	0.03	0.00
	Pre SD	1.15	0.58	1.13	1.19	1.51	1.12	1.23	1.18	1.04
	Post SD	1.02	0.58	1.03	0.98	1.40	1.00	1.07	1.05	0.89
	t	0.30	0.00	-1.49	1.15	0.00	0.33	0.00	0.33	0.00
	P	0.3838	n/a	0.0834	0.1356	0.5000	0.3731	0.5000	0.3726	0.5000
Equity	n	37	4	11	15	7	25	12	29	8
	Pre-Mean	3.62	4.00	3.91	3.33	3.57	3.64	3.58	3.66	3.50
	Post Mean	3.97	3.75	3.91	4.00	4.14	3.96	4.00	4.00	3.88
	Mean Difference	0.35	-0.25	0.00	0.67	0.57	0.32	0.42	0.34	0.38
	Pre SD	0.98	0.82	0.83	1.11	0.98	0.95	1.08	1.08	0.53
	Post SD	0.73	0.96	0.83	0.65	0.69	0.68	0.85	0.65	0.99

	t	2.49	-1.00	0.00	2.65	2.83	1.99	1.45	2.17	1.16
	P	**0.0087**	0.1955	0.5000	**0.0096**	**0.0150**	**0.0288**	0.0876	**0.0194**	0.1425
RTI/MTSS	n	37	4	11	15	7	25	12	29	8
	Pre-Mean	3.16	4.00	3.36	2.93	2.86	3.28	2.92	3.21	3.00
	Post Mean	3.27	3.50	3.45	3.13	3.14	3.40	3.00	3.34	3.00
	Mean Difference	0.11	-0.50	0.09	0.20	0.29	0.12	0.08	0.14	0.00
	Pre SD	1.07	1.15	1.03	1.03	1.07	0.98	1.24	1.18	0.53
	Post SD	0.87	0.58	0.93	0.64	1.35	0.76	1.04	0.94	0.53
	t	0.89	-1.73	0.43	1.00	1.00	0.77	0.43	0.89	0.00
	P	0.1892	0.0908	0.3380	0.1671	0.1780	0.2249	0.3371	0.1902	N/A

Appendix R – Pre and Post-initiative Assistant Principal Self-assessment Quantitative Analysis Results

		ALL	*ACS*	*BCS*	*CCS*	*SCS*	*Female*	*Male*	*Born 1981 or before*	*Born after 1981*
1A *School Vision, Mission and Strategic Goals*	n	40	6	12	14	8	28	12	28	12
	Pre-Mean	2.15	2.33	1.83	2.21	2.38	2.11	2.25	2.25	1.92
	Post Mean	2.28	2.50	2.00	2.36	2.38	2.32	2.17	2.32	2.17
	Mean Difference	0.13	0.17	0.17	0.14	0.00	0.21	-0.08	0.07	0.25
	Pre SD	0.62	0.52	0.72	0.58	0.52	0.69	0.45	0.59	0.67
	Post SD	0.60	0.55	0.60	0.50	0.74	0.61	0.58	0.61	0.58
	t	1.53	1.00	1.00	1.00	0.00	2.27	-0.56	0.70	1.91
	P	*0.0667*	0.1816	0.1694	0.1678	0.5000	**0.0156**	0.2931	0.2448	**0.0409**
1B *Leading Change*	n	40	6	12	14	8	28	12	28	12
	Pre-Mean	2.08	2.50	1.67	2.29	2.00	2.04	2.17	2.18	1.83
	Post Mean	2.20	2.00	1.92	2.43	2.38	2.18	2.25	2.21	2.17
	Mean Difference	0.13	-0.50	0.25	0.14	0.38	0.14	0.08	0.04	0.33
	Pre SD	0.80	0.84	0.78	0.73	0.76	0.84	0.72	0.86	0.58
	Post SD	0.76	0.63	0.67	0.85	0.74	0.72	0.87	0.83	0.58
	t	1.40	-2.24	1.39	1.47	2.05	1.28	0.56	0.33	2.35

