Tilting the Floor: Uncovering Leadership Factors Teachers and Principals Attribute to Math Growth Rate in Two Title I Schools

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Tilting the Floor: Uncovering Leadership Factors that Teachers and Principals Attribute to Math Growth Rate in Two Title I Schools

By

Stephanie Hiatt

A dissertation submitted in partial fulfillment of the requirements for the degree of Doctorate in Education

Hamline University

St. Paul, Minnesota

October, 2019

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This qualitative case study investigated the two highest math growth rates at two Title I schools in a mid-size, Midwestern school district. This research focused on the leadership factors that may have attributed to the math growth rate. Open-ended interviews, structured interviews, surveys, focus groups, and document analysis were used to collect data. This study uncovered the leadership factors teachers and principals attributed to the math growth rate. The focus of this study was on leadership decisions made before and after students walked into and out of the classroom that have an effect on math achievement. This study also explored how leaders use their influence to change the conditions of an organization (Block, 2009; Grenny, Patterson, Maxfield, McMillan, Switzler, 2013, Heath, 2010). This study researched the factors that lead to math success in the classroom which include background knowledge, socioeconomic status, parent involvement, early reading success, and grit and perseverance. (Buckner, Bassuk, & Weinreb, 2001; Herbers, Cutuli, Supkoff, Heistad, Chan, Hinz, & Masaten, 2012; Morisse, Hutchinson, & Winsler, 2014; Okpala, Okpala, & Smith, 2001; Park & Holloway, 2017; Lawson et. al., 2010; VanVelsor & Orozco, 2007; Wilder, 2014; Proehl, Ayon, Braganza, & Sosa, 2017; Wang & Neihart, 2015; Goodwin & Miller, 2018; Laure, 2015; Perking-Gough, 2013). One finding from this study is that teacher collaboration and formal intervention among grade levels at the elementary schools attributed to math achievement.

Keywords: academic achievement, math achievement, collaboration, intervention, leadership,
DEDICATION

To Jon, for the idea to pursue my doctorate and for your loving support throughout the entire process. Your gentleness and patience were appreciated with my whole heart. I love you.

To Tyler, Caleb, and Lucas, my sweet, sweet boys. You inspire me everyday to work hard and do my best.

To Chuck and Janelle who helped us with our sweet boys without hesitation or question because that's what you do.

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To my Papa because you were my first example of someone who generously served others. You are always near to my heart.

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Chapter One

Allan Cohen claims the ability to herd cats, which many have said is impossible. He does this by tilting the floor, which changes the conditions under which the cats are operating. Emergent strategies focus on conditions more than on behaviors or predictable goals. Ironically the act of predicting the path may be the obstacle to achieving the purpose.

Block (2009, p. 27)

Introduction

“Light a candle anywhere and it will challenge the darkness everywhere” (Ayers & Ayers, 2014, p. 139). As a young child growing up in Bradenton, Florida I learned that I could make a difference in people’s lives. My best friend, Holly, lived down the street and she was one of six siblings, raised by a single mom, among a countless number of cats. They were very poor and often had their electricity and water turned off because they were waiting for the next child support check; eventually, the phone line was permanently disconnected. I distinctly remember one day, I visited Holly’s house; and when the door opened a strong smell of cat odor filled the
air and it took my breath away. The next week in church, I wrote a note asking if the deacons
would consider giving money to this family. From this day on, my grandparents and I often
helped my best friend’s family with dental appointments, Christmas gifts, and money for
groceries; and it was our honor to help this family with basic needs. This was the first of many
experiences where I learned what it meant to spread light in the darkness.

As a result of my life experiences both professionally and personally, my eyes have been
opened to families that need support. Now, as my leadership skills have been sharpened, I
understand there are solutions we can implement. It is through the lens of school leadership, I
will research the following questions. The first question is, *What leadership factors do principals
and teachers attribute to the math growth rate in two Title I schools?* The secondary questions
are: *What do principals and teachers say is important to promoting academic achievement in
Title I schools? and How do teachers at two Title I schools feel most supported by their
colleagues and school district in regards to teaching math?*

As a child, I was not aware of Title I and the efforts by our government to narrow the
achievement gap in our country; but from an early age, I desired to improve the conditions of
disadvantaged families starting with my childhood best friend and also into my adulthood when I
became a wife and mom. When my boys started playing basketball, there was a family with a
single mom and four siblings on our boys’ basketball team who we knew needed support. My
family and other families on the basketball team supported Milo and Isaiah with rides to and
from practice and games, meals, and sleepovers. Milo and Isaiah shared with us stories about
having no heat or not having enough food. Providing solutions for low income families has been
a theme throughout my entire life and it is because of my personal experience with
disadvantaged families and my experience as a public school teacher that I am interested in focusing my research on Title I schools.

I have a variety of experience in different schools. Growing up, I went to a private school with many wealthy families, but my family was not wealthy. Because of a variety of reasons including my mom’s health, my grandparents made the decision to send me to a private school. I distinctly remember feeling like the poor kid. I was not the only poor kid, but I remember seeing the vast financial difference between my family and the other families, especially during school projects. My mom did not have extra money to spend on fancy school projects. So, presenting my school projects was always embarrassing. However, as I grew older, I loved my private school, and I grew comfortable in that environment.

As an elementary teacher, I have experience in private and public schools. I have experience teaching in Arizona and South Dakota. In Arizona, I taught in a private school among students from privilege and opportunity and from parents who actively support their school community by regularly volunteering at school. In South Dakota, I taught in three different schools in the Sioux Falls School District (SFSD). My teaching experience in the SFSD ranges from schools with affluence and very active parent involvement to schools with the opposite demographic, with families who struggle to survive and meet basic needs for their family. Therefore, because of limited resources, their ability to support the school community was very minimal. These experiences helped me see the massive educational differences among students in the same school district. However, even though I loved teaching, as my family started growing with three young boys, I knew it was time to focus my attention at home raising my boys. Little did I know, my decision to stay home would open doors to valuable leadership experience.
Knee deep in changing diapers, pureed food, and driving back and forth to preschool, when a children’s musical director position became available to me. Naturally, directing children’s musicals seemed like a great way to spend all of my extra time. When I accepted the position, I had no idea it would be the best leadership experience of my life. My advisor, Tracy Folkerts, mentored me and taught me valuable lessons about leadership. She was committed to investing in me and equipping me with the right tools in order for me to be successful. I am eternally grateful for the time she spent with me. Tracy Folkerts’ leadership influence was inspiring and caused me to think about myself as a leader.

Through my experience as an elementary school teacher and as a children’s musical director, I learned about the value of planning and preparation. Block (2008) compared leadership to the impossible task of herding cats. Block wrote, by tilting the floor, the cat herder “changes the conditions by predicting the path” (p. 27). In other words, it is the leader’s role to predict the conditions in order for the organization to achieve its purpose and this leadership metaphor resonates with me as I think about educational leaders who tilt the floor. For example, whether a teacher is creating lesson plans, or an administrator is planning the drop-off and pick-up procedures before and after school, or a curriculum coordinator is strategically planning for staff development, or the superintendent is designing the discipline plan for a school district. It is important to predict the path of a school community.

Thinking back on my own leadership experience, the first time I fully grasped the concept of tilting the floor was during my experience as a children’s musical director. Through my discussions with Tracy Folkerts, I found myself sitting at home with my computer, printer and three-ring binder, carefully crafting a communication binder for my personnel. I envisioned
the communication binder to be the central form of communication for the children’s choir personnel and parents. Costumes, ensembles, stage design, and practice schedules were labelled dividers in the binder. After my first year as children’s musical director, I added ‘dress-rehearsal schedule’ to the label divider because there was enormous improvement to be made to the dress rehearsals. Instead of asking all students to come to the first dress rehearsal like they had in years passed, we realized we only needed the main characters, soloists, and dancers. In addition, we developed a time schedule for these students and discovered we could stagger their arrival time to prevent students from boredom and making poor choices. My experience as the children’s musical director taught me the essence of leadership and the power of predicting the path. I admit, I should have learned this lesson as an elementary teacher, but it was my experience as a children’s musical director that I fully grasped the concept of managing programs and implementing strategies for leading adults.

This children’s musical illustration is an excellent example of how tilting the floor changed the conditions of our dress rehearsals; and as a result, we noticed student behavior improved. Heath (2010) stated, “What looks like a people problem is often a situation problem” (p. 183). As the director of children’s musicals I realized the truth in this statement and I learned to love the planning and preparation involved in leading people. As a result, I desired to return to the public schools and use my leadership to influence the school community.

The research questions for my dissertation is relevant because our public education system has a responsibility to find solutions for the achievement gap in our country. I believe leaders have the ability to influence our education system and create a better outcome for all students. Since research has proven leaders can be difference makers in organizations, I assume
highly effective principals and teachers are the difference makers among top scoring Title I schools (Finnigan & Stewart, 2009; Kearney, Herrington, & Aguilar, 2012). Based on research and my experiences as a teacher and parent, I know students in Title I schools are most likely to struggle with academic achievement (Marchetti, Wilson, & Dunham, 2016; U.S. Department of Education, 2015; U.S. Government Accountability Office, 2011). Also, educators agree that academic success is largely dependent upon socioeconomic status (Marchetti, Wilson, & Dunham, 2016; U.S. Department of Education, 2015; U.S. Government Accountability Office, 2011). In other words, families with high socioeconomic status are more likely to get good grades compared to families who are from low socioeconomic status.

**Introduction to the Research Topic and Question**

Research studies have been conducted to learn the effects that homelessness and/or low socioeconomic status (SES) has on education; and robust connections have been made between students’ SES and academic achievement. According to Buckner, Bassuk and Weinreb (2001), “19% of all American children under 18 years of age are members of families with income below the poverty line” (p. 45). Therefore, if you are from a family of low SES, the research shows that you will be among the students in the achievement gap. In fact, 90% of students in the gap also receive free and reduced price meals (Marchetti, Wilson, & Dunham, 2016). Additionally, not only is there a large population in America at the poverty line, but homelessness is on the rise in America. Tobin (2016) discovered that in “2009-2010 there were about 1 million homeless students identified in U.S. schools, an increase of about 41% from two years prior” (p. 198). With homelessness and low SES, comes high mobility and with high mobility comes school changes and the increased possibility of falling through the cracks for
special services at school. As a professional educator, there are growing concerns over the effectiveness our schools have with students who are from low socioeconomic households. The opportunity gap is widening and our education system needs to explore how we can narrow the gap; because our nation’s future and our society’s success is based upon our school’s ability to meet the needs of all learners and improve the quality of education in our local communities.

What we know about education is that students who are equipped with educational resources at an early age, perform better in school; and the data indicate when students experience success in the primary grades, those students continue to be successful in the intermediate and upper grade levels (Herbers et al., 2012). This research indicated that early performance establishes long term academic trajectories. In fact, Herbers et al. (2012) assert students’ reading performance scores on their first-grade assessments are “highly correlated with scores on reading and math achievement tests throughout their school career” (p. 367). The achievement gaps observed at 18 are already identified at age 5 or 6 (Herbers et al., 2012).

Additionally, the research identifies students who are experiencing difficulty with a specific subject matter are most successful through early intervention (Okpala, Okpala, & Smith, 2001). In other words, it is beneficial to provide intervention services in the early grade levels, so students are more successful in the intermediate and upper grades. However, most of the time, students from low SES households typically do not receive the resources that are available in order to ensure success in the primary grades. Therefore, resources are not utilized for a variety of reasons. For instance, families may move around often to different schools which makes early detection difficult; or the family lacks the monetary resources to provide books and educational support; or the sheer luxury of time is scarce because of other responsibilities (Okpala et al.,
The reality is that children from families of lower SES are more likely than their peers of higher SES to begin school with poor readiness skills and low achievement, and therefore, require intervention services.

**Title I**

In an attempt to narrow the achievement gap, Title I was established in 1965 (U.S. Department of Education, 2015; U.S. Government Accountability Office, 2011). The purpose of Title I was “to ensure that all children have the opportunity to obtain a high-quality education and reach, at a minimum, proficiency on challenging state academic achievement standards and state academic assessments” (Davis & Bauman, 2013, retrieved from https://www.census.gov/prod/2013pubs/p20-571.pdf). Title I funds support extra instruction in reading and mathematics, as well as special preschool, after-school, and summer programs to extend and reinforce the regular school curriculum (National Center for Education Statistics, 2018). In more recent years, in the 2009-2010 school year, more than 56,000 public schools across the country used Title I funds (National Center for Education Statistics, 2018). In that same year, 21 million children were served Title I funding (National Center for Education Statistics, 2018). The Title I funds that are allotted to each school are based on the percentages of low-income students. According to the Department of Education, Title I schools with at least 40 percent low-income students may use the funds to support a school wide program that will benefit all the students in the school (National Center for Education Statistics, 2018). If schools have less than 40 percent low-income students, a different program may be offered with Title I funds called a “targeted assistance program” to support specific students who are not meeting academic standards (National Center for Education Statistics, 2018).
Consequently, there are restrictions to the Title I funds allocated to schools which may indicate that school leadership plays a role in using the funds. However, a school in South Central, Texas discovered a way for students to have academic success despite the prevalence of poverty among the student body.

90/90/90 School Success Story

Even though the research widely supports the connection between socioeconomic status and academic achievement, it does not mean it is impossible for low-income students to obtain high academic achievement. In fact, a school in South Central Texas found a way to beat the odds for their low SES students. At Lackland City Elementary School, the student population consists of 90% of students classified in poverty, 90% of the student body is non-Anglo, and at least 90% of the students receive a 90% pass rate in state-mandated exams in both math and language arts (Kearney et al., 2017). After panel interviews, focus groups, site visits, and individual follow up interviews, the researchers discovered the emergence of three themes: support structures, relationships, and consistency (Kearney et al., 2017). The researchers scoured the Texas area for schools who also met the 90/90/90 criteria, but of the 664 schools they investigated, only one campus met the criteria for all four years of the investigation (Kearney et al., 2017). Lackland Elementary School is the outlier among schools in south Texas who serve students of low SES. The findings from this school of low SES students is unprecedented and rare. Equally as rare is the fact that not only has the principal stayed at this school for 25 years, but parents who used to attend this school are also moving back to the area so their children can have the same school experience they did. The principal has created an educational culture of success for low SES students, and he is now serving a second generation of students. This is
remarkable especially when there is a significant number of low SES households that have highly mobile lifestyles. The fact there is only one school in South Central Texas that met this criteria provides a good indication leadership is the difference maker in this scenario. A rare expectation was implemented by the principal which may be the root cause of success for Lackland Elementary. The school had woven tutoring into the school culture before, during, and after school. Tutoring was engraved into the school community that teachers did not accept teaching positions at Lackland Elementary School if they did not want to tutor students (Kearney et al. 2017). I can imagine obtaining this expectation was difficult, but obviously it was an expectation that made an enormous difference in the academic achievement of students. If only all students could have this type of leadership.

There is no doubt students from low SES have major academic challenges to overcome in order to experience academic success. The case study mentioned previously is unique, but it illustrates success is possible among students from low SES. In fact, success is not just possible for low SES students, but success is possible for a majority of low SES students at a single elementary school; and Lackland Elementary School is proof of this majority success.

**Research Framework**

Using the lens of how leadership contributes to academic success among Title I students, I researched strategies principals and teachers implement into the school and classroom to “tilt the floor” and improve academic success (Finnigan & Stewart, 2009; Block, 2008, p.27, Grenny et. al, 2013; Heath, C & H 2010). Then, I recorded two types of data from the websites of the Title I schools to determine the top two scoring Title I schools in the Sioux Falls School District. The two types of data I collected from the Title I schools’ websites are the English Language
Arts (ELA) and Math proficiency scores and the ELA and Math growth scores. I noticed the top
two scoring Title I schools led in both ELA and Math proficiency scores. After this finding, I
wondered if leadership could be one of the major contributing factors of academic achievement
among Title I schools in the Sioux Falls School District (Finnigan & Stewart, 2009). As a result
of this finding, I researched deeper into Title I funding and in my research, I learned the
Department of Education values flexibility and creativity when implementing Title I monies
depending on the unique situation of each school building and/or district (United States
Government Accountability Office, 2011). Specifically, school leaders such as administrators
and principals are given the freedom to make decisions based on the unique needs of the school
community. The fact that school districts are encouraged by the Department of Education to be
flexible and creative when spending Title I funding shows the importance of strong leadership to
assess the needs of the district and implement the funding successfully to get the desired
outcome.

The methodology I used for this research project is Case Study. The data was gathered by
interviews, focus groups, and document analysis from the top two highest scoring Title I schools
in a midwestern, mid-size city. I interviewed district administrators and principals about the Title
I funding and how they implement the Title I money at the district level and building level. Next,
focus groups were conducted among teachers to discuss how the principals and teachers
implement Title I funded programs. Lastly, document analysis data was collected to determine if
the mission, vision, and implementation of Title I programs is articulated in the literature created
for the schools.

**Definitions**
Throughout the research, educational terms are used and may be interpreted differently by readers based upon their personal experiences with education. The following definitions are included for these terms used throughout the study to maintain consistency and clarity:

*Socioeconomic status* is the amount of money families make each year. The US Department of Education (2018) has outlined low socioeconomic status depending on the amount of money families make each year and the number of people in each family (US Department of Education, 2018).

*Achievement Gap*, by definition is any student who is of minority race, has a disability, has limited English proficiency, or qualifies for free and reduced price meals. Historically, students in these groups struggle academically compared to the general student body and are afforded increased accountability by their schools (Marchetti et. al., 2016; Morissey, 2014).

*Early Intervention* as explained by Herbers et. al. (2012) are services that provide school readiness skills and support student achievement in school at an early age.

**Summary**

As a professional educator, there are growing concerns over the effectiveness our schools have with students who are from low socioeconomic households. The achievement gap is widening and our education system needs to provide solutions to narrow the gap; because our nation’s future and our society’s success is based upon our school’s ability to meet the needs of all learners and improve the quality of education in our local communities. My own passion to see this situation change arises both from personal experience, as well as my experiences as an educator. I intend to advance my understanding of how Title I schools contribute to academic success by answering my primary research question and my secondary and tertiary questions.
My primary question *What are the contributing leadership factors of principals, and teachers that promote academic success among students at two different Title I schools with all free and reduced meals in a mid-size, midwestern school district?* My secondary question is *How do principals tilt the floor to create a culture of academic achievement?* And thirdly, *How do the top two scoring Title I schools with all free and reduced meals in a mid-size, midwestern school district use Title I funds to bolster the academic success of students?*

My concern for academic achievement at Title I schools is framed with a leadership lens. As I attempt to answer my research question, I will examine teachers and administrators at the top two Title I schools in a mid-size, mid-western school district through document analysis, interviews, and focus groups and analyze the themes that emerge. I will also analyze the demographics of each school and consider the contributions demographics may add to the academic achievement of Title I schools.

This chapter introduced the research topic and question, the rationale for my study, and it identified the importance of the study for the audience. I also identified the importance of effective organizational leadership and the impact socioeconomic status has on academic achievement and this chapter acknowledged the personal significance and research framework of this study. Additionally, the chapter included the importance of early intervention for academic achievement as well as data about the increasing population of students in poverty in America. Finally, the last part of the chapter provided an explanation for the research methodology.
Chapter 2

Like surfers, leaders must ride the waves of change.

Bolman and Deal (2013, p. 434)

Literature Review

The primary question for this research project is What leadership factors do principals and teachers attribute to the math growth rate in two Title I schools? The secondary questions are: What do principals and teachers say is important to promoting academic achievement in Title I schools? and How do teachers at two Title I schools feel most supported by their colleagues and school district in regards to teaching math? After analyzing data profiles from eight different identified Title I schools in a mid-size midwestern school district, three phases of research were conducted at the Title I schools with the top two highest math growth rates among Title I schools in the district.

Chapter One provided background information about the researcher and the lens which was used to research Title I schools in the mid-size mid western school district. In Chapter Two, the overarching themes related to the research are explained and the themes include, leadership,
Several areas of literature were examined to provide a complete background regarding academic achievement among low income students of Title I schools. As a result, this chapter details how principals facilitate academic achievement. There are many leadership factors that contribute to academic achievement and this research project will look at the contributions principals and teachers offer to support academic achievement.

**Literature Search Strategy**

In an effort to locate information pertaining to the specified research question, a literature search was conducted using Education Full Text (EBSCO). Literature reviewed was generated using the following terms: academic success of Title I schools, principal leadership at high achieving Title I schools, and high-achieving low-income schools, parental involvement, parent involvement in low income schools, grit and perseverance.

Additionally, the research process was guided by experience in education as a teacher, university supervisor, coach, and parent. These experiences have yielded interest in Title I schools and the students who attended them, so the perspective used to view research is influenced by this framework. The following sections highlight academic socioeconomic status, academic achievement, leadership, parent involvement, funding for Title I schools, transformational leadership, teacher support, community involvement, and grit and perseverance. Included in the research for this chapter, is a large amount of research on leadership because the correlations between business, principal, and transformational leadership was fascinating and
indicate academic achievement in low income schools may be more of a leadership issue than a funding issue.

**Socioeconomic Status**

Academic achievement is linked to socioeconomic status (Morissey, Hutchinson, & Winsler, 2014). Research studies have been conducted to learn the effects of homelessness and/or low socioeconomic status (SES) has on education; and robust connections have been made between students’ SES and academic achievement. In low SES families, the research shows you will be among the students in the achievement gap (Park & Holloway, 2017; Lawson, Lawson & Lawson, 2010; VanVelsor & Orozco, 2007; Wilder, 2014). In fact, 90% of students in the achievement gap receive Free and Reduced price meals (Marchetti, Wilson, & Dunham, 2016).

