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TWO WAY STREET: AN APPLIED RESEARCH STUDY ON THE EFFECTS OF
INCREASED PARENT AND COMMUNITY INVOLVEMENT ACTIVITIES ON STUDENT
ACADEMIC GROWTH IN MATHEMATICS AT SOUTH LEE MIDDLE SCHOOL

A Dissertation
presented in partial fulfillment of requirements
for the degree of Doctor of Education
in the Department of Leadership and Counselor Education
The University of Mississippi

JASON ARLEDGE

May 2019

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ABSTRACT

South Lee Middle School is a small, rural school with approximately 270 students located in north Mississippi. The central issue of concern at South Lee Middle School was low levels of student academic growth in mathematics according to state assessments. An informal preliminary analysis identified root causes of this concern as a lack of organized opportunities either to communicate with parents or to allow community members to volunteer at the school. To mitigate these factors, the administration, faculty, and staff at South Lee Middle School identified two targeted areas of improvement to impact student academic growth in mathematics: school-to-home communication and school-based mentoring. Remind services were established for each grade level to provide two-way communication from school to home. Also, a mentoring program called Red Raider Family was established to provide targeted students with the support, encouragement, and accountability necessary for academic success.

The purpose of this study was two-fold. The first overarching goal was to increase student academic growth on the Mississippi Academic Assessment Program mathematics assessment to at least 75%. This was attempted through implementation of grade-level Remind services and the Red Raider Family program. The second overarching goal was to create a cycle of continuous improvement through feedback from key stakeholders in the form of surveys, interviews, focus groups, document analysis, and descriptive statistics. South Lee Middle School evaluated each of these initiatives and utilized resources to adjust these programs for use in the 2018-2019 school year.

DEDICATION

This document is dedicated to all past and present members of my Red Raider Family, who supported and encouraged me while on this journey.

“Though the ship is battered...

Though the sails are torn...

I have fallen on my knees, as I faced the raging seas.

The Anchor holds, in spite of the storm.”

ACKNOWLEDGMENTS

I would like to thank all those who participated in this study, particularly the teachers, parents, administration, and community members at “South Lee” Middle School. Your support, encouragement, and accountability of the students at the school made this study possible.

To my wife, Mary Glynn Arledge, who could have earned two doctorates based on her loving sacrifice for me, I love you more than words can say, and I thank you.

To my children, Denee, Chase, Brianna, Alanna, and Elijah, who had to put up with their father talking about school all the time, I love you all. This dissertation is your example to never let anything nor anyone stand in your way of achieving your full potential.

To my parents, Butch and Vickie Arledge, who not only set the example of hard working, respectful, responsible adults, but also held high expectations for me and supported me throughout my journey. Thank you for showing me the way.

I serve an awesome God. I am not worthy of His grace and mercy, yet He gave it to me. I am not worthy of being His child, yet He accepted me. I am not worthy of a relationship with Him, yet He walks with me every day. This dissertation exists as evidence of how God can guide you through any adversity, any trial, any hardship, and how He will provide people along the way to help you. All you have to do is trust Him and accept Him. I give Him all the glory and praise for any success I ever receive. Amen.

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CHAPTER I: INTRODUCTION

Imagine a 12-year-old child who is just beginning a new year at middle school. The child is struggling in math class at school. The child's parents are unable to help from home because it has been decades since they tried to do math and they say they were not very good at it back then. Not only are they unable to help, but they are also unavailable to help, because they are constantly tied up at work or with other issues, or they are barely a part of the child's life at all. Teachers constantly stay on students to do their best on schoolwork, but they take little time to show any interest in them beyond the walls of the classroom. When parents talk about the school, they only have negative things to say about the teachers, the administration, the buildings, or the schoolwork itself, often referring to how difficult school was for them. The only times teachers contact the parents are when something negative is going on with the grades, the behavior, or the attendance of the child. The only chance the parents will darken the doors of the school is to pick up their child's schedule or report card, and if the grades are failing, the parents and teachers look to the principal to find out why. What would happen if the two sides joined forces to help the child in this situation succeed instead of blaming each other for failure?

South Lee Middle School, its families, and its community has a unique set of cultural norms, standards, and current practices which should be considered to reach students such as these. A large majority of students at the school received free or reduced lunch due to low socioeconomic status at home. Parents of these students lack the resources to keep regular contact with the school regarding the child's progress. Teachers of these students carried out

required duties as needed regarding parent contacts, but they had no organized school-wide means with which to carry out consistent contact. Community members who wished to help the school were limited to occasional donations and assistance opportunities, with no organized efforts to allow them to meaningfully participate at the school. When issues were analyzed involving low student achievement and lack of parent and community involvement at South Lee Middle School, the need for a change in strategy and overall partnership among school personnel, families, and community members was clear. The following section describes the current conditions regarding South Lee Middle School, reasons for the specific issues to be addressed, and the audience who would be affected through a proposed applied research study.

Statement of the Problem

Description of the problem.

The central issue of concern is the low level of student academic growth in seventh-grade and eighth-grade mathematics at South Lee Middle School. During the 2015-2016 school year, students at South Lee Middle School took the Mississippi Assessment Program (MAP) tests in English/Language Arts and Mathematics, as well as the second edition of the Mississippi Science Test (MST2). The results of these tests were used throughout the state to determine the accountability rating of each school in Mississippi, including South Lee Middle School. Students' test scores were separated into five levels of results: Level 1; Level 2; Level 3; Level 4; and Level 5. The first three levels were each divided into two sublevels: 1A and 1B, 2A and 2B, 3A and 3B. The verbal description of each numerical level is as follows: Level 1—Minimal; Level 2—Basic; Level 3—Pass; Level 4—Proficient; Level 5—Advanced. In third grade, students were required to score a Level 2 or higher on the state reading assessment to be eligible for promotion to the next grade. When students took high school graduation exams in

Algebra I, English II, US History, and Biology I, students were required to make a Level 3 or higher and earn a passing score in each course to be eligible for graduation. In grades six through eight, the levels on each of the state assessments served as a long-term progress-monitoring tool for students, as well as an accountability tool for individual schools and school districts.

Scores were placed within each sublevel based on the amount of points earned on a 100-point scale. Students earned one accountability growth point in Mathematics or English/Language Arts if they moved up at least one sublevel within the first six sublevels, or if they maintain Proficient (Level 4) or Advanced (Level 5) status from the previous year. Students earn 1.25 points if they moved up two levels (Level 1 to Level 3 or Level 2 to Level 4) from the previous year. Students earn 1.25 points if they moved from any level to Advanced (Level 5). The total growth points earned were divided by the number of tested students to calculate the growth points for each test. The same procedure was used to calculate the lowest performing subgroup, also known as the lowest 25%. Proficiency was calculated by finding the percentage of students who score Proficient or Advanced on the English/Language Arts, Mathematics, and Science tests. The rating was found based on a 700-point scale. Each school was given a grade of A, B, C, D, or F based on the number of accountability points earned in these seven areas: Proficiency in English/Language Arts, Mathematics, and Science; Growth of all students in English/Language Arts and Mathematics; and Growth of the lowest performing subgroup in English/Language Arts and Mathematics.

The accountability points of South Lee Middle School earned during the 2015-2016 school year were as follows: Proficiency in English/Language Arts (18.3), Mathematics (11.6), and Science (56.5); Growth of all students in English/Language Arts (29.6) and Mathematics

(41.4); Growth of the lowest performing subgroup in English/Language Arts (26.7) and Mathematics (59.3). The total points earned for South Lee Middle School were 243.4, which earned the school an “F” rating by the Mississippi Department of Education and classified South Lee Middle School as an “At-Risk” school.

When administrators at South Lee Middle School conducted a preliminary root cause analysis to identify areas of weaknesses in the structures and systems in place to assist in student achievement, one of the main areas of concern was the lack of productive partnerships among school staff members, families, and community members at South Lee Middle School. Jeynes (2012) analyzed over 50 studies to determine which strategies were most effective in improving school, family, and community partnerships and student achievement. Of the strategies studied, those which showed significant relationships at the middle school level to student achievement included shared parent-child reading, emphasized school-family partnerships, parents checking homework, and communication programs between parents and teachers. However, upon surveys taken by the principal, the school counselor, and the parent involvement coordinator at South Lee Middle School, no such programs or partnerships with parents had been effectively organized or implemented. Organized, intentional, and research-based methods of school, family, and community partnerships needed to be put into place at South Lee Middle School to improve the school’s academic growth in mathematics, as well as the school’s perception in the eyes of its community.

South Lee Middle School is a small, rural school about 10 miles south of Elvisville, Mississippi which served approximately 255 students in grades six through eight. South Lee Middle School houses a diverse student population from different backgrounds, ethnicities, and socioeconomic statuses. Minority students make up approximately 63% of South Lee Middle

School's population, while 89% of students receive free or reduced lunch. Many of the economically disadvantaged students live in single-parent homes, under guardianship of other family members, or were designated as homeless. Most parents or guardians in these circumstances worked longer hours or multiple jobs to meet the family's needs. Other caregivers receive financial assistance due to their inability to find or maintain sustainable employment. These parents often do not possess the resources to allow them to access the school and its staff. Research (Gutman & Eccles, 1999) showed families under this amount of financial strain have limited parental school involvement, which contributed to decreased academic achievement for students. Reaching out to and involving these stakeholders in the school process was a challenge South Lee Middle School increasingly struggled with over the past several years.

During this study, South Lee Middle School's faculty and staff consisted of 34 certified staff members. Twenty-five of the staff members were on campus throughout the school day; the other nine staff members served one or more other campuses. Of those 34 staff members, 12 of them, or approximately 35%, either graduated from South Lee High School or lived in the southern part of Lee County. Out of the 25 full-time certified staff members, six of them, or 24%, either lived or grew up in the southern part of Lee County. The significant percentage of teacher commuters combined with the lack of stakeholder involvement morphed into a perception from the local community of a school staff which does not care about the students, the parents, or the community.

Specific efforts to involve parents at South Lee Middle School showed little or no extended contact between parents and the school. Sign-in sheets from parent involvement events during the 2016-2017 school year indicated approximately 40% of targeted students' parents attended the events. When schedules were given out during an Open House event in July 2016,

approximately 55% of students had at least one parent attend. However, during specific parental involvement events, such as the annual athletic banquet, only 25% of targeted students had at least one parent attend. Approximately 85% of parent-teacher conferences during the school year were initiated by the school, and about one-third of parents who were called by the school for parent-teacher conferences do not attend. Community visits to South Lee Middle School showed even less participation. Visitor sign-in sheets from November 2016 to May 2017 record 62 total visits from people outside the school system. Most of those visits were from external providers or from student-teachers. As of May 2017, there were no organized efforts to include local community members in the school operations at South Lee Middle School.

The disconnect between the school and the community contributed to the lackluster student achievement results at South Lee Middle School. These results coincided with multiple studies which highlighted a positive correlation between parent involvement and student achievement (Fan & Chen, 2001; Henderson & Mapp, 2002; Hill & Tyson, 2009; Jeynes, 2012; Mo & Singh, 2008). To turn the tide of declining student achievement at South Lee Middle School, school, family, and community partnerships needed to be strengthened to provide a more inclusive climate conducive to learning and to build a better future for the young people of the local community.

Justification of the problem.

The main objective of any school is to prepare students for success in later life. Math achievement in middle school is crucial not only to high school success, but also to improving the possibility of college completion. Lee (2012) states math achievement is a strong predictor of two-year and four-year college completion. Meeting current state standards strongly predicts preparation to complete a two-year degree, while students who meet national standards in

mathematics are currently predicted to have an increased chance of completing a four-year degree. Lee also notes a significant gap in college readiness among African-American and Hispanic students compared to Asian and Caucasian students who were part of the study. Furthermore, Lee describes a positive correlation in the study between a parent's education level and a student's college readiness. Putnam (2015) links parents' education and income levels together, classifying students whose parents did not finish college as "poor kids" and those students whose parents have obtained a college degree as "rich kids." Not only does South Lee Middle School consist of a majority-minority student population, but it also has shown a lack of proficiency in mathematics on statewide assessments. According to the 2015-2016 Mississippi Assessment Program mathematics test, 11.6% of South Lee Middle School students scored either Proficient (Level 4) or Advanced (Level 5). Current data has not been compiled to show the percentage of former South Lee Middle School students who complete a four-year degree. However, the percentage of minority students, the percentage of students of low socioeconomic status, and the percentage of students scoring Proficient or Advanced on state mathematics assessments at South Lee Middle School indicate a strong need for implementation of strategies to address student achievement in mathematics and prepare them for future success.

A forerunner of a grassroots movement to improve mathematics fluency is Robert Moses, founder of The Algebra Project. Based in Cambridge, Massachusetts in 1981, it is a nationwide non-profit organization with a purpose of improving math education, particularly algebra fluency, in minority and low-income students. According to Moses (Wilgoren, 2001), the logic is simple: if today's students want to achieve even a basic level of success in modern society, they must master algebra, preferably by the eighth grade, which is the path to the college-prep curriculum. Moses (2001) posits a chain of events which begins with mastering algebra and ends

with students gaining greater economic access as adults. Moses' work with The Algebra Project further justifies the need and urgency for students to show academic growth and proficiency in mathematics at the middle school level, including South Lee Middle School.

In Mississippi, students must have scored at least Level 3 on the MAP Algebra I exam to be eligible for high school graduation. Students who scored a Level 3 or higher on the MAP Grade 7 and Grade 8 Mathematics tests showed a mastery of skills which better prepared them to pass the Algebra I exam and made them eligible to graduate high school. Proficiency in Grade 7 and Grade 8 Mathematics moved students closer to meeting the national standards referred to earlier, preparing them for greater success in college and greater opportunities in a more competitive workforce. Putnam (2015) noted extensive research identifying the growing opportunity gap in modern American life based on education levels and socioeconomic status, highlighting the importance of improved mathematics achievement today for future success tomorrow. Focusing on growth of all students hoped to create an expectation of continuous improvement and perseverance for every student to reach his or her greatest potential.

Marzano et al. (2005) laid out several methods by which educational leaders can effectively apply research to achieve positive academic results. In the area of parent and community involvement, three methods discussed can be activated immediately. First, provide additional avenues of communication between the school and the home. Second, provide community members flexible opportunities to volunteer at the school. Third, give community members the opportunity to provide input as to how to improve school practices.

Epstein (2011) summarized the need for partnerships between schools, families, and the community by stating, "Educators need to understand the contexts in which students live, work, and play. Without that understanding, educators work alone, not in partnership with other

important people in students' lives" (5). Despite the current efforts of the South Lee Middle School staff to reach out to parents, many of the methods which only allow for surface-level interaction between parents and school staff members were ineffective in developing strong partnerships. In most instances when school staff contact parents, negative information was usually relayed regarding their children. These shortcomings put forth a negative perception about the school to these parents, who in many cases did not have the resources to assist their child academically. Students' academic achievement thereby suffered due to the lack of school-to-parent connection. While at school, students under these circumstances had more discipline incidents because of their perceived lack of accountability or notification at home. While at home, parents often received incomplete or inaccurate information from the students regarding academic assignments and results, school events, or behavioral circumstances at school. The students' academic performance or behavior went unnoticed at home in many cases due to the lack of communication between parents and school staff. The gaps of communication and collaboration between parents and school staff widened, and student achievement decreased.

The lack of communication between the school and its stakeholders also created an air of distrust between the two groups. In the past several years, instead of some parents attempting to bridge the divide between the parents and the school, they chose to transfer their children from South Lee Middle School to neighboring schools and districts. Other parents whose children still attended the school reduced their volunteer time and efforts. Businesses, churches, and civic organizations made little or no effort to reach into the school to help, and the school did little to reach out. These actions created a community which was largely disconnected from the school and its students. The school and community continued to lose opportunities for growth, and the biggest losers were the students and their academic achievement.

Current research (Epstein et al., 2009) indicated many patterns regarding school, family, and community partnerships. As students got older, partnerships between parents and schools decreased. Schools in more economically depressed communities made more negatively motivated contacts with parents. Moreover, single parents, parents who worked outside the home, fathers, and parents who live far from school were less involved at school. To counteract these findings, South Lee Middle School created organized, intentional, meaningful opportunities to engage parents with greater positive communication, increased opportunities for community involvement which adjusts to volunteers, and advocated appropriate involvement practices.

One method by which to provide community involvement opportunities was through school-based mentoring programs. Putnam (2015) cited numerous studies which delineate the benefits of extended formal mentoring for at-risk students, such as increased school attendance, improved academic performance, and increased self-worth. In short, as Putnam wrote, “mentoring matters” (214). Increased support, encouragement, and accountability provided by mentors was intended to make up for a shortcoming in other adult interactions throughout a child’s life. The child would become more motivated to succeed in school, which would lead to a greater likelihood of the student becoming a successful, productive member of society.

The underlying truth behind school and family partnerships was not only students would benefit from such collaboration, but also, in general, all sides of the issue wanted a positive and ongoing connection. Almost all families cared about their children and wanted them to succeed. School staff members at all levels wanted to create positive relationships with families, but because they did not know how to do it effectively, they are afraid to try. Students of all ages wanted their families to be more knowledgeable about their academic progress at school;

however, better information was necessary to make it happen. (Epstein et al., 2009, 12-13). Moreover, students in low socioeconomic circumstances not only benefitted from formal mentoring, but they wanted it, too. Putnam (2015) stated poor kids were nearly twice as likely to say at some point in their lives they wanted a mentor but didn't have one. The desire of at-risk students to have a mentor combined with its benefits emphasized the need for a formal mentoring program to help students grow academically.

The research emphasized the possibilities of creating and maintaining strong family and community partnerships with schools, even in socioeconomically depressed areas, if efforts were made to reach out to those families and provide them needed encouragement and opportunities to actively participate. However, at South Lee Middle School, the limited efforts to reach out to parents on their terms and schedules had been ineffective in drawing the parents closer to a partnership with the school, and the students were suffering the consequences.

Significance of the study for audiences.

The study was designed for many of the stakeholders within the school to be positively affected by a more inclusive and effective partnership between teachers, parents, and the local community. Students needed the comfort of knowing adults in their lives cared about their well-being in the classroom and were able to work together to help. This type of plan provided stability and security which was lacking for many students. Parents were able to assist their child with more confidence at home and have the security of knowing what is going on with their child at school. The study intended for teachers and school staff to have another partner to collaborate with regarding each of the children coming through the doors each day. The study intended to benefit the school with a more stable culture of learning and community-building which will permeate outside the school walls. The community was meant to reap long-term

benefits of having a positive perception of the town and the school as well as a more educated workforce in the future.

Another significant component for South Lee Middle School and its stakeholders was the nature of the study. The applied research study was designed to set targeted goals and objectives based on current research and practices, create and implement a research-based action plan, evaluate the results, and adjust the plan for future use. This research design model was consistent with the “plan-do-check-act,” or PDCA, cycle (Moen & Norman, 2010). Educational leaders had taken the PDCA concept and applied it to practices of professional development and improvement through the creation and implementation of professional learning communities, both at the school and district levels over recent years (Dufour & Marzano, 2011). The applied research study aimed to directly apply the cycle of continuous improvement to the school, family, and community partnerships at South Lee Middle School, while also to provide insight as to how targeted strategies and methods of family and community involvement can be effective in a similar setting.

None of these events happened in a vacuum. South Lee Middle School needed targeted methods to involve all families in positive, productive, constructive partnerships. This study provided an opportunity for the staff, families, and community members at South Lee Middle School the opportunity to work together to create a school environment where each student can reach his or her full potential.

Purpose Statement

This applied research design utilized quantitative and qualitative data to address the partnerships among families, community members, and school staff members at South Lee Middle School. An applied mixed methods design was implemented, in which both data types

were collected at the same time and analyzed separately. Then both types of data were used to evaluate the results of the action plan. In this study, descriptive data such as formative and summative assessments, student assignment completion records, teacher-to-parent contact records, parent involvement sign-in sheets, visitor sign-in logs, and open-ended surveys were collected. These data points were used to test the theory of Epstein (2011) which predicted targeted strategies of increasing parent and community involvement will positively impact specific measures of student achievement for the students at South Lee Middle School.

