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Taking the Right Path:
A Two-Year Journey through School Turnaround

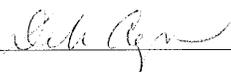
by
Katherine O. Chambers

A Dissertation submitted to the Education Faculty of Lindenwood University
in partial fulfillment of the requirements for the
degree of
Doctor of Education
School of Education

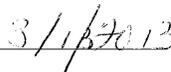
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A Two-Year Journey through School Turnaround

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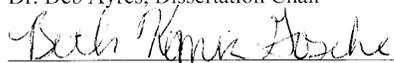
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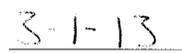
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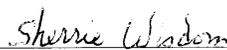
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Dr. Kania-Gosche, Committee Member



Date



Dr. Sherrie Wisdom, Committee Member



Date

Declaration of Originality

I do hereby declare and attest to the fact that this is an original study based solely upon my own scholarly work here at Lindenwood University and that I have not submitted it for any other college or university course or degree here or elsewhere.

Full Legal Name: Katherine Ora Chambers

Signature: Katherine O. Chambers Date: 09/01/13

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The author gives love and thanks to her parents, all lifetime educators – Dr. Gary Wright, Dr. Chris, and Charlie Nicastro. My dad, a patient and loving man, always supported my drive with the voice of reason - my mom, a trailblazer who paved the way for so many women to pursue their dreams, provided support and encouragement by never letting me give up.

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Abstract

The researcher conducted a statistical examination of a two-year journey through school turnaround to identify factors that had a direct impact on student performance on state exams. Following 31 students through sixth and seventh grades, the researcher collected data in alignment with five target areas for school improvement defined by the state of Missouri: (1) student performance, (2) highly qualified staff, (3) facilities, support and instructional resources, (4) parent and community involvement, and (5) governance and leadership.

Applying ANOVA and z-tests at a 95% confidence interval, the researcher analyzed the data to examine for statistically significant differences in scores on the Communication Arts and Mathematics MAP exams, levels of reading proficiency, attendance rates, and discipline, year to year. The researcher found significant increases in students' Mathematics MAP scores, students' reading on grade level, and referrals.

Using a multiple regression analysis the researcher also analyzed data for relationships between multiple independent variables and students' scores on the MAP exams. An examination of the Pearson Product Moment Correlation coefficient provided information as to which variables had significant relationships with the students' MAP scores and the coefficient of determination gave indication as to possible percentages of contribution each variable had in the resulting MAP test scores. This study confirmed that student's grade point averages were the only variables that maintained consistent significant relationships to the students' scores on both Communication Arts and Mathematics MAP exams during both years of the study. In addition to the consistent contribution of the students GPA to their MAP results, the study also found that in 2012,

students' enrollment in a reading class significantly contributed to their Communication Arts MAP scores and attendance had a significant relationship to their Mathematics MAP scores.

The concluding reflections in the study were a result of a detailed examination of the statistical analyses in alignment with current turnaround research. While there is a need for further research in the area of school turnaround, this study contributed to a growing field of literature on effective and ineffective school turnaround practices.

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Chapter One: Why Take the Journey?

Schools around the country are failing to meet state performance mandates based on educational legislation enacted by the federal government. Schools that fail to meet these performance mandates may be eventually closed or they may lose local control (Calkins, Guenther, Belfiore, & Lash, 2007). Under the administration of President Obama, the federal government identified four models of intervention to help the nation's lowest achieving schools obtain financial resources to adapt their educational systems to meet the needs of underperforming students; "the turnaround model, restart model, school closure or the transformational model" (U.S. Department of Education, 2009, p. 10). The federal government passed legislation offering federal monies to lowest performing schools in each state that adopted one of the four models of reform (Center for Mental Health in Schools, 2010). While the requirements of each model were consistent nationwide, the decision as to which model to adopt was left up to the local governance of each school district to decide.

The closure model meant just as it implied; the school closed its doors and students enrolled in successful surrounding schools within the district (U.S. Department of Education, 2010a). As defined by the U.S. Department of Education (2010a) the restart model required a closure and reopening of the school "under the management of an effective charter operator, charter management organization, or education management organization" (p. 12). While similar to the closure model, once reopened the restart model allowed students to remain at the school and continue their education in the same building. Districts could choose the model which best fit their needs but researchers indicated that, "three [of the options] – reopening as a charter school,

contracting with an external management organization, and state takeover - are seldom attempted” (Brinson, Kowal, & Hassel, 2008, p.3).

Transformation was defined by the U.S. Department of Education (2010a) as a model of reform that included the following actions by the district: “replace the principal, strengthen staffing, implement a research-based instructional program, provide extended learning time, and implement new governance and flexibility” (p.12). The only differing characteristic from the definition of turnaround school was that of requiring a strengthening of the staff rather than a replacement of at least 50% of the staff (U.S. Department of Education, 2010a). Noting the main difference between the turnaround and transformational models, some researchers commented that “the models that require the fewest changes in staff -especially the transformation model, which may be the most widely implemented- are the least effective in turning schools around” (Kutash, Nico, Gorin, Rahmatullah, & Tallant, 2010, p.5).

Missouri Department of Elementary and Secondary Education (2010) defined school turnaround as a model of reform for schools performing at the bottom 5% of the state that included a series of actions by the district such as hiring a new principal, revising the curriculum, revamping the governance structure of the school and replacing at least half the teachers. Kutash et al. (2010) characterized turnaround as a reform approach which includes “replac[ing] the principal, rehir[ing] no more than 50 percent of the staff, and grant[ing] the principal sufficient operational flexibility (including in staffing, calendars, schedules, and budgeting) to implement fully a comprehensive approach that substantially improves student outcomes” (p.4). Kowal, Hassel, and Hassel (2009) explained school turnaround as “quick, dramatic and sustained change driven by a

highly capable leader” (p.1). Research was consistent in claiming the school turnaround being characterized by immediate growth of student performance on state assessments (Brinson et. al., 2008; Duke, 2006; Herman et al., 2008; Kowal et al., 2009; Rhim, Kowal, Hassel, & Hassel, 2007; Rhim, 2012). “In a turnaround, failure to accomplish core objectives quickly is not acceptable, since the organization is in turnaround mode precisely because current organization performance is disastrous and there is most likely an external catalyst driving turnaround” (Rhim et al., 2007, p. 23).

While the goals are similar, school turnaround differs from school improvement in that it requires immediate evidence of increased student achievement within a short timeframe and is much more difficult to achieve (Center for Mental Health in Schools, 2010; Rhim, 2012; Herman et al., 2008). “School turnaround involves quick, dramatic improvement within three years, while school improvement is often marked by steady, incremental improvements over a longer time” (Herman et al., 2008, p. 5). “Bold school turnaround initiatives strive to dramatically change performance in 18-24 months and establish the foundation for the school to succeed long term (Rhim, 2012, p.1). Mass Insight Education also specified the timeframe needed for change to be defined as a turnaround: “turnaround is a dramatic and comprehensive intervention in a low-performing school that: a) produces significant gains in achievement within *two years* [emphasis added]; and b) readies the school for the longer process of transformation into a high-performance organization” (Kutash et al., 2010, p. 4). Calkins et al. (2007) further expanded the definition of school turnaround, mentioning a specific characteristic of schools in which it applies, “turnaround...focuses on the most consistently under-performing schools and involves dramatic, transformative change” (p. 10).

A sense of urgency amongst stakeholders is a commonality in school turnaround settings (Calkins et al., 2007; Duke, Tucker, Salmonowicz, Levy, & Saunders, 2008; Fullan, Hill, & Crévola., 2006; Herman et al., 2008). Mero and Hartzman (2012) found that in all 10 NASSP Breakthrough Schools, there was a sense of “urgency coming from a commitment to prepare all students for a challenging and ever changing world” (p. 18). “Often the differentiating factors [between school turnaround and school reform] are the intensity of the turnaround practices and the speed of putting them in place” (Herman et al., 2008, p.1). Calkins et al. (2007) argued the pressure of making significant achievement gains within two years creates an environment of urgency in turnaround schools; “dramatic change requires urgency and an atmosphere of crisis” (p. 2). According to Kotter (2008), “frenetic activity” (p.11) is sometimes mistaken for urgency. In his research of numerous organizations that have undergone successful change, Kotter (2008) claimed that to improve the productivity of the organization, the leader must create and sustain a sense of urgency not panic:

A real sense of urgency is a highly positive and highly focused force. Because it naturally directs you to be truly alert to what’s really happening, it rarely leads to a race to deal with the trivial, to pursue pet projects of minor significance to the larger organization or to tackle important issues in uninformed, potentially dangerous ways. (p. 9)

The necessity for effective school turnaround is imperative for the survival of the nation, as unemployment, poverty and incarceration rates, health and social services, and the nation’s Gross Domestic Product growth are all directly impacted by the rate of school failure (Calkins et al., 2007; Center for Mental Health in Schools, 2010; Kutash et

al., 2010; Rhim, 2012). “The number of failing schools has doubled over the last two years, and without successful interventions, could double again over the next five years (Kutash et al., 2010, p. 3). “Education Secretary Arne Duncan told Congress today that his department estimates that 82 percent of America's schools could fail to meet education goals set by No Child Left Behind this year”(U.S. Department of Education, 2011a, para. 1). The sentiments of President Obama raises concerns of our global competitiveness in light of the nation’s failing schools; “America was once the best educated nation in the world....A generation ago, we led all nations in college completion, but today, 10 countries have passed us” (U.S. Department of Education, 2010a, p. 1). Wagner (2008) argued that failing schools are those not preparing students to compete in the global market rather than schools not to preparing students for state tests; “they [schools] are obsolete – even the ones that score the best on standardized tests” (p. xxi). While the work of transforming school systems is necessary, researchers recognized the difficulty of the challenge; “the work of reform is not about ‘changing’ the institution and practice of schools but about deliberately displacing one culture with another-work not unlike moving graveyards” (Elmore, 2006, p.xii). “An unwavering belief in the importance of public education is essential if teachers are to meet the challenges involved in turning around low-performing schools” (Duke et al., 2008, p. 139).

Failing schools have the greatest impact on minority populations (Calkins et al., 2007; Haynes, 2009; Schott Foundation for Public Education, 2012). “The correlation between neighborhood poverty and low performing schools is widely acknowledged” (Center for Mental Health in Schools, 2010, p. 1). In a study of student test scores in

nearly 500 middle schools in districts throughout New York City, the Schott Foundation for Public Education (2012) concluded:

Students who live in neighborhoods that are overwhelmingly Black, Latino, or impoverished White or Asian have little opportunity to learn the basic skills needed to succeed on state and national assessments, attend one of the city's selective high schools, or obtain a high school diploma qualifying them for college or a good job. (p. 4)

Haynes (2009) indicated that “the vast majority of our urban public education systems have been unable to bring even half their students to proficiency in academics and readiness for college....these districts...pose one of the gravest social inequities of our time” (p. 1). Some researchers suggested that the achievement gap between white and non-white students exists because the educational system is not set up for the success of minority populations (Perry, Steele, & Hilliard, 2003; Singleton & Linton, 2006,). In his research on college preparedness around the country, Wagner (2008) found that “only about a third of U.S. high school students graduate ready for college today, and the rates are much lower for poor and minority students” (p. xix). “Fundamentally, schools are not designed to educate students of color, and educators continue to lack the will, skill, knowledge, and capacity to affirm racial diversity” (Singleton & Linton, 2006, p. 5). In a summary of research on causes of low achievement, Duke et al. (2008) stressed the “professional obligation to learn as much as possible about why many students are not doing as well as their peers in other schools” (p. 29), encouraging educators to seek the knowledge to address the needs of their students. The researchers found that in

successful turnaround schools, educators take time to diagnose the causes, then “focus on correcting what was in their power to correct” (Duke et al., 2008, p. 38).

The primary investigator predicted that implementation of the turnaround model of school reform would significantly raise student performance in a middle school, as evidenced by students’ scores over the course of two years on the communication arts and mathematics Missouri Assessment Program (MAP) exams. The primary investigator hypothesized that if a school designed and implemented an improvement plan focused on five target areas: (1) student performance, (2) highly qualified staff, (3) facilities, support and instructional resources, (4) parent and community involvement, and (5) governance and leadership, a random sample of students’ performance on the MAP would dramatically increase as measured by the change in average student scale scores and change in proportion of students attaining proficient and advanced status. Conducting a quantitative study, collecting data on various aspects of the turnaround process specifically in the setting of a turnaround school, provided the primary investigator with evidence from which to form conclusions of effective or ineffective reform practices. The results of this study examining the relationships between implementation of the turnaround model goals and change in student performance on standardized state tests led to an examination of the effectiveness of mandated federal programs on local school systems. As stated by Almanzan (2005), “school improvement is an arduous journey rather than a destination” (para. 23); the primary investigator traveled through the two year journey of school turnaround with the anticipation of dramatically improved student scores on state exams as the ultimate destination.

The Forest

The two-year study was conducted at Shady Oak Middle School. Shady Oak Middle School is located in Wild Woods School District outside of a major city in Missouri. Shady Oak Middle School and Wild Woods School District are pseudonyms. The building was established in the 1950s as the district's only high school. As population in the district grew, overcrowding led to the construction of a new high school in the 1960s; Shady Oak was turned into a junior high school. By 2005, the facilities could not adequately house the 1,371 enrolled students. The growing district continued to construct new buildings resulting in redrawing of the school boundaries thus dropping enrollment at Shady Oak Middle School to nearly 500 students by 2007.

According to the 2008-2009 School Accountability Report Card, in 2009 Shady Oak Middle School had an enrollment of roughly 490 students, 98% of whom were African American and nearly 78% were eligible for free or reduced priced lunch (Missouri Department of Elementary and Secondary Education, n.d.a). The same year, the student-to-teacher ratio was around 12:1, nearly 54% of the teachers had advanced degrees and 99% of the teachers were categorized as highly qualified. As defined by the state of Missouri Department of Elementary and Secondary Education (n.d.b), "highly qualified means that the teacher...has obtained full State certification...holds a minimum of a bachelor's degree; and...has demonstrated subject-matter competency in each of the academic subjects in which the teacher teaches" (para. 1). Even though the class sizes remained well below the state standard of 25-28 students, student attendance averaged 92%, down from the previous year of 94%. At Shady Oak Middle, discipline rates measuring suspensions over 10 days were down to 5% in 2009 from the previous year's

rate of nearly 14% (Missouri Department of Elementary and Secondary Education, n.d.a). In 2009, Shady Oak ranked among the lowest-achieving 5% of schools in the state of Missouri based on state test scores in communication arts and mathematics (KSDK, 2010). The district took action and began the process of school turnaround at Shady Oak Middle:

The district intervened to address... [the] three year history of poor performance in reading and math MAP scores. Specifically, 1) the district developed and initiated the turnaround model; 2) released the principal of the 2009-2010 school year; 3) hired a new principal with demonstrated capacity to lead turnaround; 4) released 50% of staff; and 5) after conducting a rigorous interviewing and selection process, rehired 24 teachers and hired 30 new teachers based on a rigorous selection process for turnaround schools. (Learning Point Associates, 2010, p. 1)

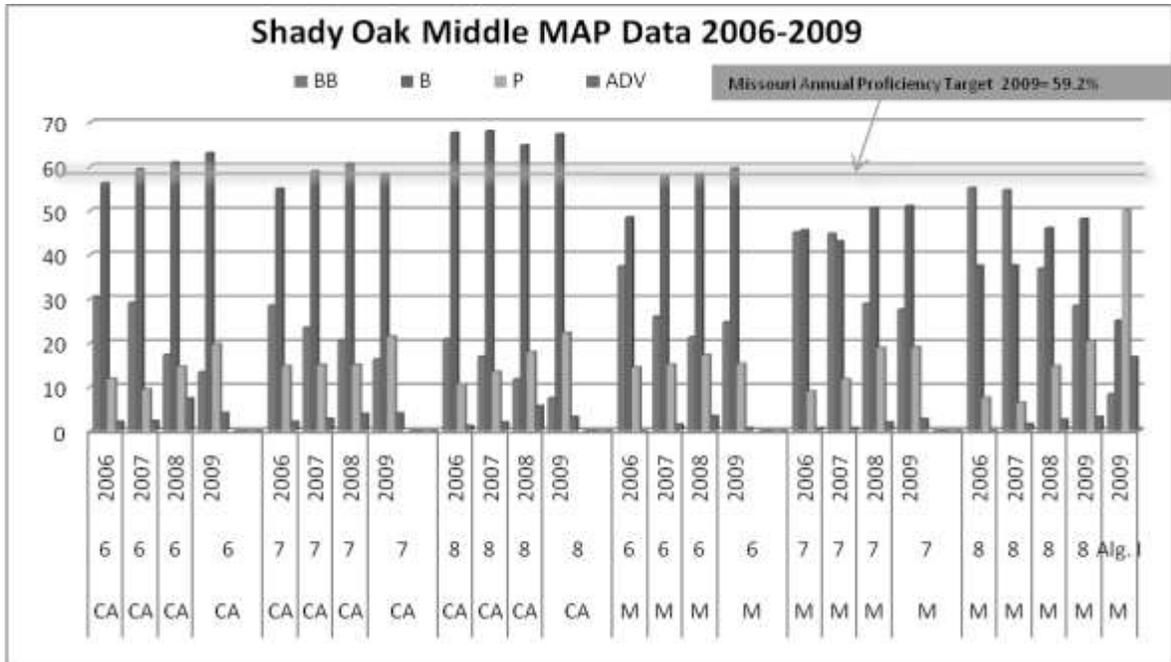


Figure 1. Shady Oak Middle MAP Data 2006-2009.

Average percentage of student proficiency of Shady Oak Middle School students on Missouri Assessment Program (MAP) tests 2006-2009 disaggregated by subject area, grade and year. The average of students scoring proficient (P) or advanced (ADV) did not meet Missouri’s annual proficiency target of 59.2% in 2009 in Communication Arts (CA) or Math (M). While the percentage of students scoring below basic (BB) has decreased each year in all subject areas and grades except sixth grade math, the majority of students only met the basic level (B) in all grades and subject areas except eighth grade algebra.

To obtain funds to implement the school turnaround model, during the summer of 2010 a team of 36 teachers, community members, administrators, and district representatives worked under the direction of a grant writing team from Learning Point Associates to develop and submit a grant for school improvement to the Missouri State Department of Elementary and Secondary Education (MODESE). U.S. Department of Education (2010b), indicated that states had funds to provide grant monies “to local educational agencies (LEAs) that demonstrate the greatest need for the funds and the strongest commitment to use the funds to provide adequate resources in order to raise substantially the achievement of students in their lowest-performing schools” (p. ii). Due to the additional \$547 million allocated by Congress under The Department of Education

Appropriations Act in 2010, “for FY [fiscal year] 2010, States continue to have flexibility to award up to \$2 million annually for each participating school” (U.S. Department of Education, 2010b, Appendix A, p. 2). Shady Oak Middle School was awarded an annual amount of just over \$1.7 million over the course of three years to implement the action steps outlined in the School Improvement Grant (SIG), which were based on the five goals mandated by MODESE (Jansen, 2010). As indicated in Table 1, in comparison to surrounding districts’ middle schools, Shady Oak Middle was one of a few that adopted the aggressive turnaround model and was awarded the largest grant in the area.