Additionally, not only is there a large population in America at the poverty line, but homelessness is on the rise in America. Tobin (2016) discovered that in “2009-2010 there were about 1 million homeless students identified in U.S. schools, an increase of about 41% from two years prior” (p. 198). The main reason for academic achievement among students from families with high SES is because there is a disparity of resources and opportunity compared to students from low SES (Buckner, Bassuk, & Weinreb, 2001; Herbers, Cutuli, Supkoff, Heistad, Chan, Hinz, & Masaten, 2012; Morissey, Hutchinson, & Winsler, 2014; Okpala, Okpala, & Smith, 2001). For instance, families from high SES spend summer months and after-school in enrichment activities, including, sports activities, boys and girls scouts, and/or family vacations; and these enrichment activities aid in students’ education and provide a broader canvas of
background experiences from which students use as a springboard for education (Buckner et. al., 2001; Herbers et. al., 2012; Morissey et. al., 2014; Okpala, et. al., 2001).

Since our poverty rates and homeless rates are growing, educators are concerned about the growing achievement gap both in depth and breadth because not only is the amount of students in the gap increasing, but so is the disparity in academic achievement between low SES and high SES students (Buckner et. al., 2001; Herbers et. al., 2012; Morissey, et. al., 2014; Okpala et. al., 2001). According to Buckner et. al. (2001), about “19% of all American children under 18 years of age are members of families with income below the poverty line” (p. 45) and these numbers continue to grow. The achievement gap is widening and educational leaders need to determine how to narrow the gap because the future of America is based upon the ability to meet the needs of all learners and improve the quality of education for all communities.

**Academic Achievement**

The research indicated that students who are equipped with early educational resources, perform better in school and when students experience success in the primary grades, they are more likely to experience success through the intermediate and upper grade levels (Herbers et al., 2012; ). Early performance establishes long term academic trajectories and in fact, Herbers et al. (2012) assert students’ reading performance scores on their first-grade assessments are “highly correlated with scores on reading and math achievement tests throughout their school career” (p. 367). The achievement gaps observed at 18 are already identified at age 5 or 6 (Herbers et al., 2012). Additionally, the research identifies students who are experiencing difficulty with a specific subject matter are most successful through early intervention (Okpala, et. al., 2001). It is beneficial to provide intervention services in the early grade levels, so students can experience
success in the intermediate and upper grades, but students from low SES households typically do not take advantage of the services available to students. Okpala et. al., (2001) cited families do not participate in the intervention services because many low income families are high mobility which makes early detection difficult. Another reason to explain the achievement gap is simply because education resources and opportunities require time and money; and when money is scarce it is difficult for families to provide these opportunities. Plus the sheer luxury of time is also scarce because of other responsibilities (Okpala et al., 2001; Park & Holloway, 2017; Lawson, Lawson & Lawson, 2010; VanVelsor & Orozco, 2007; Wilder, 2014). This research clearly indicates children from families of low SES are more likely than their peers from high SES to begin school with poor readiness skills and low achievement; and therefore require intervention services.

**Parent Involvement**

Socioeconomic status is influential in the life of a student’s education, but parent involvement is also important (Park & Holloway, 2017; Lawson et. al., 2010; VanVelsor & Orozco, 2007; Wilder, 2014). Putting socioeconomic status aside, when families value education, students are more likely to perform better in school (Park & Holloway, 2017; Lawson et. al., 2010; VanVelsor & Orozco, 2007; Wilder, 2014). As mentioned previously, the research shows there is a correlation between socioeconomic status and academic achievement. Similarly, there is also a strong correlation between the parents’ educational background and how their children will achieve in school, but based on the research even if parents do not have higher education, if they are emotionally supportive to their school-age children and set high expectations, students can surpass their parents’ education and experience academic success (Park & Holloway, 2017;
Lawson et. al., 2010; VanVelsor & Orozco, 2007; Wilder, 2014). Unfortunately, there are some significant barriers that keep low income parents from getting involved, and some of the barriers include transportation problems, work schedules, language barriers, technology fluency, caring for an elderly parent, and confidence in parenting (Park & Holloway, 2017; Lawson et. al., 2010; VanVelsor & Orozco, 2007; Wilder, 2014). However, in several studies school guidance counselors and social workers collaborated with school administrators and low-income families to provide appropriate resources to encourage more parent involvement. At one school, families expressed a need for technological support and so at a school information meeting, guidance counselors provided computer support to interested families (Lawson et. al., 2010). At another school, administrators surveyed parents about what barriers prevent them from actively supporting their student. As a result of the survey, on-site activities consistent with the individual needs and interests of parents successfully attracted parents to the school. For example, a school resource and/or drop-in center provided opportunities for parents to get to know the school and to get to know one another. Resources that were provided included a family center where families could gather informally for coffee and snacks to discuss social and/or educational topics. Also, in another district a parent center which provided tutoring, a library, and weekly medical services. (Van Velsor & Orzco, 2007). As described, there are schools who are observing the need for increased parent involvement, especially among low-income families, and changes are being implemented to meet the needs of the parents.

Likewise, even the federal government acknowledges that parent involvement in their children’s education is monumental in experiencing a range of academic success. In fact, provisions have been created to strengthen school-based parental involvement in various pieces
of federal legislation including the Goals 2000 which include Educate America, the No Child Left Behind Act and the Race to the Top Fund (Park & Holloway, 2017; Wilder, 2014). Specifically, schools were instructed to engage families in the education of their children and encourage the participation of parents in regular, two communications involving student academic achievement and various school activities. Additionally, many states grant parental leave time from work to attend parent-teacher conferences and other activities (Park & Holloway, 2017; Wilder, 2014). Instead of allowing our achievement gap to continue to get deeper and wider, it is encouraging to learn there are expectations set by the Department of Education to involve parents in their students’ education. Adding provisions to federal legislation that influences how schools create the framework for education in America’s public schools demonstrates the importance of leadership for setting students on the right path.

Leadership

Throughout the history of education the schools role in the community has changed and it continues to change; for instance, with the rise of poverty in our schools and the achievement gap growing, it is essential for schools to find solutions for low income students. Now more than ever before, low income students need support pursuing academic achievement and so, it is imperative that leaders in education including, but not limited to administrators, principals, teachers and guidance counselors understand how to use their influence to make education accessible to all students. To start, the next section will discuss leadership in a broad sense and then focus on school leadership at the building level.

Influence. Block (2009) compared leadership to herding cats; and he described, by tilting the floor, the cat herder “changes the conditions by predicting the path” (p. 27). By tilting the
floor a leader can have a tremendous influence on their organization. For example, a team of researchers aimed to tilt the floor to see how many children they could influence to choose apple slices over a bowl of candy on Halloween night (Grenny, 2013). The experiment was conducted in two different phases on Halloween night. To start, as children were trick or treating, the researchers simply provided two snack options for the children: a plate of apple slices or a bowl of candy. When given the choice, 9% of children chose apples. The researchers wanted to see if they could improve the amount of children who chose the apples, so a photograph of a child wearing a batman costume and the question, “What would Batman eat?” was printed on the photograph and placed by the apples and bowl of candy. With the influence of this motivating sign, 45% of children chose apples over candy.

Similarly, Grenny (2013) conducted another experiment to see if adults could be influenced to choose the stairs over the escalator and over the period of an hour, two adults took the stairs. In an effort to present a choice for the stairs or the escalator, the researchers placed a sign that said, “Burn 7 Calories Here” (Grenny, 2013) With the sign placed at the bottom of the escalator and stairs, 30 more people took the stairs instead of the escalator over the course of an hour. The researchers tilted the floor by using visual rhetoric to persuade and influence people to make a healthier choice.

Leaders have influence. Whether it is influencing others by strategically placing a sign to change behavior or creating a new policy. Senge (2006) wrote, “No one has a more sweeping influence on the ship than the designer” (p. 321). Leaders not only use their influence, but they also have the capacity to influence the design of the organization. Heath (2010) conducted an experiment that illustrates the importance of design and proved more students would give a
charitable donation towards a well-designed organization as opposed to a poorly designed
organization. The premise of the experiment was to see if jerks could be influenced to make
charitable donations (Heath, 2010). First, the researchers questioned students on a university
campus to label the jerks on campus versus the saints. After that, college students were randomly
given two different types of letters about an opportunity to make a charitable donation. The
difference between the two types of letters is one contained basic information about the
charitable drive and the other letter was detailed and included a map and time frame for dropping
off canned goods; and the letter specifically asked for cans of beans. As a result of the two
different designs of letters, students who received the basic letter were not very generous and
only 8% of the saints gave and zero jerks (Heath, 2010). Conversely, students who received the
more detailed letter were significantly more charitable. In fact, 42% of the saints donated and so
did 25% of the jerks (Heath, 2010). Heath explained, “What looks like a people problem is often
a situation problem” (p.183). Creating better situations in schools for the staff and students is
clearly the goal of leaders and specifically principal leadership.

Principal leadership. The research experiments on design and influence, illustrate that
leaders have a profound responsibility and opportunity to create the right path for their
organizations. Likewise, there are principals of low income students who are using effective
leadership strategies in their organizations; and therefore, are making progress towards
narrowing the achievement gap (Block, 2008; Grenny, 2013; Heath 2010). Finnigan and Stewart
Principals who are effective create and articulate a clear vision for the school community; and
even beyond creating and articulating a clear vision, effective principals go a step further and
understand how to effectively implement the vision and motivate their staff to work in alignment (Bolman & Deal, 2013; Brown, 2015; Finnigan, 2012; Finnigan & Stewart, 2009; Senge 2006; ). Bolman & Deal (2013) articulated, “a key function of leadership is setting a compelling direction for the team’s work that is challenging, energizes team members and generates strong collective motivation to perform well” (p. 72). Common strategies effective principals use towards obtaining alignment among the staff in their buildings is through scheduling and therefore aligning the human resources in the building so they are working together (Brown, 2015; Finnigan & Stewart, 2009). The human resources within the school building are the most expensive and valuable resource and thus the importance of crafting a schedule that supports the school’s vision.

Another quality of effective principal leadership is developing leaders within the school building (Hoppey & McLeskey, 2013; Finnigan & Stewart, 2009; Senge, 2006). Effective principals viewed their role as supporting teachers with resources they may need; or spending time cultivating leadership among teachers, whether teachers needed help leading or planning a school meeting. Leadership was developed by principals who listened to the needs of the staff (Bolman & Deal, 2013; Chance, 2012; Hoppey & McLeskey, 2013). Bolman and Deal (2013) explained, “Effective leaders help group members communicate and work together, whereas less-effective leaders try to communicate and get their own ideas accepted (p. 181). From the research, there are correlations between the qualities of effective principal leadership and transformational leadership theory.

**Transformational Leadership.** Transformational leadership theory is implemented in highly effective schools of low income students (Brown, 2015; Finnigan, 2012; Finnigan &
Stewart, 2009). The definition of transformational leadership is broadly defined as leadership that affects change in an organization” (Chance 2009, p. 101). According to Chance (2013), transformational theory focused on the connections formed between leaders and followers and the connection that results in increased motivation in both followers and leaders.

Effective principals use transformational leadership and communicate to the staff they are valuable and their strengths are necessary to the academic success of the school. Transformational leaders observe the giftedness of those they lead and equip others with the tools they need to be successful. Finnigan (2012) said, “followers of a transformational leader feel trust, admiration, loyalty, and respect toward the leader, and they are motivated to do more than they originally expected to do” (p. 184). The research shows when principals implement transformational leadership the school vision is obtainable and achieving academic success is possible (Brown, 2015; Finnigan, 2012; Finnigan & Stewart, 2009). One example of how principals implemented transformational leadership in schools was referenced in the research when principals invested in their teachers by setting aside Title I funds for the professional development of teachers. This is an example of how principals can invest in the staff and grow their leaders (Brown, 2015; Finnigan, 2012; Finnigan & Stewart, 2009). Principals found professional development not only supported instruction, but it also created a common language for teachers and staff during collaboration.

The leader sets the tone for the entire school and using a common language by implementing professional development is one way to set the tone in a school building. Conversely, Finnigan (2012) observed a principal with a high level of disorganization and reported, “a high level of disorganization filtered down to their classrooms” (p. 190). Chance
(2012) described this phenomenon of embodying the characteristics of a leader as recursive symmetry. Leaders hold a tremendous responsibility to steer schools in the right direction.

Principals implement transformational leadership by developing a collaborative school climate that works in alignment towards the vision and mission of the school. As previously mentioned, creating new schedules, developing leaders, listening, and serving are ways to cultivate a climate that works towards the same vision and mission. However, leadership is fueled by resources and managing money is the foundation for high quality education. The Department of Education has funded extra funding for low income students for decades (U.S. Department of Education, 2015). The next paragraphs include information on the federally funded Title I program which exclusively gives money to low-income students.

**Title I**

Ever since the one-room schoolhouse has been in existence, there has been a disparity in academic achievement among students from different ends of the socioeconomic status continuum (Tyack, 1974). In 1965 during President Johnson’s term, America’s response to the growing achievement gap was to implement a federally funded program called Title I of the Elementary and Secondary Education Act (ESEA) (U.S. Department of Education, 2015; U.S. Government Accountability Office, 2011; Jennings, 2000). Since the inception of the Title I program, there have been changes made to the funding requirements, but the objective of Title I remains to improve the future of poor and minority students (U.S. Department of Education, 2015; U.S. Government Accountability Office, 2011; Jennings, 2000). Over the course of the Title I program, the changes that were made to the funding requirements was to incorporate local flexibility in the use of Title I funds (U.S. Department of Education, 2015; U.S. Government Accountability Office, 2011; Jennings, 2000).
Accountability Office, 2011; Jennings, 2000). The Department of Education aimed to grant school officials “the flexibility to create and implement school-wide programs, but most importantly to allow schools to spend the money to meet their unique needs” (U.S. Government Accountability Office, 2011, p.5). Currently, Title I allocates money to schools with high concentrations of students from low-income families. Subsequently, school administrators and principals determine how to use the money in their school districts and school buildings (U.S. Government Accountability Office, 2011). Therefore, implementing effective leadership strategies is a major factor in achieving academic success towards the use of Title I funds especially at the local level; and consequently, it is important to analyze effective leadership theories, ideas, and strategies. Since money is a finite resource, the strategies administrators use to spend the money is important and this is why it is critical to have capable leaders using effective leadership strategies.

**Teacher Support**

Influential school leadership is not limited to principals or administrators. For example, when 10 high-achieving low income college students were asked how they succeeded in school, all of them described a teacher or guidance counselor who believed in them and went beyond the expectations of the school to communicate their belief in them (Hebert, 2018; Wang, & Neihart, 2015). Education is a collaborative effort between families, schools and communities. Teachers described this collaboration as being paramount to the success of the students as well as the overall success of the schools (Kearney, Herrington, & Aguilar, 2012).

The human resources within the school building have a unique opportunity to put their strengths together towards the mission and vision of the school (Collay, Dunlap, Enlow &
Gagnon, 1998). Block (2006) wrote about the success of cities in America. He wrote, “the one thing that distinguished the more successful towns from the less successful towns was the extent of social capital, or widespread relatedness that existed among its citizens” (p. 17). Likewise, Bolman & Deal (2013) observed teams who work better together are the ones who have the strongest informal bonds. This is not limited to the employees and students in the schools, but strong social capital must also exist among the parents of the school, but in our Title I schools with a high rate of poverty the data shows there is less parental involvement at these schools and therefore the collaborative community in Title I schools suffers (Lawson et al, 2010; Park & Holloway, 2017; VanVelsor & Orozco, 2007; Wilder, 2014; Scheurich, 1998). However, school leaders have discovered the responsibility of supporting students does not have to fall solely on the school leaders and they have found ways to provide volunteer and mentoring opportunities for their students (Van Tassel-Baska, 2018; Hoppey & McLeskey, 2013; Herbert, 2018).

**Community Involvement**

Currently, there are programs that partner with the local schools in a mid-size midwestern city and bring community members into the school to offer support to students. For example, programs like Big Brothers Big Sisters, Read to the Dog, and Boys and Girls on the Run. These programs offered students a place to belong and provided interactions with adults (Van Tassel-Baska, 2018; Hoppey & McLeskey, 2013; Herbert, 2018). A creative solution was offered at one high achieving Title I school, the principal wanted to increase community involvement and offer social interaction with adults outside of the regular school schedule. As reported on news, Principal Kirk Zeeck at Anne Sullivan Elementary, a nationally recognized Blue Ribbon school, offered a gentlemen’s luncheon to teach boys proper table manners. This program was
not necessarily academic, but it offered support from the community for students who may not have the resources for a gentlemen’s luncheon. A women’s luncheon was offered a few weeks following the gentlemen’s luncheon. Looking for creative ways to offer opportunities for the students and the community is especially important for low income schools especially considering the lack of parent involvement in the schools. It is no doubt low income students have an uphill education battle to climb and the road to academic success is not easy considering the challenges of low-income students, so a certain amount of tenacity, grit, and perseverance is required.

**Grit and Perseverance**

Students who succeed despite their difficult circumstances are resilient and this resiliency is the determining factor for student success (Proehl, Ayon, Braganza, & Sosa, 2017; Wang & Neihart, 2015; Goodwin & Miller, 2018; Laure, 2015; Perking-Gough, 2013). In addition, studies show students who overcome the odds and achieve have grit (Proehl, Ayon, Braganza, & Sosa, 2017; Wang & Neihart, 2015; Goodwin & Miller, 2018; Laure, 2015; Perking-Gough, 2013). Grit loosely defined is “persistence over time to overcome challenges and overcome big goals” (Goodwin & Miller, p. 74). Many believe it is not enough to talk about leadership, professional development, curriculum, and school culture for discussions about improving academic achievement; grit and perseverance is also important, if not, more important. Education should also include equipping students with the tools to develop grit and perseverance. Teachers who communicate high expectations, provide support, encourage student engagement and involvement as well as offer a rich, rigorous learning centered curriculum and experience solving
complex real-life problems contribute to educational resilience (Hebert, 2018; Wang, & Neihart, 2015).

In fact, research shows developing non-cognitive skills like grit, perseverance, goal setting, responsibility, leadership, and gratitude are just as important as teaching cognitive skills (Hebert, 2018; Wang, & Neihart, 2015). Since the standards based reform movement of No Child Left Behind, our education standards have been at the forefront of our education system. However, the research is showing that grit is the best determining factor of high school graduation and grade point average than IQ.

Summary

Chapter 1 provided a framework for my answer to the questions What are the leadership factors of principals and teachers that promote academic success among students at two different Title I schools with all free and reduced meals in a mid-size, midwestern school district? and to gather further information, my secondary questions are, How do principals tilt the floor to create a culture of academic achievement? And thirdly, How do two top scoring Title I schools with all free and reduced meals in a mid-size, midwestern school district us Title I funds to bolster the academic success of students? Also included is a discussion of how I derived to these questions from my personal and professional experiences.

Chapter 2 provided significant detail regarding leadership, the effects of socioeconomic status on education, parental involvement in education, Title I funding, mentor support, transformational leadership and grit and perseverance. First and foremost, I approached this topic with a leadership lens because of my belief that leaders have an enormous responsibility and
opportunity to influence others. There is significant research on general leadership which is pertinent for this topic and fascinating to learn and apply to public education. Title I schools that experienced academic success described principals as having transformational leadership qualities which is consistent with the leadership qualities throughout the widespread leadership research. Since school districts are given the freedom to be flexible and creative with their Title I funding, the achievement gap issue among low income students appears more like a leadership issue than perhaps a funding issue. Ultimately, the purpose of this research project is to glean wisdom and strategies from administrators, principals, and teachers who are harvesting successful programs in their Title I schools.

Chapter 3

Community must be deliberate. We believe that resilient communities are purposefully built or constructed and then continually renewed and sustained.

Collay et. al. (1998, p. 14)

Methodology

The purpose of this research project is to answer the primary research question, What leadership factors do principals and teachers attribute to the math growth rate in two Title I schools? The secondary questions are: What do principals and teachers say is important to promoting academic achievement in Title I schools? and How do teachers at two Title I schools feel most supported by their colleagues and school district in regards to teaching math? A qualitative case study was utilized to address the three research questions. This chapter presents the research methodology that was used, reasons why qualitative case study research methodologies were most appropriate for gathering, analyzing, and synthesizing data, the
particular data collection methods, and a summary of the data analysis methods. This case study was conducted at two different Title I schools in a mid-size, midwestern city with two principals, one instructional coach, and eight teachers participating in the research.

Since 1965, public schools have received money for Title I students and over the years changes were made to the funding requirements to allow more flexibility with how the funds are used in order to meet the specific needs of each school (U.S. Government Accountability Office, 2011). The federal government explicitly encouraged creativity and flexibility among administrators who led Title I schools and this indicated academic achievement in Title I schools may be more of a leadership issue than a funding issue. One example of leadership that contributed to academic success took place in a school in Arizona by a principal who overcame obstacles for poor Latino families and gradually increased the student reading performance scores by almost 20 percentage points by leading the staff with a collaborative culture of persistent discipline and one focused goal (Collins & Hanson, 2011). But there was little research on how school districts and high-achieving Title I teachers and principals created a culture where math achievement was cultivated. Therefore, in response to public scholarship, this research project was aimed at understanding two different dimensions of leadership at two Title I schools. One dimension of leadership that was researched was learning what decisions were made before and after the school day to promote math achievement and the other dimension of leadership that was researched was how Title I teachers felt supported by the district and their colleagues while teaching math. The data gathered from principals, and teachers provided detail and depth to the theory of how leadership bolstered the academic achievement of Title I students.
This chapter is comprised of six sections. The sections are Explanation of Research Method, Setting and Participants, The Documents, Interviews, Focus Groups, and Summary. Each section described the particular methods and participants in detail. However, each section abstractly reflected various overlapping aspects of case study research.