Qualitative data was collected from focus groups, interviews, and observations, and used to explore the partnerships between families, community members, and school staff members at South Lee Middle School. Qualitative data was collected from open-ended surveys and used to examine the change in perception of these partnerships over the length of the study. The two data sets were then synthesized to analyze the impact of the school, family, and community partnerships on student achievement.

In the preliminary phase of the study, survey data from multiple stakeholders in conjunction with key informant interviews, focus groups, and formative and summative assessment data was utilized to guide practices of improving communication and community volunteering at South Lee Middle School. The purpose was to gauge current practices and perceptions of school, family, and community partnerships, as well as current levels of student participation and achievement at South Lee Middle School. Once the data was collected, a Community Involvement Team, consisting of key stakeholders from different areas, reviewed the data, interpreted the results, and devised an action plan of improvement.

The action plan was implemented during the 2017-2018 school year, focused on increasing lines of communication between school and home, as well as increasing community

involvement opportunities at school through school-based mentoring in order to increase student academic growth in mathematics. Once the action plan was implemented for one year, quantitative data (assessment results, student participation results, parent contact records, parent involvement sign-in records) and qualitative data (open-ended surveys, focus group and interview data) was collected and analyzed to gauge the success of the action plan. The Community Involvement Team then analyzed the data collected and conducted an evaluation to determine if the goals have been reached. The team also broke down the implementation process as a whole, the changes in school, family, and community partnerships which resulted from implementation, and ways to improve implementation in the future, thereby developing organizational capacity at South Lee Middle School. One purpose of the Community Involvement Team, as described by Epstein (2009), was to provide multiple viewpoints and give a voice to all sides of the issue pertaining to partnerships among schools, families, and community members so that the plan meets the needs of all stakeholders. Another purpose was to begin a cycle of continuous growth and improvement pertaining to this issue, similar to the professional learning communities model of Dufour and Marzano (2011).

The process of organizational learning involved individuals collaboratively learning, sharing, and interpreting knowledge for an organization to adapt to changes in its environment. The processes of planning, implementation, and evaluation allowed stakeholders to not only address the current issue of concern, but also engage in solving problems, building efficacy, and continuing to grow as reflective thinkers and practitioners through a cycle of continuous improvement. Thus, the purpose of this study was to utilize qualitative and quantitative data to create, implement, and evaluate specific strategies within a detailed action plan to address student growth in mathematics through the partnerships among families, community members,

and staff members at South Lee Middle School. The study also aimed to develop organizational capacity to reflect and improve upon current practices at South Lee Middle School.

Research Questions

The research questions guided this applied research study to analyze the problem of student academic growth in seventh-grade and eighth-grade mathematics at South Lee Middle School. The guiding questions were as follows:

1. Did the collaborative process to increase parent and community involvement through Remind services and school-based mentoring result in at least 75% of students in seventh-grade and eighth-grade mathematics showing academic growth on the MAAP mathematics assessment?
2. Was there a significant difference in student growth in mathematics between participation and non-participation in school-to-home communication?
3. Was there a significant relationship between intended school-based mentoring and student academic growth in mathematics?
4. To what extent were the communication service and school-based mentoring program implemented with fidelity?
5. What were areas of success in the implementation of Red Raider Family?
6. What parts of the Red Raider Family program need improvement?
7. In what ways were key stakeholders involved in implementation of the action plan?

Preliminary questions were asked to gather information for the collaborative development of an action plan. The first question identified reasons for low student academic growth in seventh-grade and eighth-grade mathematics and its impact on school accountability and overall community perception of the school. The second question examined and summarized existing

and relevant research on strategies related to increased student achievement, particularly increased parent and community involvement. The final preliminary question was intended to develop common themes and goals to be achieved through the process of the study.

In response to these questions, collaborative data analysis among key stakeholders was used to develop the action plan described in Chapter 3. The goals of the action plan sought to improve student academic growth in seventh-grade and eighth-grade mathematics at South Lee Middle School through increasing parent and community involvement within the school. It was also important for this research project to assess the implementation process to create a cycle of continuous improvement.

Limitations

While extensive research outlines the benefits of appropriately implemented programs to improve school, family, and community partnerships in communication and school-based mentoring, little research directly ties increased school-to-home communication or school-based mentoring to increased student achievement in mathematics. Therefore, questioned should be posed as to the validity of linking increased parent and community involvement activities to student growth in mathematics. This linkage was not created so much due to the research as it is to the researcher. The researcher, as part of his duties and responsibilities within South Lee Middle School, was assigned the dual task of increasing student achievement in mathematics at the school while also increasing parent and community involvement in such a way as to positively impact the school. The researcher was a graduate and childhood native of South Lee schools, as well as a current resident, which created natural relationships between the researcher and members of the community. The researcher was also a 13-year veteran math teacher, which provided some expertise in supervising the mathematics department at South Lee Middle School.

Due to these factors, research describing the effects of school-to-home communication and school-based mentoring on student achievement in general was used to develop an action plan which focused specifically on student academic growth in mathematics. The strategies developed in this action plan, therefore, could have had a positive impact on other academic subjects as well. These trends were discussed more informally as the action plan unfolded.

Overview of the Study

Chapter One began with a statement of the problem of low student growth in seventh-grade and eighth-grade mathematics at South Lee Middle School. Chapter One continued by discussing the purpose of the study and research questions to be answered within the study. Chapter Two presents the existing and relevant research regarding not only the relationship between increased parent and community involvement and student achievement, but also different parent and community involvement strategies and solutions which have shown to be effective in impacting student achievement. Chapter Three presents the methods of the study focusing on the development, implementation, and evaluation of a collaboratively designed action plan focusing on improving student growth in seventh and eighth grade mathematics through increased lines of school-to-home communication and school-based mentoring. Chapter Four presents the results of the program evaluation. The study concludes in Chapter Five with a reflection on the meaning of the findings of the study and presents implications for further research.

CHAPTER II:

LITERATURE REVIEW

When analyzing the issues involving the student achievement and lack of parent and community involvement at South Lee Middle School, the need for a change in strategy and overall partnership among school personnel, families, and community members was clear. South Lee Middle School, its families, and its community had a unique set of cultural norms and standards which had to be considered before entering into any program or action plan for increasing such a partnership. A review of the literature was necessary not only to review the effectiveness of collaborative partnerships, but also to analyze the specific strategies, programs, and solutions which have shown positive results with similar groups of diverse students, school personnel, families, and community members. Epstein and Sheldon (2006) encouraged such research to be continued to not only produce more effective programs, but also to strengthen leadership, outreach, and overall program impact on student achievement.

Upon a review of the literature surrounding school, family, and community partnerships, several types of methodologies emerged. The sections of this literature review were divided by the methods used to complete the studies. The first section of studies involved meta-analyses of the literature which showed a general positive relationship between strong partnerships with the school and community and overall student achievement. Several longitudinal studies and case studies were then referenced which provided a similar general outlook; however, more specific studies and viewpoints provided mixed results. The third section of literature detailed specific

strategies, programs, and suggestions for future research which provided direction and guideposts to upcoming chapters in this study.

Meta-Analyses and Theoretical Perspectives

Upon review of theoretical perspectives and meta-analyses within existing research, two general themes emerged. The first theme involved the general impact of parental involvement on student achievement and other factors. The second theme involved the specific strategy of school-based mentoring and its impact on student achievement.

Parental involvement and its impact.

The majority of meta-analyses and large-sample individual studies in recent years have shown positive correlations between strong school, family, and community partnerships and overall student achievement. Fan and Chen (2001) conducted a meta-analysis to synthesize the literature about the relationship between parental involvement and students' academic achievement. The meta-analyses included 25 studies for which quantitative data was available and included a study-features meta-analysis and a study-effects meta-analysis. The final analysis showed a small to moderate correlation between parental involvement and academic achievement. The analyses showed parental aspiration and expectation for students' achievement to be the strongest motivator for student achievement, whereas parental home supervision is the weakest motivator. The study also showed a stronger relationship when academic achievement is represented by a global indicator, such as GPA, than by a subject-specific indicator, such as the student's math test scores. The authors suggested for future studies to include an operational definition for parental involvement, as well as to include the influence of socio-economic status as a factor effecting parental involvement and academic achievement.

Henderson and Mapp (2002) conducted a report of 51 studies to analyze the effects of parental involvement on student achievement at all grade levels. Taken as a whole, the studies found a strong positive relationship between family involvement and benefits for students, including improved academic achievement, holding across families of all economic, ethnic, and educational backgrounds and for students of all ages. The authors of the report also offered several recommendations based on the research to improve student achievement through increased family and community engagement to student learning as well as developing teacher capacity to improve connections to families in students' academic achievement.

Hill and Tyson (2009) conducted a meta-analysis of 50 studies to highlight the role of family-school relations and parental involvement in promoting achievement in K-12 education. The analysis not only showed a positive correlation between parental involvement and student achievement, but also showed significant variations of success in the types of parental involvement displayed within the studies. The greatest positive relationship occurred between academic socialization—that is, involvement which creates understanding and purpose of academic performance and provides strategies students can use—and academic achievement. School-based involvement, characterized by visiting the school, volunteering at school, or attending school events, showed a moderate positive relationship to student achievement. Home-based involvement, such as parents helping with homework or home activities, showed no correlation to student achievement.

School-based mentoring.

School-based mentoring has been a novel approach in recent years to attempt to provide additional support, resources, and accountability to students who do not otherwise receive such assistance due to current family or socioeconomic circumstances. Putnam (2015) pointed out

that while 62% of students in low socioeconomic statuses (SESs) do not have a mentor outside the extended family involved in their lives, 64% of more affluent children have a mentor outside the extended family. This gap, along with many other factors affecting low-SES students, attributed to the 51-point gap between the percentage of rich and poor kids attaining a four-year college degree. Putnam suggested giving students in low-SES circumstances as many resources as possible to help mitigate the class gap, with mentors being one of the suggested resources. Duckworth (2014) identified an intangible quality of a combination of passion and perseverance called grit. According to Duckworth, grit is a defining factor as to why certain people are able to overcome adverse circumstances to achieve at the highest levels. In order to build grit from the inside out, Duckworth said one must have a belief that something can be done about one's circumstances. One of her suggestions for fostering and cultivating such hope was to ask for a helping hand; in other words, find a mentor who can support and encourage a person to keep going when all else seems lost. Duckworth also referenced the work of Dweck (2006) which denotes the need for an emphasis on growth mindset, a thought process by which people can fulfill their potential by consistently striving for greater results than what was originally thought possible. Dweck stated that growth mindset stems from people's personal history of success or failure and how the people around them responded to those outcomes.

Putnam (2015) also cited numerous studies which delineate the benefits of extended formal mentoring for at-risk students, such as increased school attendance, improved academic performance, and increased self-worth. In short, Putnam wrote, "mentoring matters" (214). Putnam also stated poor kids are nearly twice as likely to say at some point in their lives they wanted a mentor but didn't have one. The desire of at-risk students to have a mentor combined with its benefits emphasized the need for a formal mentoring program to help students grow

academically. Not only did Putnam lay out the need and benefits of formal mentoring, but he also identified people who are more likely to volunteer for such programs: churchgoers. Putnam stated churchgoers are two to three times more likely to volunteer as those who do not go to church. This provided the guidance to not only provide a mentoring program to aide in improving student academic growth, but also to target churchgoers as possible recruits for mentors at South Lee Middle School.

Epstein and her colleagues (2009) classified six types of involvement among school, family, and community partnerships: (1)Parenting; (2)Communicating; (3)Volunteering; (4) Learning at Home; (5)Decision-Making; and (6)Collaborating with the Community. One of the methods of gaining increased community volunteers which impacts student achievement was through various mentoring programs. Epstein stated that if tasks for volunteers are well-designed and if schedules and locations for volunteers to participate are varied, greater parent and community support will result which, according to multiple meta-analyses, will lead to increased student achievement (Fan & Chen, 2001; Henderson & Mapp, 2002; Hill & Tyson, 2009).

Marzano and his collaborators (2005) laid out several methods by which educational leaders can effectively apply research to achieve positive academic results. In the area of parent and community involvement, one of the methods discussed was to provide community members flexible opportunities to volunteer at the school, as well as to give community members the opportunity to provide input as to how to improve school practices.

DuBois and Rhodes (2006) reported upon a policy brief which resulted from the National Research Summit on Mentoring in 2003. According to the breakout groups which convened during the conference, some of the topics which needed further research in the field of school-

based mentoring included: understanding the link between mentoring and academic achievement; improving mentor recruitment, training, and retention; understanding effective mentoring relationships and their strategies. Studies conducted at specific sites such as South Lee Middle School were meant to further research in these topics.

Longitudinal Studies and Case Studies

Several longitudinal studies indicated strong positive relationships between family involvement and student achievement. Hill et al. (2004) conducted a longitudinal study to gauge the effects of parental involvement on different racial and socioeconomic groups. During the study, 463 students were followed from seventh through eleventh grades. Parent involvement in academic affairs in seventh grade showed a negative correlation to future behavioral problems, as well as a positive correlation to eleventh-grade aspirations. Mo and Singh (2008) conducted a study which focused on parents' involvement in their children's lives and the effects on the students' academic performance. The study showed significant positive correlations between parental involvement in school, parent-child relationships, and parental aspirations compared to students' academic achievement. Ross (2016) conducted a study to examine the effects of parental involvement during high school on high school completion and postsecondary attendance. The results showed a significant relationship between parents' educational expectations for their children and the students' high school completion and postsecondary attendance.

Other studies showed various connections between external factors and student achievement. Gutman and Eccles (1999) tested a theoretical model of parenting behaviors linking financial strain to adolescents' achievement for comparison between African-American and European-American families, as well as between single-parent and two-parent families.

According to the study, family income influenced negative parent-adolescent relationships and parental school involvement only through parents' sense of financial strain, which in turn linked to adolescents' academic achievement. The study also showed no significant difference in the equation models between African-American and European-American families, as well as between single-parent and two-parent families. According to Ross (2016), parent communication with schools regarding students' actions and grades was negatively correlated to student achievement.

Schools and districts throughout the United States had used parent-involvement strategies and improvements to enhance the achievement of its students. Mitchell (2016) described the changes one such school: Calcedeaver Elementary School in Mount Vernon, Alabama. The school served a predominantly Native American population in rural southern Alabama, a place where the graduation rate for Native American students who attended the school had been approximately 50 percent. The staff at the school embraced its unique attributes regarding its students, formed partnerships between the school and community members, and collaboratively set expectations for the students, uniting around a common theme of allowing student needs to guide the mission of the school. As a result, Calcedeaver Elementary's feeder school, Citronelle High School, boasted a graduation rate of 91%, one of the highest in the state of Alabama.

While the majority of meta-analyses, longitudinal studies, and case studies determined a general positive relationship between increased family and community involvement and student achievement, other studies which target more specific areas of correlation offered mixed results. Desimone (1999) conducted a regression analysis from a nationally representative data set of standardized test scores, parent surveys, and student surveys for over 24,000 eighth-grade students. The study found the effectiveness of particular parent-involvement practices differ

according to ethnicity and family income. The author suggested more information is needed for specific effective parent-involvement practices in diverse family and community settings.

Hill et al. (2004) found variations within their results which occurred across different parental education levels and ethnic groups. Within the higher parental education group, increased parental involvement showed a positive correlation to academic achievement and future goals and aspirations, while showing a negative correlation to behavioral issues. Within the lower parental education group, increased parental involvement showed a positive correlation to future aspirations, but showed no correlation to behavior or to student achievement. The researchers also found parental involvement was positively related to achievement for African-American students, but not correlated for European Americans.

McNeal (2012) studied the reliability of a phenomenon called the reactive hypothesis, which posited the claim any negative relationship between parent involvement and academic achievement was caused by a reactive strategy whereby a parent becomes increasingly involved when a student is having academic or behavioral difficulties. According to the study, a decrease in student achievement and an increase in truancy were met with reduced levels of parent involvement. McNeal (2014) conducted a different analysis to examine four separate hypotheses regarding relationships between students, parents, and schools and their effects on student achievement. The results found that parent-child involvement consistently has a greater effect on student attitudes, behaviors, and achievement than parent-school involvement. The results also found the parent-child involvement had more effects on students' attitudes and behaviors than directly onto student achievement. The author suggests schools implement programs to encourage and maintain lines of communication between parent and child throughout the child's schooling career.

Practical Strategies and Solutions

A great deal of practical, research-based strategies for family involvement stemmed from the work of the Center on School, Family, and Community Partnerships. Epstein and her colleagues (2009) condensed 20 years of research and field-tested methods into practical solutions for developing a program of community involvement. The book presented framework and tools to help leaders understand six types of family and community involvement, create an Action Team for Partnerships, plan and implement family and community involvement activities to reach school goals for student success, mobilize community resources, encourage progress, evaluate results, and continue to improve practices and programs over time.

Anfara and Mertens (2008) laid out a plethora of research from various sources on family involvement in elementary and middle school settings. The column began with a historical perspective on the role of family members in the education of students. As the column continued, the authors pointed out multiple research studies which indicated declining parental involvement during the middle school years, the positive effects of meaningful parent involvement, teacher characteristics which affect parent involvement, as well as various challenges to parent involvement. The column also provided research-based models for implementing effective parent involvement programs.

Barbee (2010) developed specific research-based strategies designed to address challenges and barriers faced by parents and educators to improve the quantity and quality of parent involvement within middle schools of students with low socioeconomic status (SES). The author began by stating the problem and defining specific terms surrounding the problem. After a review of the literature, the project explored information and resources to encourage parenting, communicating, supporting school, learning at home, decision-making, and collaborating with

community between parents and teachers at a middle school which served a predominantly African-American and Latino population of students.

Ferrara (2015) described a family outreach intervention which employs staff specifically to facilitate family engagement in schools and build parents' sense of efficacy to support their children's academic success. After a theoretical perspective of the problem, the author then focused on specific ways to target the family in the improvement of collaboration between the school and the home. The author also laid the foundation for specific behaviors exhibited by a Parent Involvement Facilitator (PIF), defined effective strategies which serve as collaborative interventions for PIFs and families to use to help students to stay in school, and provided preliminary evidence on the program's effectiveness. Implications for future research and suggestions for quantitative program analysis were also discussed.

According to Desmione (1999), more information was needed about the types of effective parental involvement practices in diverse family and community settings. Garcia et al. (2016a; 2016b; 2016c; 2016d) brought together research, promising practices, and useful tools and resource to guide educators in strengthening partnerships with families and community members to support student learning. The four-part toolkit included information and activities which reflected research-based family involvement approaches associated with student learning. Each part of the toolkit focused on an aspect of developing strong partnerships between schools and families and between schools and communities to support student learning. Part one of the toolkit focused on building an understanding of family and community engagement (Garcia et al., 2016a). Part two emphasized the importance of and the steps toward building a bridge between different cultures (Garcia et al., 2016b). Part three of the toolkit emphasized building trusting relationships with families and the community through effective communication (Garcia

et al., 2016c). Part four of the toolkit explained how to engage all stakeholders in appropriate conversations regarding student data (Garcia et al., 2016d).

Jeynes (2012) analyzed over 50 studies to determine which strategies were most effective in improving school, family, and community partnerships and student achievement. Of the strategies studied, those which showed significant relationships at the middle school level to student achievement included shared parent-child reading, emphasized school-family partnerships, parents checking homework, and communication programs between parents and teachers. These results coincided with the work of Epstein (2011), which emphasized these components and others within a one-year action plan of partnerships.