The SIG strategies designed for Shady Oak Middle were based on a needs analysis that was conducted in May and June of 2010; “data were collected through administrator interviews, teacher interviews, teacher surveys, parent focus groups and through a document review of curriculum, assessment, and professional development plans” (Learning Point Associates, 2010, p. 18). The planning committee developed strategies to address the key findings and aligned the strategies to the five goals outlined by MODESE for school improvement: (1) student performance, (2) highly qualified staff, (3) facilities, support and instructional resources, (4) parent and community involvement, and (5) governance and leadership (Learning Point Associates, 2010). Table 2 is a summary of needs identified at Shady Oak Middle School that were addressed in the SIG submitted to MODESE for school improvement funds (see Appendix A for complete table adapted from the SIG).

Table 1

Missouri 2010-11 Grant Award Recipients, Intervention Models, and Award Amounts

District	School	Intervention Models Adopted	Annual SIG Awarded
Wild Woods	Shady Oak Middle	Turnaround	\$1,722,508
District A	Middle School A1	Transformational	\$444,175
	Middle School A2	Transformational	\$441,804
	Middle School A3	Transformational	\$436,579
District B	Middle School B	Transformational	\$425,300
District C	Junior High C	Transformational	\$364,226
District D	Middle School D	Transformational	\$307, 826
District E	Middle School E1	Turnaround	\$199,415
	Middle School E2	Turnaround	\$199,415

Notes. Adapted from Missouri Department of Elementary and Secondary Education Press Release 44(7), "Missouri Schools Selected to Receive Federal 'SIG' Funds". (2010, September 23); Names of the districts and the schools were changed for anonymity.

Table 2

Key Findings of Needs Assessment at Shady Oak Middle

Key Finding of Needs Assessment	Missouri Goal Alignment
1. Student Achievement in reading and math as evidenced by MAP scores for the past three years had lagged significantly below the state passing average.	1
2. Teachers require intensive frequent professional development opportunities; the current professional development model needs improvement to better address the needs of teachers, better align to the curriculum, address student motivation, build teachers' effective use of resources, train teachers in differentiated instruction, improve teacher instruction for basic and below-basic students, analysis and use of data, and improve parent communication.	2
3. Targeted academic support opportunities for students (e.g. needs-based tutoring) are insufficient to meet the needs of all students.	3
4. Instructional materials and strategies for modifying content, process and assignments for struggling students are inadequate.	2, 3
5. The curriculum was too general to lead to meaningful instruction, did not address the needs of all students and was inconsistently implemented.	3
6. Teacher evaluations often did not provide teachers with adequate or consistent feedback to improve instruction and rarely connected to professional development.	5
7. While student behavior has improved in the last years, student behavior (particularly bullying and disrespect to teachers) and student motivation are still a concern.	1, 4
8. The school community should have higher expectations of students.	1,2,3,4

Note: Adapted from the LEA/district school improvement grant application. (2010) by Learning Point Associates; Complete table is in Appendix A.

Based on the literature on effective school turnaround practices and the alignment of strategies within the SIG, the primary investigator expected that the results of a study conducted at Shady Oak Middle School would present statistically significant relationships between students' academic performance and their reading proficiencies, behavior, attendance rates, and parental involvement. The primary investigator predicted that there would be an increase in students' average scores in communication arts and math on the MAP test. Rhim (2012) described effective school turnaround in alignment with the data that will be tracked by the primary investigator; "at a minimum, schools should demonstrate tangible evidence of progress according to multiple metrics (e.g., student attendance, disciplinary referrals, teacher attendance and retention, school culture, and benchmark assessments) within the first 18-24 months" (p. 2). The primary investigator believed that increased performance on state tests would ensure maintenance of local governance over the school and provide evidence of successful strategies for immediate school improvement. Surrounding school districts faced consequences from the state department for failing to make such gains; in their warning to a nearby district, the department indicated that the district "either reverse years of poor student performance, or face sanctions as severe as a state takeover similar to those in...[two other local districts]" (Bock, 2012, para. 1).

Research Question

What is the relationship of students' academic performance, reading proficiencies, behavior, attendance rates, and parental involvement to their average scores in Communication Arts and Math on the MAP test in a middle school that has adopted the turnaround model of reform?

Hypotheses

Null Hypothesis #1. There will be no increase in the proportion of students achieving Proficient and Advanced, as measured by the Communication Arts Missouri Assessment Program (MAP) exam.

Null Hypothesis #2. There will be no increase in the proportion of students achieving Proficient and Advanced, as measured by the Mathematics Missouri Assessment Program (MAP) exam.

Null Hypothesis #3. There will be no increase in student achievement, as measured by the Communication Arts Missouri Assessment Program (MAP) exam.

Null Hypothesis #4. There will be no increase in student achievement, as measured by the Mathematics Missouri Assessment Program (MAP) exam.

Null Hypothesis #5. There will be no increase in the proportion of students reading on or above grade level, as measured by the Scholastic Reading Inventory (SRI).

Null Hypothesis #6. There will be no increase in student reading levels, as measured by the Scholastic Reading Inventory.

Null Hypothesis #7. There will be no decrease in the proportion of student discipline referrals.

Null Hypothesis #8. There will be no increase in student attendance rate.

Null Hypothesis #9. There is no relationship between the dependent variable of 2011 Mathematics MAP scores and the independent variables of students' average rate of reading growth, enrollment in a reading class, average number of office referrals for discipline, average attendance rate, average number of contacts made to the students'

families, grade point averages, enrollment in summer school and average rate of attendance of the students' teachers.

Null Hypothesis #10. There is no relationship between the dependent variable of 2011 Communication Arts MAP scores and the independent variables of students' average rate of reading growth, enrollment in a reading class, average number of office referrals for discipline, average attendance rate, average number of contacts made to the students' families, grade point averages, enrollment in summer school and average rate of attendance of the students' teachers.

Null Hypothesis #11. There is no relationship between the dependent variable of 2012 Mathematics MAP scores and the independent variables of students' average rate of reading growth, enrollment in a reading class, average number of office referrals for discipline, average attendance rate, average number of contacts made to the students' families, grade point averages, enrollment in summer school, and average rate of attendance of the students' teachers.

Null Hypothesis #12. There is no relationship between the dependent variable of 2012 Communication Arts MAP scores and the independent variables of students' average rate of reading growth, enrollment in a reading class, average number of office referrals for discipline, average attendance rate, average number of contacts made to the students' families, grade point averages, enrollment in summer school, and average rate of attendance of the students' teachers.

Packing for the Unknown

As with packing for any journey into the unknown, it is important to recognize there may be some challenges that affect successful arrival to the planned destination.

The researcher identified limitations to this study that could have influenced the validity or reliability of the data.

The primary investigator was a newly hired addition to a team of administrators selected to facilitate the turnaround process at Shady Oak Middle School. The administrative team existed of four individuals, three of whom were new to the school and two new to their administrative positions, including the first-year building principal. Research supports the large contribution that the building principal makes to the success of school turnaround (Learning Point Associates, 2009; Steiner & Hassel, 2011; Kowal et al., 2009; Rhim, 2012). Rhim (2012) argued that it is essential for district leaders to hire the correct principal for the daunting task of school turnaround; she stated that “district leaders must assess whether the principal has the core skills and competencies to set ambitious expectations and inspire and influence staff” (p. 2).

Based on test results from the first year of the study, the primary investigator gained insight as to the effectiveness of the newly hired building principal at Shady Oak Middle School and the cohesion of the newly formed team in leading the staff through the turnaround process. The data indicated neither significant growth of students’ MAP scores nor an increase of students meeting or exceeding proficiency on the MAP within the first year. While the importance of the leaders’ capabilities to guide the turnaround process cannot be understated, the field is saturated with research on the impact of the leader on school turnaround (Learning Point Associates, 2009; Steiner & Hassel, 2011; Kowal et al., 2009; Rhim, 2012). For the purposes of this study, the primary investigator developed conclusions about the effectiveness of the turnaround leadership through an analysis of statistical testing on the relationships of variables that directly impacted

student performance such as the students' attendance, behavior, grades, reading levels, and participation in intervention programming.

As mandated by MODESE when adopting the turnaround model of reform, administration replaced 50% of the teaching staff at Shady Oak Middle School, resulting in a large population of beginning teachers. Wagner et al. (2006) explained a similar situation in a school district in New York City, "these inexperienced teachers didn't know how to teach...and because the turnover rate was so high, there were no teachers in the building with the skills to help their less experienced colleagues" (p. 112). A study of 18 schools that successfully raised student achievement in California and Nevada found that professional development embedded within the building through collaboration with colleagues was more effective than individual, outsourced experiences at conferences and external trainings (Almanzan, 2005).

To address the issue of limited teaching experience at Shady Oak Middle School with the large number of new hires, finances were allocated in the SIG to create one math and one literacy coach position. Administration hired these employees to support teachers with ongoing, school-embedded professional development. While teacher attendance in the classroom is pertinent to the success of students, the attendance rate of teachers in this study reflected absences for the purpose of professional development. While the primary investigator initially gathered data on teacher attendance rate to include in the multiple regression analysis, the rate of teacher attendance was constant throughout the study because the sample of students was selected from the same grade. The primary investigator could not calculate teacher attendance as an independent

variable for the purpose of this study because of the consistency of teacher attendance rates showed no variance.

Shady Oak Middle School is located in the county suburbs just north of the city. Within the school boundaries, apartment complexes and rental properties make up a large percentage of the area. Due to the rate of renters versus homeowners, the transiency of the student population at Shady Oak Middle School is high. For the purpose of this study, the primary investigator randomly selected 50 subjects out of a total population of 112 incoming sixth grade students enrolled at Shady Oak Middle School on the first day of the 2010-2011 school year. Due to the historically high rate of transiency, at the conclusion of the two-year study the primary investigator completed the statistical analyses with subjects who had complete data sets of all variables measured in the study, totaling 31 students.

Conclusion

In a time of educational accountability and growing pressure internationally to remain at the forefront of globalization, the nation's federal government stepped into the movement of local school reforms nationwide. Mandating schools to adopt one of four defined reform models or face sanctions from state departments put pressure on failing schools to make dramatic achievement gains within a timely manner. Recognizing that school failure has historically plagued minority populations, the primary investigator designed a study to examine the impact of relationships of various factors effecting student performance on state exams in a high minority, high poverty middle school in Missouri that adopted the turnaround model of reform. Through a series of statistical tests, the primary investigator examined 12 hypotheses to seek answers to the research

question: What is the relationship of students' academic performance, reading proficiencies, behavior, attendance rates, and parental involvement to their average scores in Communication Arts and Math on the MAP test in a middle school that has adopted the turnaround model of reform? Identifying the limitations of the study that might have impacted its reliability and validity, the primary investigator designed a plan to form unbiased conclusions about effective or ineffective strategies in a turnaround school.

In Chapter 2, the primary investigator will present a review of literature regarding national policies on school reform, research on effective school reform practices around the country and a review of the current literature surrounding the more recent topic of school turnaround. It is important to take note of those who have taken similar journeys in the past and examine their successes and failures. This allows the traveler to develop a strong foundation for the journey ahead, prepared with tools of which to make sound decisions.

Chapter Two: Trailblazers

Federal Involvement in Public Education

While the word education was not written into the United States Constitution by the founding fathers, the 10th Amendment to the Constitution claims “the powers not delegated to the United States by this constitution, nor prohibited by it to the states, are reserved to the states, respectively, or to the people” (U.S. Const. amend. X, 1776), thus leaving the difficult work of facilitating school reform to state and local experts.

Alexander and Alexander (2005) discussed the lack of uniformity in the nation’s educational laws, “because of the decentralized nature of our educational structure, it is often difficult to identify any single rule of law that prevails in all states” (p. XXXVII), which has been a challenge taken on by national legislators since 1958. An education report published by the Industrial College of the Armed Forces indicated that “the education system in the United States may seem to be, and in some aspects is, a chaotic interaction of federal, state and local governments trying to implement sometimes incompatible policies and processes with little central direction” (as cited in Ryan & Cooper, 2010, p. 330). While the power to develop laws and guidelines for educational systems was granted to each state and local community by the founders of our nation (U.S. Const. amend. X, 1776), in the past decade the federal government took the lead in defining and regulating the direction of educational reform in America (Ravitch, 2010).

Educational Reform Sparked by National Fear

The first major legislation passed which provided federal financial assistance and guidelines for development of schools was the National Defense Education Act (NDEA) signed in 1958 (Zhao, 2009). This legislation was a direct result of the launching of

Sputnik I and *Sputnik II* by the Soviet Union; fear, embedded by the American federal government, of the United States falling behind other countries' technological knowledge and capabilities brought the nation's attention to the quality of education provided by local school systems (Zhao, 2009). NDEA called for national reform of America's educational system with the goal of increasing the number of students attending college and improving instruction in math, science, foreign languages, and vocational-technical training (Zhao, 2009). Financial assistance from the federal government under the NDEA not only impacted the education field in the areas of science and technology, but also initiated a movement of gifted education (Jolly, 2009). NDEA paved the way for future federal involvement of educational reform within local school systems (Jolly, 2009; Zhao, 2009).

Twenty-five years after the passage of NDEA, the National Commission on Excellence in Education completed a report further igniting fear of the United States falling behind in the global market and identifying the mediocrity of the educational systems as the cause (Zhao, 2009). The commission submitted the report, *A Nation at Risk: The Imperative for Educational Reform*, to the U.S. Secretary of Education in hopes of gaining support for their five recommendations of educational reform including the following: changing the requirements for high school curriculum, increasing the expectations of students through rigorous standards and increased college entrance requirements, increasing learning time, improving the training of teachers, and giving the responsibility of identifying educational needs to the federal government while holding local agents accountable for reform (Ravitch, 2010; Zhao, 2009). While former President Ronald Reagan and his legislation did not act on any of the recommendations made by

the commission, the report brought local school systems to the forefront of national attention and provided a foundation for Reagan's political platform (Ravitch, 2010). "During his campaign, Reagan gave a total of 51 speeches on the need for education reform, and as Secretary Bell writes in his memoir, the purpose was to get the greatest possible mileage from the commission report" (Zhao, 2009, p. 30).

No Child Left Behind (2002)

In the years leading to the most significant educational legislation signed by a president in the 21st century, Presidents George H.W. Bush and Bill Clinton both took steps to drive national educational standards (Ravitch, 2010). In 1989, Bush announced the National Education Goals for the year 2000, followed by the Goals 2000: Educate America Act signed by President Clinton; while neither president's goals were met by the year 2000, the inclusion of local school reform into the national agenda had become common practice (Ravitch, 2010). President George W. Bush continued the challenge of defining the direction of America's educational systems in January 2002 by signing the No Child Left Behind Act (NCLB). Under this new legislation, every school in the country was mandated to ensure that all students score proficient or advanced on standardized state communication arts and math exams by the 2013-14 school year (Ryan & Cooper, 2010). Schools not making annual yearly progress in meeting this goal for a number of consecutive years were termed "failing schools" and faced sanctions from the state government, including, but not limited to, school closure or state take-over (Ryan & Cooper, 2010). Ironically enough, only two years after President Bush signed this act into law on the steps of Hamilton High School, they were determined to be a "failing school" under the NCLB legislation (Zhao, 2009). Since its origin, No Child Left Behind

has received much criticism as now “the goal [of increased student performance] was not merely a devoutly desired wish, but a federal mandate, with real consequences for schools whose students did not meet it” (Ravitch, 2010, p. 150).

Research around the country questioned the effects that the NCLB legislation had on student learning and preparation for competition in the global market (Berliner, 2009; Darling-Hammond, 2010; Ravitch, 2010; Wagner, 2008; Zhao, 2009). Berliner (2009) made the argument that NCLB forced American schools to narrow curriculums focusing only on state tested material, thus causing less time on subjects such as history, music, and art, resulting in decreases in students’ creative reasoning and their success in postsecondary programs. Zhao (2009) also noted research on the effects of NCLB on time in core subjects in schools:

According to a study by the Center on Education Policy issued in 2007, five years after the implementation of NCLB, about 62 percent of districts have increased instructional time for English or math, or both, in elementary school and more than 20 percent reported increasing time for these subjects in middle school. To accommodate this increased time in English and math, 44 percent of districts reported cutting time from one or more other subjects or activities (social studies, science, art and music, physical education and lunch or recess). (p. 39)

Cited in the research on school systems in the world’s highest-achieving nations, Darling-Hammond (2010) claimed that education focused on “reasoning skills and application of knowledge, rather than on mere coverage” (p. 37) makes these countries more internationally competitive. She goes on to attribute high-achieving countries’ success to their lack of external testing, “unlike the continuous testing system required by

the No Child Left Behind Act, which is accomplished primarily with externally provided multiple-choice tests” (Darling-Hammond, 2010, p. 37). Darling-Hammond (2010) claimed local creation of assessments allowed schools in high-achieving countries to maintain high student achievement. She argued because the teachers aligned assessments to standards themselves, they gained a deeper understanding of the curriculum and thus provided better instruction. Berliner (2009) also credited external multiple-choice exams as a cause of decreased learning; “even when the scores on multiple-choice tests go up, it is not likely that student have developed deeper, richer, more interconnected conceptions of the knowledge assessed...large scale multiple-choice testing usually narrows what is learned” (p. 289). David (2001) concluded from research “the challenge, then, is to ensure that state tests do not continue to distort the curriculum in ways that deprive students of meaningful learning” (p.79).

NCLB legislation was intended to drive educational reform keeping the country at the forefront of globalization by holding school leaders and teachers accountable for dramatic increases in student performance on state assessments (Ravitch, 2010). Contradictory to its intended outcomes, research supported that under NCLB, the country narrowed its expectations of students and reduced opportunities for growth thus allowing other countries gain competitiveness in the global market (Berliner, 2009; Darling-Hammond, 2010; Ravitch, 2010; Zhao, 2009). Wagner (2008) described an achievement gap created by NCLB that produced devastating statistics on the lack of preparation students receive in schools:

Indeed, the most significant impact of NCLB may be its contribution to the growing gap between what’s being taught and tested in even our better schools

versus what today's students will need to succeed and be productive citizens in the twenty-first century – the global achievement gap. (p. 72)

Comparing the impact of *A Nation at Risk* and NCLB legislation, Ravitch (2010) claimed that the shift from a national focus on standards to a focus on student test scores is contributing to the death of America's school system; she argued that “mountains of data” (p.29) as produced by state mandated testing often gives a false image of “educated citizens” (p. 29), the desired product of an effective education system. Ravitch (2010) claimed that modifying curriculum based on state-developed tests leads to less learning in schools. She advocated for an adoption of a national curriculum in every subject area guiding the development of assessments beyond multiple-choice exams. Other researchers supported her claims by highlighting the increasingly large numbers of schools, districts, and states that have lowered standards and removed curriculum in the arts to provide more time for improvements in math and literacy as mandated by NCLB (Berliner, 2009; Darling-Hammond, 2010; Zhao, 2009).