Case Study Research Framework

A case study uses many sources of evidence to gather data (Yin, 2018). Creswell (2018) referred to a case study as “an in-depth analysis of a case, often a program, event, activity, process of one or more individuals” (p.14). McMillan and Schumacher (2010) explained, “a case study promotes better understanding of a practice, or issue and facilitates informed decision making” (p.13). In order to understand the complexities of school leadership and how it contributed to academic success, the case study research method offers a variety of ways to analyze leadership. The research was focused on using a constructivist approach while also drawing from professional experience as a teacher, parent, adjunct professor, and university supervisor of resident teachers. The sources of evidence used to gather information for this research project were archival documents, school data plans, school newsletters, open-ended interviews, structured interviews, and focus groups.

Setting

Data collection began by analyzing the standardized test scores for all of the Title I schools in a mid-size, midwestern school district and ranking the Title I schools according to the highest scoring schools in English Language Arts and Math (see Appendix A & B). According to the Department of Education (https://doestatereporting.sd.gov/Nimble/asp/Main.aspx; https://doestatereporting.sd.gov/Nimble/asp/Main.aspx), math growth rate for each elementary
school in the mid-size midwestern district was documented. On the website, the math growth rate was recorded on a three year continuum and was also compared throughout the district and compared throughout the state (see Appendix C & D). In the mid-size, midwestern district where the research was conducted, two standardized tests were given each year, one at the beginning of the year and another towards the end of the year; there were two types of data documented by the school district from the English language arts and math achievement tests and they were proficiency rate and growth rate. Based on the Math Growth Rate of the 2016-2017 school year, among the eight Title I schools, the two schools to experience the highest growth rate were selected for the research project. Table 3.1 shows pertinent Title I data about the student population and teacher population from each participating school.

Table 1 Growth rate comparison: Elementary School A and Elementary School B

<table>
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<th>Highest Math Growth Rate among Title I Schools- Elementary School B</th>
<th>2nd Highest Math Growth Rate Among Title I Schools- Elementary School A</th>
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<td>Enrollment</td>
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<td>Title I Students</td>
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<td>437</td>
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<tr>
<td>% Free and Reduced Meals</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>% of White Students</td>
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<td>Federal Fund Full-Time Staff Equivalents</td>
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<td>8</td>
</tr>
<tr>
<td>Master of Arts Degree</td>
<td>13</td>
<td>18</td>
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<tr>
<td>Bachelor of Arts Degree + 24 credits</td>
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<td>0</td>
</tr>
<tr>
<td>Bachelor of Arts Degree</td>
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<td>19</td>
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<td>Professional Staff to Student Ratio</td>
<td>12.8</td>
<td>12.6</td>
</tr>
<tr>
<td>Average daily attendance</td>
<td>95%</td>
<td>94.5%</td>
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</table>

Table 3.1 is comprised of information taken from the data plans on the district website. Through my analysis, I explored the possibility that the data would reveal an outlier among these two Title I schools that impacted education compared to the other Title I schools? The data from Elementary School A and Elementary School B were very similar. The slight differences between the two schools was the percentage of white students, federally funded full-time staff equivalents, and average class size. However, compared to the other Title I schools and Elementary School A & B, there was no significant difference in the data aside from the fact that the standardized test scores varied significantly from the highest scoring Title I schools to the lowest scoring Title I schools. Subsequently, this data analysis at the onset of phase one verified the research from chapter two about academic achievement. Among all of the schools in the mid-size, midwestern school district, as the number of culturally diverse students increased, their standardized test scores decreased; and the opposite is also true as the number of culturally diverse students decreased, their standardized test scores increased.

**Participants**

On a cold January day, I attended staff meetings at both of the Title I schools and presented a ten minute Google slides presentation. The presentation ended with a Google Forms document and a crafted email ready to send to teachers and administration who may be interested
in participating. The participation requirements for this research project were that participants had to be at the school during the 2016-2017 school year and should be a professional staff member of the Title I school with responsibilities in math instruction. When participants volunteered for this research project, each person completed a questionnaire on Google Forms indicating favorite restaurants and snacks. This information was used to purchase incentives at the end of each phase of research. With the information from the Google Form, restaurant gift cards of $20.00 were given to participants after phase one and phase two of research; and custom gift bags were created for each participant with a $10.00 gift card to a favorite coffee shop or ice cream shop. Sign-upGenius.com was used to organize interviews and focus group times. Facilitating and organizing the interview and focus group times was manageable due to Google Forms and Sign-UpGenius.com.

Data Collection Methods

Yin (2018) suggested using “as many sources as possible” when utilizing a case study format and listed six different sources of evidence which were listed previously (p.13). Data collection methods for this research project were modeled and adapted after Figure 4.2 (Yin, 2018; See below)
and included using three phases of data collection and three different types of data collecting
methods in each phase. Once the evidence was collected, data was analyzed, but not limited to
the following themes:

- Collaboration
- Professional Development
- Intervention
- Accountability
- Data
- Pacing Guide
- Power Standards
- Differentiating Instruction
- Relational
- Open to new ideas
- Well-planned

The objective of having three phases of data collection was to see if there was a convergence or
overlapping of themes from the inferences and conclusions drawn as a result of the first phase of
data to the second and third phase of research (Yin, 2018).

A major part of data collection for this research project were interviews. With a desire to
see, hear, and listen to the perceptions and opinions of each participant, it was important to heed
the advice from Brinkman and Kvale (2015) when they suggested there may be “tension between
a professional distance and a personal friendship” (p. 97). For ethical and professional purposes,
the objective was to extract pertinent information from each participant, while also maintaining
the purpose of the research project and avoid issues and conversations that may distract from finding the answers to the primary and secondary research questions.

Data Analysis

Phase one. At the onset of data analysis, archival records were analyzed. The types of archival records analyzed were…

- demographics of the student enrollment
- standardized test scores
- professional staff information
- federally funded full-time staff equivalents at the schools

The US Census, newsletters, mission statements, and school improvement plans were among the other documents analyzed. McMillan and Schumacher (2010) wrote, “internal documents can show the official chain of command and provide clues about leadership style and values” (p. 361); and therefore, the goal of analyzing documents and archival records for this project was to understand the population of the school families and the professional school staff and to glean understanding of the principal’s leadership.

In the first phase of data collecting, face-to-face open-ended interviews were administered to teachers and principals (see Appendix E & F). At the onset of research, Yin (2018) suggested using an unstructured approach to interviews, however to promote discussion and to allocate time efficiently, questions were prepared ahead of time. The intention for interviews during phase one was to be flexible and allow the interview to go in a different direction than planned. No recording device was used for the interviews, but notes were taken and time was allotted immediately following the interviews to record further notes about
emerging themes and inferences (Yin, 2018; Brinkmann & Kvale, 2015). Interview notes were kept on a Google folder and they were analyzed and coded for meaning according to the themes listed earlier in this section. Each theme was assigned a color or font type and a key was created. Brinkmann and Kvale (2015) suggested two types of coding: concept driven or data driven. With concept driven coding, the themes are preconceived and with data driven coding the themes are derived as a result of the data. For this research project, a hybrid method of both concept driven coding and data driven coding was applied.

Open-ended face to face interviews, document analysis and archival record analysis comprised the first phase of data collection. Once this data was collected, the findings were analyzed by coding the themes and documenting inferences. Yin (2018) warned researchers, “to treat any inferences only as clues worthy of further investigation rather than as definitive findings because the inferences could later turn out to be false leads” (p. 115). After the first phase of research, inferences were made pertaining to the themes in the literature which were listed in a previous paragraph; and as a result of the inferences, more questions were crafted to further the investigation for the second phase of research which is comprised of observations, structured interviews and surveys. In addition, “explanation building” was implemented throughout all three phases of data analysis (Yin, 2018, p.179 & 186). Explanation building consisted of observing patterns in the data and building an explanation for the phenomenon. The goal for this type of data analysis technique was to use theories from the research that supported the explanation.

As a result of the open-ended interview, there were three inferences emerging. The first inference that emerged resulted when teachers discussed intervention. Several participants
recalled the 2016-2017 school year with a school-wide intervention plan. Many participants compared intervention to the formal intervention that occurred in 2016-2017. The inference that was formulating during open-ended interviews was formal intervention seemed to have played an important role in math achievement during the 2016-2017 school year. The second inference was in reference to the discussions about power standards which is a term that was unfamiliar. When participants discussed power standards, they referred to the collective decision-making about power standards throughout grade levels in their school building. I wondered how the power standards were related to the Common Core State Standards. Yet, the power standards seemed to be something that was foundational to lesson planning. The final inference that was foundational to the structured interview questions was about collaboration. Many participants mentioned collaboration and recalled attending the Solution Tree Conference (Solution Tree Inc., Bloomington, IN) which was a conference about collaboration. At this conference, participants mentioned they learned useful tools for leading collaboration. Since I had experience teaching in the school district, I noticed a shift in attitude and expertise when discussing collaboration. I wondered if collaboration played a role in math achievement.

**Phase two.** For the second phase of data collection, observations remained informal, casual collections (Yin, 2018). Depending upon the data collected during the first phase of research, informal observations occurred during the interviews and other interactions with the principals and teachers in the office and after school dismissal. For instance, observing the conditions of the school buildings and offices provided clues to the overall culture of the organization; similarly, the layout of the furniture of an interviewee’s classroom or office were used as clues to the status of the interviewee within the organization. The observations were
informal and usually occurred before a scheduled interview. These observations were documented in a Google document along with the interview notes.

Structured interviews and structured surveys were also developed for the second phase of data collection and based on the data collected from the first phase, a new set of questions were created in order to gain more understanding about the contributing leadership factors of principals and teachers (see Appendix F & G). However, the same type of data coding was applied to the structured interviews as the open-ended interviews from phase one. A hybrid method of concept driven coding and data driven coding was applied (Brinkmann & Kvale, 2015). Data from the structured interviews and survey was analyzed and organized into themes. Some of the themes overlapped with the open-ended interview from phase one, yet new themes emerged as a result of the data from the structured interviews and survey in phase two.

**Phase three.** Two focus groups were formed, one at each school. At Elementary School A there were six participants comprised of one principal, one administrator, and four teachers. At Elementary School B there were five participants comprised of one principal and five teachers. To start the focus group, a short presentation was prepared to share the research findings from the interviews thus far. Questions were also prepared to extract information about the leadership factors of the principal and teachers that aided in math achievement at each school (see Appendix H). McMillan and Schumacher (2010) advised, “by creating a social environment in which group members are stimulated by one another’s perceptions and ideas, the researcher can increase the quality and richness of data through a more efficient strategy than one-on-one interviewing” (p. 363). While moderating focus groups, removing bias and acknowledging the influence of the moderator was important to consider; and therefore, understanding the strengths
and weaknesses in the focus group scenario strengthened the resulting data derived from the focus group (Yin, 2018).

A strategic plan for the data analysis of interviews and focus groups was necessary along with the design of the research project; for example, it was important to schedule time for analysis immediately following the focus groups and interviews (Maxwell, 2013). Perhaps, the most important part of data analysis was planning and developing a system and scheduling enough time before and after focus groups and interviews for note taking and coding. A common problem in data analysis was letting unanalyzed notes and transcripts pile up (Maxwell, 2013). Coding and categorizing the focus groups, interviews, documentation and archival records was the first step to analyzing the data (Brinkmann & Kvale, 2015). Two strategies were utilized during the data analysis process which were recommended by Yin (2018); and the two strategies were “relying on theoretical propositions and working data from the ground up” (p.168-169). The themes listed previously were derived as a result of the reading and research and using these themes provided a good starting point for collecting data. However, noticing new patterns and keeping an open mind to new information and concepts was also important because this suggested further relationships to the topic.

In addition to the strategies for the data analysis process, two analytical techniques were utilized which were “explanation building and logic models” (Yin, 2018, p.179 &186). Explanation building consisted of observing patterns in the data and building an explanation for the phenomenon in the case. The goal for this type of data analysis technique was to use theories from the research that supported the explanation. The second data analysis technique of logic
models was created from the empirical observations to theoretically predicted events (Yin, 2018). Creating a logic model created a visual framework to explain the findings.

In conclusion, there were many elements consisting of case study research and using as many of the six sources of evidence as possible provided a clearer understanding to the objective of this research project: What leadership factors do principals and teachers attribute to the math growth rate in two Title I schools? The secondary questions are: What do principals and teachers say is important to promoting academic achievement in Title I schools? and How do teachers at two Title I schools feel most supported by their colleagues and school district in regards to teaching math? There were three phases to the data collection process. During the first phase of the research project, data collection was conducted through document analysis and open-ended interviews; the second phase of data collection was conducted with structured interviews and surveys; and the third phase of research was comprised of two focus groups. Asking good questions was the foundation of data collection and the goal was to create a rich dialogue with the different sources of evidence collected from the data; reading between the lines of the data and corroborating the inferences with other sources produced satisfactory results (Yin, 2018). The data analysis strategies used theoretical propositions and working data from the ground up; and the data analysis techniques used explanation building and logic models. Throughout the entire data collecting and data analysis process, it was imperative to be aware of bias and to be fair; but by conducting quality, thorough, and ethical research, a clearer understanding resulted in how leaders impact math growth rate in two different Title I schools.
Chapter Four

A key function of leadership is setting a compelling direction for the team’s work that is challenging, energizes team members and generates strong collective motivation to perform well.

Bolman & Deal (2013, p. 181)

Results

The purpose of this chapter is to explore the reason behind the top math growth rates among Title I schools located in a mid-sized school district in the midwest through a case study approach. My research question was What leadership factors do principals and teachers attribute to the math growth rate in two Title I schools? The secondary questions are: What do principals and teachers say is important to promoting academic achievement in Title I schools?
and How do teachers at two Title I schools feel most supported by their colleagues and school
district in regards to teaching math? The results revealed important and influential leadership
decisions within each school to bolster math achievement.

Throughout the research, in order to stay consistent and focused, the figure below was
inspired and adapted from Figure 4.2 in Case Study Research and Applications (Yin, 2018).

Figure 1: Research Design Illustration
Figure 1 illustrated the three phases of research and shows the multiple types of data that were collected. Note-taking during each stage provided the foundation during the data collection stage. These notes provided important information for data analysis and it was the fuel for formulating new questions during the three types of interviews. But most importantly, Figure 4.2 provided a road map for the data collection process. When designing this research project, it was important to consider each teacher and/or administrator as an individual and strive to develop a professional relationship with them. Keeping this in mind, research for this project started with open-ended interviews with the eleven individuals who consented to be part of the study.

To understand the research, this chapter was divided into multiple parts and in order of the three phases of research. Open-ended interviews with the eleven participants were analyzed in the first part of this chapter. Before the open-ended interviews, data plans, provided by the school district web-site, were analyzed in order to prepare questions for the open-ended interview. Analyzing data plans offered an understanding of the schools’ demographics, professional staff ratios, and test scores and helped form the interview questions (see Appendix I & J). As described in Chapter 3, charts were created to interpret and compare the data plans from all the elementary schools in the school district in order to gather data about Title I schools versus schools that were not Title I. Open-ended interviews were analyzed and color coded by themes; and graphs were created to show how often each theme was discussed during the open-ended interview.

In the next section, the 45 minute structured interviews were documented and analyzed. Each interview question was organized and color coded according to different emerging themes. New themes emerged from the 45 minute structured interview and existing themes carried over
from phase one into phase two. After each structured interview, participants completed a survey via Google Forms. In this second section of research analysis, survey answers were analyzed and illustrated using bar graphs and circle graphs.

Each interview question contains a short summary of the findings. If there was not a summary at the end of each question, a summary containing multiple questions was provided in a subsequent section. Both interviews, the open-ended interview and structured interview, also contain a summary of the interviews in their entirety at the end of each section. The primary and secondary research questions were answered and important leadership factors were uncovered that led to the two highest math growth rates among Title I schools in a mid-size midwestern school district; and participants revealed various ways they felt supported by the district.

In the third section of chapter four, discussion highlights from the two focus group sessions at each school were documented. Photographs were included to show the answers to both of the focus group questions at both focus group locations. A summary of the focus group also offered insight into the focus group discussion.

**Phase one open-ended interview**

**Findings from open-ended question #1**

The first question on the open-ended interview asked, *What is your teaching experience* (Figure 2; see Appendix K)? The purpose of this question was to find out if both schools in the study exhibited the common characteristics of teachers in Title I schools. According to research in chapter 2, Title I schools have a high teacher turnover rate. Twenty-seven percent of the 11 participants had four to seven years of teaching experience. However, 18% of the 11 participants
had 12-15 years of teaching experience and 18% of the participants had 20-25 years of teaching experience.

Figure 2a Open-ended interview Q1: What is your teaching experience?

Since this was an open-ended interview and because of the way this question was worded, participants included all of their teaching experience, which is represented in the bar graph Figure 4.1b. Forty-five percent of the 11 participants taught at the school for two to five years, 18% taught for six to nine years, and 18% taught for 10-13 years. Nine percent taught for 18-21 years and nine percent taught for 30-33 years. These findings align with the research about Title I schools which is that Title I schools have a high teacher turnover rate (Carver-Thomas & Darling-Harmond, 2017).
Open-ended question one and one-b did not directly answer the research questions; these questions were important to ask because the research showed most teachers do not stay at Title I schools for more than five years. In order to understand why both schools had the top two math growth rates, it was important to learn if the teaching experience at both schools was unlike most Title I schools. Among the teachers and administrators that participated in this study were teachers who taught at Title I schools for longer than five years, however, among the participating teachers for this research project, 45% of teachers had two to five years of teaching experience. This information suggested the two participating Title I schools represented many Title I schools in the country with almost half of teachers with seven years of teaching experience or less.
Findings from open-ended question #2

The second question asked participants, *Do you have administrative experience? How many years have you worked as an administrator?* Three out of the 11 participants had administrative experience (Figure 2). The circle graph below illustrates the number of years of experience of the three individuals. This information indicated the administrators have established leadership at both of the Title I schools; i.e. 33% of the administrators with four to seven years of experience and 66% of administrators with 10-13 years of experience.

*Figure 3 Open-ended interview Q2: Do you have administrative experience? How many years have you worked as an administrator?*

Findings from open-ended question #3

The third question asked, *Have you ever helped your district or state make decisions for math instruction or math curriculum* (see Appendix L)? Since this study was more about
leadership factors and less about instructional methods, this question was important to ask to help participants think about collective leadership throughout the entire district.

*Figure 4* Open-ended interview Q3: Have you ever helped your district make decisions for math instruction or math curriculum?

Open-ended question number three does not answer the research questions, but it was asked to determine if administrative experience had an impact on students’ math achievement. The three administrators who were interviewed did not have an exceptional amount of experience in administration. However, two of the three administrators taught in the district for more than twenty-five years. Does the experience of these two administrators positively impact the development of teachers and math achievement? The answers to the question helped form the next set of questions for interviews in phase two.

**Findings from open-ended question #4**
The fourth question asked, *How has the district helped you teach math to Title I students (Figure 4)*? As a result of the participants’ responses, a list of topics that were discussed (see Appendix M) was created. Among the themes that emerged for question four, 38% of the responses discussed curriculum, 25% of the responses discussed professional development, 12% of the responses discussed collaboration, 12% of the responses discussed intervention, 7% of the responses discussed the pacing guide and 7% of the responses discussed data. This question uncovered how teachers and principals felt most supported in the math achievement of students.

*Figure 5* Open-ended interview Q4: How has the districted helped you teach math to Title I students?

How has the district helped you teach math to Title I students?

Summary of findings from open-ended question #4. This question directly addressed the secondary research question, *How do teachers at two Title I schools feel most supported by their colleagues and school district in regards to teaching math?* This was important to ask in an open-ended format in order to hear the authentic and honest words of each teacher and
administrator. The themes from this question carried over to the upcoming questions during the open-ended interview. Curriculum and professional development emerged as the most commonly discussed themes for this question, this was compelling since both curriculum and professional development were hot button topics in education and educators expressed many passionate opinions about them. Despite the passionate opinions from school leaders, curriculum and professional development were discussed as factors that supported teachers’ math instruction.

**Findings from open-ended question #5**

The fifth question asked, *Why do you think the math growth rate scores were so high in your school* (Figure 4.5)? The notes from each question were organized individually in order to observe the themes that emerged from the responses (see Appendix N). Among the 11 participants, eight themes emerged; twenty-nine percent of the responses discussed intervention, 21% of the responses discussed curriculum, 20% of the responses discussed data, 20% of the responses discussed professional development, two percent of the responses discussed power standards, and two percent of the responses discussed differentiating instruction.

*Figure 6* Open-ended interview Q5: Why do you think the math growth rate scores were so high in your school?
The findings from question five were starting to demonstrate a trend of themes emerging from the open-ended interviews. As participants thought back to the 2016-2017 school year, memories of formal intervention were shared. Another interesting finding to this question was that teachers also remembered when the school district renewed the Investigations (2019) for a second cycle. Many participants admitted the curriculum was not perfect, but suggested the familiarity of the curriculum may have promoted math achievement. During an interview, an instructional coach said,

“We did adopt the same curriculum and we may overlook the effect of being comfortable with curriculum, but it seemed teachers were using manipulatives as a result of the comfort. Or it may go back to how comfortable you are at teaching inquiry based curriculum” (B. Eeten, personal communication February 4th, 2019).

Also, even though collaboration, data, and professional development was only
discussed by 10% of participants, it is important to note that both schools had recently sent teachers to a collaboration conference called Solution Tree (2019). Many teachers expressed this conference was very helpful to facilitating their collaboration time. Also, when school leaders discussed collaboration, most of the time, data was also discussed. Collaboration and data were intertwined during the discussion to this question. Many school leaders shared professional development was a strength of the district. For example, one participant shared, “Our principal asked a bunch of us to attend the collaboration conference and we all just bought into it. Our grade level team has been together for a while so we’re not shy about looking at the data to figure out what to do next” (A. Johnson, February 10th, 2019).

**Finding from open-ended interview question #6**

The sixth question asked respondents, “Before students come to school for the year, how do you prepare the math classroom” (Figure 4.6)? Each question was individually organized and color-coded in order to observe the emerging themes (see Appendix O). From the 11 participants, seven topics emerged. Twenty-seven percent of responses discussed curriculum and data, 13% of responses discussed power standards and developing relationships, seven percent of responses discussed intervention and collaboration, and six percent of responses discussed the pacing guide. After coding this question, common themes emerged regarding leadership and math achievement. The graph in Figure 4.6 shows the emerging themes of curriculum, data, power standards, and relationships.