While Putnam and others provided the theoretical basis behind the benefits of a school-based mentor program, Jucovy and Garringer (2008) laid out the details surrounding implementation of a school-based mentoring program. They provided detailed descriptions of how to plan a school-based mentoring program, from determining student goals and how to select students for participation, to identifying the size and scope of the program, as well as screening and training mentors and what questions to ask during formative evaluation. Many of the ground rules and evaluation tools surrounding the school-based mentoring program existed based on the information provided by their research. Phillips-Jones, Walth, & Walth (2001) also provide many different activities for students and mentors to interact and build relationships. While many activities cannot be accomplished within the confines of the school building, several of them were useful in the interaction between mentor and mentee. Notwithstanding, while in theory school-based mentoring was listed as a positive impact on student achievement, studies in the field had shown mixed results. These studies are important, however, because they gave

insight as to possible reasons for the lack of impact, and strategies to follow to improve upon previous research.

Herrera and her collaborators (2011) studied the impact of one of the largest school-based mentoring programs in the world: Big Brothers Big Sisters. A random assignment study was conducted with over 1,100 students in 10 cities nationwide. Youth were assigned to either a treatment group who received a mentor or a control group who was not mentored, and three assessments were conducted after six, nine, and fifteen months. At the end of the first school year, mentored students showed greater academic performance and greater perceptions of their academic abilities than their non-mentored peers. The mentored students did not show improvements in their relationships with parents, teachers, or classmates, nor did they show decreased rates of problem behavior compared to their non-mentored peers. Academic improvements did not last into the second school year, either; however, the author pointed out the rate of attrition with mentors and students as well as lack of contact with mentors over the summer months as two possible reasons for the slide in academic performance.

Karcher (2008) conducted a randomized evaluation of 516 predominantly Latino students across 19 schools to study the effects of school-based mentoring programs on student achievement and social-emotional factors. The evaluation showed the most success to exist among elementary-school boys and high-school girls, whereas the other groups showed little or no positive impacts. The author also noted a need to bolster program practices to help support and retain mentors.

Holt et al. (2008) studied the effects of a five-month adult mentoring intervention delivered by school personnel. The study compared 20 ninth-grade minority at-risk students who were randomly assigned to a mentor to 20 similar students who did not receive a mentor. School

personnel who served as mentors were given specific training and instructions as to the duration, frequency, and topics of conversation with the students. The mentored students exhibited significantly less decline during the first year of high school in perceived teacher support and were less likely to receive disciplinary action. The effects were stronger for those students who were “mentored as intended,” according to the study.

Converse and Lignugaris/Kraft (2009) evaluated a school-based mentoring program targeting at-risk seventh- through ninth-grade students at a diverse urban junior high school. The evaluation compared pre-test and post-test results for 18 weeks before and during the mentoring program to identify changes in office disciplinary referrals, attendance, and student self-efficacy about school. Comparisons were also made between mentors categorized as “Viewed Positively” and “Questioned Impact” mentors in a variety of characteristics. Mentored students in this study saw a decrease in office referrals and absenteeism, along with an increase in efficacy with themselves, peers, and teachers. Mentors who viewed their impact as positive had a more significant effect on student outcomes than mentors who questioned their impact.

Practical strategies were not only needed for the strengthening of family and community partnerships with schools, but they were also needed for the measuring of the effectiveness of those strategies. Mattingly and his colleagues (2002) analyzed the results and methods of 41 studies to test the widespread belief of the effectiveness of parent involvement programs on student achievement. They found most of the studies lacked the rigor in evaluation methods to signify results which could be generalized, such as pretest and posttest achievement data, and matched control groups. Some of the studies did not use achievement data at all to measure success, instead measuring only parent and teacher perceptions to indicate program success. The

research concluded with an emphasis on not the ineffectiveness of parent involvement programs in general, but a need to use more rigorous methods in measuring the success of such programs.

Summary of the Literature Review

Several themes emerged from a review of the literature involving the strengthening of partnerships between schools and the communities they serve. First, larger research studies showed a general positive effect of increased parental and community involvement on overall student achievement. Second, specific research studies showed variations between various parental involvement measures, attitudes, or behaviors and academic achievement among subgroups. Third, school-based mentoring programs were considered to be an effective means of impacting student achievement and increasing community involvement if the program is implemented with fidelity and students are properly encouraged and motivated to succeed. Finally, researchers suggested further studies to analyze the effects of strengthening school, family, and community partnerships in diverse communities, particularly those which have such diverse socioeconomic demographics as South Lee Middle School. Due to these findings within the literature, as well as a need for improved student achievement within the school, action research was needed to test the effects of implementing strategies in an organized action plan to open the lines of communication, understanding, and partnership between the school and the community it serves.

CHAPTER III:

METHODS

Chapter Three presents the methods used in the applied research design to address the problem of low student academic growth in mathematics at South Lee Middle School. The purpose of this study was two-fold. First, the study was to utilize specific strategies within a detailed action plan to address student growth in mathematics through the partnerships among families, community members, and staff members at South Lee Middle School. Second, the study sought to develop organizational capacity to reflect and improve upon current practices by reviewing implementation procedures and devising methods of improvement to address the problem of the study. The programs and adjustments created through this process were then utilized not only to continue the process of improvement at South Lee Middle School, but also to provide future researchers additional information by which to conduct future studies within a K-12 setting.

As stated in Chapter One, the following research questions were utilized to evaluate the results of the action plan:

1. Did the collaborative process to increase parent and community involvement through Remind services and school-based mentoring result in at least 75% of students in seventh-grade and eighth-grade mathematics showing academic growth on the 2017-2018 MAAP mathematics assessment?
2. Was there a significant difference in student growth in mathematics between participation and non-participation in school-to-home communication?

3. Was there a significant relationship between intended school-based mentoring and student academic growth in mathematics?
4. To what extent were the communication service and school-based mentoring program implemented with fidelity?
5. What were areas of success in the implementation of Red Raider Family?
6. What parts of the Red Raider Family program need improvement?
7. In what ways were key stakeholders involved in implementation of the action plan?

The first goal of the action plan was to improve student academic growth in seventh-grade and eighth-grade mathematics at South Lee Middle School through increasing parent and community involvement within the school. The second goal of the action plan was to assess the implementation process through interviews and focus groups of key stakeholders to create a cycle of continuous improvement.

Chapter Three begins with a description of the development of the action plan. The development describes how key stakeholders were involved in the development process, types of data collected in the process, and existing theories which aided in the plan's design. Chapter Three continues with the action plan overview, citing the short-term and 12-month goals of implementation, cultural and system goals during implementation, specific plan elements, timelines for implementation and evaluation, and a list of responsible stakeholders during implementation. The final section of Chapter Three contains the evaluation components of the action plan, including the research design, participants, methods for data collection, and goals for each element in the action plan. Appendix A contains an outlined chart of each element of the action plan. Appendix B contains protocols to be followed for focus groups of mentors and school staff, as well as interview protocols of both students and parents. Appendix C outlines a

partnership survey to be conducted with both parents and teachers regarding school-to-home communication. Appendix D outlines the logic model for the action plan, stating the inputs, activities, and outputs, as well as the short-term, 12-month, and cultural outcomes expected from implementation of the action plan.

Development of the Action Plan

Several trends had emerged at South Lee Schools since 2011, when the researcher returned to South Lee High School as a math teacher. Student academic proficiency had been on a steady decline for several years. Parents and community members had become increasingly distant and openly dissatisfied with current conditions of the school. Groups of parents had begun withdrawing their children from school and exploring other school options. Many of the parents either worked extensive hours which did not allow for adequate time to visit or contact the schools about a child's academic progress, or they did not possess adequate resources to provide personal transportation or to maintain consistent communication with the school. Conversations with parents and community members while at school were few and far between. Moreover, many of the involvement opportunities at the school for parents and community members did not reach out to the community. Open House meetings, parent contacts, and community invitations were provided in a perfunctory manner, in an attempt to meet minimum requirements or obligations of external evaluators.

Upon his transfer to assistant principal at South Lee Middle School in 2014, the author realized these trends extended to the other side of campus as well. Academic performance at the school was inconsistent at best, as the school fluctuated between "C," "D," and "F" ratings based on state assessments. Parents often lacked resources to provide adequate assistance for their children at home or consistent contact with teachers at school. Community members were not

provided organized opportunities to participate within the school setting to help students succeed, relegated only to occasional donations of food or casual visits during school events. A proverbial wall had been built between the school and the community, and the wall was getting bigger.

In May 2016, students at South Lee Middle School took the Mississippi Assessment Program (MAP) Assessments in English/Language Arts and Mathematics, as well as the second edition of the Mississippi Science Test. Due to the results of those assessments, South Lee Middle School earned an “F” rating and was deemed an “At-Risk” school by the Mississippi Department of Education. Upon receiving these results, the administration at South Lee Middle School initiated a preliminary root cause analysis to identify areas of weakness throughout the school and possible courses of action to improve results. School officials analyzed academic growth and proficiency of student assessment scores, as well as frequency and quality of parent and community visits to the school. Informal interviews were also conducted with longstanding members of school faculty and administration in the middle and high schools to identify specific strategies which could be useful in the improvement of student academic growth and achievement.

Two areas of weakness identified by administration were the lack of organized lines of communication between parents and the school, as well as the absence of organized opportunities for community members to volunteer at the school in any capacity. The identification of these areas provided the springboard for a review of research pertinent to the improvement of student growth in seventh-grade and eighth-grade mathematics at South Lee Middle School. The review of research provided guideposts for an action plan for using

organized school-to-home communication and school-based mentoring as vehicles for improving student academic growth in seventh-grade and eighth-grade mathematics.

During the development stage of the action plan, several areas of research were instrumental in creating the details of the action plan. Epstein (2009) identified six areas of school, family, and community partnerships: parenting, communicating, volunteering, learning at home, decision making, and collaborating with the community. According to Marzano et al. (2005), there were three ways which can be activated immediately to impact student achievement through parent and community involvement. First, provide additional avenues of communication between the school and the home. Second, provide community members flexible opportunities to volunteer at the school. Third, give community members the opportunity to provide input as to how to improve school practices. Because of these selections of research, the Community Involvement Team decided to focus its efforts on two of the six areas Epstein describes: communication and volunteering.

While teachers had been asked to conduct phone calls, emails, and one-on-one parent conferences for years, only a few isolated teachers had been encouraged to utilize other methods of communication to parents. One of the alternative methods used by some of the most effective teachers on campus was an online, two-way communication service designed for educators to provide parents school information directly to a smartphone or other handheld device. Parents were also able to respond in communication to the teacher through the Remind service, making communication from school to home truly a two-way street. Creating access to this service schoolwide was then developed as the vehicle behind improving communication at South Lee Middle School.

Putnam (2015) cited numerous studies which delineate the benefits of extended formal mentoring for at-risk students, such as increased school attendance, improved academic performance, and increased self-worth. Putnam also stated poor kids are nearly twice as likely to say at some point in their lives they wanted a mentor but didn't have one. The desire of at-risk students to have a mentor combined with its benefits emphasized the need for a formal mentoring program to help students grow academically. Not only did Putnam lay out the need and benefits of formal mentoring, but he also identified people who are more likely to volunteer for such programs: churchgoers. Putnam stated churchgoers are two to three times more likely to volunteer as those who do not go to church. This provided the guidance to not only provide a mentoring program to aide in improving student academic growth, but also to target churchgoers as possible recruits for mentors at South Lee Middle School.

While Putnam provided the theoretical basis behind the benefits of a school-based mentor program, Jucovy and Garringer (2008) laid out the details surrounding implementation of the school-based mentoring program. They provided detailed descriptions of how to plan a school-based mentoring program, from determining student goals and how to select students for participation, to identifying the size and scope of the program, as well as screening and training mentors. Many of the ground rules and evaluation tools surrounding the school-based mentoring program existed based on the information provided by their research.

Action Plan Overview

The action plan provided several key factors in the implementation of this study. The first section of the plan targeted objectives related to the goal of academic growth in mathematics. The second section of the plan targeted the system goal of making data-driven decisions to create a cycle of continuous improvement within the school. Each section contained

objectives and elements which were designed to achieve short-term goals which assisted in achieving the overarching goal in each section. Multiple forms of data collection also provided methods of formative and summative evaluation, which was addressed in the final section of the action plan.

Appendix A contains the overall chart of the action plan, specifying each goal, objective, and element in the plan, as well as projected start and end dates, the person or group responsible for each step, the resources necessary for completion, and the evaluation method used to measure each element along with a goal for each element. Appendix B lists focus group and interview questions used to evaluate the initiation and implementation of different components of the action plan. Appendix C contains a partnership survey to be filled out by parents and teachers separately to assess the factors regarding school-to-home communication at South Lee Middle School. Appendix D contains a logic model to describe the inputs, activities, outputs, and outcomes related to the action plan.

Student academic growth.

The first overarching goal of the applied research study was to increase student academic growth in mathematics to 75%, based on the Mississippi Academic Assessment Program May 2018 assessment data. There were two major avenues by which South Lee Middle School attempted to achieve this goal. The first such avenue was by initiating grade-level school-to-home communication services at the school, which were designed to provide educational information from the teachers to parents and/or students on their smartphone or other online device. Parents and students could also send messages to individual teachers through the service, making such communication a two-way street. Second, South Lee Middle School implemented the Red Raider Family mentor program, a volunteer, school-based mentoring program designed

to give targeted students the support, encouragement, and accountability needed to navigate their academic and social growth, thereby increasing academic performance. Local community members were recruited and trained, using practices based on research, with the goals of building relationships with students in non-traditional family settings who did not receive other school-based support services, but who were not scoring at Proficient or Advanced levels on the MAAP mathematics assessments. The positive relationships built between mentors and students were then utilized to motivate, encourage, and assist students in improving performance in specific risk factors, including, but not limited to, academic achievement in mathematics.

The first step in executing these avenues was to create a Community Involvement Team. While there had been a Parent Involvement Coordinator in the past who sent information to parents and community members in other ways, the team was tasked with the initiation, implementation, and assimilation of the communication service and the school-based mentoring program to increase student academic growth. All teachers were invited to join the Community Involvement Team during a preservice faculty meeting in July 2017. An initial meeting commenced the following week, prior to the start of the school year for students. Plans were laid out for each program, and the teachers were invited to assist in any way possible to initiate each program. Meeting sign-in sheets, agendas, and minutes documented discussion and implementation of new strategies. This step accumulated a human resource (HR) cost of \$310 for the initial meeting. The researcher looked for a minimum of seven participants, or approximately 25% of the full-time faculty, to participate in the projects. Each grade-level math teacher was also asked individually to participate on the team, as their input was central to the initiation and continued implementation of the program.

The next step in increasing student academic growth was to initiate communication services for each grade level at South Lee Middle School. The researcher contacted an external company to set up each grade's class, and teachers were provided professional development on its proper uses and effectiveness. Teachers who volunteered for the Community Involvement Team were trained first, so they could assist others in proper use of the service through the school's Professional Learning Communities. An additional follow-up training of all staff commenced in November 2017 to further assist teachers in the proper use of the service. The service was free to set up the grade-level classes for the school; however, two HR hours (\$80) were required to get the program started. School-level services, which provided more training resources and support, cost \$1200 to implement for the school year. The HR cost of the initial CI meeting to initiate the program was \$310, while the HR cost for the professional development session in November 2017 was approximately \$790. The goal was 80% of the full-time faculty, including all of the grade-level math teachers, utilized the Remind service in school-to-home communication a minimum of once a month by January 2018, and once a week by May 2018.

Another step in the process of increasing student academic growth which coincided with the school-to-home communication service was the initiation of a school-based mentoring program. Based on the school's logo and the nature of the program, the mentoring program was called Red Raider Family. Red Raider Family was not a research-proven program; however, it was instead a researcher-created program which incorporated existing research of school-based mentoring strategies and attempted to solve the problem of low academic growth in mathematics for targeted students in the program. The initiation process began in July 2017 by recruiting possible mentors to volunteer for the program. The Community Involvement Team, led by the Project Coordinator and researcher for this study, sought out volunteers in August and September

by speaking at local churches, community meetings, and other civic organizations. Emails were sent to local pastors and community leaders to request permission to speak at local functions to promote the program and recruit mentors from within the community. Community Involvement Team members were also allowed and encouraged to contact individual recruits to participate in the program. Social media posts on Facebook and Twitter, as well as training materials and meeting agendas documented recruiting efforts. Mentor agreement forms documented mentor participation. Many of the strategies and training provided by the researcher to the mentors for this program, as well as the evaluation questions to ask mentors, students, teachers, and parents, come from the work of Jucovy and Garringer (2008), while Putnam (2015) detailed the most likely targets of willing mentors and mentees for the program. An estimated HR cost of \$1810 was accrued in the initial meeting with the CI team (\$310), analysis of documents for mentee participation (\$400), and recruitment of mentors (\$1100). The participation goal was for 25 mentors to serve in Red Raider Family, which would target almost 15% of the seventh-grade and eighth-grade combined enrollment at South Lee Middle School.

Implementation of Red Raider Family began in August 2017 with the matching of mentors to students who are targeted by the Community Involvement Team to benefit from school-based mentoring. Meetings with the school counselor, Community Involvement team members, and the school principal narrowed the pool of mentees based on several factors, including assessment scores, family dynamics, and other school-related assistance programs. In September 2017, mentors who had completed the background check protocols were matched with students who were targeted by the Community Involvement Team based on common interests, experiences, and demographic factors. Mentors were then introduced to their mentees by the Project Coordinator at the school, with the permission of the mentee's parents. Parent

permission forms documented student participation in the program. Mentors were given multiple opportunities to visit their respective mentees, including lunch time, class visits, after-school tutoring, and special off-campus events. Specific events were also added, deleted, or altered during the program based on feedback from conversations with participants. The initiation cost of Red Raider Family included the estimated costs of background checks (\$800), refreshments and training materials for recruitment (\$200), and payments for mentor/mentee off-campus trips (\$4000), all of which were paid for by two separate grants written by the Project Coordinator, at an HR cost of approximately \$400. The original goal of implementation was a total of 100 visits by mentors from September 1st, 2017 to May 23rd, 2018. Mentor sign-in sheets documented on-campus mentor visits to the school, while mentors were individually asked to report any after-school mentee visits to the Project Coordinator via email or by phone to complete documentation.

Cycle of continuous improvement.

The second overarching goal of the applied research study was to develop a process whereby school staff utilize data to drive decisions and improve practices, thereby creating a cycle of continuous improvement within the school. The objective in this effort was to analyze student academic growth in mathematics by utilizing multiple data sources. In July and August 2017, Community Involvement Team meetings and Professional Learning Committee meetings focused on analyzing student data to develop baselines for student growth. This form of analysis assisted the school's efforts in three ways. First, the initial analysis of May 2017 MAAP mathematics assessment data provided a gauge through which to set a school-wide growth goal for the May 2018 MAAP assessment. Second, a school-wide analysis of the growth results from the MAAP assessment provided a guide for which students to target as possible mentees for Red

Raider Family. Third, analysis with external providers and subject-area teachers provided a road map by which to set individual goals for student growth. The estimated HR cost for all such meetings was approximately \$1100. By August 31, 2017, school-wide goals were set for 2017-2018 mathematics growth, students were targeted for Red Raider Family, and individual growth goals in mathematics were set for each student.

The second element in the data analysis process was to track student progress in mathematics throughout the school year. While the MAAP Assessments were the most statistically valid measurement for such progress, those tests were given once a year. To formatively track student progress, three forms of data were utilized: STAR mathematics scores, which were measured four to six times per year; benchmark assessments, district-created assessments which were designed to closely resemble questions which will occur on the MAAP assessments; and classroom grades in mathematics classrooms, which were tracked every nine-week grading period. These formative pieces of data provided evidence of student growth (or lack thereof) throughout the school year, which allowed teachers to set individual goals for students and to adjust those goals as the year progresses. The HR cost for bi-weekly PLC meetings (\$2400) and individual researcher/teacher meetings (\$1260) to track the data with fidelity is approximately \$3660. The overarching goal was for students at South Lee Middle School to show growth in mathematics at 75% by the end of the school year. Student data was tracked for each assessment to indicate progress toward this overarching goal.