	P	0.0842	**0.0378**	0.0955	0.0824	**0.0398**	0.1059	0.2931	0.3727	**0.0194**
1C *School Improvement Plan*	n	40	6	12	14	8	28	12	28	12
	Pre-Mean	2.00	2.17	1.58	2.14	2.25	1.93	2.17	2.14	1.67
	Post Mean	2.15	2.00	1.83	2.29	2.50	2.14	2.17	2.21	2.00
	Mean Difference	0.15	-0.17	0.25	0.14	0.25	0.21	0.00	0.07	0.33
	Pre SD	0.72	0.41	0.79	0.66	0.71	0.72	0.72	0.65	0.78
	Post SD	0.66	0.00	0.58	0.73	0.76	0.59	0.83	0.63	0.74
	t	1.64	-1.00	1.39	0.81	1.53	2.00	0.00	0.63	2.35
	P	*0.0549*	0.1816	0.0955	0.2173	0.0852	**0.0281**	0.5000	0.2684	**0.0194**
1D *Distributive Leadership*	n	40	6	12	14	8	28	12	28	12
	Pre-Mean	1.93	2.17	1.83	1.93	1.88	1.89	2.00	2.04	1.67
	Post Mean	2.33	2.33	1.92	2.64	2.38	2.25	2.50	2.36	2.25
	Mean Difference	0.40	0.17	0.08	0.71	0.50	0.36	0.50	0.32	0.58
	Pre SD	0.73	0.75	0.83	0.73	0.64	0.79	0.60	0.79	0.49
	Post SD	0.73	0.82	0.67	0.63	0.74	0.70	0.80	0.78	0.62
	t	3.25	0.35	0.56	3.24	2.65	2.29	2.57	2.08	3.02
	P	**0.0012**	0.3706	0.2931	**0.0032**	**0.0166**	**0.0151**	**0.0130**	**0.0237**	**0.0058**
2A	n	40	6	12	14	8	28	12	28	12
	Pre-Mean	2.30	2.33	2.25	2.29	2.38	2.36	2.17	2.36	2.17

Focus on Learning and Teaching, Curriculum, Instruction and Assessment	Post Mean	2.40	2.50	2.08	2.50	2.63	2.43	2.33	2.46	2.25
	Mean Difference	0.10	0.17	-0.17	0.21	0.25	0.07	0.17	0.11	0.08
	Pre SD	0.69	0.52	0.87	0.61	0.74	0.68	0.72	0.62	0.83
	Post SD	0.59	0.55	0.67	0.52	0.52	0.57	0.65	0.51	0.75
	t	0.81	0.54	-0.56	1.15	1.53	0.63	0.52	0.90	0.27
	P	0.2106	0.3054	0.2931	0.1361	0.0852	0.2684	0.3074	0.1876	**0.3974**
2B *Focus on Instructional Time*	n	40	6	12	14	8	28	12	28	12
	Pre-Mean	2.25	2.17	2.00	2.57	2.13	2.29	2.17	2.32	2.08
	Post Mean	2.40	2.00	2.08	2.71	2.63	2.39	2.42	2.43	2.33
	Mean Difference	0.15	-0.17	0.08	0.14	0.50	0.11	0.25	0.11	0.25
	Pre SD	0.67	0.41	0.60	0.76	0.64	0.71	0.58	0.67	0.67
	Post SD	0.63	0.00	0.51	0.73	0.52	0.63	0.67	0.63	0.65
	t	1.78	-1.00	0.56	1.00	2.65	1.00	1.91	1.00	1.92
	P	**0.0416**	0.1816	0.2931	0.1678	**0.0166**	0.1631	**0.0409**	0.1631	**0.0409**
3A *Focus on Collaborative Work Environment*	n	40	6	12	14	8	28	12	28	12
	Pre-Mean	2.20	2.50	1.92	2.29	2.25	2.11	2.42	2.36	1.83
	Post Mean	2.45	2.67	2.08	2.71	2.38	2.46	2.42	2.50	2.33
	Mean Difference	0.25	0.17	0.17	0.43	0.13	0.36	0.00	0.14	0.50
	Pre SD	0.72	0.55	0.79	0.73	0.71	0.74	0.67	0.68	0.72
	Post SD	0.64	0.52	0.51	0.61	0.74	0.64	0.67	0.69	0.49