American Recovery and Reinvestment Act (2009)

While growing criticism of NCLB and reports of failing schools around the country began to dominate the news, the federal government passed the American Recovery and Reinvestment Act (ARRA) in February 2009 under the administration of President Barack Obama (Smarick, 2010). Under the leadership of Secretary of Education Arne Duncan, the government created a plan to provide financial resources and strict regulations for America's schools to increase student proficiency and promote educational reform at the state and local level (Smarick, 2010). During his first term in office, Secretary of Education Arne Duncan was given “\$100 billion of new federal

funds-nearly twice the annual budget of the U.S. Department of Education-to jumpstart and sustain the improvement of America's schools" (Smarick, 2010, p. 15). This money was allocated to schools in a variety of disbursements; the first major disbursement of funding was through previously established federal education programs such as Individuals with Disabilities Education Act (1975) and Title 1 (2001) (United States Government Accountability Office, 2009).

Under ARRA, \$3.5 billion dollars of Title 1 funding was set aside for our nation's lowest-performing schools to compete for School Improvement Grants; to be eligible for the Title 1 School Improvement Grant funding, each state education department was required to identify the local education agencies (LEAs) with the greatest needs within their states and offer strict guidelines for the application process (Brennan-Gac, 2009). Each state department was expected to review the applications and select the LEAs with the "strongest commitment to ensuring that the funds are used to provide adequate resources to enable the lowest-achieving school to meet, or be on track to meet, the LES's three-year student achievement goals in reading/language arts and mathematics" (Brennan-Gac, 2009, p. 1). To be eligible to compete for the Title 1 School Improvement Grant (SIG) funding, selected low-performing schools were mandated to adopt one of the four nationally defined models of school reform- turnaround, transformation, school closure or restart model- and complete a competitive state application indicating a three-year plan for school improvement (Missouri Department of Elementary and Secondary Education, 2010; U.S. Department of Education, 2009). Maxwell (2009) stated that "originally, Secretary of Education Arne Duncan had sought to make that 'transformation' model a last resort for school turnarounds if the three other, more

aggressive methods...were not feasible” (p. 1), but in reality most schools took on the less abrasive reform model of transformation requiring the replacement of the principal and the modification of the instructional and evaluative systems in the school rather than a complete overhaul of the staff or school.

Another major distribution of financial assistance to schools outlined by the ARRA was through the State Fiscal Stabilization Fund (SFSF); this fund was created to address the increased number of budget deficits faced by schools around the country (Smarick, 2010). Under strict regulations set by legislation, each state would receive money based on their population so long as, “governors sign ‘assurances’, statements promising that their states were taking action to improve teacher quality, develop better data systems, enhance standards and assessments, and address low-performing schools” (Smarick, 2010, p. 16). While the intentions of Secretary of Education Arne Duncan were to provide schools with money so that school leaders could “think very creatively and think very differently about educational reform” (Smarick, 2010, p. 16), the reality was quite different. An investigation of 16 different states’ use of SFSF funds conducted by the United States Government Accountability Office (2009), determined that “although school districts are preventing layoffs and continuing to provide educational services with the SFSF funding, most did not indicate they would use these funds for educational reform” (p. 21). In a survey of 233 randomly selected school districts nationwide, the researchers from the Center on Education Policy (Kober, Scott, Renter, McMurrer, & Dietz, 2010) found that “an estimated 69% of district recipients of SFSF grants are using at least some of these funds to save or create jobs” (p. 9). While supporters of SFSF were hoping the funds would stimulate drastic educational reform,

school districts around the nation were using the additional financial support to maintain their current educational systems and survive the growing economic challenges in which their schools are facing (Kober et al., 2010; Smarick, 2010; United States Government Accountability Office, 2009). “Local policy prerogatives and dire financial conditions trumped federal pleas for reform and led to the spending of massive amounts of aid on preserving the status quo and protecting existing jobs and programs” (Smarick, 2010, p. 22). While it seems that the government’s intention was to encourage reform through financial means, research shows that “local dynamics, not the will of Washington, determine the pace and scope of education reform” (Smarick, 2010, p. 17).

The third major stage of financial distribution through ARRP was through a competitive grant program titled Race to the Top; while this grant only made up \$4.35 billion of the ARRP funds, it “represents by far the largest amount ever at the discretion of an education secretary” (Smarick, 2010, p. 19). The Race to the Top grant was created to encourage innovative educational reform and increase the “productivity and effectiveness” (U.S. Department of Education, 2009, p. 2) of America’s school systems. Through their competitive grants, states were recognized and rewarded for “creating the conditions for education innovation and reform” (p. 2) in the areas of adopting rigorous curriculums, utilizing data systems to drive instruction, retaining quality teachers and principals, and turning around failing schools (U.S. Department of Education, 2009). As part of the Race to the Top initiative, states proving to raise student achievement “offer models for others to follow and will spread the best reform ideas across their States, and across the country” (U.S. Department of Education, 2009, p. 2).

According to a report published by the Center on Education Policy (Kober et al., 2010) “large proportions of the nation’s school districts are taking at least some of the actions....to improve teacher effectiveness...and to adopt rigorous standards and assessment...a smaller proportion...of districts is taking action to turn around low-performing schools” (p. 14). The researchers attributed the smaller rate of school turnaround efforts to “the lack of consensus and knowledge about effective ways to accomplish this goal” (Center on Education Policy, 2010, p. 14).

Cynics feel that those states which engaged in the process of competing for the Race to the Top funds were encouraged by bringing more money into their schools rather than a true belief in the need for reform; “had these states really believed in reform, they would have adopted these measures ages ago” (Smarick, 2010, p. 21). The Center for Mental Health in Schools (2010) conducted an analysis of the current federal policy in guiding school reform and concluded that federal policy is focused on the “system deficiencies rather than recognizing the need to develop a comprehensive system to address barriers to learning and teaching and re-engage disconnected students” (p. 8). In their report, the authors recommended a shift in federal policy from the current model of only focusing on the instructional programs and management of resources to support students (a two-component framework) to a three-component framework including a comprehensive approach to “addressing barriers to learning and teaching” (Center for Mental Health in Schools, 2010, p. 10). The authors of this research believed federal policy was focused on the problem, but not on how to overcome the problem; in order to effectively turnaround failing schools, the researchers claimed that reform efforts needed to involve a systematic way to move teachers to high levels of instruction, effectively

manage the resources in the school, and deal with the ongoing factors that negatively affect student engagement in the classroom (Center for Mental Health in Schools, 2010).

According to the 10th Amendment to the Constitution of the United States of America, the development, maintenance and accountability of the nation's educational systems lie in the hands of local educational agencies (U.S. Const. amend. X), but with growing domestic fear of falling behind as a nation and increased global competitiveness, national public attention has shifted the focus of educational reform to the federal level (Ravitch, 2010; Zhao, 2009). While student achievement is now monitored federally, researchers continue to question if federal involvement focused on accountability and testing truly prepares students for success beyond school in a global economy (Berliner, 2009; Darling-Hammond, 2010; Ravitch, 2010; Zhao, 2009). The primary investigator believes this is an ongoing question that needs close examination if educators are to provide American children with the skills and knowledge needed to productively lead the nation's future.

Tools of Successful Travelers

Early research on effective strategies of school turnaround provided some direction for schools adopting the reform model (Duke, 2006a). Duke (2006a) conducted a study of elementary schools that maintained successful turnaround for at least two years, seeking effective strategies for sustained improvement. Through the review of 15 case studies, the researcher identified eight categories describing conditions needed for successful turnaround: (1) leadership changes, (2) school policy changes, (3) program changes, (4) changes in organization process and procedures, (5) personnel and staffing changes, (6) changes in classroom processes, (7) changes in parental and community

involvement, and (8) changes in school facilities (Duke, 2006a). Much of the research on successful school turnaround since Duke's initial study confirmed his findings; in an examination of turnaround practices over the past decade, School Turnaround Group (2012) concluded that:

Too many improvement efforts simply represent new versions of prior failed strategies....a trend is taking shape in favor of turnaround zones – focused on changing the conditions in which schools operate to allow for greater flexibility and autonomy, building capacity through specialized turnaround resources and talent and clustering schools to achieve turnaround at scale. (p. 2)

Monitoring governance and leadership. While some researchers focus on the improvement of school culture in reforming school systems (Deal & Peterson, 2009; Kutash et al., 2010), others claimed that school cultures will transform on their own with an effective change of school systems (Childress, 2009). “School climate is an emergent quality that stems from how schools provide...instruction, learning supports, and management/ governance” (Center for Mental Health in Schools, 2010, p. 16). Calkins et al. (2007) stated “schools fail because the challenges they face are substantial...and because the system of which they are a part is not responsive to the needs” (p. 8). In an analysis of 10 schools in Chicago conducted by Strategic Learning Initiatives, a non-profit organization that works with low-performing schools, it was found that “five of the schools saw students’ scores on state exams increase from six to nine times more than they had in the previous six years” (Maxwell, 2009, p. 19). Maxwell (2009) claimed this success was not attributed to the replacement of the principal and teachers, but rather due to a systematic change that “emphasizes shared leadership, professional development,

ongoing support for teachers to change instructional practices based on frequent assessments of student learning and parent engagement” (p. 19). John Simmons, the president of Strategic Learning Initiatives stated, “we really don’t see much in the research that says the people in the buildings are the problem...what we find is that it’s the systems that are the problem” (as cited in Maxwell, 2009, p. 19).

Other researchers contradict these findings, focusing on the need for new leadership in a turnaround school to ensure its success (Hassel & Hassel, 2009; Herman et al., 2008; Kowal et al., 2009). In his study of 15 successful elementary school turnarounds, Duke (2006a) found that “leadership changes played a central role in the turnaround process...in 10 of the 15 cases, in fact, the initial step in school turnaround involved replacing the principal” (p. 6). Hassel and Hassel (2009) argued that “staff help effect a turnaround, but the leader is the unapologetic driver of change in successful turnarounds” (p. 23). “A change in leadership practices in the school is essential. Because the current school leader may be enmeshed in past strategies, a new leader can immediately signal change” (Herman et al., 2008). In their research on effective turnarounds in the business world, Hassel and Hassel (2009) concluded that while the entire staff does not need to be replaced, it is essential to bring in a new leader to drive change. Treasurer (2011) justified the need for leaders to courageously promote innovation and change, stating, “human growth and development do not happen in a zone of comfort” (p. 30). Patterson and Kelleher (2005) also discussed the leaders’ role in facilitating change in high stress organizations; they focus on the importance of school leaders using positive energy to promote transformation.

Research on effective school turnaround indicates the importance of “early wins” (Hassel & Hassel, 2009, p. 23) in the initial stages of the reform process. Goals set by the school leader that are valued by staff and are easily attained guarantee early signs of turnaround success and have proven to affect staff morale (Hassel & Hassel, 2009; Herman et al., 2008; Kowal et al., 2009); “Turnaround leaders use speedy, focused results as a major lever to change the organization’s culture” (Rhim et al., 2007, p. 15). Some examples of quick wins that have impacted schools are altering the transition times of students to cut down on disruptive behavior in the halls, making repairs to school facilities to improve the appearance of the school, or changing the master class schedule to allow for collaborative planning time among staff members (Herman et al., 2008). In a case study conducted by Gavin and Parsley in 2005 on the effectiveness of a turnaround school in South Dakota, the researchers found that “with ‘quick wins’ under their belts, the teachers consulted the data again, derived a new focus for their improvement efforts, and consulted the research for guidance about next steps” (as cited in Brinson et al., 2008, p. 11). Kutash et al. (2010) confirmed “quick wins in nonacademic areas signal to students and the community that a dramatic change is under way” (p. 37). Rhim (2012) noted that leaders must ensure quick wins to indicate the emergence of change; the consequences of not bringing about early change could pacify resistors and encourage status quo. Shady Oak Middle School anticipated quick wins would bring about indication of a new direction in the building as stated in their grant application to the state of Missouri (Learning Point Associates, 2010):

While... [Wild Woods] District and... [Shady Oak] Middle School has [*sic*]
designed our [*sic*] approach to accelerate all students to high levels of

achievement, we expect some immediate quick wins within the first six months.

These include:

- An organizational framework that establishes the committees and teams that will drive change and improve student achievement
- The hiring of “turnaround-ready” teachers, instructional coaches, interventionists, parent liaison
- A 2-day off-site staff retreat to establish a new mission, vision and values to guide the turnaround process
- A meet and greet visit to student neighborhoods to invite parents and students to the Open House
- An Open House inviting all parents to the school to meet the new staff and share the new school mission, vision and values of the turnaround effort

These quick wins, along with change in leadership, curriculum alignment, professional development and reinvented and rigorous teacher evaluation plan will serve as the foundation for the effective turnaround at... [Shady Oak] Middle School. (p. 2)

Attracting and retaining highly qualified teachers. Recruiting and maintaining a highly qualified staff is a requirement of effective school turnaround (Calkins et al., 2007). Neill (2006) commented on the autonomy of states to create the requirements of a highly-qualified teacher, mandated by No Child Left Behind (NCLB) legislation, so long as those requirements include at least “a bachelor’s degree, full state licensure as a teacher, and demonstrated content knowledge, either through coursework or testing in

each subject he or she teaches” (p. 3). The U.S. Department of Education (2009) replaced the definition of highly qualified teacher with the definition of a “highly effective teacher” (p. 12) in literature on the Race to the Top program, further expanding it to include evidence of “high rates (e.g., one and one-half grade levels in an academic year) of student growth” (U.S. Department of Education, 2009, p. 12). As cited by The Wallace Foundation (2009), Darling-Hammond, a well-known educational researcher noted that “it is the leader who both recruits and retains high-quality staff” (p. 5); she claimed that the quality and quantity of a principal’s support becomes the primary determinant in retention of highly-qualified teachers in a turnaround school.

Based on the research, the lowest performing schools are in dire need of highly effective teachers (Duke, 2008). Research indicated that “teachers in poorer schools are significantly less likely to have majored in the subject area they are teaching, to have passed tests of basic skills and to be highly qualified” (Calkins et al., 2007, p. 29). In 1996, William Sanders published the results of his study examining the long-term effects of poor teachers on the academic growth of children; he found that for “students that have the misfortune of receiving a string of ineffective teachers...for three years in a row scored as much as 50 percentile points lower on statewide assessments” (as cited in Goodwin, 2010, p. 7). In a case study of a high school in Imperial Valley, California that made dramatic improvements in student achievement on state exams, Chenoweth (2009) noted that the knowledge and abilities of the staff was a determining factor in student success. The school principal stated, “the quality of the people you hire will make or break you...content knowledge is the most important...if the person doesn’t know the material, the kids know that” (Chenoweth, 2009, p. 73). In a 15-year longitudinal study

of elementary schools in Chicago, the researchers found that “schools were only as good as the quality of faculty, the professional development that supports their learning and the faculty’s capacity to work together to improve instruction” (Bryk, 2010, p. 24). Research indicates that in the nation’s lowest performing schools, the least effective teachers are employed, thus increasing the gap of proficiency between the highest and lowest achieving students (Calkins et al., 2007). A similar realization was addressed only two years after NCLB legislation was passed in response to a need for effective school leaders. During the 12th Congressional conference examining educational policy and issues, it was noted that both federal and state resources needed to be used to “induce capable principals, as well as master teachers, to commit themselves to three to five years in the schools where they are most needed” (Coppie, 2005, p. 6).

Other research supports that the impact that teachers’ belief in students’ abilities have in improving achievement levels (Duke et al., 2008; Chenoweth, 2009; Reeves, 2006). “Teachers espouse strong beliefs about three major topics: the change process, working with their colleagues, and student learning....these individual beliefs underpin the school culture and determine the norms and practices that take place in a school” (Duke et al., 2008, p. 80). Reeves (2006) found that when educational leaders associated student achievement with adult variables, students scored higher on assessments than when leadership teams blamed scores on external student factors such as demographics. The principal of Imperial High School attributed much of the success of students in her school to the high expectations and belief that the teachers had in the abilities of all of the students (Chenoweth, 2009). Duke et al. (2008) found that teacher beliefs and behavior not only led to student success, but were also responsible for student failures;

Low-performing schools often are characterized by distinctive values, beliefs, and assumptions about what students and teacher are capable of accomplishing...the belief that teachers can and do make a difference in student learning is the bedrock of a constructive school culture. (Duke et al., 2008, p. 42)

Building the capacity of teachers through targeted professional development proves to be an effective strategy in turning around low performing schools (Goodwin, 2010; Herman et al., 2008; Salmonowicz, 2009). Duke (2008), a well-known researcher of turnaround schools from the University of Virginia, made the claim that ineffective professional development is one of the factors contributing to the failure of low performing schools; “schools that begin to decline are frequently the recipients of one-shot inservice [*sic*] programs and staff development that is only tangentially related to core academic concerns” (p. 669). Teachers need be given the opportunity to focus on areas of strength and weakness and provided with guidance and direction for improvement; “Once teachers identified specific subject areas to focus on, the principal identified and commissioned intensive professional development to improve teaching in those areas” (Herman et al., 2008, p. 16). In an examination of the successful turnaround of Brockton High School serving 4,100 students in Massachusetts, researchers found that by training every educator in the building to teach basic reading and writing skills the students made huge gains within one year and “outperformed 90 percent of Massachusetts high schools” (Dillon, 2010, para. 3) in 2009 and 2010. This school-wide, targeted focus on professional development proved to effectively turnaround the performance of the students (Dillon, 2010). Montgomery County Public Schools, located in Rockville, Maryland, restructured the focus of their professional development to

include “data analysis protocols, technology tools, and forums for sharing best practices” (Childress, 2009, p. 17). They recognized “that effective teachers are the most important factor in helping all students meet or exceed rigorous academic standards” (Childress, 2009, p. 17) leading to dramatic achievement gains for the district over the course of five years.