*Figure 7* Open-ended interview Q6: Before students come to school for the year, how do you prepare your classroom for math?
Summary of findings from open-ended question #6. The findings from open-ended question number five addressed the research question, *What do principals and teachers say is important to promoting academic achievement in Title I schools?* The lens for this research project was from a leadership perspective; in Chapter one, an analogy about tilting the floor was used to help the reader understand the research perspective for this project (Block, 2008). Instead of focusing on instructional practices for teaching math, the focus for this research project was aimed at leadership decisions created to improve math achievement before and after students walk into and out of the classroom. With this lens in mind, when teachers were asked how they prepared the classroom for teaching math, seven different themes emerged. Among the themes that emerged, curriculum and data were discussed during 27% of responses. Power standards and building relationships were also emerging themes and they were discussed during 13% of responses.
The themes from the data may be proving the important responsibility districts have to provide instructional frameworks. Teachers discussed delving into standardized testing and Measures of Academic Progress (MAP) testing to prepare the classroom for math; teachers also discussed looking closer at power standards to help guide lesson planning. “As a school we decide the power standards and then as a grade level we like to go through the Investigations curriculum and pick out the power standards” (D. Geier, personal communication, February 5th, 2019). Expectations, policies, and frameworks were important and influential elements to school systems because teachers considered the expectations of the district and the expectations of the state while preparing classrooms for academic achievement.

**Findings from open-ended question #7**

The seventh question asked respondents, *How do you and the other teachers in your grade level support each other in math* (Figure 4.7)? From the open-ended interviews five themes/topics emerged. Fifty-eight percent of responses discussed collaboration, 17% of responses discussed intervention and pacing guides, and eight percent of responses discussed power standards. Each question was recorded and analyzed to organize the emerging themes (see Appendix P). The open-ended interviews started to uncover important leadership factors for teaching math.
Summary of findings for open-ended question #7. The findings for open-ended question number seven answered the research question *How do teachers at two Title I schools feel most supported by their colleagues and school district in regards to teaching math?* Among the emerging themes, participants discussed collaboration during 58% of the responses; and 17% of responses discussed intervention and the pacing guide. Even though the discussions about the pacing guide were not favorable towards it, teachers still felt accountable to the pacing guide which was created by the district and they used collaboration time to discuss if their instruction was on pace with the pacing guide. The power standards were also used during collaboration time and helped teachers determine what was essential to each lesson. The answer to this question demonstrated that teachers felt supported by the leadership decisions implemented by
the district; for example, one participant shared, “We go through investigations curriculum and pick out power standards as a school. We ask ourselves, “Where can we use [apply] the power standard” (D. Geier, personal communication, February 5, 2019). Another participant explained, “By looking at the standard and how we are going to teach it. We look at tricks for teaching and lots of collaboration throughout the week, sharing strategies [with teachers] helps more students” (C. Teer, personal communication, February 1, 2019). Collaboration, intervention, pacing guide, and power standards are relatively new ideas in education, but yet teachers communicated the leadership strategies offered support to math instruction.

**Findings for open-ended interview question #8**

The eighth question asked respondents, *How do you help the principal make decisions for the school year in regards to teaching math* (Figure 4.8)? From the open-ended interviews, four topics emerged (see Appendix Q). Among the emerging themes, participants discussed collaboration during 50% of the responses, intervention and power standards were discussed during 20% of the responses, and curriculum was discussed during 10% of the responses.

*Figure 9 Open-ended interview Q8: How do you help the principal make decisions for the school year in regards to teaching math?*
The findings for question eight contributed to the research because it was important to determine if the teachers at these two Title I schools were doing anything out of the ordinary to facilitate learning. Were they demanding more resources from the administrator? How were they influencing the school leaders to promote math achievement? The findings showed teachers influenced the administrators by discussing the collaboration schedule and intervention schedule. The format of intervention was also discussed with the principals since each grade level may conduct intervention differently. Teachers also discussed power standards with the administrator and worked together to decide which standards are foundational to all of the other standards.

**Summary of findings from the open-ended interviews.** Answers to the research questions became clearer after phase one. The research questions were *What leadership factors do principals and teachers attribute to the math growth rate in two Title I schools? The*
secondary questions are: What do principals and teachers say is important to promoting academic achievement in Title I schools? and How do teachers at two Title I schools feel most supported by their colleagues and school district in regards to teaching math? The findings from the open-ended interviews revealed that teachers feel supported by the district and their colleagues during collaboration, intervention, curriculum, power standards, and the pacing guide. When teachers were asked to describe how the district supported math instruction in the classroom, teachers discussed curriculum and professional development a majority of the time. Qualitative data was evidenced when teachers discussed math achievement; citing their teamwork and collaboration and purposeful intervention as indicators of success. During an interview one teacher explained, “We do a great job of talking about the needs of our students. Since intervention was important in 2016-2017, we created a data wall on one of our cabinets on the wall. We had our students’ pictures. We moved the pictures forward when students moved on to the next power standard” (N. Frank, personal communication, February 21, 2019).

When participants were asked about the math growth rate for the 2016-2017 school year, most of the credit for the math growth rate scores were given to the formal intervention time which meant 30 extra minutes of math during each school day. Curriculum was also among the factors that participants thought added to math growth rate, since the district renewed the curriculum with the Investigations curriculum company for a second cycle. Additionally, the district was committed to the instructional framework of differentiating instruction and this was foundational to the instructional decisions made by the teachers and provided the fuel for collaboration and intervention.
The answer to the first research question *What leadership factors do principals and teachers attribute to the math growth rate in two Title I schools?* was answered by the participant responses during the open-ended interviews. As teachers and administrators reflected back to the 2016-2017 school year, intervention, collaboration, and professional development attributed to students’ achievement in math. Also, the district renewed the contract with the Investigations math curriculum company for a second cycle instead of adopting an entirely new curriculum. At both schools, teachers were required to teach math for 90 minutes plus 30 extra minutes of formal intervention time each day. Teachers explained the difference between formal intervention and intervention; formal intervention involved all teachers in each grade level working together with data and organizing flexible groups to learn a specific target standard. However, there were times when principals encouraged teachers to implement intervention time within each individual classroom. One participant offered perspective, “Formal intervention is very reflective because teachers are working together and talking to each other about the next step for every student. Otherwise, intervention is done on your own” (C. Johns, personal communication, February 6th, 2019).

The last research question was *How do teachers at two Title I schools feel most supported by their colleagues and school district in regards to teaching math?* During the open-ended interviews, teachers were asked, “How has the school district helped you teach math?” Among the four emerging themes, participants discussed collaboration during 58% of the responses, intervention and pacing guide were discussed during 17% of the responses. In this school district, elementary teachers were required to collaborate with specific subjects, yet the district did not create the agenda for collaboration. However, administrators observed the
conversations by being present at collaboration meetings to help facilitate discussion. As a result of the open-ended interview, common themes for math achievement and teacher support started forming. Collaboration, intervention, standards, and pacing guides were helpful to teachers and required by the district; in turn, these expectations benefited students’ math achievement.

**Phase two structured interviews and survey**

**Findings from structured interview Q1**

After the first round of interviews were conducted, the notes for each interview were analyzed and common themes were noted and categorized. The notes and themes for each interview question are included in the appendices. For the second round of interviews, three questions were different for administrators and teachers (see Appendices R & S). The data for the teacher interviews are presented first followed by the administrator interviews. Included with the second interview was a five question survey on Google Forms (see Appendix T).

In the second round of interviews, notes were taken and the answers to each question were organized together on a document (see Appendix U-DD). The responses to interview questions were analyzed for common themes and categories. The first question posed during the second interview was, *What would you say are your strengths* (Figure 4.9)?

- 37% of teachers and administrators said their strengths are relational
- 21% said a strength is being open to new ideas
- 13% said a strength is being well-planned
- 13% said differentiating instruction was a strength
- 13% said collaboration was a strength (see Appendix U).
According to the results of this question, being relational and open to new ideas may be significant to this research project because they are skills that are not unique to teaching or education. As a result of this question, another question surfaced in my thinking, “Is developing relationships among teaching staff and students an important factor in academic achievement?”

**Findings from structured interview Q2**

In the second question of structured interviews, participants were asked, *When you think about other good, effective teachers, what qualities do you admire* (Figure 4.10)? Participants discussed relationships during 55% of responses, 27% of responses discussed planning, 9% of responses discussed taking risks and being open to new ideas (see Appendix V).
Summary of findings for structured interview Q1 and Q2. The findings to Q1 and Q2 were aimed at helping answer the research question, *What do principals and teachers say is important to promoting academic achievement in Title I schools?* Interestingly, two different teachers evaluated their strengths and the strengths of other effective teachers and in both questions, being relational was discussed as a strength. Developing relationships and being relational was valued among teachers. During an interview, participants were asked, “When you think about other good, effective teachers, what qualities do you admire?” The teachers responded,

- “Does the teacher have a relationship with the child and does it extend outside the classroom” (C. Umber, personal communication, March, 28, 2019)?
“Building relationships with students and teachers, [I] relate to kids, communication with family” (J. Rice, personal communication, March 19, 2019).

And when the same teachers were asked, “What would you say are your strengths as a teacher and colleague at your school?” The teachers responded,

- “Empathy, puts students first, [I] build relationships with colleagues. Relationships are very important to me” (C. Umber, personal communication, March 28, 2019).
- “Ability to restore the relationship” (J. Rice, personal communication, March 19th, 2019).

This was interesting because in phase one, collaboration was discussed as one of the most useful tools that offered support and promoted math achievement. When hiring teachers it may be important to ask interview questions that probe if job candidates are relational especially since collaboration is such an important part of teaching in this district.

**Findings from structured interview #3**

The third question of the second interview with teachers asked, *What would you say are your strengths in teaching math? What do you do well in the math classroom?* (Figure 4.11).

Among the themes that emerged, participants discussed differentiating instruction during sixty-six percent of responses, 17% of responses discussed taking risks, and 17% of participants discussed intervention (see Appendix W).

*Figure 12: Q3 Interview #2: What would you say are your strengths in teaching math? What do you do well in the math classroom?*
Summary of findings for structured interview Q3. The findings for question three addressed instructional practices and helped to answer two of the research questions, *What leadership factors do principals and teachers attribute to the math growth rate in two Title I schools? What do principals and teachers say is important to promoting academic achievement in Title I schools?* Although this research project focused more on leadership decisions that influenced the math growth rate outside of math instruction time, it was important to ask this question in order to understand what instructional methods were promoting the math growth rate and how they were connected to decisions school leaders made to influence the math growth rate. One teacher responded to this question by stating, “[My strength is] meeting students where they’re at. Differentiating instruction, small group instruction so I know where my students are at” (L. Rost, personal communication, March 27, 2019). Another teacher articulated, “[I]
recognize that not everyone learns the same way and consider different learning styles when forming groups to make groups compatible” (C. Umber, personal communication, March 28, 2019). The school district’s mission stated on the website, “To teach and prepare all students for a changing world”; and the district successfully communicated the importance of this mission. In addition, teachers were committed to the district’s mission when they indicated that differentiating instruction was a strength in their teaching repertoire.

**Findings for structured interview Q4**

Participants continued to explain the effectiveness that formal intervention had on the math growth rate. When I taught in this same district, intervention was not an instructional practice the district used, so I was curious about formal intervention and how it worked. The fourth question of the second interview with teachers asked, *One of the factors teachers discussed during interview #1 was that intervention supported students’ math achievement.*

*Could you tell me more about intervention, how it’s organized and what is essential to successful intervention* (Figure 4.12)? Participants discussed formal intervention during 33% of responses, 22% of responses discussed collaboration and data, and 11% of responses discussed power standards and differentiating instruction (see Appendix X).

*Figure 13: Q4 Interview 2: One of the factors teachers discussed during Interview #1 was that intervention supported students’ math achievement. Could you tell me more about intervention, how it’s organized and what is essential to successful intervention?*
Summary of findings for structured interview Q4. The findings from question four resulted in five emerging themes and aimed at answering research questions, *What leadership factors do principals and teachers attribute to the math growth rate in two Title I schools? What do principals and teachers say is important to promoting academic achievement in Title I schools?* The questions were posed to find out more about intervention and the answers from the interview stressed the importance of formal intervention. Formal intervention occurred for thirty minutes daily during the 2016-2017 school year. Teachers conducted Tier One instruction in the classroom and then assessed the data from their instruction. Based on their data, together grade level teachers organized formal intervention groups and divided students according to the data, among the grade level teachers. Each teacher chose a different target standard to focus on during the intervention time and students were grouped according to the target standard that
needed improving from the tier one instruction. Teachers discussed the benefits of formal intervention because of the collaboration and reflection involved amongst the teachers in the grade level. One teacher commented about intervention during an interview,

“We’re not doing formal intervention this year which is why I do small groups with flexible grouping. It would be nice to have formal intervention” (L. Rost, personal communication, March 27, 2019).

Another teacher from Elementary School B agreed, “We don’t do math intervention this year. There are gaps because of no intervention” (C. Umber, personal communication, March 28, 2019). Not only was their collaboration and reflection happening, but there was also a high level of accountability and a strong feeling of being part of a team in a way that is new in the teaching field.

One teacher explained, “We do interventions as a team and we picked where we wanted to go. For example, counting has been a trend for a weakness. As a team, we are doing an assessment and we’ll pick kids from all of the kindergarten and help them. Aids [EAs] also pull out and do intervention with us” (A. Johnson, personal communication, March 5, 2019).

Another teacher expressed, “The grade level needs to be open to knowing all students and communicating with them. We collaborated on AVMR assessment, and we came prepared to group kids using the data wall. The team was open to the data wall, collaborating with teachers and being open and honest based on test scores and mini assessment” (N. Frank, March 22, 2019).
Findings from structured interview Q5

The fifth question of the second interview asked, The teachers during interview #1 also felt supported during collaboration time. How does your collaboration time work and when do you feel like collaboration is NOT working. What role do you play during collaboration? What are some essentials to good collaboration (Figure 4.13)? Thirty-five percent of responses discussed the importance of a plan. In general they discussed, the importance of an agenda, power standards, and pacing guides; all of these plans or frameworks were important for facilitating their collaboration time. Twenty-nine percent of responses discussed data and 12% of responses discussed collaboration, power standards, and professional development (see Appendix Y).

Figure 14: Q5 Interview #2: The teachers during interview #1 also felt supported during collaboration time. How does your collaboration time work and when do you feel like collaboration is NOT working. What role do you play during collaboration? What are some essentials to good collaboration?

In this district, a pacing guide was created for the math curriculum. The concept of the pacing guide was developed with high mobility students in mind and to keep all of the schools in
the district on the same pace in the math curriculum, so if students moved to another school, they would not miss large sections of a math unit.

**Findings from structured interview Q6**

The sixth question of the second interview asked teachers, *The pacing guide was also mentioned during my interviews with teachers. When teachers mentioned the pacing guide mostly they said it was too fast, but yet your building principal was flexible with the changes you made and the changes you made resulted in a high math growth rate. How do you and your grade level determine when to slow down, yet stay on grade level* (Figure 4.14)? Thirty-eight percent of responses discussed staying on track with the pacing guide, 15% of responses discussed power standards as it related to the pacing guide, 15% of responses discussed data as it related to the pacing guide, 15% of responses discussed having a plan as it related to the pacing guide, and 8% of responses discussed collaboration as it related to the pacing guide.

One teacher explained, “The power standards are foundational. I don’t worry about units that don’t support the power standard. Like, there’s a unit about data collection which has nothing to do with power standards. The principal was part of the conversation and she is OK with us not focusing on that too much” (A. Johnson, personal communication, March 5th, 2019).

A second teacher articulated a similar response, “We base it off of how our students are doing. Collaboration helps with making those decisions, but the gaps are bigger in fifth grade. No one is really on us about staying on the pacing guide” (J. Rice, personal communication, March 19, 2019).

Finally, a third teacher also agreed, “Collaboration is when we discuss the pacing guide.
The assessments help us determine what we are doing during intervention like if we need to spend more time on adding or subtracting. The power standards help us determine how to slow down or speed up” (C. Thompson, personal communication, March 20, 2019).

The interview notes for each individual question with all of the participants is in the appendix (See Appendix Z).

Figure 15: Q6 Interview 2: The pacing guide was also mentioned during my interviews with teachers. When teachers mentioned the pacing guide mostly they said it was too fast, but yet your building principal was flexible with the changes you made and the changes you made resulted in a high math growth rate. How do you and your grade level determine when to slow down, yet stay on grade level?

The pacing guide was also mentioned during my interviews with teachers. When teachers mentioned the pacing guide, m...
staying on track with the pacing guide. Teachers agreed a plan was important for effective collaboration. Likewise, teachers appreciated the pacing guide, but also expressed the need to have flexibility if students needed more time on a particular math standard. One administrator explained,

“Teachers know you can’t keep plowing ahead, but they also need to be mindful of the end goal. Before I came, there was no pacing and students weren’t learning information that was on the assessment. Conversations about pacing guide are usually during intervention and collaboration, but the autonomy is gone. That can be good and bad” (D. Kemper, personal communication, March 8, 2019).

**Phase two structured interviews and survey: Administrator questions**

The next set of questions from the second round of interviews are questions asked for the three participating administrators (*Figure 4.14*). The administrators were asked to respond to the question, “What role do you feel you play in the academic achievement in your building?” Thirty-three percent of administrator responses discussed professional development, 33% of administrator responses discussed planning in regards to intervention and collaboration and 33% of administrator responses discussed data (see Appendix AA).

One principal explained, “I provide the framework for the day. I make sure there is time for intervention and a schedule for collaboration. I also provide teachers with data and now we’re focusing on carving out time for data analysis. I also think of myself as a cheerleader for them and to celebrate our successes” (D. Kemper, personal communication, March 8, 2019).
An instructional coach commented, “Since I work with every classroom teacher. I help teachers with teaching curriculum, resources and implementing effective teaching strategies depending on their needs. A lot of variety” (B. Easter, personal communication, March 8, 2019).

Figure 16: Q2 Interview #2: What role do you feel you play in the academic achievement in your building?

Summary of findings for structured interview Q2 with administrators. The summary of findings for question two with administrators shows the different themes that emerged with each of the three administrators that were interviewed. Each administrator answered with examples of how they serve the teachers in the building. However, all three of the themes shown in the bar graph are not specific to math instruction, but the emerging themes from this question provided direction to help steer the school in the right direction. For example, the emerging themes of providing meaningful professional development to creating a workable schedule, and
plan for collaboration and intervention to exposing teachers to data that informs instruction were rising to the surface among the important themes for math growth rate. All of the administrators felt their role was behind-the-scenes, providing everything from resources to schedules to promoting teacher and student success.

Findings from structured interview Q3 with administrators

The third question of the second interview asked administrators, The general consensus was the pacing guide was fast, but teachers had some flexibility to review difficult lessons when necessary, but to stick as close as possible to the pacing guide. Can you talk about that? How do you know when to give the teachers the flexibility and when to keep teachers on pace with the pacing guide (Figure 4.14)? The pacing guide was created in this district with high mobility students in mind; the purpose of the pacing guide was to provide a scope and pace for the math curriculum so teachers throughout the district are teaching the math curriculum at the same pace throughout the entire school year. Thirty-eight percent of the responses discussed differentiating instruction and intervention as it related to the pacing guide; and 24% of the responses discussed collaboration as it related to the pacing guide. (see Appendix BB)
Figure 17: Q3 Interview 2: The general consensus was the pacing guide was fast, but teachers had some flexibility to review difficult lessons when necessary, but to stick as close as possible to the pacing guide. Can you talk about that? How do you know when to give the teachers the flexibility and when to keep teachers on pace with the pacing guide?

How do teachers know how much flexibility to take with the pacing guide?

![Bar chart showing percentages for Collaboration, Intervention, and Differentiating Instruction.]

Summary of findings for structured interview Q3 with administrators. The summary of findings for structured interview question number three continued to uncover recurring themes for math achievement. When school leaders were asked about the pacing guide for math instruction, intervention, differentiating instruction, and collaboration were discussed; in many ways, these themes were mentioned simultaneously with math achievement. Elementary School A and Elementary School B created an environment where math achievement took place, by working together with school leaders at various levels and in various ways. One principal said, “Teachers are accountable to their peers in their grade level and collaboration is usually where we see these discussions happen” (R. Drew, personal communication, March 12, 2019). An instructional coach remarked,
“Well, that’s really the million dollar question. The pacing guide is necessary because of the high mobility students. Another reason is that teachers may overteach or under teach. Pacing has improved, but the range of learners makes pacing hard. Intervention and small group instruction helps with students who struggle. We encourage they pull in good teaching to understand concepts and pull in extras for interventions” (B. Easter, personal communication, March 8, 2019).

The responsibility of academic achievement did not solely fall on the teachers or the staff members within the school building, the responsibility and the direction of math achievement started at the district level and funneled through every level of the district. The district leaders articulated “to educate all students” which explained why differentiating instruction was discussed during this interview question; also, district leaders set an expectation to cultivate collaboration in each school building by sending teachers to The Solution Tree collaboration conferences; and during the 2016-2017 school year, teachers at Elementary School A and Elementary School B also focused on formal math intervention.

When administrators answered this question, an overarching theme although not listed on the graph, was accountability. Administrators explained that it was not necessary to enforce the pacing guide because of the layers of accountability in each grade level; since teachers had weekly collaboration meetings and intervention meetings, they were accountable to each other. Especially during the 2016-2017 school year when teachers were expected to conduct formal math interventions throughout each grade level. Even though there was flexibility with the pacing guide because of collaboration and intervention, teachers felt accountable to each other to stay on pace with the other teachers in their grade level.
Findings from structured interview Q4 with administrators

The fourth question of the second interview asked administrators, *Teachers also gave credit to collaboration for supporting their math instruction. What is your role as an administrator during collaboration? What are your expectations for collaboration? Do you feel like the collaboration conference has benefited how your staff uses collaboration* (Figure 4.15)? Among the themes that emerged, during forty-three percent of the responses, administrators discussed professional development; 29% of responses discussed collaboration; 14% of responses discussed data and intervention. (see Appendix CC).