Another objective in the creation of a cycle of continuous improvement was to increase the number of methods whereby South Lee Middle School collects parent and community participation and feedback data to improve practices. One element of such a process was to conduct meetings to collect and analyze such data. Visitor sign-in sheets, communication

service participation logs, and feedback from multiple stakeholder sources provided information to improve practices in both the two-way communication service and the school-based mentoring program. The data collection began in August 2017, and the collection and analysis continued throughout the school year. Community Involvement Team meetings throughout the Spring semester accrued an HR cost of approximately \$1550. The goal was at least 80% of teachers participating in the Remind service.

To properly analyze such data, opportunities must be provided to collect it from multiple stakeholders. While informal meetings and conversations with current participants took place throughout the year, more detailed and structured means of qualitative data collection was utilized to further this study. Focus groups of mentors and teachers, as well as interviews of students and parents, were conducted at various dates beginning in April 2018 to collect feedback on the initiation, implementation, and assimilation of both the communication service and the Red Raider Family program. The purposes of each meeting with each of the four key stakeholder groups were to identify strengths and weaknesses within each component of the process, as well as to find ways to improve each program as the year progresses. The Community Involvement Team met in March 2018 to analyze both the quantitative assessment and participation data, and the qualitative data of the mentor focus groups to improve practices for the Spring 2018 semester. The Community Involvement Team also met in April 2018, following the parent and student interviews, for the same purpose. The final step in the evaluation process was a meeting in May 2018 to analyze the parent and teacher surveys to consider changes in implementation for the 2018-2019 school year. Each focus group session and CI Team meeting accrued an HR cost of approximately \$390, creating a total HR cost of approximately \$3900 for ten meetings throughout the year.

Evaluation Plan

This applied research design was evaluated for the purpose of answering the research questions listed at the beginning of Chapter Three. While both quantitative and qualitative methods were utilized during the evaluation process, the sample size of South Lee Middle School and the nature of applied social science research led toward a more qualitative approach in evaluation. The quantitative method of data collection gauged the overall success of implementation of the program, while the qualitative methods provided in-depth descriptions of the factors surrounding initiation and implementation of the action plan, as well as possible strategies for improvement.

Research design.

The applied research methodology enlisted within the action plan contained both quantitative and qualitative components to be utilized within the evaluation plan. Descriptive statistics were collected to gauge the usage of the Remind service among the math teachers and parents of students at South Lee Middle School, as well as the frequency of visits from mentors in the Red Raider Family program. Growth residuals were also collected and analyzed during the school year from all participants through district-created benchmark assessments, and a final growth residual will be collected based on the Spring 2018 MAAP Mathematics Assessments in to measure student academic growth.

While the analysis of descriptive statistics, along with relational and comparative statistical tests, determined overall success of the action plan, several qualitative methods were conducted to answer other research questions in the study. Focus groups of mentors and teachers, as well as student and parent interviews, were conducted to identify themes of implementation and strategies for improvement in the Red Raider Family program. Teachers

and parents completed open-ended surveys to provide feedback about the status of school-to-home communication at South Lee Middle School. Document analysis was conducted not only to track the number of mentors who sign up for Red Raider Family and the number of visits from mentors to students at the school during the 2017-2018 school year, but also the types of information shared during meetings, social media posts, and other recruiting efforts. Document analysis also tracked the number and types of messages sent by math teachers and parents through the communication service during the 2017-2018 school year. Together, these quantitative and qualitative methods allowed for proper evaluation of the research questions included within the study.

Participants.

Communication.

In the 2017-2018 school year, South Lee Middle School had approximately 270 students. Of those students, approximately 61% of those students were non-Caucasian, and approximately 87% of the students were eligible for free or reduced lunch. Beginning in July 2017, all students and their parents were invited through Parent Night announcements, articles in the local paper, a school board meeting presentation, invitations from individual teachers, and posts on social media outlets to participate in school-to-home communication services at South Lee Middle School. Therefore, all students, parents, and teachers at South Lee Middle School who participate in the survey to evaluate school-to-home communication were considered as participants for the communication portion of the action plan.

School-based mentoring.

The Community Involvement Team at South Lee Middle School narrowed down a group of representative sample participants to invite to receive mentorship through Red Raider Family.

First, the team analyzed 2017 Mississippi Assessment Program (MAP) mathematics assessment scores. The scores are divided into five levels: Level 1—Minimal; Level 2—Basic; Level 3—Pass; Level 4—Proficient; Level 5—Advanced. The team identified all students who scored Level 3 on the Grade 6 and Grade 7 MAP Mathematics Assessment. After identifying this sample, the team further narrowed the sample by removing students who currently live in a traditional family setting: that is, students who live with both biological parents in one home. Informal conversations amongst team members as well as current research established the need for concentrating on non-traditional family settings for the program.

According to Putnam (2015), students in a traditional two-parent setting received more time, money, and resources from the home than those who are in a single-parent or blended-family setting; therefore, those students would not be in as great a need for formal school-based mentoring. The team also removed students from the mentee pool who receive additional school-based support through either an Individualized Education Plan (IEP) or external support therapy through LifeCore Support Services. After eliminating factors were conducted, students were notified by the researcher about their qualification for the program and were given a parent permission form to take home for parents to sign and send back to allow students to participate. Students with parent permission to participate in the Red Raider Family program were included in the analysis of this portion of the study.

The other group of participants within the school-based mentoring portion of the action plan were the school and community volunteers who participated as mentors in the Red Raider Family program. The researcher strategically targeted groups of audiences from which to recruit possible mentors. The researcher visited community meetings, churches, and civic organization meetings to spread the word about the new project, request for volunteers from parents and

community members, and specify other ways community members and parents can help. All mentors who signed a Mentor Ground Rules Agreement and agree to participate in the focus groups will be considered as participants within the study. South Lee Middle School teachers and parents of mentees who participated in respective focus groups and interviews will also be included as participants in the study.

Data collection and analysis.

Each element of the action plan had specific data points to be collected through either quantitative or qualitative means. This section described the means by which data for each element of the action plan is to be collected, including a description of each element, the protocols for data collection, and a measurable goal for each element. The means of data collection and the goal for each element were placed in the Evaluation column of the Action Plan chart in Appendix A.

Student academic growth.

The first element of the action plan was to create a Community Involvement Team to assist in implementation of new strategies of school, family, and community partnerships. The team was tasked with collaborating to assist in initiation and implementation of communication and volunteering strategies. Specifically, teachers were asked for ideas and assistance in initiating and implementing the two-way communication service and the Red Raider Family mentoring program. Meeting sign-in sheets and agendas provided documentation of meetings, while group emails provided documentation of ongoing communication within the team. The goal for this element was a minimum of 20 documented conversations and/or meetings within the Community Involvement Team during the 2017-2018 school year.

The second element involved in student academic growth was implementation of communication services for South Lee Middle School. Due to school-level services being purchased for South Lee Middle School, more detailed data on usage of the service will be accessed. Once the service was initiated for the school, teachers had the option to either utilize the grade-level classes which are already set for them, or to create their own class within the service to send messages only to members of the specific group. The service tracked usage by all teachers from South Lee Middle School to document implementation of the service. The goal for this element was a minimum of 200 messages to be sent between teachers and other participants on the service during the 2017-2018 school year, with at least 100 messages being sent by grade-level math teachers. Responses from teachers provided qualitative descriptions of the types of messages sent through the service and strategies of improvement. Focus group questions for teachers can be found in Appendix B.

An important aspect of any implementation process for teachers was building their capacity and efficacy in utilizing a particular strategy or resource. Therefore, the next element in the action plan was to provide professional development for all teachers on the communication service. Teachers were introduced to the grade-level classes which will be set up through Remind.com in August 2017. Teachers were then provided optional follow-up professional development from the researcher in November 2017. Teacher usage in the Remind service was tracked throughout the school year.

In April 2018, a teacher focus group was set up to ask questions regarding initiation, implementation, and professional development within the communication service and the Red Raider Family program. Teacher groups of no more than 10 participants were provided the opportunity to participate in a one-hour focus group session after school to assist in identifying

themes for improvement in the initiation, implementation, and professional development provided within each part of the action plan. A statement of consent was read and agreed upon by all participants, followed by a list of questions designed to elicit responses from the teachers which identified themes for improvement within the Remind service and the Red Raider Family program. Focus group questions and responses were recorded to ensure proper data collection and analysis. Grounded theory principles were utilized to identify themes within the responses. The goal for this element was to identify three strengths and/or weaknesses within the professional development component of the action plan.

The fourth element of the action plan was to identify the status of school-to-home communication at South Lee Middle School. The first tool to be utilized in this element was the open-ended survey. In May 2018, all parents and teachers were invited to participate in an open-ended survey which will be sent as a link to their phone from the school using the SchoolCast service. Social media outlets, announcements, and email communications also announced the opening of the survey, and a link to the survey was posted on the school's website. The survey was open for six weeks, and data was compiled and analyzed by the Community Involvement Team. The questions for the survey for parents and teachers can be found in Appendix C. The goal for the closed-ended questions was an overall average scale score of 4.0 or higher from the survey questions.

The second tool which will be utilized to identify themes of improvement were interviews of parents and teachers. In April 2018, all parents and teachers were invited to participate in interviews with the researcher through various outlets (Remind, text, email, SchoolCast, Facebook, etc.). The researcher then scheduled and conducted 20-30 minute interviews with each agreed participant, following similar protocols as with the focus group. The

goal for the open-ended question in the survey and the interviews was to identify at least three themes in the status of school-to-home communication at South Lee Middle School. The identification of themes provided not only areas of strength within the implementation process, but also targeted areas for improvement of strategies in the action plan.

Another objective within the action plan was to increase opportunities for parents and community members to support students. The vehicle by which the action plan addressed this need was through school-based mentoring. The first element in this section of the action plan was to identify targeted students who would benefit from school-based mentoring. First, the team analyzed 2017 Mississippi Assessment Program (MAP) mathematics assessment scores and identified all students who scored Level 3 on the Grade 6 and Grade 7 MAP Mathematics Assessment. After identifying this sample, the team further narrowed the sample by removing students who lived in a traditional family setting: that is, students who lived with both biological parents in one home. Informal conversations amongst team members as well as current research established the need for concentrating on non-traditional family settings for the program. The team also removed students who receive additional school-based support through either an Individualized Education Plan (IEP) or external support therapy through LifeCore Support Services. The goal for this element was to identify at least 25 students who meet the listed parameters, providing a research-based sample for the Red Raider Family program.

The next element of school-based mentoring was to recruit school and community volunteers to participate as mentors for the Red Raider Family program. The researcher visited community meetings, churches, and civic organization meetings to spread the word about the new project, to request for volunteers from parents and community members, and to specify other ways community members and parents can help. The researcher also prepared and

presented a mentor training presentation and took questions from prospective mentors in the audience. Meeting agendas, social media posts, emails, and training materials documented training and recruiting efforts. The goal for this element was at least 25 mentors who participated in Red Raider Family.

The third element of increasing community volunteering through school-based mentoring was the implementation of the Red Raider Family program. The school matched mentors with student participants, provided contact information between mentors and parents, and provided multiple access points by which the mentor can build relationships with the mentee and provide support, encouragement, and accountability when needed. Mentors were able to meet with students during class at school, during lunch, or after school during volunteer tutoring sessions provided by the teachers. Mentors were also able to visit with students during quarterly reward trips provided by the program. Mentor logs and visitor sign-in sheets recorded the frequency and duration of visits by mentors to mentees within the program. The goal for this element was at least 100 documented visits by mentors to mentees during the school year.

Cycle of continuous improvement.

The second purpose of the action plan was to utilize quantitative and qualitative data to drive decisions related to continuous improvement of strategies to sustain academic success at South Lee Middle School. The first element in this portion of the action plan was to analyze baseline data from the Spring 2017 MAP Mathematics Assessments. Professional Learning Community meetings, Data Team meetings, Leadership Team meetings, and Community Involvement Team meetings documented initial data analysis. The goal for this element was to identify goals for individual and school-wide growth in mathematics.

The second element in this portion of the action plan was to track progress of student growth in mathematics. District-level benchmark assessments and STAR Math assessments were administered each grading period to provide feedback on student achievement. Individual meetings between the researcher and each math teacher provided opportunities for collaboration and analysis of student scores on each assessment. The goals for this element were a progressive percentage of growth on each district-level assessment: 50% growth after the first nine-weeks; 60% growth after the second nine-weeks; 70% growth after the third nine-weeks.

To answer specific questions in the research study, certain quantitative methods of data analysis were employed. The first question to be answered in this way was to determine if there was a significant relationship between school-based mentoring and student academic growth. To that effect, the next element was to analyze data between the number of visits shared by a Red Raider Family mentor and his or her mentee, and the amount of student growth between the 2017 and 2018 MAAP Math Assessments. A regression analysis determined the correlation between the two data sets. The data analysis was not only conducted with all the student participants in Red Raider Family as a single group, but it was also conducted while separating the mentee group by grade level. The Assistant Principal spent 20 man-hours compiling the data and conducting the analysis. The goal of the correlational analysis was to show a correlation coefficient of at least 0.4, showing a modest correlation between the two data sets.

The next question to be answered quantitatively was to determine if there was a significant difference between participation and non-participation in school-to-home communication activities. Specifically, this element in the action plan was to compare MAAP Assessment data between students whose parents either participated or did not participate in the school-to-home communication services. Two student groups were divided based on a family's

participation in the service. Once the groups are divided, an independent samples t-test was conducted to compare the means of the two groups and determine if there was a significant difference. As with the previous element, the groups were divided by grade level, and a second series of t-tests will be conducted. The Assistant Principal spent 20 man-hours compiling the data and conducting the analysis. The goal was for there to be a significant difference in the means of the groups at the level of $\alpha = .05$.

The final objective in this portion of the action plan was to increase the number of organized methods to collect parent and community data to improve community involvement practices. The first element within this objective was to analyze parent and community participation data to gauge community involvement practices. In May 2018, the Community Involvement Team collected visitor sign-in data and parent attendance data to monitor frequency of parent and community member visits during the 2017-2018 school year. The goal for this element was a 10% increase in parent and community member participation from the 2016-2017 to 2017-2018 school year.

The next element in the cycle of continuous improvement was to collect data from key stakeholders. In April 2018, separate teacher and mentor focus groups were set up to ask questions regarding initiation, implementation, and professional development within the service and the Red Raider Family program. Groups of no more than 10 participants were provided the opportunity to participate in a one-hour focus group session after school to assist in identifying themes for improvement in the initiation, implementation, and professional development provided within each part of the action plan. A statement of consent was read and agreed upon by all participants, followed by a list of questions designed to elicit responses from the teachers which identified themes for improvement within the communication service and the Red Raider

Family program. Focus group questions and responses were recorded to ensure proper data collection and analysis. Grounded theory principles were utilized to identify themes within the responses.

In April 2018, all parents and teachers were invited to participate in interviews with the researcher through various outlets (Remind, text, email, SchoolCast, Facebook, etc.). The researcher then scheduled and conducted 20-30 minute interviews with each agreed participant, following similar protocols as with the focus group. In May 2018, all parents and teachers were invited to participate in an open-ended survey which was sent as a link to their phone from the school using the SchoolCast service. Social media outlets, communication service announcements, and email communications also announced the opening of the survey, and a link to the survey was posted on the school's website. The survey was open for six weeks, and data was compiled and analyzed by the Community Involvement Team. The questions for the survey for parents and teachers were listed in Appendix C. The goal for the open-ended question in the survey and the interview questions was to identify at least three themes in the status of school-to-home communication at South Lee Middle School. The identification of themes provided not only areas of strength within the implementation process, but also targeted areas for improvement of strategies in the action plan.

The final element of the action plan was to analyze program evaluation results to determine changes for the 2018-2019 school year. The Community Involvement Team met to analyze results from assessments, surveys, interviews, focus groups, document analysis, and descriptive statistic data to connect identified themes and goal attainment for each step of the action plan. The goal for this element was to identify three strategies for improvement for the 2018-2019 school year.

Summary of Chapter Three

While the researcher coordinated and planned for each step in the action plan, the process of initiation, implementation, analysis, feedback, and adjustment within the action plan was a team effort. Teachers, administration, mentors, parents, and students all had a role to play in the academic growth of students at South Lee Middle School, as well as the professional growth of the school itself. Together, with everyone rowing the boat in the same direction, the goal was for more students at South Lee Middle School to grow academically in mathematics, thereby better preparing them for their academic careers in high school and beyond.

Chapter Three provided an overview of the development, initiation, implementation, and analysis of a detailed action plan to attack the problem of low student academic growth in mathematics at South Lee Middle School. Chapter Four will detail the findings of the study, based on answering the research questions posed previously. Chapter Five will discuss the findings of the study and their implications upon current and future research.

CHAPTER IV:

RESULTS

In any mixed-methods applied research study, the quantitative components of the study determine whether the study achieved its desired impact, while the qualitative components provide a thick description as to the possible reasons for the impact. This method of data analysis provides information on the effectiveness of the current study, and it also provides guidance as to proper implementation in future studies. Chapter One provided a description of the problem of practice as well the purpose for conducting the study. Chapter Two provided the theoretical basis for the study. Chapter Three described the action plan and program evaluation for the study. Chapter Four details the results of each component of the study, along with the statistical analysis and qualitative reasoning behind the results.

Chapter Four answers each of the research questions for this study:

1. Did the collaborative process to increase parent and community involvement through Remind services and school-based mentoring result in at least 75% of students in seventh-grade and eighth-grade mathematics showing academic growth on the 2017-2018 MAAP mathematics assessment?
2. Is there a significant difference in student growth in mathematics between participation and non-participation in school-to-home communication?
3. Is there a significant relationship between intended school-based mentoring and student academic growth in mathematics?

4. To what extent were the communication service and school-based mentoring program implemented with fidelity?
5. What were areas of success in the implementation of Red Raider Family?
6. What parts of the Red Raider Family program need improvement?
7. In what ways were key stakeholders involved in implementation of the action plan?

This chapter described the impact of increased parent and community involvement activities on student academic growth in mathematics at South Lee Middle School. This chapter also explained the reasoning behind specific choices of the statistical tests conducted with the data in this study.

Student Growth

In May 2018, students at South Lee Middle School took the Mississippi Academic Assessment Program (MAAP) tests in mathematics. Each test was given based on grade-level standards taught throughout the school year from the Mississippi College and Career Readiness Standards. The test questions were weighted based on the tasks being performed to answer the questions, and each student was given a scale score based on the number of questions of each type which were answered correctly. Each scale score began with the number of the corresponding grade in which the student was currently enrolled, followed by a 100-point scaled grade based on the student results. Scores were placed within each sublevel based on the amount of points earned on the scale. Students earned one accountability growth point in Mathematics or English/Language Arts if they moved up at least one sublevel within the first six sublevels, or if they maintained Proficient (Level 4) or Advanced (Level 5) status from the previous year. Students earned 1.25 points if they moved up two levels (Level 1 to Level 3 or Level 2 to Level 4) from the previous year. Students also earned 1.25 points if they moved from any level to

Advanced (Level 5). The total growth points earned were divided by the number of tested students to calculate the growth points for each test.

South Lee Middle School scored 41.4 accountability points in growth of all students during the 2015-2016 school year, which initiated activities to increase student growth. During the 2016-2017 school year, the growth of all students at South Lee Middle School increased to 68.3 accountability points. Informal conversations between math teachers, the assistant principal, and the principal led to a set goal of 75 accountability points in the growth of all students for the 2017-2018 school year. This goal, in concert with goals set in other columns of the accountability model, was set in an attempt to move South Lee Middle School from a C rating to a B rating for the 2017-2018 school year.

A total of 80 students in seventh grade at South Lee Middle School earned 57.5 growth points on the MAAP mathematics assessment. Twenty-four students did not show growth by sublevels, 50 students earned one point of growth by moving up at least one sublevel, and six students earned 1.25 points of growth by moving from Level 4 to Level 5. The final percentage of growth earned by the seventh-grade students was 71.9%, which did not meet the stated goal of 75% from the beginning of the study.