Maintaining focus on achievement and instructional resources. Research on school turnaround supports the need for data-driven decisions (Herman et al., 2008) focused on a commitment to achievement (Calkins et al., 2007) obtained through clear action plans communicated by the school leader (Brinson et al., 2008). In a study of effective turnaround practices, Herman et al. (2008) categorized the purposes of data found in turnaround schools into three levels: school data to drive goals, classroom data to support teacher development, and student data to diagnose instructional needs. Goodwin (2010) agreed that “creating a system that collects the right data is essential to high performance” (p. 58). In research conducted by Brinson et al. (2008) on leader actions in effective turnaround schools across the country, they found that to bring the needed changes in a low performing school the leader must create and clearly communicate a plan of action based on an analysis of current school data “so that everyone involved knows specifically what they need to do differently” (p. 10). Maintaining a focus on a few specific goals and offering frequent opportunities for feedback and growth in these target areas throughout the year are effective strategies in turning around low performing schools (Salmonowicz, 2009).

School improvement research indicates the importance of ensuring that all members of the community feel ownership for the mission and goals of the school

(Bolman & Deal, 2008; Rhim et al., 2007). While the basic structures of the school system, such as scheduling and staff placement, should be the responsibility of the turnaround leader (The Wallace Foundation, 2009), the development of the school's purpose and goals must be a responsibility that is shared among the entire school community (Marzano, Waters, & McNulty, 2005). A study on characteristics of organizations conducted by sociologist Gerald Hage in 1965 found that "all organizations, regardless of type and purpose, may be conceived of as having two basic characteristics: structure (or the way they are put together) and outcomes (the purpose of the organization)" (as cited in Daresh, 2001, p. 78). Involving relevant stakeholders in defining the purpose of the school leads to community commitment (Bolman & Deal, 2008) and allows the opportunity for leaders to "gain the support of trusted influencers among staff and community...to influence those who might oppose change" (Brinson et al., 2008, p. 18). "When people feel obligated to do something, not only do they do it well, but they do it even when the going gets tough...the best way to manage responsibility is to evoke duty and obligation" (Sergiovanni, 2006, p. 12). While recognizing need for a collaborative effort in bringing about institutional change, The Wallace Foundation (2009) highlighted the importance of the turnaround leader in driving the organization.

Effective systems include high standards and differentiated resources based on individual student's needs (Childress, 2009). Turnaround research suggests that establishing an "early-warning system to get data along the way to see if students are making progress" (Kutash et al., 2010, p. 15) is necessary to monitor the success of the turnaround process. In his research, Duke (2008) made the case that intervention

strategies aimed at repetition and extended practice are ineffective claiming that interventions need to be individualized and focused on development of specific skills rather than providing extra time. “Instead of providing assistance that targets each student’s specific issues, the school assigns all students judged to be in academic difficulty to a common supplementary program or intervention” (Duke, 2008, p. 668). Duke (2008) concludes that “valuable time is wasted” (p. 668) for students that participate in generic help sessions rather than interventions that offer targeted skill development. In 2004, the United Kingdom’s Department of Education supported a national movement in their education system focused on personalizing the educational experience of each child in their country (Zhao, 2009). Supported by educational researcher David Hargreaves, Zhao (2009) stated “personalized learning recognizes that every child has different talents and different needs... [and is] an effective approach to helping students develop the skills and knowledge needed for the future“ (p. 186). An examination of the successful turnaround of the Montgomery County Public School system offered similar conclusions; Childress (2009) found that “giving teachers the knowledge and tools to better diagnose *individual student needs* [emphasis added], develop potential solutions and put them into practice, and to reflect on their effectiveness” (p. 15) helped to generate systematic gains in student performance. Ensuring that students have the skills needed to compete in a globalized society has become a challenge of schools around the country (Zhao, 2009).

Time is a resource that is invaluable to the successful turnaround of low performing schools (Kutash et al., 2010). Structuring the school day and calendar to allow additional time for students to master necessary skills is a strategy proven to be

effective in increasing performance, specifically in secondary school settings (Salmonowicz, 2009). In his research in low-performing schools, Duke (2008) found that often schools were successful when they “modify the daily schedule in ways that provide struggling students with extended learning time” (Duke, 2008, p. 668). Kutash et al. (2010) identified the autonomy of a school leader over the school schedule as having a direct impact on student achievement. Research suggested the school leaders should have complete decision-making power over “how time is used throughout the day, as well as the ability to increase learning and planning time by expanding the school day or year” (Kutash et al., 2010, p. 37). In turning around an inner-city Cincinnati high school, Principal Anthony G. Smith assisted students after school hours by connecting them with adults in the building and using students’ interests in sports as leverage for improving their academic skills (Pappano, 2010). Because additional time is a factor in successful school turnaround, ensuring that the staff and community are willing to spend more time to achieve the mission is a responsibility of the turnaround leader (Salmonowicz, 2009).

Generating parent and community involvement. Involving members of a school community in the process of school improvement has a direct impact on the success of the students (Peterson & Deal, 1999; Schlechty, 2002; Senge et al., 1999). Bryk (2010) found a direct correlation between students’ motivation and participation in school and links between their families and school staff. “Successful turnaround leaders are not ‘lone rangers’-they develop and rely on leadership teams, distribute responsibility among staff, and partner with the district and the community” (Kutash et al., 2010, p. 37). Turnaround schools in Baltimore and Chicago attempted to join with community organizations to educate others about the need for change (Kutash et al., 2010; Rhim et

al., 2007). Senge et al. (1999) made the claim that all stakeholders need opportunities to share information, research, and ideas, ensuring commitment rather than compliance. These researchers discussed the importance of learning-driven change to achieve continuous improvement; “it would need to involve repeated opportunities for small actions that individuals could design, initiate, and implement themselves” (Senge et al., 1999, p. 41). Peterson and Deal (1999) agreed that “it takes a strong professional community that uses knowledge, experience, and research to improve practice” (p. 104).

Much like politicians campaign to gain support for an upcoming election, turnaround literature recommends that leaders take a similar approach to gaining support from the community for upcoming school transformation (Hassel & Hassel, 2009; Herman et al., 2008; Kowal et al., 2009; Pappano, 2010). In a turnaround situation, the facts of the school’s failure are made public; in an attempt to revitalize the community, turnaround leaders are called to highlight the urgency of change and bring a new vision of hope to those most directly affected (Kowal et al., 2009; Rhim et al., 2007). Research indicates that schools around the country are taking steps to involve the community in the restructuring of school systems (Herman et al., 2008; Kutash et al., 2010). In an effort to initiate a community commitment to turning around Taft Information Technology High School in Cincinnati, the principal “went door to door in the neighborhood and asked for residents’ support” (Pappano, 2010, p. 24).

While some leaders have gone out to the community, others have invited community members into the school by holding breakfast meetings for informational purposes, advertising leadership positions within the school for parents, or providing childcare during school events (Herman et al., 2008; Rhim et al., 2007). Turnaround

leaders need to expand their role, making connections with organizations that offer mental and physical health services and social and emotional growth opportunities to address challenges that students face (The Wallace Foundation, 2009); “students’ environment, background knowledge [and] motivation...account for as much as 80% variance in student achievement” (Goodwin, 2010, p. 38). Goodwin (2010) indicated that educators must network with community supports to take action in addressing the barriers to learning which result in the failure of schools around the nation. “The key lesson from prior turnaround efforts across sectors is to engage teachers, parents and the surrounding community in a way that encourages them to become part of the changes in the school” (Rhim et al., 2007, p. 13).

Taking the Next Step

While research on the success and challenges of school reform does exist, little is documented on the school turnaround process (Brinson et al., 2008; Center for Mental Health in Schools, 2010; Calkins et al., 2007; Duke, 2006b; Duke, 2008; Hassel & Hassel, 2009; Herman et al., 2008; Kutash et al., 2010; Rhim et al., 2007; Viadero, 2009). Many researchers support the need for further studies of effective strategies to turnaround low performing schools due to the limited information available on the topic (Calkins et al., 2007; Center for Mental Health in Schools, 2010; Hassel & Hassel, 2009; Herman et al., 2008; Kutash, et al., 2010). In 10 case studies of 35 schools that had improved student performance within one to three years, the researchers (Herman et al., 2008) stated that they had to examine “less rigorous case study research and theory to provide practical recommendations about school turnaround practices [because they] did not find any empirical studies that reached the rigor necessary to determine that specific

turnaround practices produced significantly better academic outcomes” (p. 4). In rating their the level of evidence from their research as low, the researchers disclosed that “none of the studies examined...[were] based on a research methodology that yields valid causal inference” (p. 6). As cited in Viadero (2009), Hassel encouraged the federal government to conduct research on the turnaround schools currently receiving grants from ARRA. “At present, we simply do not know whether the journey [of school turnaround] resembles a roller coaster ride, the long slow ascent of a high peak, or a trek consisting of slopes and plateaus” (Duke, 2006b, p. 733).

School turnaround is a relatively new term in the educational field; it not only mandates the improvement of student achievement within a particular setting, but it also involves new leadership, dramatic instructional correction and immediate improvement of student results (Kutash et al., 2010; Rhim, 2012). Ongoing research of the school turnaround process from initiation to completion is needed to provide educational communities with a rich database of effective turnaround strategies (Duke, 2006b; Rhim et al., 2007). “If researchers track turnaround efforts from the get-go they can provide ‘play-by-play’ accounts that identify ‘false positives’, implementation dips, and midcourse corrections” (Duke, 2006b, p. 733). This documented information will become a foundation for schools attempting the challenge of turnaround in the future (Duke, 2006b).

Of the research that is available on school turnaround, many studies have examined the school principals’ impact on the success or failure of the turnaround (Brinson et al., 2008; Hassel & Hassel, 2009; Herman et al., 2008; Kowal et al., 2009; Learning Point Associates, 2009; Rhim et al., 2007; Salmonowicz, 2009; Steiner &

Hassel, 2011). In 2007, the Center on Innovation and Improvement identified and published 14 leader actions that led to successful turnarounds in various sectors of business and education; Brinson et al. (2008) further examined these leader actions by conducting a series of case studies to examine the implication of the leader actions within successful turnaround schools. While the researchers provided various examples of real-world leader actions in schools, they made the caveat that the schools studied were defined as successful turnarounds by making Adequate Yearly Progress (AYP) after one year and made the claim that they could not determine the sustainability of success (Brinson et al., 2008).

Based on case studies of 35 turnaround schools across the country, Herman et al. (2008) developed four recommendations for successful turnaround that required direct actions of the turnaround leader: (1) signal the need for dramatic change with strong leadership, (2) maintain a consistent focus on improving instruction, (3) make visible improve early in the school turnaround process, and (4) build a committed staff. Similarly, Hassel and Hassel (2009) conducted a study of successful turnarounds in the business world, noting that there were few cases of successful school turnarounds of which to gather information. In their examination of the turnarounds of Continental Airlines and the New York Police Department (NYPD), Hassel and Hassel (2009) concluded that “bad-to-great transformations require a point-guard leader who both drives key changes and deftly influences stakeholders...the leader is the unapologetic driver of change in successful turnarounds” (p. 23). In their study of the successful organizational transformations, they identified six actions that were consistent in the process of successful turnaround; (1) focus on a few early wins, (2) break organizational

norms, (3) push rapid-fire experimentation, (4) get the right staff, right the remainder, (5) drive decisions with open-air data, and (6) lead a turnaround campaign; all of which, the researchers claimed, must be facilitated by a competent and fearless leader (Hassel & Hassel, 2009). Based on cross-sector research, Kowal et al. (2009) developed an issue brief for district leaders outlining seven steps for successful school turnarounds; three of the seven steps directly involved the impact of the school leader on the success of the school: (1) develop a pipeline of turnaround leaders, (2) give leaders the “big yes”, and (3) hold leaders accountable for results. Kowal et al. (2009) described district administrations’ responsibility to allow principals the autonomy to make bold decisions and move forward with actions without hesitation, summarizing the strategy as giving leaders the “big yes” to bring change to their buildings.

In recognizing that failing schools most frequently impact minority populations, researchers urge a shift in the way educators refine the system (Calkins et al, 2007; Haynes, 2009; Schott Foundation for Public Education, 2012). In describing the efforts necessary to address the needs of the “high-poverty student populations they [turnaround schools] tend to serve” (p. 22), Calkins et al. (2007) argued that schools need to implement new strategies to make dramatic gains in student achievement. “When educators do succeed at educating poor minority students up to national standards of proficiency, they invariably use methods that are radically different and more intensive than those employed in most American public schools” (Calkins et al., 2007, p. 22).

Mass Insight published the “HPHP Readiness Model” (Calkins et al., 2007, p. 3) after an extensive study on numerous high-performing, high-poverty (HPHP) schools around the country; the researchers outlined nine effective strategies for affecting change

in schools that had the greatest needs. Calkins et al. (2007) graphically represented their model by using a triangle, dividing the nine strategies into three categories, (1) students' readiness to learn, (2) teachers' readiness to teach, and (3) administrators' readiness to act. The researchers of the HPHP model concluded that successful HPHP schools transformed their concept of schooling from an "Old-World" model—a linear, curriculum-driven 'conveyor belt'" to a "New-World model [that] evokes instead the sense of a medical team rallying to each student" (Calkins et al., 2007, p. 3) represented by converging arrows at the center of the triangle. The nine strategies provided a framework for actions to successfully turnaround low performing schools with high poverty rates; similar to other turnaround research, the framework required cultures of collaborative professionals, individualized instruction focused on learning, and shared responsibility for results (Haynes, 2009). Table 3 summarizes the nine strategies found to be effective in HPHP schools around the country:

Table 3

Nine Effective Strategies in HPHP Schools

Category	Strategy
Readiness to Learn	1. Safety, Discipline, and Engagement
	2. Action Against Adversity
	3. Close Student-Adult Relationships
Readiness to Teach	4. Shared Responsibility for Achievement
	5. Personalization of Instruction
	6. Professional Teaching Culture
Readiness to Act	7. Resource Authority
	8. Resource Ingenuity
	9. Agility in the Face of Turbulence

Notes. Adapted from National Association of School Boards of Education Press Release 17(7), “State Strategies for Turning Around Low-Performing Schools and Districts”. (2009, June)

While not specifically citing research in turnaround schools, Fullan, Hill and Crévola (2006) supported the idea of a systematic shift in education to a more personalized instructional focus; “wave after wave of reform initiatives constantly disrupt the surface life of schools but rarely penetrate deeply into the classroom to bring about systematic improvements in instruction” (p. 42). Mero and Hartzman (2012) also highlighted consistencies in the areas of “collaborative leadership...personalization of the school environment...and curriculum, instruction and assessment that are aligned with state and local standards” (p. 19) as common characteristics that enabled 10 schools to earn recognition by MetLife Foundation as National Association of Secondary School Principals (NASSP) Breakthrough Schools. While not turnaround schools, the

Breakthrough Schools in the study did make achievement gains over time by ultimately changing the structures and conceptual beliefs of education (Mero & Hartzman, 2012).

Conclusion

The primary investigator conducted an examination of literature on the history of national policies and federal involvement in local school systems. While not outlined as a national responsibility by the Constitution of the United States, under the current administration of President Obama the nation's low performing schools were given financial support to implement federally mandated reform movements. Many researchers claimed the existence of a high number of failing schools is a result of NCLB - federal legislation developed by the administration of former President Bush. While the legislation highlighted the need for the nation's schools to address the growing achievement gaps, researchers believed that unrealistic goals without practical supports resulted in schools around the country narrowing their instructional focus and obtaining failure status. Though sparse, the primary investigator examined literature on the topic of school turnaround and identified consistent themes found in successful schools. The majority of the research examined was in regards to the leaders' impact on school turnaround. While additional research is needed, the primary investigator developed a study that addressed gaps presented in the literature.

In Chapter 3, the primary investigator discusses the plan for the two-year study of a group of students attending Shady Oak Middle, a defined turnaround school, based on the goals outlined in the SIG in alignment with the Missouri Department of Elementary and Secondary Education goals for school turnaround. Within the chapter, the statistical tests will be described in detail and the reader will be given a numerical view of the

make-up of the students in the study. The two-year journey will be mapped out in detail so that the reader will have a clear image of the desired destination.

Chapter Three: Planning the Journey

In this chapter, the primary investigator describes the statistical tests and methodologies that were used in the development and completion of the two-year study in a turnaround school. The author divided the chapter into three sub-headings: 1) Examining the Map, 2) Gathering Travelers, and 3) Mapping the Path. The sub-headings are intended to guide the reader through a description of the overall data that was collected throughout the study, the method and reasoning behind selecting participants, and a plan for conducting statistical analysis of the data collected.

Examining the Map

The primary investigator examined the relationship between implementation of the turnaround school goals set by the state of Missouri and change in student performance on standardized state tests. Through the course of two years, the primary investigator gathered quantitative data on goals defined by the state of Missouri as target areas of the turnaround process: (1) student performance- MAP scores, grade point averages, student attendance and number of referrals, (2) highly qualified staff- teacher attendance, (3) facilities, support, and instructional resources- students' reading levels, enrollment in reading class, enrollment in summer school programs, and (4) parent and community involvement- number of contacts made to families. The fifth goal of school turnaround, governance and leadership, was examined with a regression analysis relationships between the variables in the study. As indicated in Chapter 2, much of the research in the field of school turnaround was focused on the actions of the leader. The purpose of this study was to quantitatively measure relationships between variables directly impacting students and students' performance on the state exams, thus providing

the primary investigator with evidence of which to form conclusions on effective and ineffective school turnaround practices.

The primary investigator evaluated the effectiveness of implementation of the turnaround strategies to meet the five goal areas and analyzed the growth of a random selection of sixth grade students' ($N=50$) performance on the Communication Arts and Math Missouri Assessment Program (MAP) exams. In examining the technical report developed and published by CTB/McGraw-Hill LLC (2009), "MAP is designed to measure how well students acquire the skills and knowledge described in Missouri's Grade-Level Expectations (GLEs)...this information is used to diagnose individual student strengths and weaknesses...and to gauge the overall quality of education throughout Missouri" (p. 4). In the report (CTB/McGraw-Hill LLC, 2009) the reliability and validity of the MAP test scores were evaluated:

The reliability of raw scores on the MAP tests was evaluated using Cronbach's (1951) coefficient alpha, which is a lower-bound estimate of test reliability. The reliability coefficient is a ratio of the variance of true test scores to those of the observed scores, with the values ranging from 0 to 1. The closer the value of the reliability coefficient is to 1, the more consistent the scores, where 1 refers to a perfectly consistent test. As a rule of thumb, reliability coefficients that are equal to or greater than 0.8 are considered acceptable for tests of moderate lengths...the reliability coefficients for the MAP...are 0.90 or greater for all tests indicating acceptable reliability. (p. 137)

The primary investigator compared the students' fifth grade, sixth grade, and seventh grade MAP scores to analyze overall growth made throughout the course of the

two-year study. The primary investigator applied a multiple regression analysis to identify the relationships between students' scores on the MAP exam and quantitative data gathered on the targeted goal areas defined by the state of Missouri in the school turnaround process. Growth was measured through an examination of the percentage of students scoring proficient or above on the MAP Communication Arts and Mathematics exams, average reading scores, average occurrences of discipline referrals, and average attendance rates.