*Figure 18: Q4 Interview #2: Teachers also gave credit to collaboration for supporting their math instruction. What is your role as an administrator during collaboration? What are your expectations for collaboration? Do you feel like the collaboration conference has benefited how your staff uses collaboration?*
Findings from structured interview question #5 with administrators

The fifth question in the second interview asked administrators, *From my understanding, there was also a comfort level with the Investigations curriculum because the district decided to use Investigations for a second cycle. Do you think these are important factors in teaching comfort with the curriculum. Some of the teachers mentioned there were a lot of holes in the curriculum. No curriculum is perfect, but the teachers were aware of the weaknesses of the curriculum for the 2nd cycle* (Figure 4.16). Fifty percent of the emerging themes during data analysis were focused on professional development, 25% of the responses discussed collaboration, and 25% of the responses discussed being open to new ideas (see Appendix DD).

*Figure 19: Q5 Interview 2: From my understanding, there was also a comfort level with the Investigations curriculum because the district decided to use Investigations for a second cycle. Do you think these are important factors in teaching comfort with the curriculum. Some of the teachers mentioned there were a lot of holes in the curriculum. No curriculum is perfect, but the teachers were aware of the weaknesses of the curriculum for the 2nd cycle.*

![Diagram showing percentages of themes in data analysis.](image)
Summary of findings for structured interview question #4 & #5 with administrators.

The interviews with administrators continued to show similar themes for promoting math achievement compared to the interviews with the teachers. Professional development, collaboration, intervention, and data were all discussed for questions four and five and were also overlapping themes for teachers when asked similar questions about curriculum and collaboration. During the discussion, we discussed The Solution Tree collaboration conference many teachers attended together. Two administrators during separate interviews stated that improvement was still necessary during collaboration, yet the teachers had come a long way since they first started grade-level collaboration in the district (B. Easter, personal communication, March 13th, 2019; D. Kemper, personal communication, March 13th, 2019). Also, during discussion about question four, when administrators discussed The Solution Tree collaboration conference, the importance of professional development was reiterated by all three of the administrators that were interviewed. Administrators appreciated how professional development helped “expand teacher capacity” (R. Drew, personal communication, March 12, 2019). An instructional coach said, “The big thing is more time for professional development and personal choice in professional development” (B. Easter, personal communication, March 8th, 2019).

When the administrators were asked about renewing the math curriculum, they also explained how the curriculum company visited the district and they were willing to listen to constructive criticism about the math curriculum. An instructional coach mentioned the value in not only renewing the curriculum, but also the opportunity to provide feedback to the
Investigations Curriculum company. “They took a lot of input from Sioux Falls teachers for their curriculum. The pacing changed” (B. Easater, personal communication, March 13, 2019).

**Findings from structured interview question #6 with administrators**

The sixth question of the structured interviews asked administrators, *In your opinion what else could be done to support academic achievement in Title I students either district wide or at your building?* (Figure 4.17). During the interviews, 75% percent of responses discussed professional development and 25% of responses discussed the importance of a plan or a schedule for the teachers. Administrators expressed the need to create a schedule for the school day and throughout the school year that supported collaboration and intervention for the teachers, but also minimized the distractions for students during core subjects (see Appendix EE).

*Figure 20: Q6 Interview 2: In your opinion what else could be done to support academic achievement in Title I students either district wide or at your building?*

In your opinion, what else could be done to support academic achievement in Title I students either district wide or at your b...
Summary of findings from structured interview question #6 with administrators.
The summary of findings from structured interview question six was similar to the response teachers gave when asked a similar question about teaching in Title I schools. Both teachers and administrators answered that professional development helped improve instruction and was a valuable resource within the district where they taught. Also, both teachers and administrators acknowledged the importance of a plan. One teacher remarked, “We go over norms every year and look at the format for collaboration and it helped us, kept us on track” (C. Umber, personal communication, March 28, 2019). Another teacher explained, “Agenda is essential, having a plan is too, chit-chat is necessary for collaboration” (C. Umber, personal communication, March 5th, 2019).

Another teacher articulated, “Planning is essential to collaboration and intervention. We are going through each lesson in math and picking out power standards, making sure we’re all hitting the same schedule- 10-15 days before assessment. Remembering what worked last year, diving into the book so we don’t get off on a bunny trail” (C. Teer, personal communication, March 20, 2019).

Administrators expressed the importance of a plan in regards to creating a schedule for intervention and collaboration; teachers also expressed the importance of a plan in regards to lesson plans and how they related to the power standards. Planning and professional development were important elements to academic achievement.

Summary of structured interview questions with administrators. The administrator answers were very similar to the answers given by the teachers, however, the difference was the administrators’ answers included more discussion about the value of professional development
and collaboration. Whereas the answers teachers gave provided a broader set of themes. For instance, intervention, differentiation of instruction, data, collaboration, and professional development were all emerging themes among the interviews with the teachers. Since teachers were responsible for instruction, they had an understanding of what type of professional development might be useful in the classroom. However, administrators have a bird’s eye view of the school and observe the trending needs of professional development for all teachers, as a whole. Administrators discussed the impact professional development had on academic achievement and teachers valued colleagues who were willing to be open to new ideas and learn new things. The connectedness between all of the different leadership factors for math achievement was profound. For example, instructional frameworks and state standards affected schedules and how time was spent within the classroom. Professional development kept teachers sharp and effective in the classroom; curriculum and pacing guides provided accountability; and data, informed instruction, so districts and teachers knew what changes to make, and the cycle continued. In the following section, team cohesion emerged as an important element for collaboration and intervention and ultimately academic achievement.

**Part Two of Phase Two: Survey**

**Survey Q1**

Following the second round of interviews, teachers and administrators were given a five question survey based on the findings from the first interview. Three questions asked respondents to rank the choices provided. Respondents were able to give the same ranking to the choices provided or different rankings to each of the choices provided.
The first question of the survey asked teachers to rank what is most important to academic achievement in math (Figure 4.18). Out of the six choices, intervention and collaboration tied for the first and second most important factors to math achievement with four out of 11 respondents selecting intervention and collaboration; and four out of 11 respondents selecting intervention and collaboration as the second most important factor to math achievement. Seven out of eleven respondents selected staff meetings as the least important factor to math achievement.

Figure 21: Q1 Survey: What is important to academic achievement in math? Please rank in order of importance with 1 being the LEAST important and 6 being the MOST important.

Summary of findings for survey Q1. The rankings from the survey indicated similar results compared to the answers from the structured interview. Intervention and collaboration were ranked the first and second most important elements for academic achievement in math and the curriculum and pacing guide were chosen as the third most important element. During the structured interview, administrators answered by discussing the growth they saw during grade level collaboration, but expressed that collaboration still needed improvement, yet teachers clearly valued collaboration and saw it as an asset to math achievement.
An instructional coach described during the structured interview, “My role in collaboration has changed. Each administrator takes two grade levels. We try to get in weekly. I see myself as a facilitator and I offer suggestions. Teachers should be in charge of their own collaboration. We follow The Solution Tree model with the four questions. Collaboration is getting there” (B. Easter, personal communication, March 8, 2019).

Survey Q2

The second question in the survey asked respondents to rank the essential components to collaboration (Figure 4.19). Nine out of 11 respondents selected team cohesiveness as the most essential component to collaboration. Five respondents selected time and access to data as the next most essential component to collaboration. Six respondents selected time as the third most essential component to collaboration. Five out of the 11 respondents selected having an agenda as the least important component to collaboration.

*Figure 22: Q2 Survey: What are essential components to collaboration? Please rank in order of 1 being LEAST important 5 being MOST important?*

What are essential components to collaboration. Please rank in order of 1 being LEAST important to 5 being MOST important.
Summary of findings for survey Q2. Team cohesiveness was the most important element to collaboration, even more important than time or access to data. During the structured interviews teachers discussed the importance of being relational with students and other teachers, but did not discuss it in depth or frequently. This question was meant to probe the participants in their perspective on how important relationships and team cohesiveness was to collaboration. Teachers and administrators communicated that collaboration was important to math achievement, since teachers indicated from this survey that team cohesiveness was important to collaboration, team cohesiveness might also be considered important to math achievement. Also consistent with the interviews was that on this survey question, participants indicated that time was an important component to collaboration. During the interviews, teachers and administrators often stressed the importance of creating schedules for collaboration at the beginning of the year.

Survey Q3

The third survey question asked about the biggest hurdle to teaching in a Title I school. Four of the 11 respondents selected high mobility as the biggest hurdle to teaching in a Title I school. Four of eleven respondents also chose high mobility as the second biggest hurdle to teaching in a Title I school. Four of the eleven respondents selected time as the second and third biggest hurdle to teaching in a Title I school.

Figure 23: Q Survey: The biggest hurdle to teaching at a Title I school is...Please rank in order of 1 being the SMALLEST hurdle to 6 being the BIGGEST hurdle.
Administrators and teachers ranked high mobility as the biggest challenge to teaching at a Title I school. Even though, the mobility of students was out of the control of teachers, administrators and school districts, the amount of high mobility students is on the rise. As a result, the solution for equipping high mobility students with a good education was the creation of the pacing guide and the common core standards. The second biggest hurdle to teaching at a Title I school was time. Districts, administrators and teachers were able to control how time was spent during the school day by creating the pacing guide. Similarly, the structured interviews indicated by administrators and teachers how important it was to create schedules for collaboration and to create schedules for uninterrupted instruction during core subjects. Participants often discussed an “all hands on deck” approach in the classroom to teaching core subjects in order to minimize interruptions and dissolve distractions. One principal said, “I make sure there is time for core instruction, no pull-outs during instruction. Teachers should feel empowered to tell the SPED teachers that they can’t pull-out during the core subjects- math, reading, and writing” (D. Kemper, personal communication, January 30, 2019).

A teacher explained, “When we are given schedules at the beginning of the year, ELL pullout
doesn’t happen during math and SPED pushes in. There is an understanding that the whole school is a unit” (C. John, personal communication, February 6, 2019).

**Survey Q4**

The fourth survey question asked respondents if different cultures value education differently (Figure 4.20). Eighteen percent strongly agree and 63.6% agree different cultures value education differently. Eighteen percent are neutral.

*Figure 24: Q4 Survey: I believe different cultures value education differently.*

![Pie chart showing survey results](image)

**Summary of findings for survey Q4.** This question was included on the survey because of comments received from individuals in the community when discussing this research project. Some community members indicated how different cultures valued education differently. Even though there were 63% of the participants that agreed with this statement. Deeper discussions to this answer were not pursued simply because all family units value education differently. For this reason, this question was dismissed for further discussion.
Survey Q5

The last survey question asked respondents what they could change to help Title I students learn (See Appendix EE). The themes that emerged from the answers on the survey are organized on a chart. Four out of the 11 respondents commented about needing more time and how to be more intentional with the school schedule. Two out of the 11 respondents commented about wanting more intervention time. Overall, time was mentioned in six out of the 11 responses.

<table>
<thead>
<tr>
<th>If you could change one thing at your school to help students learn, it would be...</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>4</td>
</tr>
<tr>
<td>Smaller class sizes</td>
<td>2</td>
</tr>
<tr>
<td>Intervention time</td>
<td>2</td>
</tr>
<tr>
<td>Morning meeting for meaningful relationships</td>
<td>1</td>
</tr>
<tr>
<td>Safe and Secure homes</td>
<td>1</td>
</tr>
<tr>
<td>Autonomy to make decisions separate from the curriculum and pacing guide</td>
<td>1</td>
</tr>
<tr>
<td>Hands on learning everyday</td>
<td>1</td>
</tr>
</tbody>
</table>

**Summary of findings for survey Q5.** The idea of using time better, more efficiently, and more intentionally was a theme that continued to emerge within the data. During the structured interview with one of the administrators, it was discussed how the school district hired a consultant, during the time of this research project, to help school leaders look at school schedules and how to use school time more efficiently in this district (D. Kemper, personal
communication March 13, 2019). At this point in the research, the themes were unknown, but looking back at this undocumented conversation, before the interview started, it was encouraging to see the findings from this research project go along with action steps the district was taking to be more efficient with time.

**Focus Group Data**

The next phase of research was the focus group. Up until this point, all of the interviews were conducted individually and at the convenience of each of the participants. To understand the collective ideas, perceptions, and expertise of the participants, a focus group was organized at each of the schools. At Elementary School A, there were six participants comprised of four teachers and two administrators; and at Elementary School B, there were five participants comprised of four teachers and one administrator. A Google Slides presentation was created for the focus group with information about the findings from the interviews as well as two core questions (see Appendix FF). In order to utilize the core questions effectively, a 10 minute discussion time limit was given for each question. During that time, notes were taken while open-ended questions were asked to promote discussion.

After conducting, analyzing, and collecting the contents from the open-ended interview, structured interview, and survey, focus groups were utilized to understand the collective feeling and perceptions of teachers and principals at the two Title I schools and subsequently answer the research questions. My primary question is: “What leadership factors do principals and teachers attribute to the math growth rate in two Title I schools?” The secondary questions are: “What do principals and teachers say is important to promoting academic achievement in Title I schools?”
and “How do teachers at two Title I schools feel most supported by their colleagues and school district in regards to teaching math?”

**Focus group Q1**

As a result of the open-ended interviews, structured interviews, and survey, there were four factors teachers and principals attributed to math achievement which were target standards, collaboration, intervention time, and professional development. The first focus group question was, “From the interviews and survey, I learned the leadership factors teachers and principals from Elementary School A and Elementary School B attributed to the math growth rate to target standards, collaboration, intervention time, and professional development. If you had to rank these four leadership factors in order of importance which order would you put them in?” The four leadership factors were written on four separate note cards so participants could actively discuss and articulate through a visual medium. Together the teachers and principals discussed and collectively ranked the leadership factors in order of importance and a ten minute timer was set. The following passages contains the highlights from the discussion during the focus group.

**Elementary School A.** The principal and the other administrator in the room were both very warm and genuinely nice. My perception of both of them from the two interviews with them and the short email exchanges we had during this research project is they care deeply about students in Title I schools. At the time of this research project, the second administrator worked as an instructional coach for eleven years, but had worked at the same school for her entire educational career. The principal is soft spoken but during this research project asked excellent questions, and I observed his calm demeanor even during very chaotic times during the school day. I was impressed by the level of professionalism from the principal and the assistant in the
office. As a result of the leadership at the school, the teachers who participated in this study were also very impressive, kind, and caring.

The discussion started with teachers thinking back to the 2016-2017 school year. Teacher 1 stated: In 2016-2017 intervention time was focused on math with AVMR.

Teacher 2: 2016-2017 was heavy into AVMR and intervention.

Administrator: Before collaboration, we’ve always had target standards.

Teacher 4: Collaboration has guided and given us a ‘what next’?

Principal: Math intervention and collaboration is cleaner than literacy. It is cleaner and it makes more sense.

Teacher 3: AVMR gave us another way to look at data. We were using AVMR the way it was intended.

Teacher 4: In 2016-2017, we had 90 minutes of math plus intervention.

Principal: Intervention would not be effective without Tier 1 instruction.

Teacher 2: Intervention works because we are collaborating with colleagues. There’s an important reflective piece to intervention.

As the participants at Elementary School A discussed the question, the answer to the question resulted in the answer (Figure 4.22).
Figure 25: Focus Group E.S.A Q1: “From the interviews and survey I learned the leadership factors teachers and principals from Elementary School A and Elementary School B attributed the math growth rate to were target standards, collaboration, intervention time, and professional development. If you had to rank these four leadership factors in order of importance which order would you put them in?”

Elementary School B. Four teachers and one administrator participated in the focus group at Elementary School B. The principal worked in the district for 33 years with five of those years as principal. I enjoyed my time getting to know the principal during our interviews and short email exchanges. She always answered my messages promptly, and she was willing to help me in any way. I appreciated her willingness to support my research project. This principal was very direct with words and more blunt than the principal from Elementary School A. The teachers who also participated in the study were also more blunt than the teachers from the
previous school. My overall perception of this school compared to the previous school was this school felt more chaotic and the professionalism with the assistants in the office was not at the level as Elementary School A. This is not a critique, just a comparison of the different personalities of each of the school buildings.

   Teacher 1: Target standards guide collaboration time.
   Teacher 2: If collaboration is not cohesive, the target standards are important.
   Principal: Autonomy is not helpful or integral because of the importance of following the curriculum.

   Teacher 3: Target standards should be first because that drives the intervention time and then collaboration.
   Teacher 4: Target standards helps us pull it together.
   Teacher 2: Collaboration is when we organize and drive our intervention.
   Teacher 3: PD is overarching.
   Principal: A new idea is following the curriculum with fidelity. Following the curriculum with fidelity is a new way to think of new ideas.
Figure 26: Focus Group E.S.B Q1: “From the interviews and survey I learned the leadership factors teachers and principals from Elementary School A and Elementary School B attributed the math growth rate to were target standards, collaboration, intervention time, and professional development. If you had to rank these four leadership factors in order of importance which order would you put them in?”

Summary of findings for focus group Q1. Each focus group answered this question differently. Elementary School A thought about this question in terms of what was most important from a planning perspective and Elementary School B thought about this question in terms of a cycle and how one element on the index card affects the health and life of another element on the index card. As a result, Elementary School A decided to use the index cards in ranked order showing that intervention was the most important, then, collaboration, power
standards, and open to new ideas. Elementary School B chose to think of open to new ideas as an overarching necessity to all of the other items on the index cards. Target standards were foundational to collaboration time and intervention time.

**Focus Group Q2**

The second question presented at the focus group was created as a result of the open-ended interviews, structured interviews, and survey, and I directed the focus groups to look at some information from Parrett and Budge (2016) about high performance high poverty schools. Parrett and Budge (2016) crafted five questions that promoted student success from high poverty high performance schools. The five questions were:

1. Does our instructional framework guide curricula, teaching, assessment, and the learning environment?
2. Do we provide targeted interventions for students who need them?
3. Are all students proficient in reading?
4. Are we using research-based models for professional learning and encouraging reflective practice?
5. Are we engaging in continuous data-based inquiry as a school?

Similarly to the first focus group question, the second focus group question was written on five separate note cards. Using the five questions written on index cards, the discussion question was “Rank which order you feel schools/districts should prioritize these questions to promote academic achievement” (Figure 4.24 and Figure 4.25).

**Elementary School A**

Teacher 1: Proficiency in reading wasn’t top priority.
Teacher 2: Targeted intervention is very helpful.

Teacher 3: Data guided target intervention is even more useful.

Principal: The previous principal took staff to RTI which was very helpful to our collaboration.

Administrator: Target standards are necessary for academic achievement as a whole.

Teacher 2: Target standards are a response to intervention.

Administrator: Research based models are important for a framework.

Teacher 4: Reflection is constant.

Teacher 3: Everything goes back to research.

Teacher 1: Research should always influence your instruction.

Principal: Did we have updated version of Investigations?

Administrator: The curriculum’s updated version of Investigations made changes to the units.”

Teacher 2: “In my opinion, targeted interventions should be discussed on a regular basis.

Teacher 3: It’s a circle of influence.
Teacher 3: Without research based models of professional learning and encouraging reflective practice, nothing would work.

*Figure 27:* Focus Group E.S.A Q2: Rank which order you feel schools/districts should prioritize these questions to promote academic achievement.

The second question presented at the focus group was created as a result of the open-ended interviews, structured interviews, and survey, and I directed the focus groups to look at some information from Parrett and Budge (2016) about high performance high poverty schools. Parrett and Budge (2016) crafted five questions that promoted student success from high poverty high performance schools. The five questions were:

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3. Are all students proficient in reading?
4. Are we using research-based models for professional learning and encouraging reflective practice?
5. Are we engaging in continuous data-based inquiry as a school?
Similarly to the first focus group question, the second focus group question was written on five separate note cards. Using the five questions written on index cards, the discussion question was “Rank which order you feel schools/districts should prioritize these questions to promote academic achievement” (Figure 4.25)

**Elementary School B**

Teacher 1: Proficiency in reading is up there.

Teacher 2: We need time in the schedule.

Teacher 3: We have more on our plate versus less on our plate.

Principal: There’s more autonomy with the intervention, you have to figure out in your building.

Teacher 2: The reading one is really high.

Teacher 3: Is there one foundational to them all?

Teacher 4: The framework one is pretty foundational.

Teacher 1: Data drives everything.

Teacher 2: We have curriculum because of mobility.
Teacher 4: The data one is second. Data drives everything.

Teacher 2: Reading is 3.

Teacher 1: Math groups with differentiation using The Core and More.

Teacher 3: Differentiating is core instruction.

Principal: Intervention falls under more in The Core and More.

Teacher 2: The Power Standards give stability from one year to the next.

Teacher 3: AVMR is not a mandated intervention resource.

Principal: There’s a new way to think of new ideas in regards to curriculum, collaboration, intervention. There are new ideas to cling onto.
Figure 28: Focus Group E.S.B Q2: Rank which order you feel schools/districts should prioritize these questions to promote academic achievement.

Summary of findings for focus group Q2. The second focus group question was a deep question to ask at the end of a long school day in May. Participants at Elementary School A decided one of the questions was central to all of the others, and so question number four was placed in the middle. The other questions were placed clockwise around the central question to illustrate the reliance and importance of one question on the other questions. Participants at Elementary School B had at least two baby showers planned in the building, so as a result of when this focus group took place, teachers seemed less willing to delve into deep, robust discussion. However, they were willing to attend and participate in my study on this day.
Participants at Elementary School B thought linearly, from left to right, in terms of how the index cards were arranged. The desk was small and narrow and the teachers ran out of room on the desk to place the index cards in a straight line. Therefore, the first question was most foundational to all the other questions and so on.