A total of 80 students in eighth grade at South Lee Middle School earned 48.25 growth points on the MAAP mathematics assessment. Thirty-three students did not show growth by sublevels, 42 students earned one point of growth by moving up at least one sublevel or by remaining at Level 4, and five students earned 1.25 points of growth by either moving two levels up from the previous year or by moving to Level 5. The final percentage of growth earned by the eighth-grade students was 60.3%, which did not meet the stated goal of 75% from the beginning of the study.

School-to-Home Communication

To determine student participation in the school-to-home communication service, the participant list for each grade-level group was analyzed to determine if a student or his or her parents participated in the service. To measure student academic growth for the service, growth residuals were calculated based on the Mississippi Academic Assessment Program (MAAP) results. Growth measurements comparing the previous year's MAAP math assessment and the current year's MAAP math assessment were also analyzed and compiled. The mean growth residual per student, as well as the standard deviation and variance for each grade level, are listed in Table 1.

Table 1

Student Population Growth

Measure	Sixth Grade	Seventh Grade	Eighth Grade
1. Mean	-1.69	8.41	2.99
2. SD	9.21	10.09	10.07
3. Variance	84.90	101.74	101.43

As shown in Table 2, descriptive statistics of mean and standard deviation were calculated based on the MAAP scale score growth measurement for each subgroup. Based on the organization of subgroups and calculation of descriptive statistics, comparative tests were conducted to determine if a significant difference exists between the means of students who participated in the communication service and those who did not participate.

Table 2*Independent Samples t-test Results for Remind Groups by Grade Level*

Grade	With Remind			Without Remind			P-values
	M	SD	Variance	M	SD	Variance	
Sixth Grade	-.61	9.19	84.48	-3.19	9.18	84.29	0.23
Seventh Grade	10.94	10.56	111.52	6.44	9.52	90.61	0.10
Eighth Grade	2.04	11.09	122.94	4.96	7.34	53.88	0.23

The data sets in this study also limited the researcher to a specific type of comparative test. An analysis of variance (ANOVA) cannot be implemented in this case because the growth results are measured differently for each assessment. Furthermore, a paired samples t-test cannot be utilized because the data sets contain different n-counts, and because the same participants were not being tested before and after a treatment. Therefore, an independent samples t-test was conducted to determine if a significant difference existed between the means of the subgroups in the study.

In each grade level at South Lee Middle School, once the subgroups' necessary descriptive statistics were calculated, the P value was found in each grade level to determine if a statistically significant difference existed between participation and non-participation in the school-to-home communication service. In the sixth grade, the P value for a two-tailed test was 0.23. In the seventh grade, the P value for a two-tailed test was 0.10. In the eighth grade, the P value for a two-tailed test was also 0.23. In all three cases, the P value was greater than 0.05, which is the standard of statistical significance in this kind of statistical test. Therefore, each test showed no significant difference at any grade level between participation and non-participation

in the school-to-home communication service at South Lee Middle School for the 2017-2018 school year.

Other practical details can be derived from the results in Table 2. For example, the sixth-grade and seventh-grade mean differences were positive between the participants compared to non-participants, suggesting the students performed better on the MAAP assessment. While a relationship can be shown, causation of the communication service as the reason for the increase in growth cannot be assumed without further analysis of message content. Also, the eighth-grade participant group scored lower average growth than the non-participant group. However, the standard deviation of the participant group was almost four points higher, suggesting much more widely spread results. There is a possibility of negative skewing of the eighth-grade participant data based on the lower mean and higher standard deviation in the data. Finally, the higher scores in seventh-grade and eighth-grade mean growth residuals suggest the greater amount of instructional time in seventh-grade and eighth-grade mathematics classes are related to greater growth results per students. Further data analysis is required before causation can be proven.

Mentoring and Student Growth

Student participation in the Red Raider Family mentoring program for each grade-level group was analyzed to determine if a relationship existed between frequency of mentor visits and student academic growth. The same four data sets were collected as outcome variables: STAR Math results, classroom grades for each nine-week grading period, district-wide common assessment results, and Mississippi Academic Assessment Program (MAAP) results. The differences from the first assessment to the final assessment in the STAR tests were calculated to find the amount of growth in each group. Growth measurements comparing the previous year's MAAP math assessment and the current year's MAAP math assessment were also analyzed and

compiled. Common assessment results from the third nine-week grading period were used as a measure to project which students would show growth on the MAAP assessment. Therefore, based on the district-created grading scale, performance levels from the Spring 2017 MAAP math assessment were compared to the district-wide common assessment results for each student to determine growth. However, since there is no comparable scale score to measure discrete change in the data, the common assessment score was not used in this instance for correlational analysis. Because mentors were matched and began meeting with students during the second nine-week grading period, classroom averages in math from the first nine-week grading period were compared to the cumulative average of the final three grading periods to determine if any changes occurred in classroom grades.

The data used for correlational study was the frequency of mentor visits during the mentoring program. Visitor logs and conversations with mentors were used to determine the frequency of mentor visits for each student in the program. To measure student academic growth, four different data sets were collected as outcome variables: Standardized Test for the Assessment of Reading (STAR) results, classroom grades for each nine-week grading period, district-wide common assessment results, and Mississippi Academic Assessment Program (MAAP) results. The differences from the first assessment to the final assessment in each set were calculated to find the amount of growth in each data set. Each data set was listed within a Microsoft Excel spreadsheet, along with the corresponding number of mentor visits for each student. Next, a correlational analysis was run between the predictor variable of mentor visits and the growth residual of each outcome variable to determine if there is a relationship between the number of mentor visits and any of the outcome variables previously listed.

Table 3

Mentor Visit Frequency Intervals

Mentor Visits	1-5	6-10	11-15	16-20	Mentors	Visits
Frequency	16	15	5	6	42	306

As stated in Table 3, of the 42 volunteers who served as mentors at South Lee Middle School during the 2017-2018 school year, 16 of those mentors visited their respective mentees between one and five times during the year. Fifteen of the mentors paid six to 10 visits to their assigned mentees, five of the mentors visited 11-15 times, and six mentors paid between 16 and 20 visits to their mentees during the year. Correlation tests were run for the mentees at each grade level to relate their growth by MAAP scale score, by STAR scale score, and by classroom grade to the number of visits paid by their respective mentors throughout the school year. A goal of 0.4 was set prior to the start of the action plan to mark a moderate positive correlation. As listed in Table 4, the correlations for sixth-grade mentees' mentor visits and growth residuals were -0.12 (MAAP), -0.34 (STAR), and 0.01 (grades). The correlations for seventh-grade mentees' mentor visits and growth residuals were 0.05 (MAAP), 0.22 (STAR), and 0.03 (grades). The correlations for eighth-grade mentees' mentor visits and growth residuals were -0.25 (MAAP), -0.06 (STAR), and 0.19 (grades). None of the correlations measured in this study met the previously stated goal to warrant designation as a moderate positive correlation.

Table 4

Pearson r Correlations, Mentor Visits to Growth

Grade	MAAP r	STAR r	Grades r
Sixth Grade	-.12	-.34	.01
Seventh Grade	.05	.22	.03
Eighth Grade	-.25	-.06	.19

Action Plan Implementation

School-to-home communication service.

The first method described within the action plan was increased communication between parents and the school. Online accounts were set up for each grade level through a school-to-home communication service to allow teachers to send and receive information to and from parents and students. A goal of a minimum of 200 messages was set for all teachers at South Lee Middle School during the 2017-2018 school year, with at least 100 of those coming from the grade-level math teachers. Furthermore, an open-ended survey was offered to all teachers and parents of students at South Lee Middle School to determine the level of partnership between parents and teachers. The survey, which is located in Appendix C, contained 10 multiple-choice questions using a five-point Likert scale, along with one open-ended question which requested recommendations on improving school-to-home communication. The responses from the teachers and the parents were tabulated separately to empirically compare descriptive results, with each multiple-choice answer earning a score from one to five. The numerical averages from each multiple-choice question for each subgroup, as well as the suggestions from the open-ended question, were used to determine themes of implementation for the school-based communication service at South Lee Middle School.

Table 5

School-to-Home Communication Service Messages Sent by Teacher

Teacher	Announcement	Two-Way	Total
**Teacher 1	42	1	43
**Teacher 2	34	105	139
**Teacher 3	97	305	402
Teacher 4	25	202	227
Teacher 5	211	324	535
Teacher 6	8	1	9
Teacher 7	18	60	78
Teacher 8	2	0	2
Teacher 9	2	3	5
Teacher 10	16	0	16
Teacher 11	9	1	10
Teacher 12	2	2	4
Teacher 13	0	2	2
Teacher 14	0	3	3
Teacher 15	32	41	73
Total	498	1,050	1,548
**Math Teacher			

As shown in Table 5, the frequency of school-to-home communication service messages exceeded expected goals within the grade-level classes which were set at the beginning of the school year. The three math teachers sent a total of 173 announcement, or one-way, messages during the 2017-2018 school year. Forty-two messages were sent in the sixth-grade class, 34 messages were sent in the seventh-grade class, and 97 messages were sent in the eighth-grade class. The three math teachers also sent a total of 407 two-way messages, or chat messages, during the same time frame. Furthermore, 12 other teachers also sent at least one announcement or two-way chat message through the service. In total, 498 announcement messages were sent by teachers at South Lee Middle School during the 2017-2018 school year. Moreover, a total of 1,050 chat messages, or two-way messages, were sent by the same group of teachers during the study. South Lee Middle School teachers sent a total of 1,548 messages through the school-to-home communication service during the 2017-2018 school year, which exceeded the school's goal by more than 700%.

Based on the information gathered throughout the study, three themes of implementation emerged. First, both teachers and parents generally believe there are clear channels of two-way communication between the school and the home. When asked the first question in the Parent and Teacher Partnership Survey, the average score for parents (4.23) and teachers (4.27) were both above 4.0, indicating a strong positive outlook on the channels of school-to-home communication. Furthermore, in eight of the ten multiple-choice responses, the average score for each question by both parents and teachers was at least 3.50, which also indicates a moderately positive perception of school and family partnerships from those who participated in the survey.

The second theme observed in the evaluation process is the more positive view teachers have of school-to-home communication than parents. In nine of the 10 multiple-choice questions in the partnership survey, teachers registered a higher average score than the parents, indicating teachers held the school's actions in higher regard than the parents. The only question in which the parents registered a higher score than the teachers occurred when answering the question, "the school conducts a formal conference with every parent at least once a year." The parents' average score for this question was 3.38, while the teachers' average score was 2.85. Given the limited knowledge most parents are assumed to have regarding every student in the school, an inflated parent score on this question is understandable. Moreover, when asked for recommendations for improvement in school-to-home communication at South Lee Middle School, 14 out of 26 parents provided suggestions aimed at actions for improvement. When asked the same question, only seven of the 26 teachers surveyed made suggestions for improvement, and only three of those suggestions aimed at improving actions at the school.

The third theme which emerged from the results of the partnership survey is found in the suggestions provided by the participants. The parents' suggestions focused on actions which the teachers needed to take to improve school-to-home communication. Examples of such suggested actions included quicker responses to parents' emails, emailing newsletters to parents, and more frequent academic conversations with parents about their children, particularly if that child's performance has declined. Conversely, the majority of the suggestions provided by the teachers focused on the inactions of the parents as a whole. Examples of such recommendations included parents becoming generally more involved at the school, parents showing up at open houses and during other instances upon which they are called, and parents increasing cooperation with the school. Such viewpoints of external methods to improve school-to-home communication are a common theme in the evaluation of the study.

School-based mentoring program.

The second method described within the action plan is increased community involvement with students at South Lee Middle School through Red Raider Family, a school-based, one-on-one mentoring program established to provide targeted students additional support, encouragement, and accountability to achieve greater academic success. Descriptive statistics of the number of recruitment meetings held both inside and outside of the school, number of mentors who volunteered for the program, and the frequency of the mentors' visits with their mentees were collected to describe the extent of each mentor's investment in the program. Furthermore, focus groups and interviews with mentors, teachers, students, and parents, themes were identified to point out strengths and weaknesses within the program's implementation.

A total of 54 adult volunteers originally agreed to be a part of the Red Raider Family program. Of those volunteers, 12 were unable to fulfill their mentoring responsibilities and

either backed out of the agreement before the program began or declined to be matched with a student once the program was underway. Two students transferred from South Lee Middle School after beginning the program, and two students who were identified for the program and whose data were tracked did not receive a mentor due to lack of availability. Forty-two mentors were introduced to students and made at least one visit to their respective mentees during the 2017-2018 school year. The number of matched mentors exceeded the stated goal in the action plan by about 60 percent. Furthermore, from October 1, 2017 to May 20, 2018, the mentors made a total of 306 contacts with their respective mentees during school hours or school events, exceeding the goal of visit frequency by over 200 percent. The qualitative indicators of success and needed improvement within the Red Raider Family program are addressed in the next two sections.

Mentoring Success

To determine which themes were apparent in the Red Raider Family program, three mentor focus groups, one teacher focus group, two parent interviews, and seven student interviews were conducted in April and May 2018. After the focus groups and interviews were conducted, the information given by the participants was analyzed and coded using principles of grounded theory to identify common trends in their responses. Three common successes emerged from the responses given by the participants: personal connections utilized and developed throughout the program, mentor-student relationships which were built during the program, and an overall positive cultural impact based on the perspective of those surrounding the program.

Participants reported a greater investment in the program through personal connections, either with the students, the researcher, or the school. Many of the mentors say they volunteered

as mentors because of personal conversations with the researcher about the project, as well as a personal verbal invitation to participate. Several of the mentors also expressed a need for the program based on their experiences as a resident in the community. One mentor said, “It’s something we really need, because our kids are from so many different backgrounds. They don’t always feel comfortable talking to Mom or Dad about something.” Another mentor stated, “I know I would have benefitted from a program like this when I was in middle school. In knowing that, I know I can be that role model for someone else.” One of the teachers at the school said, “Wow! It is so needed, just thinking about the different backgrounds of our kids. This program can give them the extra support they need. I thought it was a great thing.” Other mentors and teachers also noted the different methods through which the program was promoted, whether it be through social media, speaking engagements at civic organizations and churches, or through newspaper articles or television segments.

Once the mentors and mentees were matched, several of the participants noted instant connections which were built upon over the course of the year. One student said about his mentor, “I found out that my mentor played sports here like I do, and has had diabetes for a long time, and I have it too. It gave me someone else to talk to about it, and I could ask him stuff. He was cool.” One of the mentors found out she and her mentee had a common interest in photography. She said about her mentee, “I think it’s unique how everything fit. It serves well as an icebreaker.” Another mentor also stated common interests with his mentee, who shared a love for the outdoors. Two more mentors commented on previous relationships with their respective mentees prior to the beginning of the program, which gave them a head start in building positive relationships. One of the teachers, who was skeptical about the program at first, had this to say, “I didn’t really get it. And then a student’s mentor came and sat with them

at lunch. I saw the interaction between them, and I saw the student open up in ways he does not open up in class.” One of the parents stated about her child, “Our mentor and we clicked really well, because we invited our mentor to birthday parties and stuff like that.” She continued, “Watching the development of my child in how much she has grown since the start of the program, she talks much more positively about the future, and that’s due to her mentor and to this program.”

Another positive aspect of the program was the increased community presence on campus, which was noticed by school personnel and community members alike. One teacher noted, “I didn’t realize such people lived here. It has really been uplifting for me as a teacher.” She continued, “I think students were hesitant at first. As the year has gone on, students got more used to them.” One parent said, “I was excited for my child to get to know more people in the community, since we were new to the area.” One of the students commented, “It was different seeing him in the lunchroom and talking to me. People were asking who that was all the time. After a few visits, all my friends were asking him if he could be their mentor.” One of the mentors said about her visits, “I had to be really careful, because the kids, they know me. They know I’ll say something to them. So when they would come up to me, I’d tell them to go on to class so I didn’t get them in trouble.” Other teachers also made comments about the mentors being on campus, stating, “I like it when they come at lunch,” and “even when it’s during class, I welcome an extra set of eyes.”

Another strength of this program which was noted by participants in the study was the relationships built by the mentors and students. One important note is how some of the mentors already had connections with their mentees through previous interactions, whether it be through home, church, or previous school interactions. These mentors and students reported how their

conversations would move past the icebreaker stages and focus more on academic and behavior goals. One parent, whose child's mentor had taught him in a previous grade level, said, "He talks about his mentor through the roof. He loves her! I think he gets a lot out of being with her." She continued, "One of the main things they talk about is his behavior. 'Why are you sitting in the hall? Why are you in ISS?' She's constantly staying on him about his behavior. If she's saying it, and he's listening, I don't have to." One of the mentors, who had a connection with his mentee through their local church, said, "Since I already had that relationship built going in, one of the main things I wanted to focus on was getting his temper under control. Since the start of this program, I have seen an improvement in his discipline. It's not perfect, but it's getting there."

Another related observation of note throughout the program was an increased connection between mentors and mentees if they were matched early in the program. Mentors who participated in the interviews and focus groups reported, while their mentees were hesitant at first upon meeting them, the relationships built in a positive way over time because of the training, initiation, and introduction to the program during the first two months of the year. One mentor said, "The initiation meeting was very helpful. [The Project Coordinator] had an idea of what [his] purpose was in this program." All of the mentors reported some hesitation from their mentees at first. Those mentors who had begun the program at the start of the year noticed a greater comfort level between mentor and mentee as the year progressed. Several mentors and students in this position asked questions about the program being a multi-year commitment. For those who were brought into the program later in the year, the hesitation took longer to subside. One mentor, who connected with his mentee through a love of the outdoors, said, "I would've liked to have gotten to know my guy better outside of the lunchroom. I just try to catch up with

him, how he's doing, what he's looking forward to." Another mentor who started later in the school year, when asked about her initiation into the program, stated, "I don't think I had one. I was just told about the program and matched with my student. It's been hard. We're still trying to get past that playful stage. She doesn't take anything seriously." In short, the sooner mentors can be trained, matched, and introduced to mentees, the more time mentors can put into their mentees, and the more likely they are to break through the hesitation and anxiety of one another and build long-lasting relationships.

Another positive aspect of the program is the common ground found between all participants to see students grow and succeed. Every participant in the focus groups and interviews stated a greater importance on academic growth than high achievement. Most of the participants also commented as to why academic growth was more important. One parent said, "If you work to get to that level, it will prepare you and make you stronger for the future." One of the mentors stated, "A student can adapt to their surroundings and prepare for life outside of school." One of the teachers answered, "Working to get better leads to high achievement," while another teacher stated, "When they are working to get better, they build habits which will carry them to greater success in the future." Another mentor compared the reason to a conversation with his son, "I tell my son, 'all I expect out of you is to do your very best.' Because a lot of times, achievement equals comparison." Another mentor continued, "If you're measuring achievement, you're measuring against other people. With growth, you are measuring against yourself."

The common ground of the participants surrounding the well-being of the students and their academic growth is evident in the overall cultural impact of the program. One of the noticeable observations in the program is the attention paid by the mentees to improving either

their academics or behavior, especially if their mentor was a regular visitor to campus. One student said, “I knew they were going to be coming and asking about it, so I knew I had to do better to tell them about it.” One mentor spoke of a day early in the program when her mentee immediately wanted to show her a good grade she had made in her science class. According to the mentor, “It was the first time she had come to me and opened up about something. Before that, I got a lot of one-word responses.” Another mentor described his intent for his visits in another way, “I want to help them feel a responsibility to themselves, an internal want to get things done in a timely manner.”

Another positive aspect of the program was the incentives placed on meeting certain academic or behavioral goals. There were three trips which were scheduled to reward mentees for meeting behavior goals. The first two trips were a basketball game at Mississippi State University and campus tours at The University of Mississippi. The third trip was scheduled in April 2018 to attend Ballet Memphis’ production of Peter Pan at The Orpheum Theater. These trips were a big hit with the students. All of the students who participated in the interviews expressed the trips were their favorite parts of the program. According to one student, “I really liked the basketball game, and the trip to Ole Miss was cool, too. You know, I really didn’t think I would like the ballet, but it was alright! It was something different.” One of the teachers also noted, “I think the trips have been great. I’m glad they were not during the school day.” One of the mentors also mentioned, “The field trips were well-planned. The teachers were always in control of the kids before we went anywhere, and I think they really enjoyed them.”