Research supports the importance of analyzing the overall growth of students based on various data sources (Chappuis, 2005; Schlechty, 2002). "Standardized testing information is less useful, however, when it comes to informing the continuous instructional decisions that help each state attain state standards" (Chappuis, 2005, p. 196). Chappuis (2005) continued his argument by saying, "this is not to argue that all such tests are unhelpful...indeed, they have an important role to play in securing public confidence in the accountability of schools" (p. 19). Schlechty (2002) also believed that various forms of data are needed to generate a true picture of an organization; "the effects of an overemphasis on test scores can be harmful...growth and continuing improvement and the ability to respond to changing demographics and market conditions are all matters that must be taken into account when assessing the performance of organizations and the people in them" (Schlechty, 2002, p. 93). While the dependent variable in the study was the students' proficiency scores on state mandated tests, student performance was also indicated by three independent variables; (1) students' annual grade point averages in sixth and seventh grades, (2) the number of office referrals for discipline that the students' received each year, and (3) students' annual attendance rate for both years.

Gathering discipline and attendance data generated a picture of whole school improvement, providing evidence of areas of student growth other than academic.

The primary investigator collected data on the presence of highly qualified staff as a component of analyzing effective school improvement. While the objective of the education system is to provide students with the knowledge and skills needed to be successful and productive members of society, research indicates that highly effective teachers are necessary for the systems to be effective (Chenoweth, 2009). Using a stratified sample of newly hired and retained teachers directly teaching the students in the study, the primary investigator documented overall yearly attendance. As stated in Chapter 2, due to high number of new staff at the targeted school site, many of the absences were a result of professional development needs of the teachers. It was found that because the sample of students were selected from the same grade, thus the same group of teachers, the attendance rates of teachers did not vary student to student. The primary investigator deleted the variable from the multiple regression due to the lack of variance in attendance rates of teachers.

Research found that the development of an early warning and support system to provide students with individualized interventions contributed to improvement in student performance (Kutash et al., 2010). To evaluate if students in the study received necessary supports to raise achievement, the primary investigator gathered of data about the facilities, support and instructional resources available. Data were collected on each student's grade level reading proficiency as measured by the Scholastic Reading Inventory four times a year and his or her involvement in a reading intervention program each year. As published in the Scholastic Reading Inventory Technical Guide (Scholastic

Inc., 2007), numerous studies have confirmed the reliability and validity of the Scholastic Reading Inventory in determining students' reading levels. Scholastic, Inc. (2011) designed and published a reading program called READ 180, which has been proven to improve students' reading comprehension. "More than a decade of validation through research and practice has affirmed *READ 180's* effectiveness...*READ 180* Next Generation builds on the proven model to provide an enhanced intervention that is more efficient than ever at preparing students" (Scholastic, Inc., 2011, p. 4). Students' enrollment in the READ 180 class was documented as additional instructional support. The primary investigator also documented students' enrollment in a summer school learning academy. The criteria and purpose of the summer academies were different each year of the study. The 2010 summer academy was open to all incoming sixth grade students. While not mandated, enrollment was strongly suggested for students whose SRI scores were below grade level. The 2011 summer academy was open to all students, but mandated for students that failed either their communication arts or math classes the previous school year. There was an instructional focus in both academies on communication arts and math skills.

Research shows that parents who are welcomed and who feel they are valued members of the educational community become active in the process of school improvement (Fullan, 1997). Fullan (1997) claimed the success of partnerships between home and school depended on school leaders' support of "a systemic shift in the relation between the communities and school that is both inevitable and that contains the seeds of necessary realignment with the family and other social agencies" (p. 22). To quantify the involvement of parents in the improvement of student performance at Shady Oak Middle

School, the primary investigator collected data on the number of contacts made by school staff to the parents of the students in the study. Each time a staff member contacted a parent by phone, email or in person, they were expected to log the contact in an electronic student information system maintained by the district. The contacts made were monitored by the building level principal and encouraged throughout the school year.

Gathering Travelers

At the onset of the study, the primary investigator was a newly appointed administrator at Shady Oak Middle School, and as a regular part of the administrative duties, expected to collaborate with other school and district administrative staff to analyze data from the school population for evaluating the effectiveness of the turnaround plan. As part of the primary investigator's job description, student assessment data, discipline data, and attendance were regularly evaluated. To protect the study from researcher bias, the primary investigator was not assigned to supervise students in the grade level from which the subjects were selected. Also, the primary investigator did not directly supervise or evaluate the staff whose attendance was reviewed as part of this study. The primary investigator identified a random sample of incoming sixth grade students (N=50) for the purpose of this study. Data was also collected from a target population of staff members (N=12) who directly taught the student participants.

Tables 4-9 and Figures 2-5 provide summaries of data collected over the course of the two-year study. Average percentages of all data collected were tabulated and displayed as the total sample, as well as disaggregated by gender and special education status.

Table 4

Summary of MAP Data Collected

Description of Data Collected	Total	Male	Female	Students with Individual Education Plans (IEP)
Total (31 Students)	100%	45%	55%	16%
Proficient/Advanced MAP 2010 Math	19%	16%	3%	0%
Proficient/ Advanced MAP 2011 Math	23%	19%	3%	0%
Proficient/ Advanced MAP 2012 Math	26%	13%	13%	0%
Proficient/Advanced MAP 2010 Comm. Arts	23%	10%	13%	0%
Proficient/Advanced MAP 2011 Comm. Arts	29%	6%	23%	3%
Proficient/Advanced MAP 2012 Comm. Arts	29%	10%	16%	0%

Note. N=31; See Appendix B for complete data table

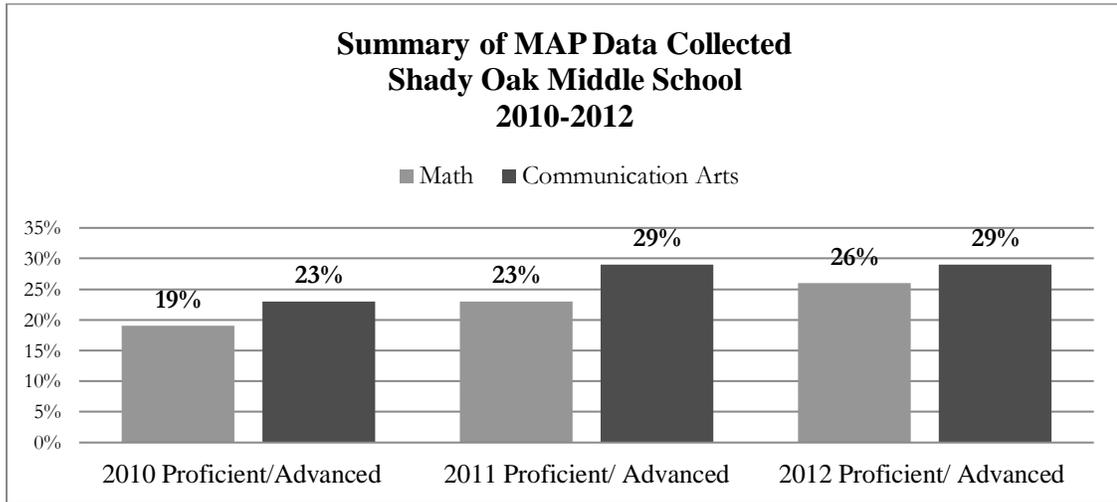


Figure 2. Summary of MAP Data Collected

There was an increase in the percentage of students scoring at the proficient or advanced level between 2010 and 2012 in both Communication Arts and Mathematics. The percentage for students scoring proficient or advanced in Math increased from 19% to 26% and in Communication Arts from 23% to 29%.

Table 5

Summary of Reading Data Collected

Description of Data Collected	Total	Male	Female	Students with Individual Education Plans (IEP)
Total (31 Students)	100%	45%	55%	16%
Proficient/ Advanced Readers August 2010	22%	10%	6%	0%
Proficient/ Advanced Readers August 2011	29%	13%	16%	3%
Proficient/ Advanced Readers August 2012	53%	16%	35%	3%
Participation in a Reading Class in 2010-2011	19%	10%	10%	3%
Participation in a Reading Class in 2011-2012	35%	23%	13%	13%

Note. N=31; See Appendix B for complete data table

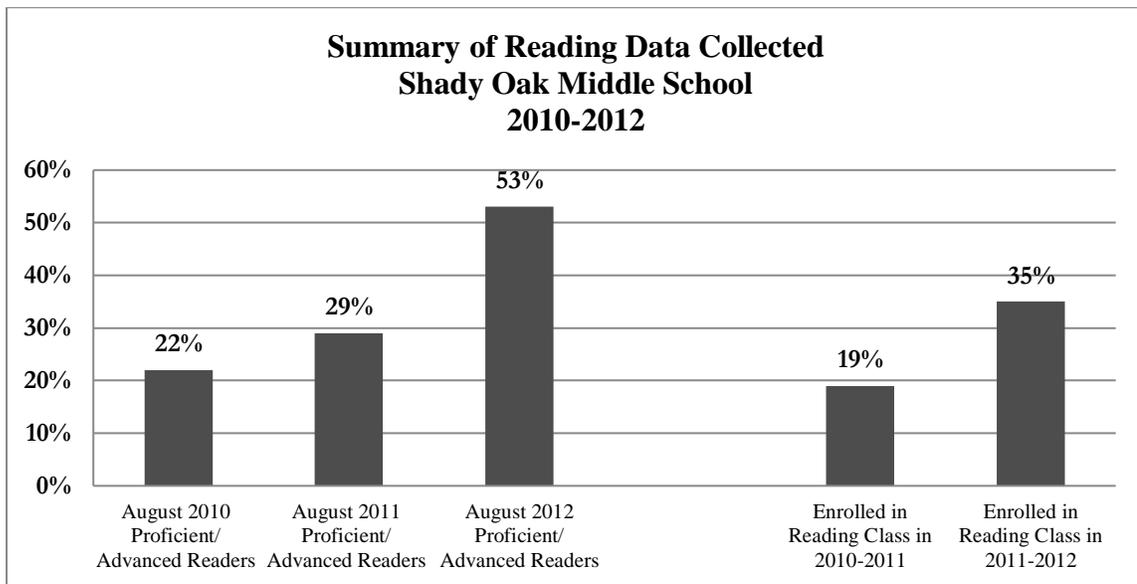


Figure 3. Summary of Reading Data Collected 2010-2012

The percentage of students reading on or above grade level, indicated by the score of proficient or advanced on the SRI increased from 22% to 53% from August 2010 to August 2012. As well, there was also an increase of students enrolled in the READ 180 program aimed at increasing reading comprehension during the second year of the study.

Table 6

Summary of Referral Data Collected

Description of Data Collected	Total	Male	Female	Students with Individual Education Plans (IEP)
Total (31 Students)	100%	45%	55%	16%
Referrals 2010-2011	14%	10%	5%	3%
Referrals 2011-2012	25%	13%	12%	4%

Note. N=31; 2010-2011= 563 total referrals for the entire sixth grade population; 2011-2012= 943 total referrals for the entire seventh grade population; See Appendix B for complete data table

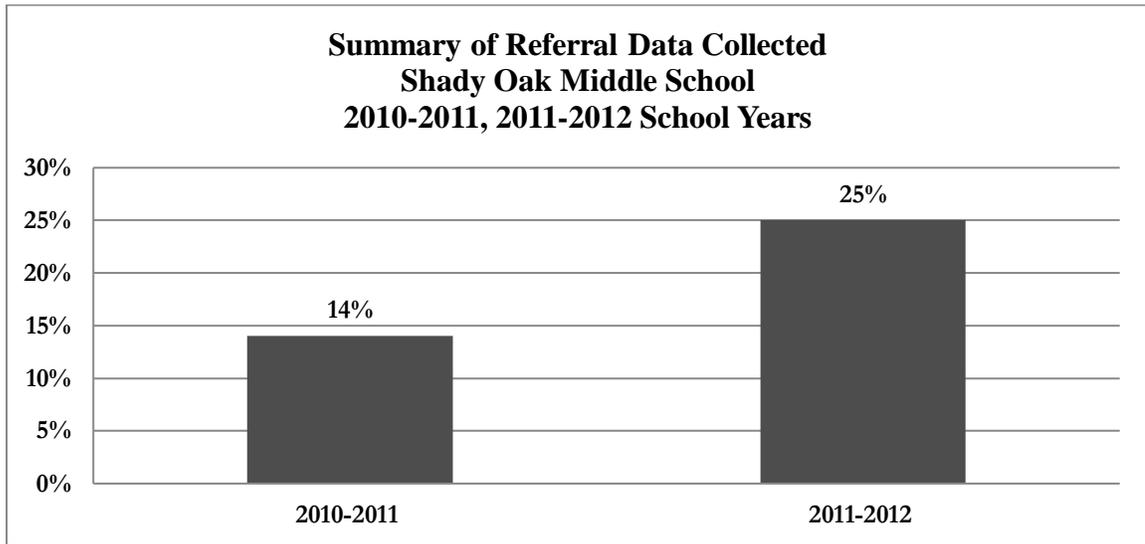


Figure 4. Summary of Referral Data Collected

The total percentage of referrals received by the students in the study increased from 14% to 25% between the two years of the study. In 2010-11 school year the sixth grade class had a total of 563 referrals. The students in the study received 14% of those referrals. During the 2011-12 school year the students in the study received 25% of the 943 referrals given to the seventh grade class.

Table 7

Summary of Average Attendance Rates

Description of Data Collected	Total	Male	Female	Students with Individual Education Plans (IEP)
Total (31 Students)	100%	45%	55%	16%
Attendance 2010-2011 School Year	93%	93%	93%	96%
Attendance 2011-2012 School Year	93%	92%	94%	94%
2010 Summer School Attendance	52%	16%	35%	10%
2011 Summer School Attendance	52%	29%	23%	13%

Note. N=31; See Appendix B for complete data table

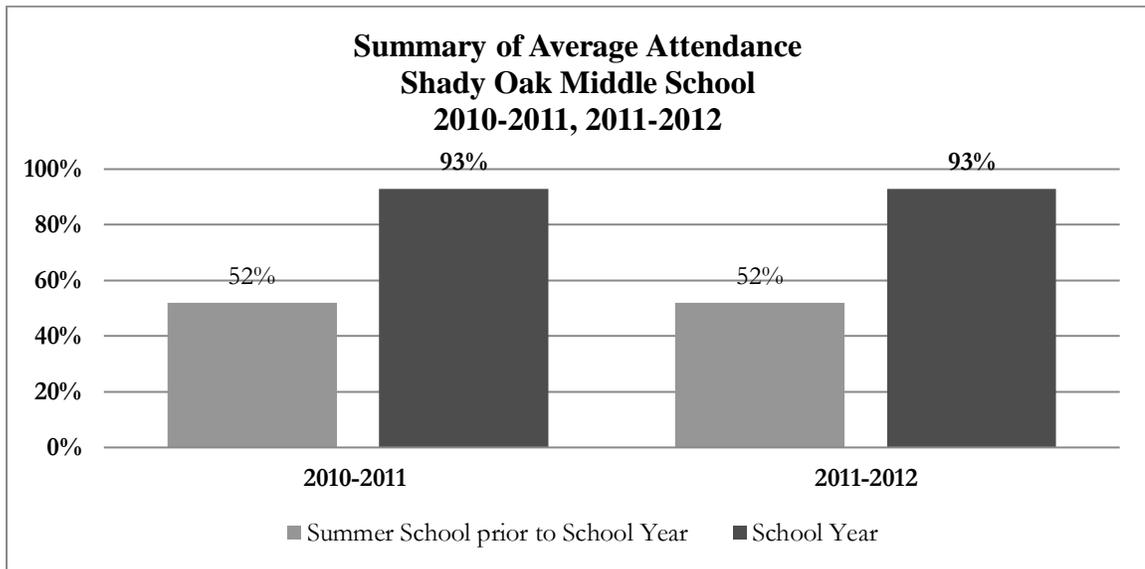


Figure 5. Summary of Average Attendance

While the students who attended summer school were different each year, the total percentage of students who attended was consistent from 2010 and 2011. The average attendance of students attending school during the school years 2010-2011 and 2011-2012 also remained consistent at 93%.

Table 8

Summary of Parent Contact Data Collected

Description of Data Collected	Total	Male	Female	Students with Individual Education Plans (IEP)
Total (31 Students)	100%	45%	55%	16%
Parent Contacts 2010-2011	100%	56%	44%	20%
Parent Contacts 2011-2012	100%	47%	53%	11%

Note. $N=31$; 2010-2011= 579 total contacts logged to families of the students in the study; 2011-2012= 508 total contacts logged to the families of the students in the study; See Appendix B for complete data table

Table 9

Summary of Grade Point Averages Collected

Description of Data Collected	Total	Male	Female	Students with Individual Education Plans (IEP)
Total (31 Students)	100%	45%	55%	16%
Grade Point Average 2010-2011	2.6	2.5	2.7	2.4
Grade Point Average 2011-2012	2.5	2.5	2.7	2.4

Note. $N=31$; See Appendix B for complete data table

Mapping the Path

Throughout the study, the primary investigator collected data and analyzed to provide an adequate description of the process of school turnaround at Shady Oak Middle School. The collection of quantitative data is presented in Chapter 4 as a comprehensive analysis of the effects of turnaround model implementation on student achievement. The purpose of this study was to examine the relationship between the turnaround goals defined by the Missouri Department of Elementary and Secondary Education and

students' performance on standardized state exams in a turnaround school setting.

Glickman's (2002) view on continuous improvement indicated that school leaders must be strong advocates of change through continual evaluation of the process; he argued that the process requires a constant effort to evaluate the current situation of the school, examine and implement methods of instruction that improve the school and encourage innovation of new ideas. Through a thorough exploration of the implementation of strategies to meet the turnaround goals and a detailed examination of data, the results of this study could help many schools in the future facing the need for immediate school reform.

- Null Hypothesis #1: There will be no increase in the proportion of students achieving Proficient and Advanced, as measured by the Communication Arts Missouri Assessment Program (MAP) exam.
- Null Hypothesis #2: There will be no increase in the proportion of students achieving Proficient and Advanced, as measured by the Mathematics Missouri Assessment Program (MAP) exam.

Hypotheses #1 and #2 were tested by first applying analysis of variance (ANOVA) tests on a sample of 31 participants to examine for any difference in the number of students meeting or exceeding proficiency on the Communication Arts and Mathematics MAP tests between years one, two, and three (Turnaround Goal 1). "When an *F* test is used to test a hypothesis concerning the means of three or more populations, the technique is called analysis of variance" (Bluman, 2008, p. 592). By applying the ANOVA test, the primary investigator determined the necessity of conducting any further tests to examine for increases in test scores over the two-year study. If the null

hypothesis was rejected in the ANOVA, the primary investigator applied left-tailed z -tests for proportions to determine between which years there were statistical differences in the proportions of students meeting or exceeding proficiency on the MAP tests. The primary investigator used z tests because the population standard deviation was unknown, and the sample size of students in the study was greater than 30 (Bluman, 2008). To account for potential confounding variables, the tests were run at a significance level of 0.05 allowing the primary investigator to report the results of the statistical analyses with a 95% confidence that the population proportion was contained within the sample (Bluman, 2008).