The collective cognitive process of Elementary School B for question number two was similar to how Elementary School A thought of question number one, “From the interviews and survey, I learned the leadership factors teachers and principals from Elementary School A and Elementary School B attributed the math growth rate to target standards, collaboration, intervention time, and professional development. If you had to rank these four leadership factors in order of importance which order would you put them in?” While answering these questions both schools thought about how one option was foundational to the others. However, it was interesting to observe how differently both elementary schools considered each question, yet they applied the same type of thinking to two different questions.

Summary

The findings of this research project revealed important leadership factors that teachers and administrators attribute to the math growth rate in two Title I schools. The data in this chapter uncovered the complexity of math achievement in a mid-size midwestern school district. This case study had three phases. The first phase focused on open-ended interview questions and the first phase also focused on getting to know the teachers and administrators and establishing a professional relationship with them. The second phase consisted of structured interviews and a survey. The third phase of research was conducting two focus group interviews at two Title I
schools. The data collected from all three phases of research helped answer the primary and secondary research questions for this study.

The primary research question was “What leadership factors do principals and teachers attribute to the math growth rate in two Title I schools?” The information gathered from each phase of research uncovered the leadership factors that teachers and administrators attributed to the math growth rate. The leadership factors that attributed to the top two math growth rate scores among Title I schools was formal intervention, collaboration, pacing guide, and curriculum.

The secondary research question was “What do principals and teachers say is important to promoting academic achievement in Title I schools?” There was overlap from the primary question to the secondary question when participants were asked to discuss important factors to promoting academic achievement. Participants attributed collaboration, intervention, standards, relational skills, and well-planned to promoting academic achievement.

Finally, the last research question for this study was How do teachers at two Title I schools feel most supported by their colleagues and school district in regards to teaching math?” Teachers discussed collaboration, intervention, and professional development. All three of the research questions were answered in this study and the answers for each question overlapped each other. Likewise, the research data in chapter four had a direct correlation to the literature review in chapter two.

In chapter five, there will be more discussion on the data from this chapter by connecting the results to the literature review. Limitations based on my structure of research methodology and recommendations for future results will also be included in the next chapter.
CHAPTER FIVE

Those who aspire to lead out of a desire to control, to gain fame, or simply to be at the center of the action will find little to attract them to the quiet design work of leadership: “You can get a great deal done from almost any position in an organization if you focus on small wins and you don’t mind others getting the credit.”

Roger Saillant (as cited in The Fifth Discipline, 2006, p. 328)

Allan Cohen claims the ability to herd cats, which many have said is impossible. He does this by tilting the floor, which changes the conditions under which the cats are operating. Emergent strategies focus on conditions more than on behaviors or predictable goals. Ironically the act of predicting the path may be the obstacle to achieving the purpose.

Block (2009, p. 27)

Conclusion

The research that took place, during the course of this study, was a result of my desire to understand essential leadership factors for academic achievement in Title I schools. Block (2009) used a powerful metaphor to describe leadership. Block advised leaders, in order to change behaviors, leaders must “tilt the floor which changes the conditions” (2009, p.27). With this leadership metaphor in mind, I aimed to learn how teachers and principals “tilted the floor” in order to achieve the highest math growth rate scores among Title I schools in a mid-sized, midwestern school district. I had the pleasure of interviewing teachers and administrators from two different Title I schools and learn what leadership factors they attributed to the math growth rate during the 2016-2017 school year. The participants articulated what they thought attributed to the highest math growth. They discussed how they felt the district supported their math
instruction in the classroom. The first part of the summary discussed the research design; and the second part summarized the primary research question, “What leadership factors do principals and teachers attribute to the math growth rate in two Title I schools?” and the secondary research question “What do principals and teachers say is important to promoting academic achievement in Title I schools?” The third part discussed the last question, “How do teachers at two Title I schools feel most supported by their colleagues and school district in regards to teaching math?”

**Research design**

To answer my questions, I used a qualitative case study to address the three research questions. Creswell (2018) and Yin (2018) recommended using as many data collecting approaches as possible for a case study design. There were three phases to my research design to integrate as many data collecting approaches. During phase one of the research, school data plans from Title I schools were analyzed and compared to other schools in the district that were not Title I schools. From the information found on the school data plans, the open-ended interview questions were formed. During and after each of the 11 open-ended interview, notes were taken and analyzed for emerging themes. Once the open-ended interviews were analyzed and coded for emerging themes, questions for the structured interviews were formed for the second phase of research. Also included in the second phase of research was a survey. Participants completed the survey immediately following the structured interview. During and after each structured interview, notes were taken and analyzed for emerging themes. Some of the themes from phase one overlapped into phase two, and new themes also emerged as a result of phase two. During phase three, two focus groups were conducted to give the participants an opportunity to discuss
the emerging themes together and assert their ideas in a group format. In the next sections, a summary of the findings for each research question are organized highlighting the overarching themes.

**Leadership factors that promote math growth**

**Formal Intervention.** One of the factors teachers attributed to top two highest math growth rate among Title I schools for the 2016-2017 school year was formal intervention. During this school year, formal intervention was implemented for math. Formal intervention provided the students with 30 extra minutes of math instruction in addition to the 90 minutes of math Tier One and Tier Two instruction. Teachers used collaboration time to discuss math standards to review during intervention time based on formal and informal math assessments throughout the week. Teachers explained there was a high level of accountability, collaboration and reflection required when formal intervention was implemented into the school day schedule. Formal intervention was different than intervention. In the past, administrators strongly encouraged teachers to integrate intervention into the school day, however, formal intervention required aligning schedules so that students and professional staff were all available to work together. Aligning schedules helped teachers to group students across the entire grade level so students who struggled with the same standard could receive customized instruction from the grade level teacher responsible for teaching the standard. When participants were asked what they attributed to the two highest math growth rates among Title I schools in the district, among the eight themes that emerged, 28% of the responses attributed the math growth rate to formal intervention during the 2016-2017 school year.
The research from chapter two supported the findings from the first research question, “What leadership factors do principals and teachers attribute to the math growth rate in two Title I schools?” Block (2009) wrote about the success of cities in America; he wrote, “the one thing that distinguished the more successful towns from the less successful towns was the extent of social capital, or widespread relatedness that existed among its citizens” (p. 17). Each school operated like a community with accountability and collaboration embedded into the school day. When teachers worked together through intervention, it benefited all of the people within the school. However, formal intervention did not happen all by itself. Administrators and teachers worked together to design a schedule that worked for everyone involved. Senge (2006) reminded, “No one has a more sweeping influence on the ship than the designer” (p. 321). Leaders used their influence to design the schedules within the school buildings. Designing schedules that promote collaboration and intervention had an enormous impact on the math growth rate.

Curriculum. Participants also attributed the math growth rate to the curriculum. During this school year, district leaders made the decision to renew the math curriculum for a second, five year curriculum cycle. Among the eight themes that emerged, when asked what participants attributed to math growth rate, 21% of the discussion attributed it to the curriculum. Participants shared about how the curriculum company was open to feedback and made changes to the curriculum suggested by district leaders. Also, participants trusted and were familiar with the spiraling format of the curriculum and when students were unable to grasp a new concept from the curriculum, math instructors knew the concept would be revisited in a later section in the curriculum. In my opinion, it was wise of the district leadership to renew the curriculum for a
second cycle; the research from chapter two indicated that when people are unhappy in organizations, often times it is not a people problem, but rather a situation problem that can be easily fixed by the organizational leadership. The district leadership created a better situation for teachers when they decided to keep the same curriculum (Grenny, 2013).

**Collaboration.** Participants discussed the importance that collaboration had to many aspects in the school. When participants discussed the pacing guide, collaboration time was when those discussions took place. Also, when participants discussed intervention, collaboration time was the time set aside in the school day for teachers to plan intervention. Discussions about collaboration were peppered throughout phase one and phase two. Among the twenty-four interview questions asked in phase one and phase two, collaboration was an emerging theme in 13 of the 24 questions. Therefore, collaboration seemed to be the backbone of academic achievement. When this district set grade-level collaboration expectations on the professional teaching staff, it communicated the importance of social capital (Block, 2009). By doing this, the human resources within the school building had a unique opportunity to combine their strengths towards the mission and vision of the school (Collay, Dunlap, Enlow & Gagnon, 1998).

**Professional development.** The theme of professional development also emerged often during the interviews: participants gave credit to professional development for helping their math instruction. When participants were asked why the math growth rate was high among Title I schools, eight different themes emerged and 10% of the responses during this question was about how professional development, provided by the district, aided the math growth rate. Participants valued teachers who were open to new ideas and administrators described a large part of effective teaching was because of professional development provided to teachers.
What is important to promoting academic achievement?

**Data, power standards, and pacing guide.** The secondary question was “*What do principals and teachers say is important to promoting academic achievement in Title I schools?*”

Outside of the realm of this study, education experts said the number one factor to academic achievement is parental involvement. All of the research cited about academic achievement in chapter two credited parental involvement as the number one influence in a students’ education (Buckner, Bassuk, Weinreb, 2001; Herbers, Cutuli, Supkoff, Heistad, Chan, Hinz, & Masaten, 2012; Morissey, Hutchinson, & Winsler, 2014; Okpala, Okpala, & Smith, 2001) The research also links low academic achievement to poverty (Buckner et al., 2001; Herbers et al., 2012; Morissey et. al., 2014; Okpala et. al. 2001). Socioeconomic status is influential in the life of a student’s education, but parental involvement is also important (Park & Holloway, 2017; Lawson et. al., 2010; VanVelsor & Orozco, 2007; Wilder, 2014). Putting socioeconomic status aside, when families value education, students are more likely to perform better in school (Park & Holloway, 2017; Lawson et. al., 2010; VanVelsor & Orozco, 2007; Wilder, 2014). The landscape of America has changed and there are many students from low income families who move often and this mobility has an effect on their education. The United States Department of Education’s response to low income, high mobility students was the Common Core State Standards (U.S. Department of Education, 2015). The adoption of the Common Core State Standards organized the sequence of concepts taught throughout the course of the school year, for example, if a family moved schools, the function of Common Core State Standards is so students do not miss large gaps of instruction. For example, if a student moved from one school to the next, since schools adhere to the Common Core State Standards, large gaps do not get
missed in concepts like multiplication; and likewise, the state standards also prevented students from repeating concepts. In the mid-size, midwestern school district where this research project took place, the power standards and the pacing guide stemmed from the development of the Common Core State Standards.

The answer to this question was consistent with the research. During the course of the three phases of research, the answers to this question emerged. When teachers were asked questions about collaboration or intervention, there were three keywords that went along simultaneously with collaboration and intervention and these keywords were: power standards, data, and the pacing guide. Teachers and administrators used power standards, data, and the pacing guide to create a framework for decision making. When they were asked what attributed to the math growth rate, eight themes emerged and three of the eight themes were power standards, data and the pacing guide. Likewise, when teachers were asked how they prepared their classroom for academic achievement, seven themes emerged and three of the themes were data, power standards, and the pacing guide.

In addition, during the interviews, when participants were asked to talk specifically about intervention, five themes emerged and two of the five themes were data and power standards. The participants were using data, power standards, and the pacing guide during intervention and collaboration to promote math achievement with their students. Through professional development provided by the district, teachers used data to help inform instruction along with the added framework of the power standards and the pacing guide. Since time is a finite resource in schools, when this district was able to align the teachers’ time, the math growth rate benefited.
How do teachers feel supported by their colleagues and school district?

**Colleagues.** In the open-ended interviews when teachers were asked how they supported each other in teaching math, four themes emerged. Collaboration, intervention, pacing guide, and power standards were discussed and these themes continued to appear throughout the phases of research. Fifty-eight percent of the responses discussed collaboration. When teachers were asked, what was the most important element to collaboration, team cohesiveness was selected as the most important element for successful collaboration. Teachers felt most supported through collaboration. Collaboration is a valuable time of the day for teachers and it seemed to be the backbone of academic achievement. Team cohesion feeds collaboration and promotes academic achievement.

**School district.** Participants discussed how the district helped teachers with math instruction. During this discussion, six themes emerged. Four of the six themes were curriculum, professional development, collaboration, and intervention. Administrators were also asked what the district could do to support academic achievement in Title I schools and only two themes emerged, 75% of the discussion was about professional development, and 25% of the discussion was about creating schedules so time could be used efficiently throughout the course of the day and week. In the research from chapter two, Block (2009) discussed the important role of leaders and he compared leadership to herding cats. Block suggested tilting the floor in order to change the conditions for the cats and get them moving in the same direction (Grenny et. al., 2013; Heath, 2010). Themes like professional development and scheduling offered examples of ways leaders use their influence and tilt the floor to change the conditions and influence teachers to move towards the same direction.
Limitations

There were several limitations to this qualitative case study. The first limitation was the number of participants throughout the three phases of research. A presentation was given at both of the Title I schools with the two highest math growth rates to recruit ten participants from each school. As a result of the recruitment presentation, a total of 11 participants volunteered to participate in the research project. A larger cross section of teachers from each of the Title I schools with the top two highest math growth rate in the school district was preferred, but of the 11 who signed up to participate, everyone finished all three phases of research.

A second limitation was the amount of time that passed since the 2016-2017 math growth rate scores from both of the Title I schools. The research for this dissertation started in January 2019 and ended in May 2019, about two years since the 2016-2017 math growth rate scores. The participants were relying on memories that may be different than what actually occurred; often times, questions asked the participants to recall from memory what the focus for professional development was in the 2016-2017 school year. Although, most interview answers aligned with each other, perceptions and feelings may have been different than how they were remembered.

A third limitation is my prior teaching experience in the district. Also, my children all attended elementary schools in this district, but they did not attend the schools used for this research. In total, I have been connected to this school district for 20 years. This could be considered a limitation but it also could be considered an asset.

A final limitation to this study is that even though participants were volunteering their time during this study, small incentives were offered at the completion of each phase of research which could have impacted interview answers. Also participants were all employed within the
district where the research took place and this could have impacted interview answers which may have prevented from uncovering leadership factors, perceptions, and beliefs.

**Recommendations for future research**

At the time of this research project, there were eight Title I schools in this district, the difference in growth rate scores between the two highest Title I schools and the bottom two Title I schools was about 25% without any other major differences between the schools, students and professional staff. Even though both of the participating schools for this research project, implemented a formal intervention time, it is not certain that all of the Title I schools in this district were implementing the same type of formal intervention. The ultimate purpose of this research was to uncover the leadership factors that attributed to the two highest math growth rates among Title I schools. The findings of this research project revealed that formal intervention made an impact on math achievement, but what about the schools with the lowest math growth rate? Were these schools implementing formal intervention? If yes, than what was the difference in formal intervention between the schools with the highest math growth rate and the schools with lowest math growth rate. Conversely, if the schools at the bottom of the math growth rate were not implementing formal intervention, how could formal intervention impact math growth rate at schools with the lowest math growth rate? The questions mentioned are recommended for further research and directed towards the Title I schools in the district with the lowest math growth rate for the 2016-2017 school year.

Participants at both schools discussed the importance of collaboration and intervention to academic achievement. Also, both schools had teachers attend The Solution Tree conference to improve grade level collaboration (2019). Continued research on effective collaboration and
intervention methods is recommended to improve academic achievement at Title I schools. The research cited in Chapter Two about how successful communities function, supports the data that resulted from this research project (Block, 2008; Senge, 2006, Bolman & Deal, 2013). Collaboration and intervention created a widespread relatedness among teachers and resulted in high math growth rate scores (Block, 2008; Senge, 2006, Bolman & Deal, 2013). Recommendations consist of participants understanding how formal intervention might differ for reading compared to math. As a result of this research project, collaboration and intervention were discovered as widely agreed upon, integral aspects to academic achievement and prioritizing these into the school schedule is recommended.

Concluding thoughts

This qualitative case study was pursued in order to answer the primary question, “What leadership factors do principals and teachers attribute to the math growth rate in two Title I schools? The secondary questions are: What do principals and teachers say is important to promoting academic achievement in Title I schools? and How do teachers at two Title I schools feel most supported by their colleagues and school district in regards to teaching math? The literature review discussed leadership factors that had an impact on organizations and it also cited key components to academic achievement. The participants for this study uncovered the leadership factors that impacted the math growth rate at two Title I schools and it also revealed different ways teachers felt supported by the district through math instruction. As I considered the revelations of this study, I was reminded of two things, the first one is simple, but profound. People need each other and therefore, it is important that people work together spending time cultivating relationships. Senge stated, “Real community is something that can only happen
when we are stuck with one another” (Senge, 2006, pg. 309). Education has shifted and teachers no longer work in isolation in their classrooms; now, teachers are expected to work in community with one another and they are expected to solve problems together through collaboration, intervention and the use of data. Gone are the days where teachers breathe a sigh of relief because last year’s troublemaker was not assigned to their class for the upcoming school year. Now, teachers are responsible for all of the students in their grade level, not just the ones in their classroom.

The second thought is the value of being intentional. When teachers discussed intervention and collaboration, there was a difference between when administrators encouraged teachers to have intervention and collaboration compared to when administrators created time in the schedule in order for intervention and collaboration to happen regularly and in community with the other grade level teachers. A phenomenological finding was that intervention and collaboration seemed to be more consistent and more effective when administrators aligned time in the teachers’ schedule. When the schedules were altered to provide availability for teachers during intervention and collaboration, administrators took advantage of the alignment of time and were available to the teachers and participated in collaboration and intervention conversations throughout the buildings.

Reflecting on the primary question for this research project, “What leadership factors do principals and teachers attribute to the math growth rate in two Title I schools?” Leadership factors are given life and illuminated from individuals who lead. At the heart of leadership factors that attributed to the two highest math growth rate in two Title I schools were individuals
with the desire to serve. The educational leaders’ desire to serve teachers and the teachers’
desire to serve students (Senge, 2006; Bolman & Deal, 2013).

Senge (2006) wrote: The spirit of the leader as a grower of people was beautifully
articulated by Robert Greanleaf, who after a career working with many talented leaders
at AT&T from the mid-1920s to the mid-1960s, identified the desire to serve as the core
motivation for great leaders, and the growth of people as the chief indicator of such
leaders, whom he called “servant leaders.” The best test [of the servant leader] is: Do
those served grow as persons? Do they become healthier, wiser, freer, more autonomous,
more likely themselves to become servants? (p. 329)

It is no wonder that when participants were asked, “What qualities do you admire from
other effective teachers?” the number one theme that emerged during the discussions from this
interview question was that participants admired how effective teachers’ related with students
and colleagues. One way district administrators and building principals could “tilt the floor” is
by providing teachers the appropriate amount of time and space throughout the school year for
building relationships; or at the very least, district leaders and principals should adopt the
concept of building and sustaining relationships with colleagues as a core value of the school
district’s educational philosophy and regularly communicate this value to the district (Block,
2009). In closing, this study proved when the floor was tilted by providing the appropriate
framework for collaboration and intervention with colleagues, and when leaders were
intentionally serving teachers, a recursive symmetry occurred and in turn, teachers’ reflected the
characteristics of their servant leadership by serving students (Chance, 2013). And as a result, in
this case, the math achievement benefited.
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South Dakota Department of Education (2019).

https://doestatereporting.sd.gov/Nimble/asp/Main.aspx;

https://doestatereporting.sd.gov/Nimble/asp/Main.aspx


# APPENDIX A

## ELA AND MATH GROWTH RATE

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<th>ELA Growth Rate 2016-2017</th>
<th>Math Growth Rate 2016-2017</th>
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<td>1.</td>
<td>Elementary School C</td>
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<tr>
<td>2.</td>
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<td>3.</td>
<td>Elementary School A - 100% F&amp;R</td>
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<td>4.</td>
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<td>5.</td>
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<td>Elementary School F-</td>
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<td>7.</td>
<td>Elementary School G</td>
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<td>8.</td>
<td>Elementary School H- 100% F&amp;R</td>
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## APPENDIX B

### ELA AND MATH PROFICIENCY RATE

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<td>2.</td>
<td>Elementary School F</td>
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<td>3.</td>
<td>Elementary School B-100% F&amp;R</td>
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<td>4.</td>
<td>Elementary School A-100% F&amp;R</td>
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<td>5.</td>
<td>Elementary School C</td>
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<td>6.</td>
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<td>7.</td>
<td>Elementary School D</td>
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APPENDIX C

Elementary School A

**MATHEMATICS**

![Chart showing student progress on state test from 2015-2016 to 2017-2018 with percentages: 24%, 51%, and 37%.

**MATHEMATICS**

![Chart showing student progress on state test with district average, school average, and state average from 2015-2016 to 2017-2018.

Legend: District Average, School Average, State Average.

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APPENDIX D

Elementary School B

MATHEMATICS

Student Progress on State Test

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<th>Student Progress</th>
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</thead>
<tbody>
<tr>
<td>2015-2016</td>
<td>24%</td>
</tr>
<tr>
<td>2016-2017</td>
<td>51%</td>
</tr>
<tr>
<td>2017-2018</td>
<td>37%</td>
</tr>
</tbody>
</table>

MATHEMATICS

Student Progress on State Test

- District Average
- School Average
- State Average
APPENDIX E

Open-ended Interview Questions

1. What is your teaching experience?

2. What is your administrative experience?

3. How would you describe your philosophy of leadership in your current position?

4. Why do you think the math growth rate scores were among the highest in the district among Title I schools?

5. Before students walk in the school for the school year, how do you prepare the school and the teachers to succeed in the classroom?

6. Are there teachers that negotiate with you about scheduling or resources or curriculum? How do you handle this? Do you wish this happened more or less?

7. How does the district support the teachers in math instruction? What do you feel the district does well in supporting math instruction?