Mentoring Improvement

While there were several positive components of the Red Raider Family program about which the participants spoke, there were also some areas in which the participants said the

program could be improved. One area which multiple participants said could be improved was the number of events held for mentors and families to get together and become better acquainted. One mentor stated, “There might be an activity that would get us better acquainted.” Another mentor also suggested more frequent, smaller events, stating, “Some people have trouble connecting with their mentees, because they don’t do a lot of extra stuff after school.” The parents who were interviewed also requested more opportunities to meet with and talk to their children’s respective mentors. According to one parent, “We should have a basketball game, anything such as that which will show that the mentors care about the kids.” Another mentor also mentioned the idea of a competitive event to get things started: “They need something where they are able to compete with us, because they like competition.”

Another area in which the participants noticed a need for improvement was the overall logistics of the program, both in its initiation and in its implementation. While the mentors described the initial training sessions as helpful and informative, they felt the steps to begin mentoring were a bit chaotic. One suggestion from the mentors was to provide a space in which all facets of the initial screening could be done at the same time, from the fingerprinting, to the online registry form, to copying the driver’s license and social security card, as well as all the necessary applications. According to the mentors, streamlining the process would make it easier to begin the process of mentoring students without the confusion which existed upon getting started in the program.

Another suggestion from the mentors was to mark off a specific, neutral site on campus where the mentors and mentees could meet, talk, and work away from the distractions of the normal school day. Most of the students met their mentors during lunch, due to their respective mentor’s schedule restraints. While that setting worked for some mentors, it was distracting for

others. One mentor said, “We need an easily available place to sit down and talk with them.” Another mentor said, “I always met my mentee at lunch. When I went with him to class, I felt I was more of a distraction than anything.” Most of the students were also hesitant about meeting their mentors around their classmates during lunch, and they expressed a greater level of comfort meeting their respective mentors in a one-on-one setting.

One of the struggles the mentors discussed was taking the time to learn the specific needs of their respective mentees. Several of the mentors requested having more information about their mentees’ family situation, academic history, behavior history, and student schedules. They felt this would give them a better understanding of how to help their mentees succeed.

According to one mentor, “It was harder than I thought it would be.” Another mentor stated, “I haven’t been able to do what I wanted to in the beginning.” Parents also requested the program find more ways to get parents involved at the start of the program. According to one parent, “I would like to be more involved in what he’s doing at school, so I could see what he’s doing and do more of that with him, too.” Another suggestion from mentors and parents was a more consistent communication method to receive information both from the school and from each other. According to one teacher, “I’ve had students who have tried to use their mentor as an excuse for not doing their work in class. They’ll say, ‘I’ll do it later with my mentor,’ and they never do it.”

Another related area which the participants noted some need of improvement is the focus of the program itself. While the study analyzed the effects of the program on academic growth, the conversations between mentor and mentee were mainly relational in nature. This came as a surprise to some of the mentors. According to one mentor, “I thought the program would be more academic-based. Mine is more listening and encouraging, being involved around him as

more of a life coach role.” Another mentor described, “My mentee, she’s smart! She needs help handling her attitude and help her to handle conflict.” Still another mentor talks about her conversations with her mentee: “She eats, and I talk to her about her life. ‘How was your day? How are classes? Did you get to see your dad this weekend?’” Parents also mentioned the need for their respective children to receive additional guidance dealing with other people, either in handling conflict or in building self-confidence and self-esteem. Both interviewed parents stated this is where the mentors made the most difference with their children.

Stakeholder Involvement

One of the purposes of the applied research study was to increase partnerships among school officials, family members, and community stakeholders at South Lee Middle School. While efforts were made to include families and community members through increased activities, areas of improvement were evident in the implementation of the action plan. Key stakeholders showed interest and provided much needed input and assistance throughout implementation and evaluation of the school-to-home communication service as well as the school-based mentoring program.

The first active recruitment occurred in July 2017 at South Lee High School, when the researcher spoke about the mentoring program during a meeting of its P-16 Community Engagement Council. Another recruitment pitch was made when the researcher presented plans for the mentoring program and the home-to-school communication service during the July 2017 school board meeting. The researcher and the school’s Community Engagement Team then held three meetings during different times of day during the school’s Open House in July 2017, prior to the start of the school year. The teachers who decided to utilize the school-to-home communication service also provided incentives such as homework passes or extra classroom

privileges for students to get their parents to sign up for their created class within the service. In total, the families of 132 students participated in the service either through the students or the parents, which calculates to 48.9% of the students at South Lee Middle School.

Next, the researcher and his team visited nine different local churches during the month of August to promote the mentoring program and to ask for volunteers to serve as mentors. During South Lee Middle School's family engagement meeting in September 2017, volunteers who agreed to serve as mentors joined together to complete fingerprinting and registry paperwork to begin the program. South Lee Middle School faculty and staff members also played a significant role in the assignment of mentors and mentees, providing input and making selections when appropriate. Community members, parents, and students were also given the freedom to accept or decline the mentor assignment at any time.

The stakeholders were also given the opportunity to participate in the evaluation of the program to point out areas of success and improvement. Focus groups and interviews were conducted for mentors, teachers, parents, and students during the Spring 2018 semester. Each subgroup was asked a series of questions, as listed in Appendix B, aimed at targeting program implementation, academic growth, and mentoring relationships. Parents and teachers were also given the opportunity to participate in an open-ended survey with the intent of determining the status of school-to-home communication at South Lee Middle School, as well as identifying specific themes of implementation. A total of 20 mentors, three teachers, two parents, and seven students took part in either interviews or focus groups for the Red Raider Family program, and 26 parents and 26 teachers participated in the partnership survey at the end of the school year.

Table 6

Parent Meeting Participation Comparison

School Year	Total Meetings	n	Mean n	Participation Increase
2016-2017	9	548	78	8% (mean)
2017-2018	12	776	84	42% (total)

As described in Table 6, a total of 548 participants visited the school during nine scheduled parent meetings throughout the 2016-2017 school year. During the 2017-2018 school year, a total of 776 participants visited the school during 12 scheduled parent meetings. Mentor meetings were not included in this information to keep the data limited to meetings specifically targeting parents and families. While the cumulative total of participants increased by 42 percent, the average number of participants per meeting increased by only eight percent, which fell short of the 10 percent increase which was targeted at the beginning of the study.

Summary of Chapter Four

Several of the implementation goals set at the beginning of the action plan for this applied research study were met. The goals for number of mentors and mentor visits in Red Raider Family were exceeded. The goals for number of messages sent and received by teachers through the school-to-home communication service were also exceeded. Key stakeholders were given multiple opportunities to participate and provide input for the new parent and community involvement activities at South Lee Middle School. Several areas of mentoring success were determined through qualitative means, and themes of improvement were identified through the evaluation process. However, implementation of the action plan did not result in meeting the goal of student academic growth in mathematics set for South Lee Middle School. Specific quantitative tests found no correlation between mentor visits and student academic growth in mathematics. Further testing found no significant difference between participation and non-participation in the school-to-home communication service. Furthermore, while there was an

increase in parent attendance through scheduled school-wide meetings, the increase did not meet the goal set at the beginning of the action plan.

While Chapter Four laid out the results of the action plan, Chapter Five was written to provide a deeper understanding of what lies beneath the findings. Discussion of the implementation strategies, as well as any unexpected findings, was designed to provide insight into attempts at future studies. Further analysis of the usefulness, feasibility, propriety, accuracy, and accountability gave credence to the direction of future researchers who choose to analyze the effects of the implementation strategies applied in this study. Conclusions of the study and recommendations for future studies synthesized the work done at South Lee Middle School so other schools can learn from the study and create effective school, family, and community partnerships to help students succeed.

CHAPTER V

DISCUSSION

The purpose of this applied research study was to improve student academic growth in mathematics at South Lee Middle School. The study utilized increased parent and community involvement activities to achieve greater academic growth. The urgency for increased student achievement in mathematics and greater avenues for parent and community involvement within the school became evident through analyzing previous years of student assessment data, as well as through conversations with school staff members, community members, and parents of students at South Lee Middle School. As stated in Chapter One, Marzano (2005) details three methods by which schools can immediately impact student achievement through increased parent and community involvement. First, provide additional avenues of communication between the school and the home. Second, provide community members flexible opportunities to volunteer at the school. Third, give community members the opportunity to provide input as to how to improve school practices. Based on this information, the Community Involvement Team at South Lee Middle School decided to implement multiple strategies to improve student growth through increased parent and community involvement activities. By utilizing an online school-to-home communication service, creating a school-based mentoring program aimed at improving academic growth for students in non-traditional family settings, and conducting over a dozen focus groups, interviews, and surveys to evaluate each program, the staff at South Lee Middle School targeted the goal of increasing student academic growth in mathematics through methods which were research-based and collaborative in nature.

Chapter One gives a description of the problem and the purpose of the study, establishing the need for increasing student academic growth. Chapter Two discusses the relevant literature describing the relationship between increased parent involvement and increased student achievement, as well as the need for action research which targeted increased parent and community involvement in diverse communities. Chapter Three explains the development, implementation, and evaluation of the action plan. Chapter Four details the evaluation results of the study. Chapter Five presents the conclusions of each portion of the study, unexpected findings, limitations of the study, and recommendations for further study and continuous improvement.

Analysis

There were a total of seven research questions to be answered for this study. The first research question referred to a goal of 75 accountability points of growth in seventh-grade and eighth-grade mathematics at South Lee Middle School during the 2017-2018 school year, based on the MAAP Mathematics Assessment, to determine academic success of the study. The second and third questions evaluated the effectiveness of each strategy utilized in the study, through either comparative or relational quantitative tests. The fourth question evaluated the implementation of the action plan components by measuring descriptive goals of participation and involvement. The fifth and sixth questions evaluated the themes of success and needed improvement for the school-based mentoring program. The final research question for this study evaluated the level of stakeholder involvement to create and sustain a cycle of continuous improvement.

Student growth.

This study was initiated while the researcher was in his fourth year as assistant principal at South Lee Middle School. In-depth, informal conversations with the principal, teachers, parents, and community members, along with several months of research into parent and community involvement activities preceded the initiation of the action plan. A plethora of research provided a guide for implementation of the action plan, and the research questions evaluated each element of the study.

Each school's accountability rating from the Mississippi Department of Education is primarily based on statewide assessments conducted at the end of each school year. For students in kindergarten through eighth grades, these assessments are part of the Mississippi Academic Assessment Program (MAAP). Because the MAAP test results are modified to fit into a 100-point scale score range each year, and because they are based on academic standards which are taught throughout the year, these results seemed to be a proper measure for student growth from one year to the next. South Lee Middle School placed quite a bit of importance on these assessments, and the school provided incentives for students to give their best effort on the tests, giving away bicycles, computers, and other valuable items as raffle prizes to randomly selected students who were reported to have given their best effort on the tests.

Looking back at the study as a whole, the components invited targeted students using school-based mentoring, and invited all students using the school-to-home communication service. However, students who declined to participate in either program, or who were not eligible for school-based mentoring, served as a de facto control group which did not receive treatment from either program during the study. To measure their growth and include their data

as part of the measurement of success for the study is faulty program design. The measurement of growth should have been limited only to participants of either program.

At the outset of this study, I believed the MAAP assessments were the most reasonable and objective means by which to measure student academic growth. Universal screeners are not based on current academic standards in each classroom; they are skills-based assessments of a child's overall knowledge. District-created benchmark assessments do not have a pre-test component, and classroom grades are subjective in nature. The problem with using the MAAP tests as a measuring stick for success lies in the nature of the assessment itself. If a student shows growth through classroom grades, universal screener tests, and district-created benchmark assessments, but performs poorly on the MAAP assessment, the student shows no growth for that school year, which reflects poorly on the student and the school. In hindsight, I believe using multiple assessments to measure student growth would provide a more complete picture as to the academic success of the action plan. The validity and reliability of each assessment would then need to be considered to determine whether a student showed academic growth during the year.

Another finding which may explain the reason for the lack of success in meeting the desired goal of growth is the generic nature of each program. The school-to-home communication service provided an avenue for parents and teachers to keep in touch with one another. However, the content of the communication was not monitored. Therefore, while it is possible the communication was effective in some cases, there is no way to know for certain. The parents' comments during the survey, which called for more frequent teacher-to-parent contact in times of academic need, provides some evidence of a remaining need for more effective and productive communication regarding academics. While the school-based mentoring program provided targeted students with additional support, encouragement, and

accountability from invested adult mentors, the program was not specific in the type of assistance provided by the mentors. This was part of the design of the program; the needs of each student are as unique as the students themselves. However, once the mentors had been introduced to the students, and an initial relationship-building period had been established, a focus on academics with the mentors and mentees through tutoring sessions or periodic group sessions may have provided additional attention to the academic progress of each student and produced greater academic success.

School-to-home communication.

The lack of attention to detailed, academically focused messages to parents may have also played a role in the lack of difference between participation and non-participation in the school-to-home communication service. Parents who subscribed to the service may have been getting more information regarding homework, test dates, or other generic classroom-based information, but there was no way to tell if they received specific academic information regarding their child, because the message data was not tracked to provide such information. As a result, teachers who were providing parents with whole-group information about their students' events were not drilling down to each individual students' strengths and weaknesses with their parents, which allowed for cracks in the communication process.

These reasons and others are why researchers such as Epstein (2009) advocate for formal parent conferences with every student at least once a year, as well as monthly reviews of student work via folders which are sent home to the parents. One of the teachers who participated in the survey suggested the school make a greater effort to reach out to parents who may be difficult to contact. If schools are going to make a difference in students' lives through school and family

partnerships, then schools will have to make changes not only to how they contact parents, but also to how deeply they keep parents informed to student progress.

The type of comparative test used to determine effectiveness of the service seemed to be appropriate in this case. However, this study should not be used as a summative indictment of the school-to-home communication service as an ineffective tool for schools and families. Professional development on the use of this service could have been greatly improved through this study. One training session on the proper use of the service is not enough, especially without proper follow-up protocols. Moreover, with a school-based mentoring program being initiated simultaneously with the expanded use of the communication service, the frequency and the content of the messages being sent by the teachers and the parents were not formatively tracked and analyzed. Therefore, the service was not implemented with fidelity, in my opinion, because of the lack of distinction between the detailed information provided to participants compared to non-participants in the program.

Mentoring and student growth.

One of the main components in the action plan was the initiation of the school-based mentoring program, Red Raider Family. Once community members and families were committed to the program, there seemed to be a desire from all parties to not only see the program succeed, but also to see it continue beyond a one-year study.

The relational test was utilized as a way to determine if the number of visits a mentor made to a student during the school year correlated with student growth. The validity and reliability of the test were not in question here; the test showed no correlation between mentor visits and student growth because a relationship did not exist in this study. However, the relevant research (Jucovy & Garringer, 2008; Epstein, 2009) did not make this connection,

either. Instead, according to research, benefits of mentoring at-risk students include impacting cultural factors which lead to increased student achievement, such as increased attendance and decreased discipline incidents. Furthermore, researchers note the effects of extended formal mentoring to include increased student achievement, when it occurs for more than one school year. However, achieving such a feat involves overcoming such factors as teacher turnover and mentor attrition (Jucovy & Garringer, 2009). Measuring mentoring success on a sliding scale of academic achievement based on the frequency of mentor visits is another result of faulty program design. To measure mentoring success, attention should have been paid to the students who met the qualifications for a mentor, but who declined to participate in the program. Making comparisons of growth between those two groups would have been more reasonable than determining a relationship between mentor visits and student achievement.

Action plan implementation.

Each portion of the action plan had specific descriptive goals with benchmarks to attain during the implementation of the action plan. The school administration as well as the Community Involvement Team at South Lee Middle School set the goals. The goals were based on previous experience with the community activity at the school through the past few years, along with the desired impact on the school, both academically and culturally. Once school staff members, families, and community members were aware of the different activities being initiated at the school, those who participated expressed an urgency to see each method succeed. Community members echoed those sentiments were echoed by community members during recruitment trips to various civic organizations and church meetings. People from various parts of the community wanted to be a part of helping students grow and succeed, and there was an

outpouring of support from those who participated in the programs, as well as those who were unable to participate.

School-based mentoring.

One reason for exceeding the goals set for implementation, particularly in the mentoring program, was consistent contact from the school to encourage mentors to visit their respective mentees on a regular basis. Through emails, text messages, social media posts, field trips, and other forms of communication, the school kept reminding mentors to visit their students and keep building the relationships with the students. This caused a swell of visitors to campus, particularly in the first two months of the program. For several students, this was when the relationships between mentees and their respective mentors turned from a focus on social and emotional issues to academic issues. For other mentors, that barrier was never broken, and the focus never shifted to academics. While the number of mentors and frequency of visits greatly exceeded expectations, the focus to academic growth was never intentionally shifted. Greater emphasis on such a purposeful shift in the connection between mentor and mentee may have impacted the success of the study, and it should be part of any future studies stemming from this research.

One of the instructions given by the research (Jucovy & Garringer, 2008) in beginning a school-based mentoring program is to find a champion, a person who can proclaim the benefits of the program and who can recruit others to join in the effort. During this study, I served as that champion. As the assistant principal, I was able to carry out tasks necessary to the initiation of the program without the burden of the school-defining decisions made from the principal's desk. Any champion of a project such as a school-based mentoring program must have someone who

is willing to go the extra mile to ensure proper initiation and implementation. Without such leadership, a program like Red Raider Family will fade to obscurity in its infancy.

School-to-home communication.

While the Red Raider Family mentoring program received consistent attention from the researcher and its participants, the school-to-home communication service did not receive as much attention. At times, it seemed as if the service was more of an afterthought in the study, existing only to meet a requirement of a school-wide component to the study. As a result, messages were more sporadic from teachers, students were not encouraged to participate as often as they could have been, and the focus of detailed, academically focused messages specific to student needs did not exist. Instead, the content of messages was not tracked, and the program itself was left largely up to teachers who were less motivated to see it succeed than the mentoring program.

Another component of the program which was lacking in the school-to-home communication service was the content of conversations surrounding the students' academic progress. According to research (Garcia et al., 2016), conversations about students' data are essential to seeing students progress and succeed academically. Unfortunately, without tracking the content of the conversations through the service, the usefulness and effectiveness of the service could not be fully evaluated. While the school met the goal of the minimum number of messages by its teachers during the year, there is no way to determine if the communication service was effective based on the content of the conversations about student progress, or simply based on the mere presence of parent attention being paid to class assignments and school events announced through the service. Two recommendations for future studies is either to implement only the school-to-home communication service without any other new initiatives being tracked

during the year or assign a separate person to oversee the project. If greater attention is paid to the project on its own, more detailed information can be gleaned from the evaluation process, leading to more useful results.

Mentoring success and improvement.

The information derived from these two research questions were essentially two sides of the same coin, identifying themes of success and areas of improvement from the same qualitative data sets of focus groups, interviews, and surveys. Therefore, we will address these questions together. The information gathered to answer these questions proved to be the most useful portion of the study, providing feedback as to the successful portions of the mentoring program while also giving input about how to improve the program moving forward. Some of the information provided during the focus groups and interviews guided decisions to be made later in the program. For example, during the first focus group, one of the mentors mentioned the idea of creating a group text in which not all of the recipients would receive every reply from each participant. Upon receiving the input, I created a class within the school-to-home communication service specifically for mentors in the Red Raider Family program, essentially combining the uses of both facets of the study.