- Null Hypothesis #3: There will be no increase in student achievement, as measured by the Communication Arts Missouri Assessment Program (MAP) exam.
- Null Hypothesis #4: There will be no increase in student achievement, as measured by the Mathematics Missouri Assessment Program (MAP) exam.

While Hypotheses #1 and #2 provided the primary investigator with information as to proportion of students meeting or exceeding the state proficiency level, Hypotheses #3 and #4 were tested to examine the growth of the students' average scores provided information to predict future proficiency rates. The primary investigator ran ANOVA tests on students' average scale scores on the Mathematics and Communication Arts MAP exams to determine if there was a significant difference between years one, two, and three. If the null hypothesis was rejected, Hypotheses #3 and #4 were tested by applying left-tailed z -tests for the differences of the means of students' scale scores on the

MAP tests between years one and two, two and three, and one and three, using a 0.05 significance level, to determine in which year students significantly increased their scores.

To quantify student performance in various areas of development, the primary investigator analyzed the significance of growth in reading levels, discipline referrals, and attendance rates. Hypotheses #5 and #8 were tested by applying left-tailed z -tests for proportions at a .05 significance level to determine if there was an increase in reading levels and average rate of student attendance between the two years of the study. Hypothesis #7 was tested by applying a right-tailed z -test with a 0.05 significance level to determine if the number of discipline referrals decreased from year one to year two of the study, thus indicating improvement in the school environment.

The primary investigator applied the ANOVA test to Hypothesis #6 to determine if there was a significant difference in the reading levels of students at the beginning of school years 2010, 2011, or 2012. If the null hypothesis was rejected and there was found to be a significant statistical difference between the reading levels of students within any of the years, the primary investigator conducted two left-tailed z -tests for the differences of means at a significance level of 0.05 between August 2010 to August 2011 and August 2011 to August 2012 to examine in which year of the study the increase occurred.

- Null Hypothesis #5: There will be no increase in the proportion of students reading on or above grade level, as measured by the Scholastic Reading Inventory (SRI).

- Null Hypothesis #6: There will be no increase in student reading levels, as measured by the Scholastic Reading Inventory.
- Null Hypothesis #7: There will be no decrease in the proportion of student discipline referrals.
- Null Hypothesis #8: There will be no increase in student attendance rate.

To answer the research question, “What is the relationship of students’ academic performance, reading proficiencies, behavior, attendance rates, and parental involvement to their average scores in Communication Arts and Math on the MAP test in a middle school that has adopted the turnaround model of reform?” the primary investigator ran a multiple regression analyses using each year’s Communication Arts and Math MAP scores as the dependent variables. The null hypotheses were as follows:

- Null Hypothesis #9: There is no relationship between the dependent variable of 2011 Mathematics MAP scores and the independent variables of students’ average rate of reading growth, enrollment in a reading class, average number of office referrals for discipline, average attendance rate, average number of contacts made to the students’ families, grade point averages, enrollment in summer school and average rate of attendance of the students’ teachers.
- Null Hypothesis #10: There is no relationship between the dependent variable of 2011 Communication Arts MAP scores and the independent variables of students’ average rate of reading growth, enrollment in a reading class, average number of office referrals for discipline, average attendance rate, average number of contacts made to the students’

families, grade point averages, enrollment in summer school and average rate of attendance of the students' teachers.

- Null Hypothesis #11: There is no relationship between the dependent variable of 2012 Mathematics MAP scores and the independent variables of students' average rate of reading growth, enrollment in a reading class, average number of office referrals for discipline, average attendance rate, average number of contacts made to the students' families, grade point averages, enrollment in summer school and average rate of attendance of the students' teachers.
- Null Hypothesis #12: There is no relationship between the dependent variable of 2012 Communication Arts MAP scores and the independent variables of students' average rate of reading growth, enrollment in a reading class, average number of office referrals for discipline, average attendance rate, average number of contacts made to the students' families, grade point averages, enrollment in summer school and average rate of attendance of the students' teachers.

In the multiple regression analysis, the primary researcher used a correlation analysis to determine the existence of relationships between the dependent variables- the students' MAP scores- and each independent variable- the students' number of referrals, attendance rates, reading proficiency rates as measured by the SRI, enrollment in reading or summer school programs, grade point averages, number of contacts made to the students' parents, and teacher attendance rates. The primary investigator examined the Pearson product moment correlation coefficient (PPMC), represented as the r value, to

determine if further investigation of the relationships between the independent variables and dependent variables were necessary (Bluman, 2008). If significant relationships were found, the primary investigator analyzed the coefficient of determination, represented by r^2 , to identify the possible percentage that the independent variables contributed to the students' MAP scores.

Conclusion

Similar to making preparations for any journey, the primary investigator developed a plan for collecting data throughout the two-year journey through school turnaround, organized the data and developed the most appropriate tests to obtain answers to the research question. Because of the primary investigator's professional position within the study site, there were plans made to avoid researcher bias in the collection of data. Each hypothesis was tested according to a plan for obtaining specific statistical results. ANOVA, z -tests, and a multiple regression provided the primary investigator with a variety of statistics of which to form conclusions on effective or ineffective practices in a turnaround school.

The primary investigator will discuss the results of the statistical analyses on the data collected throughout the study in chapter four. Reflections of the two-year journey will be shared to provide a complete analysis of the impact of this study to the field of turnaround research.

Chapter Four: The Journey

In this chapter, the primary investigator describes the results of the statistical tests outlined in Chapter 3. Each hypothesis and research question is followed by a summary of the statistical analysis and a statement of findings. This information should generate an image of the journey through two years of school turnaround following a sample of 31 students through sixth and seventh grades. Due to high transiency of the population of students at Shady Oak Middle School noted in Chapter 1, the sample of 50 of students that began the study in 2010 dropped to 31 subjects by the end of the two years. Due to the decrease in the population, all tests in Chapter 4 were conducted with a sample size of 31 subjects.

Academic Performance

Table 10 is a summary of test-values generated in comparison of the year-to-year proportion of students scoring proficient and above on the Communication Arts and Mathematics MAP assessment for 2010-2011, 2011-2012 school years. A z -test for difference in proportions was applied to determine if a significant increase in proportion occurred for each indicated timeframe.

Null Hypothesis #1. There will be no increase in the proportion of student achieving proficient and advanced, as measured by the Communication Arts MAP exam.

Table 10

Left-Tailed Z-tests for Proportions of Students Scoring Proficient or Advanced

	Communication Arts MAP z Scores	Mathematics MAP z Scores
2010-2011	-0.580	-0.310
2011-2012	0	-0.297
2010-2012	-0.580	-0.607

Note. Significance level= 0.05; Critical Value= -1.645

The primary investigator conducted a left-tailed z -test for proportions to test for a significant increase in students scoring proficient or advanced on the state exams. The results of the test indicated that there was not a significant difference between any of the three years examined. The critical value for the test conducted at a 0.05 significance level was -1.645. The z -score when comparing the proportion of students scoring proficient or advanced between 2010 and 2011 was -0.580, thus the primary investigator did not reject the null hypothesis. The same test yielded similar results when comparing the proportions of students in 2011 and 2012. Using the same confidence level and critical value, $z = 0$. When examining for significant increase in the proportion of students scoring proficient or advanced over the course of two years in a turnaround school, the primary investigator again did not reject the null hypothesis. Comparing the proportions of students meeting proficiency between 2012 and 2010 resulted in a z score of -0.580, not falling into the critical range. Based on the results of these three tests, the primary investigator concluded that there was not a statistical increase of students meeting or exceeding proficiency in Communication Arts over the course of the two-year study.

Null Hypothesis #2. There will be no increase in the proportion of students achieving proficient and advanced, as measured by the Mathematics MAP exam.

All of the three left-tailed z -tests for proportions examining the increase in the proportion of students meeting or exceeding proficiency on the Mathematics MAP test resulted in rejection of the null hypotheses. None of the z -scores comparing proportions fell within the critical range noted by a -1.645 critical value at a 0.05 significance level. Given the following z -scores, $z = -0.310$, $z = -0.297$, $z = -0.607$, for 2010 to 2011, 2011 to 2012, and 2010 to 2012 respectively, the primary investigator concluded that there was not a significant increase in the proportion of students achieving proficient or advanced on the mathematics MAP exam throughout the two years of the study.

Null Hypothesis #3. There will be no increase in student achievement, as measured by the Communication Arts Missouri Assessment Program (MAP) exam.

Table 11 is a summary of test-values generated from an ANOVA to determine if there was a significant difference between 2010, 2011 and 2012 MAP Communication Arts scale scores. If a difference was found, the z -test for difference in means was applied to determine in which years there was a significant difference.

Table 11

ANOVA: *Communication Arts Scale Scores 2010-2012*

SUMMARY						
<i>Groups</i>	<i>Count</i>	<i>Sum</i>	<i>Average</i>	<i>Variance</i>		
2010 MAP-CA Score	31	20331	655.8387	602.2731		
2011 MAP-CA Score	31	20344	656.2581	601.4645		
2012 MAP-CA Score	31	20574	663.6774	850.7591		

ANOVA						
<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Between Groups	1205.57	2	602.7849	0.880194	0.418242	3.097698
Within Groups	61634.9	90	684.8323			
Total	62840.47	92				

Note. Significance level= 0.05

The primary investigator conducted an ANOVA to determine if there was a difference in the Communication Arts MAP average scale scores between 2010, 2011, or 2012. The null hypothesis was not rejected because the *F* value of 0.880 did not fall into the critical range of greater than 3.098; therefore, there was not a significant statistical difference between the students' scale scores on the Communication Arts MAP test between 2010, 2011, or 2012. Because there was not a statistical difference in the scores between any of the three years, the primary investigator did not conduct further testing to examine if the scores increased over the course of the study.

Null Hypothesis #4. There will be no increase in student achievement, as measured by the Mathematics Missouri Assessment Program (MAP) exam.

Table 12 is a summary of test-values generated from an ANOVA to determine if there was a significant difference between 2010, 2011, and 2012 MAP Mathematics scale

scores. If a difference was found, the z -test for difference in means was applied to determine between which years there was a significant difference.

Table 12

ANOVA: Mathematics Scale Scores 2010-2012

SUMMARY						
<i>Groups</i>	<i>Count</i>	<i>Sum</i>	<i>Average</i>	<i>Variance</i>		
2010 MAP-MA Score	31	19945	643.39	799.51		
2011 MAP-MA Score	31	20579	663.84	1043.94		
2012 MAP-MA Score	31	20760	669.68	1439.09		

ANOVA						
<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Between Groups	11816.58	2	5908.29	5.40	0.006	3.10
Within Groups	98476.32	90	1094.18			
Total	110292.90	92				

Note. Significance level= 0.05

The primary investigator conducted an ANOVA test to determine if there was a statistical difference between the three years of MAP scores. After running the test, the primary investigator rejected the null hypothesis because the F -value of 5.400 was greater than the critical value of 3.098, thus concluding that there was a significant difference between at least two years of the student's scale scores on the Mathematics MAP in the study.

To determine in which year students made significant statistical growth on their Mathematic MAP tests based on average scale scores, the primary investigator used two left-tailed z -tests for the difference of the means of students' scale scores on the MAP tests between 2010 and 2011, and 2011 and 2012, using a 0.05 significance level.

Table 13 is a summary of test-values generated in comparison of the year-to-year means scores of students on the Mathematics MAP assessment for 2010 and 2011. A z-test for difference in means was applied to determine if a significant increase in students' Mathematic scores on the MAP occurred for each indicated timeframe.

Table 13

Z-Test: Two Sample for Means of MAP Mathematic Scores in 2010 and 2011

	<i>2010 MAP Math Score</i>	<i>2011 MAP Math Score</i>
Mean	643.3870968	663.8387097
Known Variance	799.512	1043.94
Observations	31	31
Hypothesized Mean Difference	0	
z	-2.652115868	
P(Z<=z) one-tail	0.003999454	
z Critical one-tail	1.644853627	
P(Z<=z) two-tail	0.007998909	
z Critical two-tail	1.959963985	

Note. Significance level= 0.05

Null Hypothesis: There will be no increase in the students' average Mathematic MAP scores between the years 2010 and 2011.

The primary investigator rejected the null hypothesis since the z-value of -2.652 is less than the critical value of -1.645, concluding there was a significant increase in the average Mathematic MAP scale scores of students' between 2010 to 2011.

Table 14 is a summary of test-values generated in comparison of the year-to-year means scores of students on the Mathematics MAP assessment for 2011 and 2012. A z-test for difference in means was applied to determine if a significant increase in students' Mathematic scores on the MAP occurred for each indicated timeframe.

Table 14

Z-Test: Two Sample for Means of MAP Mathematic Scores in 2011 and 2012

	<i>2011 MAP Math Score</i>	<i>2012 MAP Math Score</i>
Mean	663.8387097	669.6774194
Known Variance	1043.94	1439.092
Observations	31	31
Hypothesized Mean Difference	0	
<i>z</i>	-0.65238891	
P(Z<=z) one-tail	0.257075158	
<i>z</i> Critical one-tail	1.644853627	
P(Z<=z) two-tail	0.514150317	
<i>z</i> Critical two-tail	1.959963985	

Note. Significance level= 0.05

Null Hypothesis: There will be no increase in the students' average Mathematic MAP scores between the years 2011 and 2012.

In analyzing the results from a test comparing the means of the students' scores on the Mathematics MAP test in 2011 to 2012, the primary investigator found that there was not a significant increase during the second year of the study. The null hypothesis was not rejected because the *z* value of -0.652 is less than the critical value of -1.645. The primary investigator concluded that there was a significant increase in students' scores on the Mathematics MAP test over the course of the two-year study; more specifically, based on the results of these tests, the investigator identified significant gains in the first year of school turnaround at Shady Oak Middle.

Reading Performance

Null Hypothesis #5. There will be no increase in the proportion of students reading on or above grade level, as measured by the Scholastic Reading Inventory (SRI).

Table 15 is a summary of test-values generated in comparison of the year-to-year proportion of student reading at or above grade level for 2010-2011, 2011-2012. A z-test for difference in proportions was applied to determine if a significant increase in proportion occurred for each indicated timeframe.

Table 15

Left-Tailed Z-tests for Proportions of Proficient or Advanced Readers 2010-2012

SRI Proficient/Advanced Readers z Scores	
2010-2011	-0.591
2011-2012	-1.929
2010-2012	-2.409

Note. Significance level= 0.05; Critical Value= -1.645

The primary investigator conducted a left-tailed z-test for difference in proportions to examine the claim that there would be no increase in students reading at or above a proficient level for their grade. The test examined the difference of the proportion of students reading at or above grade level at the beginning of each school year 2010, 2011, and 2012. Based on the results of the three tests conducted, there was evidence to support a significant increase in the proportion of students reading on or above grade level over the course of the two-year study. When conducting the test for the difference between 2010 and 2011, the primary investigator did not reject the null hypothesis since the z-test value of 0.591 did not fall in the critical range indicated by the critical value of 1.645. Therefore, there was no significant increase noted in the first year of the study. The primary investigator repeated the test to examine the difference of on

or above grade level readers between the August 2011 and August 2012 and found a significant statistical increase between the two years. The test comparing the proportion of students reading on or above grade level from August 2011 to August 2012 yielded a z-score of -1.929, thus the primary investigator rejected the null hypothesis at a 0.05 significance level and concluded there was a significant increase in students reading on or above grade level during the second year of the study.

Null Hypothesis #6. There will be no increase in student reading levels, as measured by the Scholastic Reading Inventory.

Table 16 is a summary of test-values generated from an ANOVA to determine if there was a significant difference between 2010, 2011, and 2012 Average SRI Scores. If a difference is found, the z-test for difference in means will be applied to determine between which years there was a significant difference.

Table 16

ANOVA: Average Scholastic Reading Inventory Scores in August of 2010-2012

SUMMARY						
<i>Groups</i>	<i>Count</i>	<i>Sum</i>	<i>Average</i>	<i>Variance</i>		
		2306	743.903	47400.8903		
Aug 2010 SRI	31	1	2	2		
		2501	807.064	59808.0623		
Aug 2011 SRI	31	9	5	7		
		2801	903.838	39858.5397		
Aug 2012 SRI	31	9	7	8		

ANOVA						
<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Between Groups	402317.505	2	201158.8	4.10339666	0.01970	3.09769
Within Groups	4412024.77	90	49022.5			
Total	4814342.28	92				

Note. Significance level= 0.05

To determine if there was a significant statistical difference between the three years of students' reading levels, the primary investigator conducted an ANOVA test examining the difference of students' SRI scores at the beginning of each school year, August 2010, August 2011, and August 2012. For students who did not have a score listed for one of these months, the primary investigator used the students' SRI score from May of the previous school year. The ANOVA test results allowed the primary investigator to reject the null hypothesis, concluding that there was a significant difference in the students' reading levels as measured by SRI between at least two of the three school years.

To determine in which years the students' scores had a significant increase, the primary investigator conducted three z -tests comparing the averages of students' scores between 2010 to 2011, 2011 to 2012, and 2010 to 2012.

Null Hypothesis: There will be no increase in student reading levels, as measured by the Scholastic Reading Inventory (SRI) between 2010 and 2011 school years.

Table 17 is a summary of test-values generated in comparison of the year-to-year means of students' SRI scores for August 2010 and August 2011. A z -test for difference in means was applied to determine if a significant increase in students' SRI scores occurred for each indicated timeframe.

Table 17

Z-Test: Two Sample for Means of SRI Scores in August 2010 and August 2011

	<i>Aug 2010 SRI</i>	<i>Aug 2011 SRI</i>
Mean	743.9032258	807.0645161
Known Variance	47400.89	59808.062
Observations	31	31
Hypothesized Mean Difference	0	
<i>z</i>	-1.07402976	
P(Z<=z) one-tail	0.141404672	
<i>z</i> Critical one-tail	1.644853627	
P(Z<=z) two-tail	0.282809344	
<i>z</i> Critical two-tail	1.959963985	

Note. Significance level= 0.05

In the first *z*-test for difference in means between reading scores in 2010 and 2011, at a 0.05 significance level, the primary investigator did not reject the null hypothesis. The test yielded a result of *z* score of -1.074 which was not greater than the critical value of -1.645, thus remaining out of the critical value range. The primary investigator concluded that there was not a significant increase in the reading levels of students during the first year of the study based on these test results. Because the ANOVA test indicated a difference in at least two of the years of students' reading scores, the primary investigator deduced that there was a significant increase in reading scores during the second year of the study. To confirm this hypothesis, the primary investigator conducted a second *z*-test for difference in means to examine the difference of means between 2011 and 2012.