8. According to the explanation of Title I funds by the US government, there should be flexibility and creativity in the use of Title I funds to support the unique situations in each school district. How much influence do you have for the spending of Title I funding?
APPENDIX F

STRUCTURED INTERVIEWS

1. How many years have you been teaching?

2. What is your teaching experience?

3. Have you ever helped your district make decisions for math instruction or math curriculum?

4. How has the district help you teach math to Title I students?

5. How would you say your principal supports you in teaching math?

6. Before you students come to school for the year, how do you prepare your classroom for math?

7. How do you and the other teachers in your grade level support each other in math?

APPENDIX G

SURVEY QUESTIONS

1. What is important to academic achievement in math? Please rank in order of importance with 1 being the LEAST important and 6 being the MOST important.
   - Collaboration
   - Pacing Guide
   - Curriculum
   - Professional Development
   - Staff Meetings
   - Intervention

2. What are essential components to collaboration. Please rank in order of 1 being LEAST important to 5 being MOST important.
   - Agenda
   - Accountability
   - Team Cohesiveness
   - Time
   - Access to data

3. The biggest hurdle to teaching at a Title I school is… Please rank in order of 1 being SMALLEST hurdle to 6 being BIGGEST hurdle.
   - Time
   - Not enough parent involvement
   - Teacher turnover
   - Language barrier
   - Cultural differences
   - High mobility

4. I believe different cultures value education differently.
   - Strongly agree
   - Agree
   - Neutral
   - Disagree
   - Strongly disagree

5. If I could change one thing at my school to help students learn, it would be...
   - Answer:
APPENDIX H

FOCUS GROUP QUESTIONS

Discussion Question: If you had to rank the bullet points in order of importance, which order would you put them in?

- Target Standards
- Collaboration
- Intervention time
- Open to new ideas/Professional Development

1. Discussion question: Rank which order you feel schools/districts should prioritize these questions to promote academic achievement.

   a. Does our instructional framework guide curricula, teaching, assessment, and the learning environment?

   b. Do we provide targeted interventions for students who need them?

   c. Are all students proficient in reading?
   d. Are we using research-based models for professional learning and encouraging reflective practice?

Are we engaging in continuous data-based inquiry as a school?
APPENDIX I

OPEN-ENDED INTERVIEW QUESTIONS

**Principals**

1. What is your teaching experience?

2. What is your administrative experience?

3. How would you describe your philosophy of leadership in your current position?

4. Why do you think the math growth rate scores were among the highest in the district among Title I schools?

5. Before students walk in the school for the school year, how do you prepare the school and the teachers to succeed in the classroom?

6. Are there teachers that negotiate with you about scheduling or resources or curriculum? How do you handle this? Do you wish this happened more or less?

7. How does the district support the teachers in math instruction? What do you feel the district does well in supporting math instruction?

8. According to the explanation of Title I funds by the US government, there should be flexibility and creativity in the use of Title I funds to support the unique situations in each school district. How much influence do you have for the spending of Title I funding?
APPENDIX J

OPEN-ENDED INTERVIEW QUESTIONS

Teachers

1. How many years have you been teaching?
2. What is your teaching experience?
3. Have you ever helped your district make decisions for math instruction or math curriculum?
4. How has the district help you teach math to Title I students?
5. How would you say your principal supports you in teaching math?
6. Before you students come to school for the year, how do you prepare your classroom for math?
7. How do you and the other teachers in your grade level support each other in math?
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<thead>
<tr>
<th></th>
<th>Question #1 and #1b How many years have you been teaching?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>10 years in 3rd grade, 3 years as an Admin Inter, and 2 years as principal</td>
</tr>
<tr>
<td>2.</td>
<td>4 years</td>
</tr>
<tr>
<td>3.</td>
<td>21 years in 3rd grade, 11 years as an instructional coach</td>
</tr>
<tr>
<td>4.</td>
<td>7 years in kindergarten</td>
</tr>
<tr>
<td>5.</td>
<td>13 years of kindergarten</td>
</tr>
<tr>
<td>6.</td>
<td>4 years in 3rd grade, 9 years at the Immersion Center</td>
</tr>
<tr>
<td>7.</td>
<td>22 years in 1st-3rd grade, 3 years as Instructional Coach, 3 years as Admin Intern, 5 years as principal</td>
</tr>
<tr>
<td>8.</td>
<td>4th grade for 6 years and 1 year in 5th grade</td>
</tr>
<tr>
<td>9.</td>
<td>Kindergarten for 6 years, and 3 years in 4th grade</td>
</tr>
<tr>
<td>10.</td>
<td>30 years</td>
</tr>
<tr>
<td>11.</td>
<td>26 years</td>
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</table>
### OPEN-ENDED INTERVIEW

#### QUESTION 3

<table>
<thead>
<tr>
<th>Answer</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>No</td>
</tr>
<tr>
<td>2.</td>
<td>Yes, many times all instructional coaches are on the committees. I am always learning and I have the ability to lead.</td>
</tr>
<tr>
<td>3.</td>
<td>No</td>
</tr>
<tr>
<td>4.</td>
<td>Yes, I picked current math investigations, AVMR training for the district, They wanted people from math world. I volunteered to be on the SS committee. I like helping adults understand math and I like working with teachers.</td>
</tr>
<tr>
<td>5.</td>
<td>Yes, I am on the curriculum committee currently, also a part of South Dakota Counts.</td>
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<tr>
<td>6.</td>
<td>No for math, but on reading curriculum and math counts, 2nd year of masters and recruited by Susan McAdaragh to do Math Counts. I am a math specialist.</td>
</tr>
<tr>
<td>7.</td>
<td>No</td>
</tr>
<tr>
<td>8.</td>
<td>No. I would like to serve on the curriculum committee, but in Sioux Falls you are appointed to it.</td>
</tr>
<tr>
<td>9.</td>
<td>Language Arts curriculum for district and I was on the state curriculum for math standards.</td>
</tr>
<tr>
<td>Question # 3: How has the district helped you teach math to Title I students?</td>
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<td>---</td>
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</tr>
<tr>
<td>1. <strong>Professional development</strong> with instructional coach. <strong>Common Curriculum</strong> with AVMR and AVMR training. Red Apple classes.</td>
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</tr>
<tr>
<td>2. <strong>Pacing Guide</strong> is helpful, smarter balance testing and preparing students for that. We focus a lot on reading. We were together as a team. <strong>Collaboration with my school</strong>. Once a week designated collaboration time on reading. We meet during common planning and we discuss math. We insert some things into common planning time as a time we meet and this is not enforced by the district.</td>
<td></td>
</tr>
<tr>
<td>3. <strong>Strong math curriculum</strong> and offer <strong>professional development</strong>. Title I students have limited background knowledge. ELL strategies help fill the holes and it is very rewarding.</td>
<td></td>
</tr>
<tr>
<td>4. <strong>There was no set math curriculum</strong>. 5 years ago they ended MST (Math Science Technology School) and we used AVMR for intervention groups. <strong>AVMR groups students according to assessments</strong>. Difficult when students move in and out of schools.</td>
<td></td>
</tr>
<tr>
<td>5. <strong>AVMR Training</strong> breaks it down for teachers to understand why students aren’t getting it. AVMR gives you the WHY. I have a lot of background because I went to the initial AVMR training. <strong>Investigations</strong> is hard for Title kids because it moves fast. We need flexibility.</td>
<td></td>
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<tr>
<td>6. <strong>South Dakota counts program</strong> and opportunities to share the system. AVMR, We got a federal grant for South Dakota counts before standards came out.</td>
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<td>7. <strong>AVMR Intervention for math</strong>. Investigations, same curriculum for 8 years.</td>
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<td>8. <strong>We have curriculum, nothing extra</strong>. There’s AVMR training the 1st year but no follow through. I don’t use AVMR and I don’t know how to. There are ELL suggestions in the curriculum and I change the pacing of the lessons.</td>
<td></td>
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<tr>
<td>9. I use the curriculum and I supplement a lot. There are lots of gaps in the investigation curriculum. We’ve had AVMR training. <strong>Math intervention</strong>. I restructured math this year.</td>
<td></td>
</tr>
<tr>
<td>10. Lots of resources and strategies, <strong>lot of trainings</strong>, collaborating within grade levels and outside grade level. I also collaborate with other 2nd grade.</td>
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</tbody>
</table>
11. There is lots of professional development. Sioux Falls is really good with PD. Instructional coaches, a few years ago, math was our focus, 3 years of AVMR training. Title students are different demographic- I wish it was more focused on Title students. Becky is working with SIPPS. The education is so important but they need the skills to succeed, principles of math.

<table>
<thead>
<tr>
<th>Key</th>
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<tbody>
<tr>
<td>Relational</td>
</tr>
<tr>
<td>Power Standard or Essential Standard</td>
</tr>
<tr>
<td>Open to new ideas</td>
</tr>
<tr>
<td>Professional development</td>
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<tr>
<td>Intervention</td>
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<tr>
<td>Data</td>
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<tr>
<td>Collaboration</td>
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<tr>
<td>Curriculum</td>
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<tr>
<td>Pacing Guide</td>
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<tr>
<td>Differentiating instruction</td>
</tr>
<tr>
<td>Take Risks</td>
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<tr>
<td>Well-planned</td>
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</tbody>
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APPENDIX N

OPEN-ENDED INTERVIEW

QUESTION 5

<table>
<thead>
<tr>
<th>Question #5: Why do you think math the math growth rate scores were so high in your school?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. <strong>The philosophy with 30 minutes extra and a big emphasis on AVMR. Collaboration and staff meetings focusing on what they were doing well. Interventions based on standards or AVMR. We used data to guide our instruction. Solution Tree was highly encouraged, sent teams to PLC institutes, an understanding that we are an entire unit.</strong></td>
</tr>
<tr>
<td>2. <strong>We had a designated time for math intervention. Collaboration, we do a great job of talking about the needs of our students. AVMR for intervention. We used a data wall on one of our cabinets on the wall we had our students pictures. When students progressed, we moved their picture. We had more time in the day for small group instruction for that Tier 1 instruction for all.</strong></td>
</tr>
</tbody>
</table>
| 3. **How would you say, your principal supports you in teaching math?**
   - When we adapt new curriculum, our PD (professional development) is very heavy into the math. |
<p>| 4. <strong>Investigations- digging into it. We’re encouraged to stick with the curriculum because the curriculum builds every year. Follow the pacing guide. We had Math intervention groups. AVMR has hands-on games.</strong> |
| 5. <strong>When Diane came, there was a lot of turnover. We were not doing Investigations, we were only using AVMR. After she came everyone was doing Investigations. I would love to do Investigations with AVMR. I pull math groups when I can because we don’t have a time set aside for intervention now.</strong> |
| 6. <strong>Kids start low and have a long way to go. I spent a lot of time on reading and understanding. 4 years ago we had intervention for math which was an extra ½ hour. We focused on it in our PLC. We also look at our Power Standards and determine them together in our grade level.</strong> |
| 7. <strong>Ending the math science technology focus was the first task at the building. When the staff abandoned the program we started using curriculum instead of creating units. We weren’t exposing them to grade level standards. We went from bottom to top. How do we maintain that now? Intervention- formative assessment based on power standards and AVMR.</strong> |</p>
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<tbody>
<tr>
<td>8.</td>
<td>We had intervention time for both math and reading time every day— an extra 20 minutes. <strong>Intervention</strong> is small group for students struggling with a skill.</td>
</tr>
<tr>
<td>9.</td>
<td>Math intervention, supplement grade level wide, Supplement grade level wide, teacher pay teacher, Supplement planning during the summer.</td>
</tr>
<tr>
<td>10.</td>
<td>Consistency of staff, we do know what 1st grade ended with in their math because of collaboration time with 1st grade. Different training in math and different resources. A little while ago, Lowell was a Math Science and Technology School. We used AVMR for our curriculum, but now we use it with the <strong>Investigations curriculum</strong>.</td>
</tr>
<tr>
<td>11.</td>
<td>The last 5 years math was our focus. Math scores were low so we focused on it and the scores showed it. <strong>Intervention</strong> with AVMR plus the curriculum is what we use now.</td>
</tr>
</tbody>
</table>

**Key**

- Relational
- Power Standard or Essential Standard
- Open to new ideas
- Professional development
- **Intervention**
- Data
- Collaboration
- Curriculum
- Pacing Guide
- **Differentiating instruction**
- **Take Risks**
- Well-planned
Question #6: Before students come to school for the year, how do you prepare your classroom for math?

1. Before students walk in the school for the school year, how do you prepare the school and the teachers to succeed in the math classroom?

   High expectations- we still need to deliver grade level content. Tier 1 instruction with Tier 2 and Tier 3. Also, as an administrator, it’s important for me to find time in the schedule for intervention - above and beyond math instruction.

2. We do a lot of reviewing, we review some standards and do math game. I try to use anchor charts. We use math tools like the hundreds charts, cubes and math notebooks. I look at the math curriculum and think about how to get my classroom ready to support the lessons. I look at the MAP scores and shared AVMR assessments.

3. I study the curriculum and make sure I have lots of materials and differentiation supplies. I walk through the curriculum and help teachers feel comfortable with it. I look at the Curriculum essential guide.

4. We do home visits to all of our kindergartners and get them ready for the school day routine and expectations. I also remind them at conferences and put up numbers and number lines. Also, every chance I get, I count down or count up usually during transitions.

5. I get my games ready and laminate them or make new ones. I have goal boxes and I’m prepping these all summer. I have spoken at conferences about math and AVMR- Todd Conference.

6. I know the curriculum. I also look at their test grades from the previous year.

7. Before students walk in the school for the school year, how do you prepare the school and the teachers to succeed in the math classroom?

   Analyze the standards and create learning targets, talk to grades above or below. Administration is always present, but doesn’t drive the agenda, math collaboration this year. In PLCs our method is to analyze content in each unit.

8. I look at math norms and go over expectations. I put together math partners. I like to give students a clean slate.
9. I go every Sunday morning to plan. I put together a STEM activity during the summer. I'm not happy with math curriculum.

10. I look at data including MAPS scores and information passed down to the last teacher. I also look at all the students file. **3 times a year we analyze the math data from MAPS scores.** Low growth means low achievement.

11. I go through curriculum. I look through the games and update games to make it more fun. Once we get our student list, **we look at SAT 9s, MAP tests. I also watch MAP tests through the year and I make an effort to get to know my students.** I also clean up games and make them look new. I take pride in material. I use math concepts throughout the room and I use different shapes in the classroom.

### Key

- **Relational**
- **Power Standard or Essential Standard**
- Open to new ideas
- **Professional development**
- Intervention
- **Data**
- Collaboration
- **Curriculum**
- Pacing Guide
- **Differentiating instruction**
- **Take Risks**
- Well-planned
### Questions #7: How do you and the other teachers in your grade level support each other in math?

<p>| | |</p>
<table>
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<th></th>
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</thead>
<tbody>
<tr>
<td>1.</td>
<td>We have a common planning time. The atmosphere is really great we just ask questions and share ideas. It’s a very collaborative and welcome vibe</td>
</tr>
<tr>
<td>2.</td>
<td>We go through Investigations curriculum and we pick out Power Standards as a school. We look at each unit/chapter and ask ourselves where we can use the power standards. There are approximately 5 Power Standards.</td>
</tr>
<tr>
<td>3.</td>
<td>We have collaboration one time a week for 70 minutes of math and we go through every unit. We take out warm ups and add important exercises. We also make sure to look at the Pacing Guide and make sure we are on track.</td>
</tr>
<tr>
<td>4.</td>
<td>Every week we look at lesson plans, share supplies, cubes, goals and strategies in the grade machine.</td>
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<tr>
<td>5.</td>
<td>Solution Tree Process. Plan Intervention groups, collaboration time is every Monday and we talked about Math</td>
</tr>
<tr>
<td>6.</td>
<td>We share, division how many days and what activities did you use. All new teachers in 4th.</td>
</tr>
<tr>
<td>7.</td>
<td>Looking at the standard and how we are going to teach it. Look at tricks for teaching. Lots of collaboration throughout the week. This is our 2nd year together. Sharing strategies with teachers helps more students.</td>
</tr>
</tbody>
</table>

There are three first grades at Terry Redlin. Currently our PLC is focused on ELA. Since our math is shortened, we focused on what is the most important thing for kids to know. The principal encourages us to focus a little on math. Mondays they talk about math and it is all planned by the 1st grade teachers. The district has Pacing guide and this forces you to ask, “What are the essentials?”

### Key

- Relational
- Power Standard or Essential Standard
- Open to new ideas
- Professional development
- Intervention
<table>
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<tr>
<th>Data</th>
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<tr>
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<td>Pacing Guide</td>
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<tr>
<td>Differentiating instruction</td>
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<tr>
<td><em>Take Risks</em></td>
</tr>
<tr>
<td>Well-planned</td>
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</table>
Question #8: How do you help (if any) the principal make decisions for the school year in regards to teaching math? Scheduling? Collaboration? Curriculum? Resources?

1. I feel very safe and welcome. There’s an open door policy. Sometimes he comes into collaborations and we do a lot on the computer. We share documents and data. The vibe from the former principal was very open and this has continued. I feel very confident because of the leadership.

2. There’s a leadership team for each grade level which includes Instructional coach or admin intern. The principal is really good at problem solving. During collaboration we have math investigation lessons. The leadership member has an agenda. We have a note taker and other jobs during collaboration. There’s a 14 day challenge for Power Standards.

3. We have a leadership team for the 1st time since Diane’s been here which includes one person per grade level. We create the schedule together. The PLC focused on collaboration.

4. The leadership team in the building. We ask each other about intervention in our grade level. The leadership team meets approximately 3 times per year. We also have a scheduling committee. Math is whole group and shouldn’t be after recess. PLC and Collaboration meets a total of 2 times per week. The collaboration is different every year because of the turnover among the staff.

5. The schedule is open. She encourages us to find time for intervention. No mandate for math for collaboration. We are currently focusing on trauma for PD.

6. Talk to SPED teachers about flexible grouping. Leadership team works on scheduling. ELL teachers. During PLCs/SIPPS administrators are walking around. Generally we pick a standard, assess, pick a standard, assess for AVMR.

7. Suggestions for minutes, we really like intervention time. Provided materials, she trusted us that we needed math materials. Before we tried to do AVMR without curriculum. I like resources and math curriculum.

8. During evaluations she discusses the concerns about not having enough time. I know what’s important. I request cards and Ryan is good about getting resources.
<table>
<thead>
<tr>
<th>Key</th>
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<tbody>
<tr>
<td>Relational</td>
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<tr>
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<td><em>Take Risks</em></td>
</tr>
<tr>
<td>Well-planned</td>
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APPENDIX R

STRUCTURED INTERVIEW QUESTIONS

Teachers
1. What would you say are your strengths as a teacher and colleague at your school?

2. When you think about other good, effective teachers, what qualities do you admire?

3. What would you say are your strengths in teaching math? What do you do well in the math classroom? Take advantage of this chance to brag about yourself.

4. What would you say are the leadership strengths of the principal?

5. One of the things teachers discussed during Interview #1 was that intervention supported students’ math achievement. Could you tell me more about intervention, how it’s organized and what is essential to successful intervention.

6. The teachers during Interview #1 also felt supported during collaboration time. How does your collaboration time work and when do you feel like collaboration is NOT working. What role do you play during collaboration? What are some essentials to good collaboration?

7. The pacing guide was also mentioned during my interviews with teachers. When teachers mentioned the pacing guide, mostly they said it was too fast, but yet your building principal was flexible with the changes you made and the changes you made resulted in a high math growth rate. How do you and your grade level determine when to slow down, yet stay on grade level?
APPENDIX S

STRUCTURED INTERVIEW QUESTIONS

**Principals**

1. What would you say are your leadership strengths?

2. What role do you feel you play in the academic achievement in your building?

3. There’s an enormous amount of research on the impact an effective teacher can make in the classroom and I believe good teachers are essential to academic achievement, but through this study, it is obvious to me that strong leadership and systems are also essential to a healthy school district with healthy schools. Collaboration, pacing guides, and curriculum were all mentioned by teachers as contributing factors for math achievement. How do you keep teachers accountable to these important elements in your school district? Let’s start with the pacing guide. The general consensus was that the pacing guide is fast but that you gave the teachers flexibility. Can you talk about that? How do you know when to give the teachers the flexibility and when to keep the teachers on pace with the pacing guide?

4. Teachers also gave credit to collaboration for supporting their math instruction. What is your role as an administrator during collaboration? What are your expectations for collaboration? Do you feel like the collaboration conferences has benefited how your staff uses collaboration?

5. From my understanding, there was also a comfort level with the Investigations curriculum because the district decided to use Investigations for a 2nd cycle. Do you think this is an important factor in teaching- comfort with the curriculum. Some of the teachers mentioned that there were a lot of holes in the curriculum. No curriculum is perfect, but the teachers were aware of the weaknesses of the curriculum for the 2nd cycle.