The only recommendation for improving this portion of the study would be to find ways to open up more opportunities for stakeholders to participate. One way to accomplish this task would be to ask teachers, for example, when they could most likely meet, then set the time around their schedules. One method which was used for two of the participants was to complete a phone interview. While this creates more issues for the interviewer, the process would provide the interviewee more flexibility and a greater likelihood to participate. Another way to increase participation in this process would be to provide incentives for participation. None of the

participants were given any incentives for providing their input. A nominal incentive of a gift card or a small cash award would provide more motivation for greater participation in the project and more responses from which to derive themes of implementation.

Stakeholder involvement.

The driving force behind any effort of this scale is to gain input from multiple perspectives as to see a more complete picture, which allows for greater chances of success and sustainability. Key stakeholders were invited to participate in multiple parts of the action plan to provide input, guidance, and stability to the Red Raider Family mentoring program as well as the school-to-home communication service. From initiation to implementation to evaluation, school staff members, families, and community members were given opportunities to provide feedback which became invaluable to the cycle of continuous improvement being created at South Lee Middle School. In retrospect, while I wish we had more mentors and mentees to agree to become part of the mentoring program, and I had hoped more parents and families would have signed up for the communication service, I believe one of the strengths of the action plan was the level to which we attempted to involve parents and the community members in the action plan.

While efforts were made to include stakeholders in all areas of the process of this study, some improvement in protocols and logistics were recognized as needs for future implementation. Several mentors and parents recognized the need for smaller events and social gatherings to allow the mentors, mentees, and parents to build a greater rapport with one another. Other mentors recognized the need for more information regarding their respective mentees earlier in the process to provide the mentors more ways to connect with them. Current research (Jucovy & Garringer, 2008) provides templates for parents to fill out such information to give to the mentors; however, I erred on the side of caution, not knowing if the parents would reject the

notion of a mentor being provided with such information about their child. Looking back now, I should have asked this question of the parents upon initiation into the program, which would have accelerated the relationship-building process between mentor and mentee.

Another logistical error occurred in the process to sign mentors up to volunteer at the school. The process involved several steps which were unknown to me at the time. Completing these steps was cumbersome and time-consuming, especially since we were learning about each new step as we went along. A venture like this had not previously been attempted on such a scale, so it was difficult to foresee such obstacles in the initiation process. While it did not turn anyone away from mentoring, it did slow down the beginning of the program, making some teachers and mentors wish it had begun sooner. Looking back on it now, I would have organized the initiation process in a meeting place which could have accommodated all aspects of the necessary steps to get started, such as the fingerprinting, the online registry process, and the volunteer forms. I would also create a specific place at the school (library, computer lab, etc.) for all volunteer activities to take place. This set meeting area could also double as a specific area for mentors and their respective mentees to have one-on-one conversation, away from the distractions of everyday school life. This action is supported by research (Jucovy & Garringer, 2008) and requested by the mentors and students who took part in the focus groups and interviews for this study.

Unexpected Findings

During an undertaking of this magnitude in any setting, there are bound to be unforeseen circumstances which are surprising to those who are in a leadership role. I found myself to be firmly out front in this process from the very beginning, and while the current research and informal conversations within the community prepared me in many ways for this challenge,

other aspects of the initiation and implementation were unexpected. Some of the unexpected issues we faced during the 2017-2018 school year at South Lee Middle School were helpful to the action plan; others were simply surprising. All of the findings, however, prepared us for future implementation of the programs and their components.

The first unexpected finding happened during the initiation process for the action plan. Upon starting the programs during the summer of 2017, three groups allowed me the opportunity to speak about the program. The first group was a community engagement council whose sole purpose was to find ways to involve community members and families in the local schools. At first, it seemed like a natural partnership. After all, the entire point of the action plan was to increase opportunities for parents and community members to become more active participants at South Lee Middle School. However, as the initiation and implementation process continued, I noticed none of the members of the community engagement council with which I spoke signed up as mentors for Red Raider Family, and none of them promoted the school-to-home communication service at South Lee Middle School. In fact, the president of the community engagement council heard the pitch for mentor recruitment at least two more times within the first month of implementation of the action plan. Not only did he not choose to participate, he did not assist in promoting the program or encouraging anyone else to participate. Through this process, I learned while many people may talk about involving families and community members in schools, some people are not willing to take meaningful steps to make it happen, and other people are simply waiting for an opportunity to tear other ideas down.

The second unexpected finding occurred during the matching process for mentors and mentees in Red Raider Family. Once we compiled a list of all the students who qualified for the program, along with a list of mentors who agreed to participate, we began calling students and

parents to invite them to begin the program. Almost half of the seventh-grade and eighth-grade students who qualified to participate in the program turned down the invitation. Upon speaking with their parents, several reasons were given for declining the invitation, such as not knowing the mentors who would be speaking to their children, or not feeling their child needed a mentor. Several students also felt uneasy about the idea of a stranger coming to the school to talk with them, and they turned down the opportunity for that reason as well. All of the students who began the Red Raider Family program remained in the program for the entire school year. However, it was surprising to see the number of students and parents who turned down additional assistance from the school.

Another unexpected occurrence was pointed out during the implementation process. South Lee Middle School had a major decrease in discipline referrals during the 2016-2017 school year, and it was expected to see those referral counts increase to balance the previous two years. While discipline referrals were not tracked as part of this study, one of the undeniable aspects of the program was the school-wide decrease in discipline issues as a whole when mentors were on campus, as well as a decrease in discipline issues with the mentees whether the mentor was present or not. South Lee Middle School's teachers and staff noticed a positive cultural shift in the students which they felt was palpable, particularly when the mentors were on campus. One of the themes present during the teacher interviews was their desire to see the program last more than one year. This speaks to the change in culture which was noticed by the teachers throughout the year and their belief of continued and sustained success if the mentoring program were allowed to continue.

The last unexpected finding about the action plan did not come to light until after the action plan was being evaluated. Several students whose mentors were frequent visitors to the

school did not show growth on any of the measured assessments: MAAP assessments, STAR assessments, or classroom grades. The students were able to maintain previous results in many cases but were unable to show growth. However, their teachers and parents noticed positive differences in their behavior both at school and at home. One of the teachers who participated in the focus group spoke about one of these students, saying, “I had one student who struggled this year at home. He may not have grown like I wanted, but he has someone who cares about him. He’s more respectful, more responsible, and he tries harder than he did before.” One of the parents of another student in the mentoring program also saw a difference in her child, saying, “He hasn’t had as much of an attitude with me at home, and he has not been in the office for discipline as much.” Both students maintained their previous academic standing in the classroom, but they did not show growth in any of the academic measures for this study. However, both mentors and parents alike credited the mentoring program for helping students navigate the pitfalls of middle school and prepare them for later life.

Limitations

During any applied research study, there are parts of the study which can be scrutinized and questioned. After all, applied research is not conducted in a vacuum; certain variables in real life cannot be predicted or controlled. Furthermore, portions of this particular study raise certain questions which need to be taken into account upon the replication of such a study.

This research study contained several research questions which were based in either qualitative analysis or descriptive statistics, both of which were easily collected and analyzed to measure the effects of specific elements of the action plan. Other research questions, however, asked for specific answers which were based on certain statistical tests, which normally require specific parameters to collect valid and reliable results. One question asked to determine a

significant difference between participation and non-participation in the school-to-home communication service. Another question asked if a relationship existed between mentor visits and student academic growth. Both questions utilized data sets which were not randomly selected or sampled. The students' data sets either were stratified based on their families' choice to participate in the communication service, or they were requested and agreed upon participation in a school-based mentoring program. The treatments were not randomly assigned; instead, the participants were either targeted or allowed entry into the programs. Furthermore, the population sizes were not large enough to randomly sample the participants and test the results. Doing so would have greatly increased the risk for outliers in the data, causing an already depleted data set to be virtually useless in a quantitative sense. Had the quantitative data been close to meeting the goals set forth in each element of the action plan, or if it had met those goals, there would be more reason to scrutinize the results. In this case, none of the quantitative results showed any proximity to statistical significance. These parameters severely limit the possibility of replicating the results. Therefore, the lack of statistically significant change should not be seen as definitive proof of a lack of success of the program components. Instead, more study should be done with greater sample counts to verify the results in this study.

The nature of applied research exists within the concept of a researcher utilizing current knowledge within a research-based action plan to impact a problem of practice at a school or district. The researcher in this case becomes participatory by default. No matter how objective the researcher attempts to remain throughout the study, immediate questions surface about the perceived biases of the researcher. After all, if the goal of a school leader is to increase student achievement, and the goal of a research study is to increase student achievement in a certain area, the two interests seem like a natural fit. However, the assumed desire of a researcher who serves

as a school leader to show signs of success within his or her school may cause serious questions as to whether the data can be trusted. In this study, the lack of significant change within the statistical tests combined with the efforts made to collect data from multiple perspectives and provide accurate results lead to a more reasonable assumption of researcher objectivity and protection of the validity and reliability of the collected data.

During the creation of the action plan, two major ideas emerged to combat the problem of low student growth in mathematics: school-to-home communication and school-based mentoring. While one idea required less preparation and was allowed to be offered as a school-wide initiative, the other concept required much more investment from all stakeholders involved and was designed to target specific groups of students in a more focused, intensive intervention process. The decision was made to include both plans as part of a combined effort to raise student growth in mathematics at South Lee Middle School. As a result, the school-based mentoring program received much more attention and investment from all parties, including the researcher. The school-to-home communication service did not receive the progress monitoring or professional development required for a complete implementation of the program. In retrospect, the researcher should have selected one of the ideas on which to focus for the implementation of the action plan. Including both components of the action plan diluted the efforts in each area and weakened the possible benefits. This study should not be seen as a failure of school-based mentoring or school-to-home communication; rather, it should be seen as a tool with which to improve implementation for future attempts at either program. Focusing on this purpose would have led to a more qualitative study with less need for quantitative tests.

During the researcher's planning, initiation, and implementation of the action plan, components of creation of such a plan were described and displayed during coursework at The

University of Mississippi. While other researchers decided to implement their action plans during the final year of the program, the researcher at South Lee Middle School attempted to implement the action plan for this study a year earlier, while some components of creating such a plan had not yet been explained or initiated. Looking back on it now, the researcher should have waited until the third and final year of coursework before beginning the action plan. This patience would have strengthened the preparation of the action plan for all stakeholders and would have created a sense of understanding from everyone involved about the focus of implementation and about the reasons for the study. The focus by the mentors on building relationships with the mentees instead of focusing on academics limits not only the effectiveness of the action plan but the reliability of the study as to whether the components should be attempted again.

Evaluation Standards

Program evaluation systematically investigates the quality of projects to make decisions based on the new knowledge attained. Such evaluation leads to improvement in response to stakeholder needs (Yarbrough et al., 2011). The applied research study discussed here was evaluated based the five program evaluation standards: utility, feasibility, propriety, accuracy, and accountability.

Utility defines how much the stakeholders understood the goals of the program, as well as the level of significance of the program (Yarbrough et al., 2011). According to the focus groups, interviews, and surveys conducted as a part of the study, participants understood the goals of the program as well as its significance to the overall success of the school. However, while the school-based mentoring program displayed its usefulness throughout the school year, its participants pointed out the program's intended focus and its actual impact did not

consistently align. While the intended focus was to improve academic growth in mathematics for targeted students, the unintended shift to a focus on relationships caused the program's usefulness for academic improvement to become somewhat diluted. The participants also understood the usefulness of the school-to-home communication service; however, the responses from the survey showed a gap in the parents' perceptions of school-to-home communication compared to the faculty's overall perception. While the online service increased avenues for communication, the question remains as to how useful the program was in terms of its significance at the school.

Feasibility describes the practicality and effectiveness of the logistics surrounding implementation (Yarbrough et al., 2011). The school-based mentoring program was a project which took dozens of man-hours away from campus to recruit mentors, initiate volunteers, and promote the program. The process took months to plan, and at least two months to initiate and implement. To accomplish this feat, the project coordinator must be willing to devote his or her full attention to the project and find willing followers to serve as volunteers and additional planners for the project. There must be complete buy-in and support from school and district administration. Also, parents need to be supportive of the project and willing to allow their children to participate if selected. According to the participants of the focus groups and interviews, there were no reported issues with communication between the participants and the Project Coordinator. However, other limitations may cause said reports to be unreliable. Another practical measure is to have one person who is focused on implementation of just the mentoring program and not other initiatives at the school. As for the communication service, the concept is practical in its design and its simplicity. The service is easy to use and has multiple platforms from which to access the service. The most difficult logistical hurdle in starting such a

program is to get parents to sign up to the service. Again, having someone fully invested in beginning and implementing the program without the distraction of other tasks, coupled with stakeholders and leadership who are bought in to the needs and the usefulness of the service is key to the service's success.

Propriety refers to the researcher's devotion to privacy, human rights, inclusiveness, and avoidance of conflicts of interest (Yarbrough et al., 2011). Before the initiation of the action plan, the researcher participated in training on ethical research. The Institutional Review Board (IRB) approved all protocols of the action plan prior to beginning the data collection process. Each participant was asked to sign IRB-approved permission forms prior to each qualitative portion of the study. The consent statement was also read and agreed upon prior to each interview and focus group in the study. Surveys were kept anonymous to protect the identities of the participants. All the quantitative data sets were cleared of any identifiers to protect the students at the school, and the data collected was all done within the scope of the researcher's job description.

Upon introducing mentors and mentees during the action plan, the school followed specific protocols to protect the students. Mentors signed a form agreeing to established mentor ground rules prior to the start of the program. Mentors also had to pass through a background check process similar to school employees, complete with fingerprinting and a check through the child abuse registry. Mentees were told a brief description of the mentor prior to introduction. Then the researcher introduced the mentor and the mentee while at the school. The researcher then gave the mentor's phone number to the mentee's parent. During implementation, stakeholders were asked their input to adjust the program and to be responsive to their needs. One of the complaints of multiple mentors was a lack of personal information regarding their

respective mentees at the beginning of the mentoring program, which was done out of an abundance of caution to protect the students even after they had entered the mentoring program. Parents and students were allowed to share such information personally with the mentors during the natural progression of the relationship, but the school did not share any unnecessary information.

Accuracy of the data presented is an essential part of any study, requiring the analysis of the study to utilize multiple data sources, provide and explain collection methods, and ensure the data is valid and reliable (Yarbrough et al., 2011). The quantitative data in this study can be verified through school, district, and state data records. Informal conversations with stakeholders were not documented, and meetings with the Community Involvement Team were not recorded, so those conversations are recalled by the researcher and other participants, but there are not any physical records of those conversations. The focus groups and interviews of different stakeholders were recorded, and different quotes and concepts can be verified through such recordings. Survey data was collected and compiled through Qualtrics, an online service accessed through The University of Mississippi. The descriptive data such as frequency of mentor visits of off-campus mentors were recorded by sign-in sheets. However, the on-campus mentors had much more informal contact with the mentees. Informal conversations with the on-campus mentors helped develop the frequencies for those mentors. Although there are no physical records of those visits, the number of visits reported by the mentors were reasonable for the amount of time spent with the mentees compared to those mentors whose visits were recorded. Therefore, while there is no proof of those visits, the reasonableness of the data and the amount in which the mentor visits exceeded the goals set at the start of the action plan allows

for some leeway in the physical documentation. In retrospect, more formative tracking of mentor visits with on-campus mentors would create more accurate and predictive data.

The strength of any research study is protected by researchers being held accountable for keeping records of all data and processes involved in the study (Yarbrough et al., 2011). Despite the limitations listed in this chapter, special care was taken to protect the findings of the study. The researcher used data and document analysis to verify the findings and trends within the study. While the researcher utilized the Community Involvement Team to help with initiation and implementation of parts of the action plan, the researcher alone handled all parts of the data collection and analysis. Collection of documents and data was kept in the researcher's office under lock and key during the study, and they were kept locked after the study had concluded. The recordings were password-protected and were only heard by the researcher to analyze the data for trends in the study.

Recommendations

The purpose of this study was to analyze the effects of increased parent and community involvement activities on student growth in mathematics at South Lee Middle School. One of the goals within said purpose was to create a cycle of continuous improvement at the school. The process of implementation and evaluation revealed several areas which are recommended for future studies. This section will analyze each of those areas and explain the reason for each recommendation.

One of the recommendations which has been mentioned earlier in Chapter Five is to separate the two initiatives and study the effects of each of them individually. Investing the amount of time and energy needed to implement both programs simultaneously affected the ability for the researcher to formatively track progress as needed, particularly for the school-to-

home communication service. While the frequency of messages was recorded and collected, the content of messages and the frequency of messages each month were not tracked in this study. A more detailed analysis of the impact of the types of messages sent through a school-to-home communication service would show a more thorough picture of its effectiveness. While the mentoring program needed and received much more attention during the implementation of the action plan, focusing only on the mentoring program would allow for a more structured evaluation process.

Another recommendation for future study is a focus on smaller events and academics within a school-based mentoring program. While the current study made a concerted effort to recruit mentors and match them with targeted students and grades were tracked throughout the year, the focus remained on building relationships to help students navigate the pitfalls of middle school life. A more direct approach to impacting academics through school-based mentoring, in combination with after-school tutoring, smaller events, or other supplemental academic assistance programs, would be a worthwhile study in the future.

Conclusion

At the beginning of this study, the author of this dissertation was an assistant principal in his hometown, trying to find a way to make a difference for students at his school while also trying to improve as an educator. At the end of this study, the opportunity of a lifetime came to be upon being promoted to high school principal. The next step is to make a difference to as many students as possible, especially in the transition from middle school to high school. Research has shown performance in ninth grade as the most important barometer of student success upon entering high school (Garrett, 2014). Both initiatives have shown positive impacts which could transition from middle school to high school, particularly in school culture. School

culture has been shown to be a necessary component to improve student achievement. While the cultural impacts were positive at South Lee Middle School, the academic relationships and differences were not shown in the quantitative data in this study.

The purpose of this study was to analyze the effects of increased community and parent involvement activities on student academic growth in mathematics at South Lee Middle School. While there were cultural impacts which were predicted by previous research, statistical tests performed in the study did not support a correlation between mentor visits and academic growth, nor did the data support a difference between participation and non-participation in school-to-home communication services. Implementation was strong in some areas, particularly pertaining to the school-based mentoring program. However, the study should be used not as a definitive black mark against using either initiative. Instead, it should be used as a tool for improving the initiatives to be implemented in future studies. Applied research is rooted in the idea of continuous improvement. If educational leaders wish to make a difference in the lives of their students, they must look to research-based initiatives and find ways to keep molding and improving upon them to fit their students and help them succeed to their fullest potential.

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APPENDICES

APPENDIX A: ACTION PLAN CHART

Goal 1: School will improve student academic growth on seventh-grade and eighth-grade MAP Mathematics Assessment to at or above 75% in the May 2018 assessment.

A. School will increase organized opportunities for direct communication among schools, families, and communities.

<u>Element</u>	<u>Start Date</u>	<u>Completion Date</u>	<u>Responsible Party</u>	<u>Resources</u>	<u>Evaluation</u>
1. School will create a Community Involvement team to implement new communication strategies.	7/1/17	7/31/17	Arledge	--Faculty meeting to invite CI members (job-embedded). --One 1-hour Community Involvement Team meeting: \$310 (9 teachers + 1 administrator).	--Meeting sign-in sheets, agendas, and shared emails will document discussion and implementation of new strategies. --Goal: a minimum of 20 documented conversations and/or meetings during the 2017-2018 school year.
2. School will initiate "Remind" two-way text service to open direct communication to parents, students, and families.	7/19/17	Ongoing	Community Involvement Team	--Grade-level service: 2-man hours to set up (\$80). --School-level Remind services paid for in October 2017 (\$1200).	--Document analysis of message data on Remind.com will identify frequency of usage. --Goal: a minimum of 200 messages sent between teachers and participants during the 2017-2018 school year.