Null Hypothesis: There will be no increase in student reading levels, as measured by the Scholastic Reading Inventory (SRI) between 2011 and 2012 school years.

Table 18 is a summary of test-values generated in comparison of the year-to-year means of students' SRI scores for August 2011 and August 2012. A *z*-test for difference

in means was applied to determine if a significant increase in students’ SRI scores occurred for each indicated timeframe.

Table 18

Z-Test: Two Samples for Means of SRI Scores in August 2011 and August 2012

	<i>Aug 2011 SRI</i>	<i>Aug 2012 SRI</i>
Mean	807.0645161	903.8387097
Known Variance	59808.062	39858.54
Observations	31	31
Hypothesized Mean Difference	0	
<i>z</i>	-1.706732985	
P(Z<=z) one-tail	0.043935847	
<i>z</i> Critical one-tail	1.644853627	
P(Z<=z) two-tail	0.087871693	
<i>z</i> Critical two-tail	1.959963985	

Note. Significance level= 0.05

The primary investigator rejected the null hypothesis because a *z* score of -1.707, fell within the critical range of -1.645. The primary investigator concluded that there was a significant increase in students’ reading levels during the second year of the study.

Similar results were found when analyzing the difference between reading scores in 2010 and 2012. With a *z*-score of -3.015 and the same critical value, at a 0.05 significance level the primary investigator rejected the null hypothesis and concluded that there was a significant statistical increase in reading scores of students within the two-year study, more specifically gains were made during the second year of turnaround.

Behavior and Attendance

Null Hypothesis #7. There will be no decrease in student discipline referrals between the two years of the study.

Table 19 is a summary of test-values generated in comparison of the year-to-year mean number of referrals for the 2010-2011 and 2011-2012 school years. A *z*-test for

difference in means was applied to determine if a significant decrease in students' referrals occurred for each indicated timeframe.

Table 19

Z-Test: Two Sample for Means of Referrals in 2010-11 and 2011-12 School Years

	<i>2010-11 Referrals</i>	<i>2011-12 Referrals</i>
Mean	2.612903226	7.709677419
Known Variance	7.712	60.88
Observations	31	31
Hypothesized Mean Difference	0	
<i>z</i>	-3.426411405	
P(Z<=z) one-tail	0.000305807	
<i>z</i> Critical one-tail	1.644853627	
P(Z<=z) two-tail	0.000611613	
<i>z</i> Critical two-tail	1.959963985	

Note. Significance level= 0.05

The primary investigator conducted a right-tailed *z*-test at a 0.05 significance level to examine the decrease in student discipline referrals between the two years of the study. The *z*-value of -3.423 did not fall within the critical range marked by the critical value of 1.645, therefore the primary investigator did not have enough evidence to reject the null hypothesis. Based on the results of the test, the primary investigator concluded that there was not a significant decrease in the number of referrals. These results brought to question if the number of referrals was statistically different between the two years or if there was an actual increase in referrals. Examining the results for the *z*-test for two sample means, the primary investigator noted that the critical value for a two-tailed test was ± 1.960 . Because the *z*-score of this test would fall within the critical range, it was concluded that there was a significant difference in the number of referrals between years one and two of the study. A difference in the number of referrals was found between the

two years and the null hypothesis indicating no decrease was not rejected, thus the primary investigator concluded that there was a significant increase in discipline referrals.

Null Hypothesis #8. There will be no increase in student attendance rate over the course of the study.

Table 20 is a summary of test-values generated in comparison of the year-to-year means of attendance for the 2010-2011 and 2011-2012 school years. A z-test for difference in means was applied to determine if a significant increase in students' attendance occurred for each indicated timeframe.

Table 20

Z-Test: Two Sample for Means of Attendance in 2010-11 and 2011-12 School Years

	<i>2010-11 Attendance rate</i>	<i>2011-12 Attendance rate</i>
Mean	93.22419355	93.24129032
Known Variance	15.408	26.135
Observations	31	31
Hypothesized Mean Difference	0	
z	-0.01476883	
P(Z<=z) one-tail	0.494108303	
z Critical one-tail	1.644853627	
P(Z<=z) two-tail	0.988216607	
z Critical two-tail	1.959963985	

Note. Significance level= 0.05

The primary investigator conducted a left-tailed z-test at a 0.05 significance level to examine the difference of attendance rates between the two years of the study. The results of the test produced a z-score of -0.015 with a critical value of -1.645. Because the z-score did not fall within critical range, the primary investigator did not have enough statistical evidence to reject the null hypothesis. Thus, it was concluded that there was not an increase in students' attendance rates over the two year study.

Dependent Relationships in a Turnaround School

A multiple regression test was applied to determine the answer to the research question: What is the relationship of students' academic performance, reading proficiencies, behavior, attendance rates, and parental involvement to their average scores in Communication Arts and Math on the MAP test in a middle school that has adopted the turnaround model of reform? The analysis sought a relationship, not a cause for the results in the dependent variable. Because the sample of students was selected from the same grade and same group of teachers, the rate of teacher attendance was constant and did not have an independent impact on the students' MAP scores.

Null Hypothesis #9: There is no relationship between the dependent variable of 2011 Mathematics MAP scores and the independent variables of students' average rate of reading growth, enrollment in a reading class, average number of office referrals for discipline, average attendance rate, average number of contacts made to the students' families, grade point averages, enrollment in summer school and average rate of attendance of the students' teachers.

Table 21 is a summary of test-values generated in a year-to-year multiple regression analysis of the dependent variables- the students' MAP scores, and various independent variables- the students' average reading growth measured by SRI, enrollment in a reading class, the number of office referrals for discipline, average attendance rate, the number of contacts made to the students' families, grade point averages, enrollment in summer school and the attendance rate of the students' teachers.

Table 21

Multiple Regression Analysis of Dependent and Independent Variables in a Turnaround School

		Dependent Variables							
		MAP Math 2011		MAP Comm. Arts 2011		MAP Math 2012		MAP Comm. Arts 2012	
		<i>t</i> value	<i>r</i> value	<i>t</i> value	<i>r</i> value	<i>t</i> value	<i>r</i> value	<i>t</i> value	<i>r</i> value
Independent Variables	SRI Growth	0.069	0.267	0.651	0.367	-1.097	-0.324	-0.889	-0.331
	Enrollment in Reading Class	-1.474	0.134	0.333	0.401	1.081	0.243	2.043	0.405
	Referrals	1.371	0.169	0.449	-0.011	1.822	-0.123	1.881	-0.207
	Attendance	0.704	0.047	-0.164	0.065	2.475	0.299	1.119	0.113
	Parent Contacts	-0.037	-0.285	-0.357	-0.440	0.248	-0.095	-0.363	-0.195
	Grade Point Average (GPA)	3.423	0.599	3.063	0.745	2.097	0.588	3.058	0.739
	Enrollment in Summer School	1.722	0.141	0.595	-0.042	1.035	0.462	1.973	0.684
	Teacher Attendance	----	----	----	----	----	----	----	----

Note. Significance level= 0.05; Critical Value= 2.042; ---- represents data that was constant and did not have a significant relationship with the dependent variables.

The primary investigator analyzed the results of the multiple regressions to determine the existence of significant relationships between the dependent and independent variables. The *t*-values, when compared to a critical value of 2.042 at a 0.05 significance level, indicated the existence of significant relationships within the data for Enrollment in Reading Class, Attendance, and Grade Point Average. After identifying independent variables that had a significant relationship to the dependent variables, the primary investigator further examined the relationships by evaluating the Pearson Product Moment Correlation Coefficient (PPMC) represented by the *r* value. This provided the primary investigator with data of which to determine possible percentages of contribution that the independent variables had towards the students' achievement scores on the MAP exams.

The primary investigator did not reject the null hypothesis because there were not significant relationships between all variables, but concluded that there was a significant relationship between the independent variable of the students' grade point averages and their scores on the 2011 Mathematics MAP exam. Upon further investigation of the Coefficient of Determination, the primary investigator determined that the students' grade point averages possibly made a 35.9% contribution towards their scores on the Mathematics MAP exam in 2011.

Null Hypothesis #10: There is no relationship between the dependent variable of 2011 Communication Arts MAP scores and the independent variables of students' average rate of reading growth, enrollment in a reading class, average number of office referrals for discipline, average attendance rate, average number of contacts made to the

students' families, grade point averages, enrollment in summer school and average rate of attendance of the students' teachers.

The primary investigator did not reject the null hypothesis because there were not significant relationships between all variables, but concluded that there was a significant relationship between the independent variable of the students' grade point averages and their scores on the 2011 Communication Arts MAP exam. Upon further investigation of the Coefficient of Determination, the primary investigator determined that the students' grade point averages possibly made a 55.5% contribution towards their scores on the Communication Arts MAP exam in 2011.

Null Hypothesis #11. There is no relationship between the dependent variable of 2012 Mathematics MAP scores and the independent variables of students' average rate of reading growth, enrollment in a reading class, average number of office referrals for discipline, average attendance rate, average number of contacts made to the students' families, grade point averages, enrollment in summer school and average rate of attendance of the students' teachers.

The primary investigator did not reject the null hypothesis because there were not significant relationships between all variables, but concluded that there was a significant relationship between the independent variables of the students' grade point averages and the students' attendance and the dependent variable of their scores on the 2012 Mathematics MAP exam. Upon further investigation of the Coefficient of Determination, the primary investigator determined that the students' grade point averages possibly made a 34.6% contribution towards their scores on the Mathematics

MAP exam in 2012 and students' attendance possibly made a 9.0% contribution towards their scores on the same test.

Null Hypothesis #12. There is no relationship between the dependent variable of 2012 Communication Arts MAP scores and the independent variables of students' average rate of reading growth, enrollment in a reading class, average number of office referrals for discipline, average attendance rate, average number of contacts made to the students' families, grade point averages, enrollment in summer school and average rate of attendance of the students' teachers.

The primary investigator did not reject the null hypothesis because there were not significant relationships between all variables, but concluded that there was a significant relationship between the independent variables of the students' grade point averages and the students' enrollment in a reading class and the dependent variable of their scores on the 2012 Communication Arts MAP exam. Upon further investigation of the Coefficient of Determination, the primary investigator determined that the students' grade point averages possibly made a 54.6% contribution towards their scores on the Communication Arts MAP exam in 2012 and students' enrollment in a reading class possibly made a 16.4% contribution towards their scores on the same exam.

Conclusion

Upon inspection of the overall results of the statistical testing conducted for this study, the primary investigator discovered significant relationships between three independent variables and students' performance on state assessments in a turnaround school that made dramatic gains in students' average mathematics MAP scores and students' reading levels over the course of two years. The study revealed that students'

GPA's, participation in a reading program, and attendance each contributed significantly to the students' MAP scores in both communication arts and mathematics.

In Chapter 5, the primary investigator will discuss a summary of milestone findings along the two-year journey, reflect on moments of clarity that were discovered at the end of the journey, and present thoughts for others planning on taking similar journeys through school turnaround.

Chapter Five: Reflection of the Journey

In this chapter, the primary investigator discusses reflections, lessons, and moments of clarity that were discovered throughout the two-year journey through school turnaround. The primary investigator will also present areas for future research that came to light through the analysis of this study. The purpose of this study was to gather evidence with which to form conclusions on effective reform practices within a turnaround school setting by examining the relationships of variables directly influencing student performance.

The primary investigator conducted a review of the historical involvement of the federal government in local school systems to determine the current state of the nation in regards to failing school status. The body of knowledge surrounding the relatively new concept of school turnaround, though sparse, was examined to generate an understanding for the importance of the additional research on effective practices in turnaround schools and identify gaps in the research. To develop a full appreciation for the concept of school turnaround, the differences between school reform and school turnaround were examined in detail. The literature was consistent in the importance of the school leader's impact on effective school turnaround. Throughout much of the literature examined, strong recommendations were made for continued studies within turnaround settings on the impact of practices and causal relationships; much of the research was based on case studies. To fill a gap in the literature, the primary investigator designed a quantitative research study to examine variables that may have impacted student performance in a turnaround school. The primary investigator developed this study to track the progress of

a sample of sixth grade students through their first two years in a turnaround school.

Data were analyzed to provide any statistical evidence of relationships between variables.

Milestones

As with any journey, a traveler encounters milestones that impact the course; whether the milestones help move the traveler along like a clearly marked trail or an encouraging sunset, or the milestones slow the traveler down such as bad weather or an injury, they are all significant events on the journey that impact the outcome. Along the journey of school turnaround at Shady Oak Middle, there were some data points that impacted the findings of the research.

The primary investigator discovered that the only consistent independent variable in the study that had a significant relationships with students' Communication Arts and Math scores on the MAP tests in both 2011 and 2012 were the students' grade point averages. At minimum, the students GPAs possibly had a 34.6% contribution to the students' mathematics scores on the MAP exam and a 54% contribution to the students' Communication Arts scores on the MAP between the two years. The implications of this finding on future turnaround schools will lead to close examinations of students' grades when evaluating increased student learning. Programming to ensure students are meeting standards throughout the school year should be considered when developing a plan for school turnaround.

In addition to students' GPAs contributing to their MAP scores in both Communication Arts and Math, the primary investigator found a significant relationship between students' attendance and Mathematics MAP scores in 2012. Students' attendance possibly contributed 9% to their Mathematics MAP scores. These findings

have implications for schools considering the dramatic reform model of turnaround.

While average attendance rate at Shady Oak Middle School did not significantly change between the two years, attendance was found to be a contributing factor in students' mathematic scores on the state exam. When planning for school turnaround, practitioners need to consider strategies that increase attendance rates or should develop programming to make up time during which students miss math instruction. When students are absent from their math classes, this research indicates that their scores on the state mandated testing are significantly impacted.

The same year that a relationship between attendance and students' math scores was discovered, the primary investigator found that students' enrollment in the READ 180 class possibly contributed 16.4% to the students' Communication Arts MAP scores. This finding was substantial; providing insight for schools with high populations of students reading below grade level. While there were not significant gains in the number of students meeting proficiency on the Communication Arts MAP, nor was there a significant increase of students' scores on the test, the primary investigator did find a significant increase in the number of students reading on or above grade level during the second year of the study. The primary investigator contributed the increase of students' reading abilities to an increase of students enrolled in READ 180. During the first year of the study, only 19% of students were enrolled in the reading class; enrollment was increased during the second year of the study to 35%. This research confirms that enrollment in READ 180 has a relationship to students' scores on their Communication Arts state test scores. Because there was a significant relationship found between the students' enrollment in the reading class and their Communication Arts MAP in 2012, the

primary investigator concluded that students' reading abilities had a direct impact on their ability to comprehend content presented on the state exams. Evidence cited gives support for schools with high rates of students reading below grade level to invest in reading programs to raise students' comprehension levels, thus impacting their scores on state exams.

Decreases of behavioral referrals or increases of attendance rates are factors other than academic growth that signify successful school turnarounds (Kutash et al., 2010; Rhim, 2012). The results of the statistical tests examining the data from Shady Oak Middle indicate no evidence of attainment of either goal. Rather than decreasing behavioral referrals, the primary investigator discovered that discipline referrals for behavior actually had a significant increase during the second year of the study at Shady Oak Middle. In regards to attendance, the primary investigator concluded that there was not a significant difference between the two years. In regards to the increase in student discipline referral, the primary investigator referred to research by Duke et al. (2008) as he described the application of Fullan's "implementation dip" (p. 135) to the field of school turnaround:

In his examination of research on organizational change, he found that things often get worse before they get better. Immediately after launching a whole battery of changes in order to effect a school turnaround, it would not be unusual for student achievement or faculty morale to falter. (p. 135)

The primary investigator found no significant relationships between the students' performance on any of the MAP exams and (1) the number of students' discipline referrals, (2) their enrollment in a summer school program, or (3) the number of contacts

made from the school to the students' families. While this study does not confirm relationships between scores on state exams and behavior, extended learning or home and school partnership, literature is saturated with research that contradicts this finding.

In regards to the summer programming offered to the students, there were two different purposes between the two years of the study. The summer program in 2010 was twofold: part of the day was structured around teaching incoming sixth graders study skills and providing time to become familiar with a new school building, the remainder of the day was targeted on direct reading instruction using the curriculum provided by Scholastic's READ 180 program. The summer program in 2011 focused on providing students with additional learning time to master concepts that they failed to master during their sixth grade school year. This program was open to anyone, but required for all students that failed Math or Communication Arts during the school year. Teachers were hired from outside of the building to facilitate a modified curriculum focused on targeted state standards in Communication Arts and Math. The primary investigator did not analyze the curriculum offered, nor track the grades given to students completing the summer programming both of which may have impacted the results of this study.

While the primary investigator did quantify the home/school relationship by examining the number of contacts in which teachers made with each students' families, this data did not fully capture the extent of the relationship formed between school staff and the students' families. The teachers were expected to document each time they had a personal meeting, a phone conversation or sent an email to each student's family members. The documentation was dependent on the teachers' actually logging of each of their contacts in the electronic student information system; it cannot be stated with

confidence that 100% of all contacts were documented. The type of contact - being redirective, positive or informational - was documented, as well as with whom the interaction occurred- mom, dad, grandparent, aunt, etc. The findings of this study did not indicate a statistical relationship between the number of home contacts made by teachers and student achievement, but further research to examine the type of contacts made and the quality of home and school partnership might produce different statistical results.

Moments of Clarity

After examining the results of the study, the primary investigator drew conclusions about the impact of \$3.4 million on student performance at Shady Oak Middle School. According to various researchers, an effective turnaround school makes dramatic improvements in some area of performance (academic, behavior, or attendance) within the first two years of implementing turnaround strategies (Kutash et al., 2010; Rhim, 2012). In an analysis of the statistical tests conducted for this study, the primary investigator concluded that, by definition, Shady Oak Middle School displayed some success as a turnaround school; students' average scores on the Mathematics MAP exam significantly increased, and there was a significant increase in the number of students reading on or above grade level. While increases in the number of students reading on grade level was not a measurement of successful school growth defined by the state, a significant relationship was found in students' enrollment in a reading class using Scholastic's READ 180 curriculum and their scores on the Communication Arts state exam. This relationship gave evidence that Shady Oak Middle was utilizing an effective strategy to increase academic performance. .