6. In your opinion, what else could be done to support math achievement in Title I students either district wide or at your building?
APPENDIX T

SURVEY QUESTIONS

1. What is important to academic achievement in math? Please rank in order of importance with 1 being the LEAST important and 6 being the MOST important.
   - Collaboration
   - Pacing Guide
   - Curriculum
   - Professional Development
   - Staff Meetings
   - Intervention

2. What are essential components to collaboration. Please rank in order of 1 being LEAST important to 5 being MOST important.
   - Agenda
   - Accountability
   - Team Cohesiveness
   - Time
   - Access to data

3. The biggest hurdle to teaching at a Title I school is… Please rank in order of 1 being SMALLEST hurdle to 6 being BIGGEST hurdle.
   - Time
   - Not enough parent involvement
   - Teacher turnover
   - Language barrier
   - Cultural differences
   - High mobility

4. I believe different cultures value education differently.
   - Strongly agree
   - Agree
   - Neutral
   - Disagree
   - Strongly disagree

1. If I could change one thing at my school to help students learn, it would be...
   Answer:
**APPENDIX U**

**STRUCTURED INTERVIEW**

**QUESTION 1**

<table>
<thead>
<tr>
<th>Question #1: What would you say are your leadership strengths?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Empathy and understanding the why. I understand the urgency, but not debilitating or paralyzing. I aim to fill the gaps in addition to Tier 1 instruction.</td>
</tr>
<tr>
<td>2. <strong>I’m open to new ideas.</strong> I’m a good communicator and I’m always asking questions. I have a positive attitude and I like to promote positivity. I make learning fun and I <strong>build relationships.</strong> I work in small groups and I try my best to <strong>differentiate instruction</strong> to help each child.</td>
</tr>
<tr>
<td>3. I’m a good listener and I try to listen and I don’t like to interrupt before I understand the whole picture. I like to find out a lot of information. I like to have the whole picture. I am a life-long learner.</td>
</tr>
<tr>
<td>4. Classroom management, structure and routine expectations are high and I’m well-known for smooth transitions. I <strong>take a lot of time developing relationships with each individual student.</strong> I have my masters in reading and I like to give reading advice. I am still learning and I bring something to the table during collaboration. Literacy in general is a strength.</td>
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<td>5. I’m not afraid to say what I think- that’s probably a strength and a weakness, but I have learned to think before I speak. I have the ability to see multiple perspectives. I’m on the Social Studies committee and I am able to serve teachers through this committee. I understand the team concept.</td>
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<tr>
<td>6. In my first teaching position at the Immersion Center I learned how to <strong>differentiate lessons.</strong> I see the big picture and that’s how I organize my work. I’m not just thinking about today. I am dependable and I like to do the same thing. I like routine and structure. I’m decisive.</td>
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<tr>
<td>7. Every decision I make I try to do what’s best for students. I like to think that the staff here feels comfortable talking to me about anything. We create a very routine environment to serve our students in trauma. I always come from a place of caring, gentleness. I have a lot of credibility because of my extensive teaching background and my experience as an instructional coach.</td>
</tr>
<tr>
<td>8. <strong>Building relationships with students and teachers.</strong> I am easy going and flexible. I’m a positive person and I smile a lot. At work, I am willing to do anything. If my principal wants me to give a presentation, I will do it. I’m up for anything. I relate with kids and I like to communicate with the family.</td>
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**Key**

- Relational
- Power Standard or Essential Standard
- Open to new ideas
- Professional development
- Intervention
- Data
- Collaboration
- Curriculum
- Pacing Guide
- Differentiating instruction
- Take Risks
- Well-planned
#2 Question: When you think about other good, effective teachers, what qualities do you admire?

1. Planning ahead and management in the classroom. I like to see how other math teachers do math instruction. I feel better teaching math this year. Each year will be better.

2. Get on students level and connect with them and make lessons engaging. You have to continue to learn about teaching well rounded educators are learning, reflective teachers.

3. Teachers that look outside of the box- not traditional. They aren’t afraid to make mistakes. *Danyel and I dive in and then we change it. Dive in,* make changes, repeat. Also, good relationships with students and colleagues.

4. Good relationships with students, patient, but firm. A magical relationship and they don’t get flustered.

5. The ability to stay calm in a high stress situation. The ability to restore relationships. Creativity to deliver lessons in multiple different ways. Classroom management is organized and prepared.

6. Those that make learning fun. Those that don’t just teach curriculum, engaging. Colleagues that want to improve.

7. Well-planned. Diverse in the way they present lessons, whole group, small group.

8. Does the teacher have a relationship with the child and does it extend outside the classroom. Classroom management is fun, but well-managed, modern classroom, flexible. Relationship building outside classroom. Say one positive thing to start the day.

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APPENDIX W

STRUCTURED INTERVIEW

QUESTION 3

<table>
<thead>
<tr>
<th>Question #3: What would you say are your strengths in teaching math? What do you do well in the math classroom? Take advantage of this chance to brag about yourself.</th>
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<tbody>
<tr>
<td><strong>1.</strong> Utilizing the Brain Pops, I like to use them for introductions to my lessons. I make sure the assessments and anticipatory sets are fun. I use <strong>small group for differentiation.</strong></td>
</tr>
<tr>
<td><strong>2.</strong> I’m not the most confident math teacher. We take time to dig into Investigations and make story problems real-life by changing names. AVMR helps the classroom.</td>
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<tr>
<td><strong>3.</strong> I’m not good at math. I have a good point of view for my math strugglers in my classroom. I can see where my students are coming from. I use hands-on activities and use it in groups and individuals, manipulatives, conversations, math talk and math time. I <strong>allow students to make mistakes.</strong> Also I don’t use the word mistake. I answer questions with questions.</td>
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<td><strong>4.</strong> I was good at math and I understand using multiple solutions to solve a problem. I can see lots of sides and angels. I have a balance of presenting math and thinking about language- talking academically- explain your thinking. I try to balance the language with mathematics.</td>
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<tr>
<td><strong>5.</strong> Know the goal of the lesson objective. Develop an attitude of grit and perseverance. Facilitate and let them inquire about a concept through debate, dialogue. I ask questions that help them arrive to an answer.</td>
</tr>
<tr>
<td><strong>6.</strong> Meeting students where they’re at. <strong>Differentiating instruction. I am using more small group instruction this year and I know where my students are at.</strong></td>
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<td><strong>7.</strong> Meeting the needs of the children and meeting them where they are at. Whole groups, small groups and individual planning times.</td>
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<tr>
<td><strong>8.</strong> Recognize that not everyone learns the same way. Consider different learning styles when forming groups to make groups compatible. How can I group children? Adapt activities to the skill level of my skills.</td>
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**Key**

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#4 Question: One of the things teachers discussed during interview #1 was that intervention supported students’ math achievement. Could you tell me more about intervention, how it’s organized and what is essential to successful intervention.

1. Grade level being open to knowing all students and communicating with them. Collaborating on AVMR assessments. *We came prepared to group kids using a data wall.* The team was open to the data wall and collaborating with other teachers and being open and honest based on test scores and mini assessments.

2. **Grouping students according to their ability.** *Some years we do interventions throughout grade level.* Assessment checklist. Preassessment, teach, post assessment. 15 minutes of intervention for kindergarten. It may have been 20 minutes in 2016-2017.

3. Kindergarten interventions were as a team and we picked where we wanted to go counting has been a trend for a weakness. So as a team we are doing an assessment and we’ll pick kids from all of the kindergarten and help them. No more than 4 kids in an intervention makes intervention successful. Aids pull-out and do intervention. We look at all 100 kids in kindergarten and group them. *Look at Power Standards like number sense.* Power standards are cumulative.

4. We don’t have math intervention anymore. We use a pre-assessment, decide on targeted results, break into like groups. We try to do some intervention by pulling groups, but sometimes it’s preplanned and not collaborated.

5. It all depends on the grade. 5th grade brings common formative assessments and each room takes a group. 20 minutes every day. Right now we are doing test prep with students who are on the bubble. Groups are fluid/flexible based on formative assessments, data. We meet them where they are.

6. **There’s no intervention this year which is why I do small group.** I have four flexible groups. Flexible groups depending on students’ skills. *It would be nice to have a formal intervention.*

7. 2nd grade organizes it based on target goal we’re working on. *We base our instruction around the target.* When certain students don’t meet the target intervention used. Intervention is w/in the classroom and/or grade level. The target needs to be so strong/focused/not vague.
8. No math intervention this year. **AVMR during intervention last year and grouped students according to how many staff we had working with us based on AVMR.** **Flexible grouping.** Reassessed as needed every 4-5 weeks. We would move students. **There are gaps because of no intervention.** We had a data wall with pictures and we use MAP scores.

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#5 Question: The teachers during interview #1 also felt supported during collaboration time. How does your collaboration time work and when do you feel like collaboration is NOT working. What role do you play during collaboration? What are some essentials to good collaboration.

1. Usually sometimes administration, pops-in noticing who’s been able to have success. Being on the same page and knowing what’s coming up. AVMR - give time frame. Accountability for data of notes about skills they are working. Listening. We used to type our data, someone’s usually on the computer and not one person leading.

2. Collaboration works really well. Sends out an agenda and everyone has a job like time keeper, reporter. We chit chat about what’s happening in our lives and in our classroom. We’ve been doing the system for 3-4 years now from the RTI model, created norms for collaboration time, sticky notes. Give jobs or roles, accountability, created norms as a team reviewing them and sticking with them.

3. Amy is the team leader and she goes to the leadership team meetings. We meet for joint planning time which is 70 minutes during our double planning time. We maximize our time by having the specials teachers transport the students. We focus on a 15 day challenge (Power standards? Targets?) Allow 5 minutes for chit chat and someone bring a snack. We spend 15-20 min. On housekeeping stuff for field trips etc… The rest of the time is focused on math. PD also might happen during that time because we are a coding school. The agenda is essential, having a plan is also essential. The chit chat is necessary. There are 4 of us in collaboration and everyone has a job i.e. task master, leader. We all have a strength that is different than everyone else.

4. 2 times of collaboration which is not mandated by administration. Materials and supplies are shared. Double special time. Very fluid. Formal PLC SPED teacher is assigned as well as administrators. Pre assessments are decided on.

5. Jessica is the team leader, she sends out agenda either verbally or through email. We like to see if we are at the same pace for Math, Reading, Writing. Not specific roles for other teachers. We trust each other, vulnerable and admit when you don’t know. Takes a while to build trust. Data, calibrating proficiency. Expectations are the same.

6. Common assessment that we would give and group kids accordingly. Then divide those kids between teachers. Students who didn’t need an intervention did Dreambox. Collaboration we talked about activities. Informal
7. Essentials to collaboration- planning- we are going through each lesson in math and picking out Power Standards, making sure we’re all hitting the same schedule 10-15 days before assessment. Remembering what worked last year, diving into the book, don’t get off on a bunny trail. Uses common core standards to plan lessons with curriculum.

8. Norms- what time, when. Started with celebrations and frustrations first- about 5 minutes. We report data on students, they gave us a standard collaboration and it helped us. Kepts us on track about intervention. Not as much flexibility, tracked students on spreadsheets school wide. Developed norms for staff meeting and collaboration time. One day a week is enough- two times seemed too much.

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APPENDIX Z

STRUCTURED INTERVIEW

QUESTION 6

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<td>Take Risks</td>
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#6 Question: The Pacing Guide was also mentioned during my interviews with teachers. When teachers mentioned the Pacing Guide, mostly they said it was too fast, but yet your building principal was flexible with the changes you made and the changes you made resulted in a high math growth rate. How do you and your grade level determine when to slow down, yet stay on grade level?

1. In your opinion, what else could be done to support academic achievement in Title I students either district wide or at your building?

   Resources, small class sizes. Trauma counseling or support. RISE classrooms (Reaching, Independence, Structured, Education). RISE is a SPED program.

2. We collaborate on Tuesday and look at the next week coming up. Not all grade levels do this. We are all on the same page. We have accountability with quick units and we try to review or no extra time for fun, overview to see the end goal. Promote to stay on track-not be an issue. Staying on track is part of the culture for the pacing guide.

3. In your opinion, what else could be done to support academic achievement in Title I students either district wide or at your building?

   The big thing is more time for PD. Personal choice in PD.
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<td>4.</td>
<td>Stay on as close as we possibly can. A couple days off of the pacing guide. If a lesson was a flop, they don’t have it mastered or pull in a different strategy. Sometimes it will click later on. Believe in the spiral method that the curriculum uses. We do notice students understand when they spiral back through.</td>
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<tr>
<td>5.</td>
<td><strong>Power standards.</strong> I don’t worry about units that aren’t on the power standard like data collection. Principal was a part of the conversation and she is OK with us not focusing on it too much.</td>
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<td>6.</td>
<td><strong>Stick with pacing guide.</strong> Half quarter for each unit. 4-½ weeks for each unit. If we can’t get it, we have to move on. We keep moving. Follow guide.</td>
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</table>
| 7. | In your opinion, what else could be done to support academic achievement in Title I students either district wide or at your building?  

Making a move and looking at elementary schedule. Core instruction NOT interrupted. Band and orchestra not pull out during CORE instruction. Ask, “What’s best practice when teaching math?” |
<p>| 8. | Based on how students are doing. Collaboration helps with making decisions. Gaps are bigger in 5th grade. No one is really on us. Spiraling building on what you already know. Math facts. |
| 9. | New teachers meet with instructional coach and keep on track with pacing guide. Fractions slowed us down. <strong>We make more decisions as Smarter Balance gets closer.</strong> |
| 10. | Collaboration. We use pacing guide. <strong>Assessments help us determine what we do during intervention.</strong> Spent more time on adding/subtracting one week behind. <strong>Power standards help us determine how to slow down or speed up.</strong> |
| 11. | New Team of teachers and getting used to expectations. If you have to guide too much, you have to slow down. Are kids too frustrated? Slow down. Investigations doesn’t feel designed for Title I. Story problems are written for upper middle class students. |</p>
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<tr>
<th>Administrators: Q2- What role do you feel you play in the academic achievement in your building?</th>
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**Key**

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- Pacing Guide
- Differentiating instruction
- *Take Risks*
- Plan
Q3 Interview 2- Administrators- There’s an enormous amount of research on the impact an effective teacher can make in the classroom and I believe good teachers are essential to academic achievement, but though this study, it is obvious to me that strong leadership and systems are also essential to a healthy school district with healthy schools. Collaboration, Pacing Guides, and Curriculum were all mentioned by teachers as contributing factors for math achievement. How do you keep teachers accountable to these important elements in your school district? Let’s start with the Pacing Guide. The general consensus was that the Pacing Guide is fast, but that you gave the teachers flexibility. Can you talk about that? How do you know when to give the teachers the flexibility and when to keep the teachers on pace with the Pacing Guide.

1. The Pacing Guide has been revised/updated. The teachers know to use their judgement. Tier 2 instruction is intervention and Tier 3 is the AVMR. 80% intervention change to 80% on track. Teachers are accountable to their peers/grade level.

2. That’s the million dollar question. The Pacing Guide was very necessary. The Pacing Guide is about 10-12 years old. It’s necessary because of the high mobility students. Another reason is that teachers may over teach or under teach. It was developed with the mobility of our students so we know that hopefully they haven’t missed a whole unit. The pacing has improved, but the range of learners makes pacing hard. Intervention and small groups helps with students who struggle.

7. They know you can’t keep plowing ahead and they are mindful of the end goal. Before I came there was no pacing guide and students weren’t learning. We have conversations about pacing guides during intervention.

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<td><em>Take Risks</em></td>
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<td>Plan</td>
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<tr>
<td>Q4 Interview- 2 Administrators: Teachers also gave credit to collaboration for supporting their math instruction. What is your role as an administrator during collaboration? What are your expectations for collaboration? Do you feel like the collaboration conferences your staff has attended has benefited how your staff use collaboration?</td>
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- Plan
APPENDIX DD

STRUCTURED INTERVIEW- ADMINISTRATORS
QUESTION 5

<table>
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<tr>
<th>Q5 Interview 2 Administrators: From my understanding, there was also a comfort level with the Investigations curriculum because the district decided to use Investigations for a 2nd cycle. Do you think this is an important factor in teaching comfort with the curriculum? Some of the teachers mentions that there were a lot of holes in the curriculum. No curriculum is perfect, but the teachers were aware of the weaknesses of the curriculum for the 2nd cycle.</th>
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- **Take Risks**
- Plan
### Structured Interview - Administrators

#### Question 6

Q6 Interview 2 Administrators: In your opinion, what else could be done to support academic achievement in Title I students either district wide or at your building?

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<td>Resources, small class sizes. Trauma counseling or support. RISE classrooms (Reaching, Independence, Structured, Education). RISE is a SPED program</td>
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<td>The big thing is more time for PD. Personal choice in PD</td>
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APPENDIX FF

SURVEY SHORT ANSWER

Survey Q5

Many times we need smaller class sizes to address the significant needs of our learners.

| Many of our students go to after school programs after school anyway. I wish we had even 30 more minutes in the school day to continue to address areas of need. |
| More choice in doing what is right for kids vs sticking to a pacing guide or curriculum |
| having time to do the necessary interventions in both math and reading |
| Hands-on learning opportunities and opportunities for enrichment every day. |
| have set intervention times throughout the day with "all hands on deck" |
| More time in a day. |
| more math intervention time |
| to be able to guarantee a safe and secure home environment for them |
| Time |
| to have a morning meeting everyday to create meaningful relationships with students as well as peers with their own peers. |
| Each classroom would have an EA to aid the teacher and/or class sizes would be smaller. |
APPENDIX GG

FOCUS GROUP PRESENTATION
Focus Group Presentation

SLIDE 1

Welcome to the Focus Group!
Please find gift bag and feel free
to enjoy your snack.

SLIDE 2

The purpose of the focus group is to….

- Analyze Math Growth Rate data
- Analyze data from the interviews and the survey
- Discuss factors that may have contributed to the top Math Growth Rate scores among Title I schools
- Discuss what the district/school do well in supporting academic achievement in the SFSD.
- Complete an Exit Survey
Math Growth Rate

What is Math Growth Rate?

- The South Dakota Department of Education defines math growth rate as the progress students have made on the state assessments for math since the prior school year. Math Growth rate tells us whether students are learning and improving.
SLIDE 5

Scores are from the Data Profile on the SFSD website

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APPENDIX JJ

FOCUS GROUP PRESENTATION

SLIDE 7

<table>
<thead>
<tr>
<th>Math Growth Rate 2016-2017</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Lowell- 100% F&amp;R</td>
<td>51.46</td>
</tr>
<tr>
<td>Terry Redlin- 100% F&amp;R</td>
<td>51.35</td>
</tr>
<tr>
<td>Cleveland</td>
<td>51.24</td>
</tr>
<tr>
<td>Anne Sullivan</td>
<td>41.74</td>
</tr>
<tr>
<td>Hayward</td>
<td>41.30</td>
</tr>
<tr>
<td>Garfield</td>
<td>30.50</td>
</tr>
<tr>
<td>Laura B. Anderson</td>
<td>36.14</td>
</tr>
<tr>
<td>Hawthorne- 100% F &amp; R</td>
<td>28.41</td>
</tr>
</tbody>
</table>

SLIDE 8

Terry Redlin

Mathematics

*Graph is from the Department of Education website*
SLIDE 9

Terry Redlin

MATHEMATICS

*Graph is from the Department of Education website

SLIDE 10

Lowell

MATHEMATICS

*Graph is from the Department of Education website
SLIDE 11

Lowell

*Graph is from the Department of Education website

SLIDE 12

Interviews
Themes from Interviews

- 6 of 11 described the importance of being relational with students.
- 6 of 11 referred to using a Power Standard or Essential Standard when planning lessons and when assessing students.
- 7 out of 11 described yourselves as being open to new ideas.
- 8 out of 11 said professional development supported your math instruction.
- 9 of 11 discussed the importance of intervention and data.

Teacher Survey
APPENDIX NN

FOCUS GROUP PRESENTATION

SLIDE 15

What is important to academic achievement in math? Please rank in order of importance with 1 being the LEAST important and 7 being the MOST important.

SLIDE 16

What are essential components to collaboration. Please rank in order of 1 being LEAST important to 5 being MOST important.
SLIDE 17

Survey says,

If you could change one thing at your school to help students learn, it would be...

SLIDE 18

| Many times we need smaller class sizes to address the significant needs of our learners. |
| Many of our students go to after school programs after school anyway. I wish we had even 30 more minutes in the school day to continue to address areas of need. |
| More choice in doing what is right for kids vs sticking to a pacing guide or curriculum |
| having time to do the necessary interventions in both math and reading |
| Hands-on learning opportunities and opportunities for enrichment every day. |
| have set intervention times throughout the day with "all hands on deck" |
| More time in a day. |
| more math intervention time |
| to be able to guarantee a safe and secure home environment for them |
| Time |
| to have a morning meeting everyday to create meaningful relationships with students as well as peers with their own peers. |
| Each classroom would have an EA to aid the teacher and/or class sizes would be smaller. |
### APPENDIX PP

**FOCUS GROUP PRESENTATION**

**SLIDE 19**

<table>
<thead>
<tr>
<th>If you could change one thing at your school to help students learn, it would be...</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>4</td>
</tr>
<tr>
<td>Smaller class sizes</td>
<td>2</td>
</tr>
<tr>
<td>Intervention time</td>
<td>2</td>
</tr>
<tr>
<td>Morning meeting for meaningful relationships</td>
<td>1</td>
</tr>
<tr>
<td>Safe and Secure homes</td>
<td>1</td>
</tr>
<tr>
<td>Autonomy to make decisions separate from the curriculum and pacing guide</td>
<td>1</td>
</tr>
<tr>
<td>Hands on learning everyday</td>
<td>1</td>
</tr>
</tbody>
</table>

**SLIDE 20**

**Summarize my findings:**

What do educational leaders say are the contributing factors to the top math growth rate among Title I schools from the 2016-2017 state test scores?

- Target Standards
- Collaboration
- Intervention time
- Open to new ideas/Professional Development

**Discussion Question:** If you had to rank the above bullet points in order of importance, which order would you put them in?
Journal Article


- High Performance/High Poverty (HP/HP) Schools focus on three kinds of learning
  - Student
  - Professional
  - System

---

5 Questions that Promote Student Success in High-Poverty Schools

1. Does our instructional framework guide curricula, teaching, assessment, and the learning environment?
2. Do we provide targeted interventions for students who need them?
3. Are all students proficient in reading?
4. Are we using research-based models for professional learning and encouraging reflective practice?
5. Are we engaging in continuous data-based inquiry as a school?

**Discussion question**: Rank which order you feel schools/districts should prioritize these questions to promote academic achievement.  

[10 minute timer]
“Although this form of planning is likely to be used in many schools, what distinguishes HP/HP schools from others is the manner in which such a cycle of inquiry has become the norm. Second only to the development of caring relationships in the schools that we studied, the use of data was credited for much of their success. These schools are places where people tend to be very curious about their practice and are eager to innovate. They continuously seek or create solutions to the challenges posed by poverty and are encouraged to take risks.”