	t	2.13	0.54	1.00	1.71	0.55	2.59	0.00	1.00	2.57
	P	**0.0198**	0.3054	0.1694	*0.0555*	0.2992	**0.0077**	0.5000	0.1631	**0.0130**
3B *School Culture and Identity*	n	40	6	12	14	8	28	12	28	12
	Pre-Mean	2.05	2.50	1.83	2.14	1.88	2.04	2.08	2.21	1.67
	Post Mean	2.30	2.50	2.08	2.36	2.38	2.29	2.33	2.39	2.08
	Mean Difference	0.25	0.00	0.25	0.21	0.50	0.25	0.25	0.18	0.42
	Pre SD	0.68	0.55	0.72	0.66	0.64	0.69	0.67	0.69	0.49
	Post SD	0.65	0.55	0.67	0.50	0.92	0.71	0.49	0.57	0.79
	t	2.13	0.00	1.39	1.00	1.87	1.76	1.15	1.31	1.82
	P	**0.0198**	0.5000	0.0955	0.1678	*0.0518*	**0.0448**	0.1375	0.1011	**0.0480**
3C *Acknowledge Failures; Celebrates Accomplish-ments and Rewards*	n	40	6	12	14	8	28	12	28	12
	Pre-Mean	2.23	2.50	1.92	2.29	2.38	2.25	2.17	2.36	1.92
	Post Mean	2.45	2.17	2.25	2.64	2.63	2.46	2.42	2.50	2.33
	Mean Difference	0.23	-0.33	0.33	0.36	0.25	0.21	0.25	0.14	0.42
	Pre SD	0.58	0.55	0.67	0.47	0.52	0.65	0.39	0.56	0.51
	Post SD	0.60	0.41	0.75	0.50	0.52	0.64	0.51	0.58	0.65
	t	2.04	-1.58	1.48	1.79	1.53	1.54	1.39	1.00	2.80
	P	**0.0241**	0.0873	0.0830	**0.0481**	0.0852	0.0681	0.0955	0.1631	**0.0086**
3D	n	40	6	12	14	8	28	12	28	12

Efficacy and Empower-ment	Pre-Mean	2.05	2.33	1.75	2.14	2.13	2.07	2.00	2.21	1.67
	Post Mean	2.35	2.67	1.92	2.57	2.38	2.32	2.42	2.39	2.25
	Mean Difference	0.30	0.33	0.17	0.43	0.25	0.25	0.42	0.18	0.58
	Pre SD	0.64	0.52	0.75	0.53	0.64	0.66	0.60	0.57	0.65
	Post SD	0.62	0.52	0.51	0.51	0.74	0.61	0.67	0.63	0.62
	t	2.93	1.58	0.80	2.48	1.00	1.89	2.80	1.72	2.55
	P	**0.0029**	0.0873	0.2191	**0.0138**	0.1753	**0.0349**	**0.0086**	**0.0480**	**0.0135**
4A *Professional Development & Learning Communities*	n	40	6	12	14	8	28	12	28	12
	Pre-Mean	2.18	2.50	1.83	2.21	2.38	2.18	2.17	2.32	1.83
	Post Mean	2.30	2.67	2.00	2.36	2.38	2.32	2.25	2.39	2.08
	Mean Difference	0.13	0.17	0.17	0.14	0.00	0.14	0.08	0.07	0.25
	Pre SD	0.71	0.55	0.72	0.70	0.74	0.82	0.39	0.72	0.58
	Post SD	0.72	0.52	0.60	0.74	0.92	0.77	0.62	0.74	0.67
	t	1.30	1.00	1.00	0.81	0.00	1.16	0.56	0.57	1.91
	P	0.1002	0.1816	0.1694	0.2173	0.5000	0.1277	0.2931	0.2866	**0.0409**
4B *Recruiting, Hiring, Placing, and Mentoring of staff*	n	40	6	12	14	8	28	12	28	12
	Pre-Mean	1.98	1.83	1.67	2.14	2.25	1.96	2.00	2.07	1.75
	Post Mean	2.13	1.33	1.83	2.43	2.63	2.07	2.25	2.14	2.08
	Mean Difference	0.15	-0.50	0.17	0.29	0.38	0.11	0.25	0.07	0.33
	Pre SD	0.77	0.41	0.78	0.77	0.89	0.79	0.74	0.77	0.75