3. School will conduct professional development on proper use of “Remind” and other communication strategies.	7/31/17 (CIT Only); 11/14/17 (All faculty)	Ongoing	Arledge (initial); Community Involvement team (PLCs).	--Community Involvement Team meeting (\$310). --November PD session: 1 administrator + 25 teachers (\$790).	--Focus groups of teachers will identify strategies for improvement. --Goal: Identify 3 strengths and/or weaknesses within professional development.
4. School will measure status of school-to-home communication.	2/1/18	5/31/18	Community Involvement Team	--Focus group (each session): *1 administrator + 8-10 group members + refreshments provided (\$40 + \$300 + \$50 = \$390).	--Parent and teacher focus groups, interviews, and open-ended surveys will be conducted in April and May 2018. --Goal: Identify 3 themes of school-to-home communication status.

B. School will increase opportunities for parents and community members to support students through school-based mentoring.

<u>Element</u>	<u>Start Date</u>	<u>Completion Date</u>	<u>Responsible Party</u>	<u>Resources</u>	<u>Evaluation</u>
1. School will identify targeted students who need additional support to achieve academic growth.	7/1/17	9/30/17	Community Involvement Team	--Meetings with Community Involvement Team members (\$310). --Additional 10 man-hours for Project Coordinator to analyze data and prepare documents (\$400).	--Sign-in sheets and minutes will document data analysis. --Goal: Identify at least 25 students who would benefit from additional support, based on specific parameters.

<p>2. School will recruit parents and community volunteers to mentor identified at-risk students.</p>	<p>7/1/17</p>	<p>Ongoing</p>	<p>Arledge (initial); Community Involvement Team (ongoing).</p>	<p>30 Man-Hours from Project Coordinator and other team members setting up recruitment meetings, visiting churches, calling individual prospects (\$1100).</p>	<p>--School board meeting agendas, P16 meeting agendas, social media posts, emails to pastors and church groups, and training materials will document recruiting and training efforts. --Goal: A minimum of 25 mentors will participate in Red Raider Family.</p>
<p>3. School will implement “Red Raider Family” mentoring program. a. School will conduct a mentor drive and training for new volunteers. b. School will provide multiple access points for mentors and students to interact within the school setting. c. School will provide quarterly reward trips for mentors and students.</p>	<p>7/27/17</p>	<p>Ongoing</p>	<p>Arledge (initial); Community Involvement Team (ongoing).</p>	<p>--Background check payments (\$800). --Provide refreshments and training materials for initial recruitment (\$200). --Payment for reward trips for mentors and students (\$4000). (All paid for by grants from Ole Miss Graduate Student Council and CREATE Foundation).</p>	<p>--Mentor training sign-in sheets and training materials will show evidence of training. --Mentor log will document date, time, and duration related to mentor school visit. --Goal: a minimum of 100 mentor visits during the school year.</p>

Goal 2: School will utilize data to drive decisions and improve practices to create a “cycle of continuous improvement” within the school.

A. School will analyze quantitative and qualitative data to drive decisions.

<u>Element</u>	<u>Start Date</u>	<u>Completion Date</u>	<u>Responsible Party</u>	<u>Resources</u>	<u>Evaluation</u>
1. School will analyze 2016-2017 MAP data to determine baseline data for student growth.	7/1/17	8/31/17	All staff.	--1-hour PLC Meetings with staff members (\$790). -- Additional 1-hour meetings with CI Team (\$310).	--Meeting agendas and sign-in sheets will show evidence of analysis. --Data Team and other teachers will set individual goals for all student growth on benchmark assessments. -- Leadership Team will set school goals for growth in mathematics. --Goal: Set individual and school goals for students' mathematics growth.
2. School will track progress of student growth.	8/15/17	Ongoing	Assistant Principal; Math Teachers.	--Three individual data meetings with Assistant Principal and math teachers (\$210).	--Data will be collected each grading period using STAR tests, classroom grades and benchmark assessments to determine student growth in mathematics. --Goal: student growth from district-level assessment for the 3 rd grading period: 70%.

<p>3. School will analyze MAAP accountability data correlating the number of mentor visits in Red Raider Family to the amount of student growth on the 2018 MAAP Math Assessment.</p>	<p>7/1/18</p>	<p>8/31/18</p>	<p>Assistant Principal</p>	<p>20 man-hours compiling and analyzing the data (\$800).</p>	<p>Correlation coefficient (r) of at least 0.4 to show a modest positive relationship.</p>
<p>4. School will analyze MAAP accountability data comparing growth residuals between students of participating and non-participating parents in the Remind service.</p>	<p>7/1/18</p>	<p>8/31/18</p>	<p>Assistant Principal</p>	<p>20 man-hours compiling and analyzing the data (\$800).</p>	<p>Comparison of means to show a significant difference with $\alpha = .05$.</p>

B. School will increase number of organized methods to collect parent and community data to improve community involvement practices.

<u>Element</u>	<u>Start Date</u>	<u>Completion Date</u>	<u>Responsible Party</u>	<u>Resources</u>	<u>Evaluation</u>
1. School will analyze parent attendance data to improve community involvement practices.	3/1/18	Ongoing	Community Involvement Team.	Community Involvement Team meetings each of the last three months during Spring semester (\$310 x 3 = \$930).	--Document analysis (sign-in sheets, attendance tracking); interview and focus group data from team members. --Goal: 10% increase in parent and visitor attendance from 2016-2017 to 2017-2018 school years.
2. School will collect data from key stakeholders and report findings during multiple meetings throughout the year.	3/1/18	Ongoing	Researcher	--30 Man-Hours from Assistant Principal (\$1200) and CI Team Members (\$900) = \$2100	--Focus groups of mentors and teachers in April 2018. --Interviews of parents and students in April and May 2018. --Surveys of parents and teachers in May 2018. --Goal: identify at least three themes of implementation in the Red Raider Family program.

<p>3. Community Involvement Team will analyze results of program evaluation data to determine next steps for 2018-2019 action plan implementation.</p>	<p>5/1/18</p>	<p>Ongoing</p>	<p>Community Involvement Team</p>	<p>--Two 1-hour CI Team meetings in May 2018 (\$620).</p>	<p>--Assessment and qualitative data will be evaluated to determine changes for the 2018-2019 school year. --Goal: identify at least three areas of improvement for the 2018-2019 school year.</p>
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Short Term Goals

- Increase opportunities for parent/community participation within school activities.
- Increase school-wide methods of school-to-home communication.
- Improve student academic classroom achievement in mathematics.
- Increase student academic growth based on district-created benchmark assessments aligned to Mississippi College and Career Readiness Standards.

12-Month Goals

- Increase student academic growth in seventh-grade and eighth-grade Mississippi Assessment Program (MAP) mathematics assessment to at least 75%.
- Identify areas of strength and weakness in program implementation of Remind services and Red Raider Family mentoring program.

Cultural and System Goals

- Develop practices of data-driven decision making.
- Create cycle of continuous improvement among all staff members.
- Reduce dropout risk factors for specific students.
- Initiate an inclusive, sustainable partnership among families, community members, and school staff.

APPENDIX B: FOCUS GROUP AND INTERVIEW PROTOCOLS

Interview Protocol: Students

General Research Topic: Effects of school-based mentoring on student academic growth

Specific Research Questions:

- How was the Red Raider Family mentoring program initiated?
- What are the perceptions of key stakeholders about the Red Raider Family mentoring program, and did these perceptions change over the course of implementation?
- Which factors (academic, social, and school culture) shape the potential impact of the Red Raider Family mentoring program?

Conceptual Framework: *implementation, academic achievement, mentoring relationships*

Statement of Consent:

This focus group is part of an applied research study to fulfill partial requirements for a Doctor of Education degree for Jason Arledge from The University of Mississippi. The study is analyzing the relationship between increased parent and community involvement activities and student academic growth. Any questions regarding the project and its findings can be emailed to:

*jason.arledge@leecountyschools.us
jcarledg@go.olemiss.edu*

Any questions can also be directed to the Dissertation Advisor, Dr. RoSusan D. Bartee, by email or by phone at The University of Mississippi:

rdbartee@olemiss.edu; (662)915-7636 (office)

Thank you for taking the time to speak with me about your experiences with the Red Raider Family mentoring program. The information you provide today will help us to understand the implementation of Red Raider Family and the potential long-term sustainability of the program. Protecting your rights is of utmost importance to us. Any identifiable information will be removed from the responses you give. We want you to feel comfortable answering any questions fully and honestly. With that being said, are you willing to proceed with the interview?

Icebreaker Questions:

- What grade are you in?
- Besides math, science, social studies, and English, what other classes do you take?

Implementation

- How did you first find out about the Red Raider Family mentor program?
- What were your first thoughts of the program when you heard about it?
- Why did you want to be a part of the program?
- What would you have changed about your introduction to the program?
- What do you think about the program now?
- How have your thoughts about the program changed over the course of the school year?

Academic Growth

- What do you like to do outside of school?
- Why do you like it?
- What is more important to you: making good grades or doing what you like away from school? Why?
- Name one thing you are better at doing now than you were a few months ago.
- Why do you think you got better at it?
- Talk about the last time you stuck with something hard and finished it. How did it make you feel?
- What goals do you think you can reach this year in each of the following:
 - Academics?
 - Attendance?
 - Behavior?
- What changes, if any, do you think you'll have to make in order to reach the goals you set?

Mentoring Relationships

- How often do you see your mentor?
- What do the two of you talk about?
- Do you like talking to your mentor? Why?
- What changes would you make about your mentor's visits?

Final Thoughts

- What other thoughts would you like to share about the mentor program which we have not yet discussed?

Interview Protocol: Parents

General Research Topic: Effects of school-based mentoring on student academic growth

Specific Research Questions:

- How was the Red Raider Family mentoring program initiated?
- What are the perceptions of key stakeholders about the Red Raider Family mentoring program, and did these perceptions change over the course of implementation?
- Which factors (academic, social, and school culture) shape the potential impact of the Red Raider Family mentoring program?

Conceptual Framework: *implementation, academic achievement, mentoring relationships*

Statement of Consent:

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Icebreaker Question:

- What were you like as a student in middle/high school (academically, socially)?

Implementation

- How did you first find out about the Red Raider Family mentor program?
- What were your first thoughts of the program when you heard about it?
- Why did you want your child to be a part of the program?
- What would you have changed about your introduction to the program?
- What improvements could be made about your contacts with the Project Coordinator?
- How do you feel the school could be more helpful in the implementation of Red Raider Family?
- What are your current overall thoughts about the program?
- How have your original thoughts about the program changed over the course of the school year?

Academic Growth

- What is more important to you for your child: high achievement or working to get better? Why?
- What is your child passionate about?
- How have you related their passion to their work at school?
- What academic, attendance, or behavior goals do you feel are attainable and appropriate for your child?
- What evidence do you see that your child is able to stick with something and follow through until it is completed?

Mentoring Relationships

- How often does your child talk to his or her mentor?
- What feelings has your child expressed about having a mentor?
- What do they talk about?
- What changes have you seen in your child since the mentoring program began?
- What changes would you wish to see in the mentor's relationship with your child?

Final Thoughts

- What other thoughts would you like to share about the mentor program which we have not yet discussed?

Focus Group Protocol: Mentors

General Research Topic: Effects of school-based mentoring on student academic growth

Specific Research Questions:

- How was the Red Raider Family mentoring program initiated?
- What are the perceptions of key stakeholders about the Red Raider Family mentoring program, and did these perceptions change over the course of implementation?
- Which factors (academic, social, and school culture) shape the potential impact of the Red Raider Family mentoring program?

Conceptual Framework: *implementation, academic growth, mentoring relationships*

Statement of Consent:

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Icebreaker Questions:

- What were you like as a student in middle/high school (academically, socially)?
- What strengths do you possess as a mentor?

Implementation

- How did you first find out about the Red Raider Family mentor program?
- What were your first thoughts of the program when you heard about it?
- Why did you want to become a mentor?
- What would you have changed about your initiation as a mentor?
- What improvements could be made about your contacts with the Project Coordinator?
- How do you feel the school could be more helpful in the implementation of Red Raider Family?
- What are your current overall thoughts about the program?
- How have your original thoughts about the program changed over the course of the school year?
- Is there any additional training which you feel would be helpful for you?

Academic Growth

- What is more important to you: high achievement or working to get better? Why?
- What is your student passionate about?
- How have you related their passion to their work at school?
- What academic, attendance, or behavior goals do you feel are attainable and appropriate for your student?
- What evidence do you see that your student is able to stick with something and follow through until it is completed?

Mentoring Relationships

- What do you and your student do during your meetings?
- What would you like to change about the visits or activities?
- What do you and your student talk about during your visits?
- What changes do you see in the child since the start of the program?
- What evidence do you see that the student is setting goals and trying to attain them?
- What do you wish you could change about the relationship between you and your student?

Final Thoughts

- What other thoughts would you like to share about the mentor program which we have not yet discussed?

Focus Group Protocol: Faculty & Staff

General Research Topic: Effects of school-based mentoring on student academic growth

Specific Research Questions:

- How was the Red Raider Family mentoring program initiated?
- What are the perceptions of key stakeholders about the Red Raider Family mentoring program, and did these perceptions change over the course of implementation?
- Which factors (academic, social, and school culture) shape the potential impact of the Red Raider Family mentoring program?

Conceptual Framework: *implementation, academic achievement, mentoring relationships*

Statement of Consent:

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Icebreaker Questions:

- What were you like as a student in middle/high school (academically, socially)?
- What strengths do you possess as a mentor?

Implementation

- How did you first find out about the Red Raider Family mentor program?

- What were your first thoughts of the program when you heard about it?
- What would you have changed about the introduction of Red Raider Family?
- How do you feel the school could be more helpful in the implementation of Red Raider Family?
- What are your current overall thoughts about the program?
- How have your original thoughts about the program changed over the course of the school year?
- Is there any additional training which you feel would be helpful for you?

Academic Growth

- What is more important to you: high achievement or working to get better? Why?
- How do you connect student interests to classroom instruction?
- How have you related their passion to their work at school?
- What academic, attendance, or behavior goals do you feel are attainable and appropriate for students in Red Raider Family?
- What changes, academically speaking, have you seen in mentored students since the beginning of the program?

Mentoring Relationships

- What do you think of the students' activities with the mentors?
- How would you like to see the activities change?
- How do you think students feel, in general, about their respective mentors?
- Give specific examples of mentor/student relationships which stand out to you. Why do they stand out?
- What changes have you seen in your mentored students since the induction of the program?

Final Thoughts

- What other thoughts would you like to share about the mentor program which we have not yet discussed?

APPENDIX C: PARTNERSHIP SURVEY (PARENTS AND TEACHERS)

General Topic: Effectiveness of communication strategies on student academic growth

Research Questions:

1. To what extent is two-way communication implemented with fidelity?
2. In what ways could two-way communication improve at South Lee Middle School?

Conceptual Framework: *parent involvement, communication, implementation*

Statement of Consent:

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This survey is used to measure the frequency of actions from (South Lee) Middle School. To protect the validity and reliability of the measurement tools, answer all questions honestly and to the best of your knowledge. If you agree to participate, please continue below.

Survey Questions:

For each question, select the response that comes closest to describing how the activity is implemented at your school.

- | | |
|---------------------|--|
| 1--Never: | Strategy does not happen at our school. |
| 2--Rarely: | Conducted in one or two classes or with a few families, but no school-wide emphasis placed. |
| 3—Sometimes: | Conducted in a few classes or with some families; minimal school-wide emphasis. |

4--Often: Conducted in many, but not all, classes, or with many, but not all, families; substantial school-wide emphasis; only minor changes need.

5--Frequently: Occurs in most or all classes and grade levels, with most or all families. High quality emphasis and implementation.

- The school has clear two-way channels for communications between school and home.
1—Never 2—Rarely 3—Sometimes 4—Often 5—Frequently
- The school conducts a formal conference with every parent at least once a year.
1—Never 2—Rarely 3—Sometimes 4—Often 5—Frequently
- The school conducts an annual survey for families to share information and concerns.
1—Never 2—Rarely 3—Sometimes 4—Often 5—Frequently
- The school conducts an orientation for parents of students who are new to the school.
1—Never 2—Rarely 3—Sometimes 4—Often 5—Frequently
- The school sends home folders of student work monthly for parent review.
1—Never 2—Rarely 3—Sometimes 4—Often 5—Frequently
- The school provides clear information about the student’s academic results.
1—Never 2—Rarely 3—Sometimes 4—Often 5—Frequently
- The school contacts families of students having academic or behavior problems.
1—Never 2—Rarely 3—Sometimes 4—Often 5—Frequently
- School staff members use e-mail to communicate with parents.
1—Never 2—Rarely 3—Sometimes 4—Often 5—Frequently
- School staff members build positive relationships between school and home.
1—Never 2—Rarely 3—Sometimes 4—Often 5—Frequently
- The school regularly sends home an updated newsletter.
1—Never 2—Rarely 3—Sometimes 4—Often 5—Frequently
- In what ways could communication between school and home improve?

APPENDIX D: LOGIC MODEL

<u>Inputs</u>	<u>Activities</u>	<u>Outputs</u>	<u>Short-Term Outcomes</u>	<u>12-Month Outcomes</u>	<u>Cultural Outcomes</u>
<p>*SMS Math Teachers (3 grade-level teachers, 1 interventionist)</p> <p>*Remind.com training resources.</p> <p>*Training sessions with teachers, administrators, and mentors regarding Remind service and Red Raider Family mentor program.</p> <p>*Planned field trips with mentors and mentees to expose students to postsecondary life choices.</p>	<p>*Principal purchases school-wide Remind service to provide teachers with communication tools.</p> <p>*Administration and teachers receive training sessions through PLC meetings during the school year.</p> <p>*Assistant principal recruits mentors for Red Raider Family.</p> <p>*Assistant principal conducts focus groups and interviews of stakeholders.</p>	<p>*Teachers utilize Remind service to communicate regularly with parents.</p> <p>*Mentors visit school to provide support, encouragement, and accountability to targeted students.</p> <p>*CI Team adjusts program practices based on community member feedback.</p> <p>*CI Team sets goals for targeted students to promote student success.</p> <p>*Students take STAR Math tests every 6 weeks and benchmark assessments every 9 weeks to assess growth; teachers analyze data and adjust practice.</p>	<p>*Opportunities for parent and community participation within school activities will increase.</p> <p>*Methods of school-wide school-to-home communication will increase.</p> <p>*Students' academic classroom and benchmark assessment achievement will increase.</p> <p>*Number of visitors to the school will increase.</p>	<p>*Student academic growth in mathematics on the 2017-2018 MAAP will meet or exceed 75% school-wide.</p> <p>*School will identify areas of strength and weakness in Remind service and Red Raider Family mentoring program.</p>	<p>*School staff members will develop practices of data-driven decision making.</p> <p>*School will create cycle of continuous improvement among all staff members.</p> <p>*School will reduce dropout risk factors for targeted students.</p> <p>*School will initiate an inclusive, sustainable partnership among families, community members, and school staff.</p>

VITA

Jason Arledge

EDUCATION

2013

Specialist in Education, K-12 Leadership, The University of Mississippi

2002

Master of Education, Health, Physical Education, & Recreation, Delta State University

2001

Bachelor of Science in Education, Mathematics Education, Delta State University

1997

High School Diploma, Shannon High School

ACADEMIC EMPLOYMENT

2018-Present

Principal, Lee County School District, Shannon High School

2013-2018

Assistant Principal, Lee County School District, Shannon Middle School

2011-2013

Algebra & Physics Teacher, Lee County School District, Shannon High School

2010-2011

Algebra I Teacher, Tupelo Public School District, Tupelo High School

2006-2010

Algebra I Teacher, Lee County School District, Saltillo High School

2005-2006

Middle School Math Teacher, Baldwin County School District (AL), J. Larry Newton School

2002-2005

High School Math Teacher, Troup County School District (AL), Callaway High School

2001-2002

Middle School Math Teacher, Cleveland School District, Margaret Green Junior High School

PROFESSIONAL CREDENTIALS

K-12 Physical Education, Mississippi License

7-12 Mathematics, Physical Science, Physics, Mississippi License

Administrator, Career Level, Mississippi License

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