	Post SD	0.88	0.52	0.72	0.94	0.74	0.90	0.87	0.93	0.79
	t	1.36	-2.24	1.00	1.30	2.05	0.90	1.00	0.49	2.35
	P	0.0915	**0.0378**	0.1694	0.1089	**0.0398**	0.1876	0.1694	0.3129	**0.0194**
4C *Teacher and Staff Evaluation*	n	40	6	12	14	8	28	12	28	12
	Pre-Mean	2.08	2.17	1.83	2.21	2.13	2.07	2.08	2.14	1.92
	Post Mean	2.28	1.67	2.17	2.57	2.38	2.29	2.25	2.25	2.33
	Mean Difference	0.20	-0.50	0.33	0.36	0.25	0.21	0.17	0.11	0.42
	Pre SD	0.73	0.75	0.72	0.70	0.83	0.72	0.79	0.71	0.79
	Post SD	0.68	0.52	0.72	0.51	0.74	0.71	0.62	0.70	0.65
	t	1.75	-1.17	1.77	2.11	1.53	1.44	1.00	0.72	2.80
	P	**0.0441**	0.1478	*0.0520*	**0.0274**	0.0852	0.0805	0.1694	0.2384	**0.0086**
5A *School Resources and Bud get*	n	40	6	12	14	8	28	12	28	12
	Pre-Mean	1.65	1.83	1.50	1.79	1.50	1.50	2.00	1.79	1.33
	Post Mean	1.78	1.50	1.75	1.79	2.00	1.75	1.83	1.79	1.75
	Mean Difference	0.13	-0.33	0.25	0.00	0.50	0.25	-0.17	0.00	0.42
	Pre SD	0.74	0.75	0.67	0.80	0.76	0.69	0.74	0.79	0.49
	Post SD	0.62	0.55	0.62	0.58	0.76	0.59	0.72	0.63	0.62
	t	1.15	-1.00	1.91	0.00	1.53	1.76	-1.48	0.00	2.16
	P	0.1282	0.1816	**0.0409**	0.5000	0.0852	**0.0448**	0.0830	0.5000	**0.0269**

5B *Conflict Management and Resolution*	n	40	6	12	14	8	28	12	28	12
	Pre-Mean	2.10	2.17	1.75	2.43	2.00	1.96	2.42	2.18	1.92
	Post Mean	2.40	2.33	2.08	2.57	2.63	2.43	2.33	2.46	2.25
	Mean Difference	0.30	0.17	0.33	0.14	0.63	0.46	-0.08	0.29	0.33
	Pre SD	0.81	0.75	0.62	0.94	0.76	0.74	0.90	0.86	0.67
	Post SD	0.74	0.52	0.79	0.65	0.92	0.79	0.65	0.79	0.62
	t	2.76	0.55	2.35	0.69	2.38	4.26	-0.36	1.98	2.35
	P	**0.0044**	0.3054	**0.0194**	0.5804	**0.0246**	**0.0001**	0.3614	**0.0289**	**0.0194**
5C *Systematic Communi-cation*	n	40	6	12	14	8	28	12	28	12
	Pre-Mean	2.15	2.33	1.75	2.43	2.13	2.07	2.33	2.29	1.83
	Post Mean	2.38	2.17	2.17	2.50	2.63	2.43	2.25	2.39	2.33
	Mean Difference	0.23	-0.17	0.42	0.07	0.50	0.36	-0.08	0.11	0.50
	Pre SD	0.74	1.03	0.62	0.76	0.35	0.72	0.78	0.81	0.39
	Post SD	0.74	0.75	0.83	0.52	0.92	0.79	0.62	0.79	0.65
	t	1.94	-0.42	2.80	0.37	1.87	2.79	-0.36	0.72	3.32
	P	**0.0298**	0.3476	**0.0086**	0.3601	**0.0518**	**0.0048**	0.3614	0.2384	**0.0034**
5D *School Expectations for Students and Staff*	n	40	6	12	14	8	28	12	28	12
	Pre-Mean	2.43	2.67	1.92	2.71	2.50	2.43	2.42	2.57	2.08
	Post Mean	2.58	2.33	2.33	2.79	2.75	2.61	2.50	2.61	2.50
	Mean Difference	0.15	-0.33	0.42	0.07	0.25	0.18	0.08	0.04	0.42

	Pre SD	0.81	1.03	0.79	0.73	0.53	0.79	0.90	0.79	0.79
	Post SD	0.68	0.52	0.65	0.70	0.71	0.63	0.80	0.74	0.52
	t	1.36	-1.00	2.16	0.43	1.00	1.41	0.36	0.25	2.80
	P	0.0915	0.1816	**0.0269**	0.3357	0.1753	0.0848	0.3614	0.4008	**0.0086**
6A *Parent and Community Involvement and Outreach*	n	40	6	12	14	8	28	12	28	12
	Pre-Mean	1.80	2.00	1.58	2.00	1.63	1.71	2.00	1.93	1.50
	Post Mean	2.13	2.17	1.92	2.21	2.25	2.00	2.42	2.21	1.92
	Mean Difference	0.33	0.17	0.33	0.21	0.63	0.29	0.42	0.29	0.42
	Pre SD	0.72	0.63	0.67	0.68	0.92	0.71	0.74	0.72	0.67
	Post SD	0.76	0.41	0.67	0.80	1.04	0.77	0.67	0.79	0.67
	t	2.82	0.42	1.48	1.15	3.42	2.12	1.82	1.87	2.80
	P	**0.0038**	0.3476	0.0830	0.1361	**0.0056**	**0.0216**	**0.0480**	**0.0364**	**0.0086**
6B *Federal, State and District Mandates*	n	40	6	12	14	8	28	12	28	12
	Pre-Mean	1.98	2.00	1.75	2.14	2.00	1.89	2.17	2.07	1.75
	Post Mean	2.05	1.83	1.92	2.07	2.38	2.07	2.00	2.04	2.08
	Mean Difference	0.07	-0.17	0.17	-0.07	0.38	0.18	-0.17	-0.04	0.33
	Pre SD	0.83	0.89	0.75	0.95	0.76	0.83	0.83	0.86	0.75
	Post SD	0.64	0.41	0.51	0.62	0.92	0.72	0.43	0.69	0.51
	t	0.62	-0.55	0.80	-0.32	1.43	1.22	-0.80	-0.25	1.48
	P	0.2692	0.3054	0.2191	0.3761	0.0985	0.1159	0.2191	0.4008	0.0830

7 *Micro-political Leadership*	n	40	6	12	14	8	28	12	28	12
	Pre-Mean	1.83	1.67	1.58	2.14	1.75	1.68	2.17	1.89	1.67
	Post Mean	1.95	1.83	1.83	2.07	2.00	2.00	1.83	1.89	2.08
	Mean Difference	0.13	0.17	0.25	-0.07	0.25	0.32	-0.33	0.00	0.42
	Pre SD	0.75	0.52	0.67	0.86	0.71	0.67	0.83	0.83	0.49
	Post SD	0.60	0.41	0.58	0.73	0.53	0.67	0.39	0.63	0.51
	t	1.40	1.00	1.91	-0.37	1.53	1.88	-1.07	0.00	1.82
	P	0.0842	0.1816	**0.0409**	0.3601	0.0852	**0.0355**	0.1525	0.5000	**0.0480**