An examination of the variables in the study that had significant relationships

with students' scores on the MAP test led to a conclusion that the efforts of staff at Shady Oak Middle School in raising students' grade point averages had the most direct impact on their performance on the MAP tests. As indicated in the SIG, students at Shady Oak Middle School received individualized instructional delivery based on needs identified by an Early Warning System (Learning Point Associates, 2010). According to the strategies outlined in the SIG, students also received tutoring opportunities that did not exist prior to the turnaround (Learning Point Associates, 2010). These strategies in alignment with research on effective turnaround (Childress, 2009; Duke, 2008; Kutash et al., 2010) had the greatest impact on student scores in this study. Individualizing instruction has been proven an effective improvement strategy in the educational field; Elmore (2006) claimed that "it is essential to move away from what has always been done toward a new reality in which diagnostic practitioners, who have a solid core of beliefs and understandings, develop highly personalized programs that match the needs of individual students" (p. xv). This study provided evidence that turnaround schools should continue to focus their efforts in providing students with personalized instruction based on their individual needs and putting systems in place to ensure students are mastering content that is in alignment with the state's grade level expectations.

In summary of the statistical tests conducted as part of this study, over the course of two years, there was significant growth in students' scores on the state exam in one content area only one year of the study, not resulting in an increase of students meeting proficiency. The significant increase of students' performance on the Mathematics MAP exams the first year of turnaround without an increase in the percentage of students meeting proficiency on the same test indicated that a majority of students remained at

basic and below basic performance levels. Growth on the same exam was not repeated the next year, indicating that the significant gain might have been a “false positive” (Duke et al., 2008). Duke et al. (2008) describes a false positive in the implementation stage of school turnaround:

As a result of enormous effort, enthusiasm, and focused energy, a school can achieve some pretty impressive achievement gains in a relatively short time period. While acknowledging this accomplishment is understood, teachers should be cautious about declaring the turnaround complete at this point. A one-time boost in test scores does not constitute a school turnaround. If teachers ease up after the receipt of the first set of encouraging test scores, the likelihood is great that success will not be sustained. (p. 135).

Duke et al. (2008) identified the indication of successful turnaround when “a period of low achievement has come to an end and initial indications of improving achievement are in evidence...improvement, of course, depends ultimately on whether initial success can be sustained over time” (p. 4). Thus, based on the evidence of two years of study, the primary investigator concluded that Shady Oak Middle School may not be considered a turnaround school by definition. This conclusion led the primary investigator to question the reason for the failure of Shady Oak’s turnaround efforts. Researcher Duke (2006b) presented this same question; he argued that finding answers requires more examination of failing turnaround efforts. “It is hard to locate studies of failed turnarounds....we know relatively little about *unsuccessful* efforts....and until we know more about these endeavors, we can only guess at the reasons why some school turnaround efforts succeed while others fail” (Duke, 2006b, p. 734).

As some researchers claim (Calkins et al., 2007; Kowal et al, 2009; Rhim, 2012), conditions must be just right for an effective turnaround to take place; the environment for school turnaround must include a capable leader and local support. In their analysis on cross-sector of research on successful turnarounds, Kowal et al. (2009) identified “Seven Steps for District Leaders” (p. 1) in turning around schools, one of which included the importance of choosing the right schools for implementation of the turnaround model. The researchers recommended that districts critically examine three critical components of successful turnaround prior to deciding on a reform model, (1) capabilities of the principal, (2) the availability of the staffing pool, and (3) the capacity of the central office; without the capacity and capabilities of turnaround, the district should adopt other methods of reform (Kowal et al., 2009).

It might also be concluded that, while not a focus of this study, the leaders’ capabilities to turn around the school could have influenced the outcome of the study. The leader and much of the leadership team at Shady Oak Middle School were new to the building and to their positions. Little was known about the selection process of the leadership team for Shady Oak Middle School, but it might be stated that the process did not involve an evaluation of the leaders’ competencies. In a report developed by Steiner and Hassel (2011), the authors introduce the conditions that districts nationwide should adopt to create an environment for successful turnaround, including a strategic selection of the leaders:

Today, few districts have an explicit strategy to select and empower school turnaround leaders using the best available techniques. Few provide the

autonomy, support, and accountability for rapid, dramatic change that will attract, keep and enable turnarounds by capable leaders. (Steiner & Hassel, 2011, p. 1)

While Shady Oak Middle School was awarded a SIG for more than double the amount of money awarded to surrounding schools, Fullan et al. (2006) claimed that money and good plans might not guarantee successful school turnaround. Citing a study conducted by the Cross City Campaign for Urban School Reform in 2005, the authors discuss case studies from school districts in Chicago, Milwaukee, and Seattle - all of which had extravagant amounts of money and well-designed plans for improvement. The researchers claimed that all three districts lacked the establishment of “classroom routines and practices that represent personalized, ongoing, ‘data-driven focused instruction’” (Fullan et al., 2006, p. 4); while on paper the plans were designed for success, the districts did not include strategies to ensure implementation of change to the instructional practices of teachers within the classrooms. Much like the results of the turnaround process at Shady Oak Middle School, Fullan et al. (2006) found that regardless of money and top-notch plans, improvements in these districts remained flat.

In an analysis of the SIG for Shady Oak Middle School, the primary investigator found numerous strategies planned that had a direct implication for change of instruction at the classroom level (Learning Point Associates, 2010). The SIG plan for Shady Oak Middle School was designed to address each of the goals outlined by the state of Missouri, and all action steps were developed to produce change in the school (Learning Point Associates, 2010). The primary investigator could not claim with confidence that the action steps outlined in the SIG were implemented with fidelity, as data was not gathered to address this question. Based on the results of the statistical tests and the

reflecting conclusions of the success of Shady Oak Middle as a turnaround school, the primary investigator concluded that failure of Shady Oak Middle School to attain turnaround status in two years could be attributed to a focus on too many objectives at one time. Duke et al. (2008) described various obstacles that have been presented in turnaround schools; “one problem that can arise involves the overidentification [*sic*] of areas in need of change....school personnel become overwhelmed when the need for change is so extensive that it seems beyond their capacity” (p. 132). It was clearly indicated in the SIG that there were eight key findings that needed to be addressed by the staff of Shady Oak Middle. Strategies and action steps were designed with rigorous timelines in hopes of bringing about necessary gains in student achievement. Research on effective school turnaround indicated the importance of establishing a limited number of priority areas for change (Brinson et al., 2008; Herman et al., 2008). “If everything is a high priority, nothing is a high priority” (Duke et al., 2008, p. 39).

Carving New Paths

While this journey through school turnaround at Shady Oak Middle School provided some insight as to effective and ineffective practices in a turnaround school, the field requires additional research. Additional research topics were identified throughout this study that would benefit schools taking on the reform process and would fill gaps in the literature on school turnaround.

Because of the amount of money that was invested in Shady Oak Middle School and the minimal results produced by the turnaround efforts, the primary investigator questions the direct relationship between financial resources and success of a turnaround school. A detailed analysis of the costs involved in turning around a school and the direct

financial impact in student performance would provide insight as to the relationship of the variables.

This study was conducted in school that initially adopted the turnaround strategy, removing 50% of the staff. Because the attendance of the new staff at Shady Oak Middle School was affected by absences for professional development, the primary investigator questions the impact of school turnaround versus school transformation in meeting the same rigorous goals of increased students' achievement. A comparison study between clusters of schools in the same district that adopted different models of reform might provide insight as the effectiveness of staff removal in raising student achievement.

The primary investigator was unclear as to the sustained growth of students' Math scores after the initial significant gain during year one of school turnaround at Shady Oak Middle. Additional quantitative studies examining relationships between various factors and student performance in effective turnaround schools that have sustained multiple years of growth would provide validity to the findings in this study.

This study was a quantitative examination of the relationships of variables influencing student performance and their scores on state tests. The study could be expanded to a mixed-method examination of school turnaround by the addition of interviews, surveys, and reflections on the fidelity of implementation of the SIG. A mixed method study of school turnaround would provide deeper insight as to effective uses of financial resources in increasing student performance.

The results of this study indicated no significant relationships between scores on state exams and students' referrals, their involvement in summer learning academies or the number of contacts from school to home documented by teachers. This contradicts

research that indicates an increased home/school connection, additional instructional support and student behavior influences student performance. Additional studies in turnaround schools examining the relationships between these specific variables and student achievement would bring clarity to the conflicting findings.

The literature on school turnarounds discussed in Chapter 2 provides evidence of successful turnaround strategies around the country across all academic levels - elementary, middle and high schools. While much of the literature discussed trends across schools of all grade levels (Almanzan, 2005; Brinson et al., 2008; Duke, 2006b; Duke, 2008; Herman et al, 2008; Kowal et al., 2009; Kutash et al., 2010; Mero & Hartzman, 2012; Rhim et al., 2007; School Turnaround Group, 2012; The Wallace Foundation, 2009), few deeply examined successes unique to individual buildings or grade levels (Bryk, 2010; Chenoweth, 2009; Dillon, 2010; Duke, 2006a; Duke et al., 2008; Pappano, 2010; Schott Foundation for Public Education, 2012). All of the studies examined were qualitative utilizing case studies, interviews, surveys, observations, and document analyses to identify effective turnaround practices. None of the studies examined provided quantitative evidence of successful turnaround strategies. This study provides an in-depth examination of the successes and failures of one middle school's turnaround efforts contributing to the limited literature isolated specifically on turnaround in a middle school setting and adding a quantitative perspective to the body of research on school turnarounds. Further quantitative studies would broaden the growing field of turnaround research. Isolating the research to specific schools might provide insight to the unique needs of students at each grade level.

Conclusion

The primary investigator discussed summaries of the milestones experienced and the moments of clarity discovered when reflecting on the two-year journey through school turnaround. Based on the results of statistical tests conducted looking for significant gains in student performance, attendance or decreases in referrals, the primary investigator concluded that the site of the study ultimately did not fit the definition of an effective turnaround school. While there were significant gains identified in students' Math scores during the first year of the turnaround process, the gains were not repeated and did not produce an increase in students meeting proficiency on the state exams.

Students' GPAs, attendance, and enrollment in a reading class all proved to have significant relationships to students' scores on the state exams. This provided indication that school turnaround efforts should be focused on the personalization of instruction to meet students' needs. Efforts to tutor and provide remedial instruction in reading are evidenced to influence students' performance on the MAP tests.

An overall reflection of the process of school turnaround based on the statistical tests and an examination of current turnaround research led the primary investigator to further question various aspects of school turnaround. These questions were presented as topics for further researcher to fill gaps in the literature.

The challenge of effective school turnaround is critical for the survival of the nation's children. Facing globalization, students' abilities to think creatively, process critically, and develop innovatively will be paramount to their success as productive and competitive members of society. "While school success cannot guarantee success in life, school failure is a reliable predictor of future failure" (Duke et al., 2008, p. 3). The

responsibility of educators nationwide is to identify the needs of students, design programs and systems to meet those needs, and encourage development, preparing students for challenges in their futures. Wagner (2008) encouraged educators to “consider teaching and learning in light of the needs of the era” (p. 255). In today’s global economy, America’s children are dependent on the success of the nation’s educational system.

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Appendix A

Alignment of Key Findings of the Needs Analysis and the Goals, Objectives, and Strategies of the School Implementation Plan

Key Finding of the Needs Analysis of ...[Shady Oak] Middle School	Objective or Strategy of the School Implementation Plan	Missouri Goal Alignment				
		1	2	3	4	5
<p>1. Student Achievement in reading and math as evidenced by MAP scores for the past three years had lagged significantly below the state passing average.</p>	<p>1. Teachers in all content areas will implement lessons that: a) utilize the entire class time b) are vertically aligned from one grade to the next and aligned to state standards, c) include researched based learning strategies and d) are rigorous based on the...[Wild Woods] School District Scoring Guide for Evaluating Rigor in Lessons. Teacher lessons will be monitored by the School Leadership Team, District Coordinators, and Instructional Coaches and discussed with the Turnaround Officer bi-weekly and at a Turnaround Reality Check Meeting at mid-year and end of year.</p>	X				
	<p>2. Literacy and math coaches will model, collaborate and provide specific descriptive feedback to communication arts and math teachers regarding lessons, instruction and data analysis. With the support of an external monitor, the School Leadership Team will evaluate the coaching program through surveys (developed by the School Leadership Team) of coaches, teachers and supervising administrators and its effect on student achievement.</p>	X				
	<p>3. Literacy, reading and math interventionists will develop and implement a school-wide early warning system through collaboration with classroom teachers to identify and service targeted groups of students for acceleration in communication arts and math. With the support of an external monitor, the School Leadership Team will evaluate the three content interventionists and the interventionist programs through surveys of interventionists, teachers and supervising administrators and data indicating their effect on student achievement.</p>	X				
	<p>4. ...[Shady Oak] Middle School will increase the instructional time of four of the five days a week by 15 minutes to allow 50% (on a week by</p>	X				

week rotation, as to allow 100% of the staff to receive 120 minutes of additional PD per month) of the staff to be released an hour early one day a week for PD. The implementation of this new extended day plan will be evaluated through general Turnaround Reality Check Meetings at the end of each Trimester.

- | | | |
|----|--|---|
| 5. | ...[Shady Oak] Middle School calendar will be revised to allow for additional instructional time to address individual student needs, by changing to a year-round school model and adding an additional 20 days. Revised ...[SOMS] calendar will be implemented and evaluated based on ...[SOMS] student data, budget analysis and research by ...[SOMS] School Leadership Team in collaboration with district administration and an external monitor after the course of one academic year to discuss future district funding of year-round school model. | X |
| 6. | Data teams, professional development committee, and administrative teams will focus on analyzing and utilizing student results on all assessments to change instruction to meet student needs. With the support of an external monitor, the School Leadership Team will evaluate the professional development plan as it relates to the analysis and use of student data to inform instruction, evidenced by visual data throughout the school/classrooms, observations of classrooms. | X |
| 7. | ...[Shady Oak] Middle School will develop a Student Growth Monitoring System to assess the yearly growth of all students including personal, academic and career goals as well as an improved system for tracking student literacy goals. Each student will work with an In-House Mentor to develop a Student Growth Plan using “My Portfolio” where students can compile and store interest and skill, assessment data, educational goals, personal plan of study, reflections, resumes, etc. The System will be monitored by the School Leadership Team and discussed with the Turnaround Officer bi-weekly and at a Turnaround Reality Check Meeting at mid-year and end of year. | X |

- | | | |
|--|--|----------|
| <p>2. Teachers require intensive frequent professional development opportunities; the current professional development model needs improvement to better address the needs of teachers, better align to the curriculum, address student motivation, build teachers’ effective use of resources, train teachers in differentiated instruction, improve teacher instruction for basic and below- basic students, analysis and use of data, and improve parent communication.</p> | <p>1. ...[Shady Oak] Middle School will develop a Differentiated Professional Development Plan which will include the two different PD Academies. The Differentiated Professional Development Plan will target the following aspects of teacher effectiveness:</p> <ul style="list-style-type: none"> • improving student motivation, • effectively using resources, • differentiated instruction, • teaching basic and below-basic students, and improving parent communication <p>In addition, weekly data team meetings will focus on improving teachers’ abilities to analyze and use data to improve instruction. The Data Teams will be monitored by the School Leadership Team and discussed with the Turnaround Officer bi-weekly and at a Turnaround Reality Check Meeting at mid-year and end of year.</p> | <p>X</p> |
| <p>3. Targeted academic support opportunities for students (e.g. needs-based tutoring) are necessary to meet the needs of all students</p> | <p>2. The Office of School Turnaround in collaboration with ... [SOMS] Principal and PD Committee will develop strategies and incentives to increase and sustain teacher retention and build teacher effectiveness at ... [SOMS]. With the support of an external monitor, the incentive program will be evaluated through teacher surveys that examine teacher satisfaction with the incentive program.</p> | <p>X</p> |
| <p>3. Targeted academic support opportunities for students (e.g. needs-based tutoring) are necessary to meet the needs of all students</p> | <p>1. An Early Warning and Support System will be developed in the first year to identify students in need of support. This system will be used to place students in a variety of new targeted academic support opportunities for students. The Early Warning and Support System will be monitored by the School Leadership Team, discussed with the Turnaround Officer bi-weekly, and at a Turnaround Reality Check Meeting at mid-year and end of year.</p> | <p>X</p> |
| <p>3. Targeted academic support opportunities for students (e.g. needs-based tutoring) are necessary to meet the needs of all students</p> | <p>2. Read 180, Systems 44, AVID, Early-Bird and Mathematics will be implemented. In addition, Afterschool activities will support students with extended learning opportunities. For students in need of additional individual support, a series of 3-week 1.5 hour</p> | <p>X</p> |

Academic Boot Camps will target their learning needs. For students in need of additional academic support, a general Afterschool program will provide project based learning opportunities that align with the curriculum. In prior years, Afterschool activities provided homework help and some tutoring. There were clubs and a few sporting program. Generally Afterschool was a hodgepodge of activities and not an organized effort. The new Afterschool program will provide academic support through tutoring and project based learning opportunities that align with the curriculum. The program will allow for career, character and leadership development while promoting a healthy life style through experiences in fine arts, sports and recreation. In collaboration with the School Leadership Team, the administrators will evaluate the various intervention and enrichment courses offered to students through student surveys, observations and student progress on skill mastery as evidenced by progress monitoring. Evaluations will take place at the end of each trimester....

4. Instructional materials and strategies for modifying content, process and assignments for struggling students are inadequate.

1. ...[SOMS] and ...[Wild Woods] District will revise the math and communication arts curricula. By June 2013, 100% of ...[Shady Oak] Middle School curriculum arts and math teachers will implement a revised curriculum that a) is vertically aligned from one grade to the next and aligned to state standards, b) includes researched based learning strategies, and c) is rigorous...as evidenced by a revised curriculum guide, classroom observations, lesson plans, and student performance data. The new curricula will be monitored by the District Coordinators, School Leadership Team, discussed with the Turnaround Officer bi-weekly, and at a Turnaround Reality Check Meeting at mid-year and end of year. X

2. ...[Wild Woods] District will further develop the District Literacy Plan to meet the needs of adolescent learners. Furthermore, its implementation needs to be better monitored to assure that teachers are effectively meeting the goals of the Literacy Plan. The new Literacy Plan will be monitored by the District Coordinators, School Leadership Team, discussed with the Turnaround Officer bi-weekly, and at a Turnaround Reality Check Meeting at mid- year and end of year. X

- | | | |
|--|--|-----------------|
| <p>5. The curriculum was too general to lead to meaningful instruction, did not address the needs of all students and was inconsistently implemented.</p> | <p>3. To assure that all teachers are effective at reaching all students, the ... [Shady Oak] Middle School Professional Development Committee will develop a differentiated professional development plan. The Differentiated Professional Development Plan will be monitored by the School Leadership Team, discussed with the Turnaround Officer bi-weekly, and at a Turnaround Reality Check Meeting at mid-year and end of year.</p> | <p>X</p> |
| <p>6. Teacher evaluations often did not provide teachers with adequate or consistent feedback to improve instruction and rarely connected to professional development offerings.</p> | <p>1. As stated above...[Shady Oak] Middle School and...[Wild Woods] District will revise the communication arts and math curricula. By June 2013, 100% of...[Shady Oak] Middle School curriculum arts and math teachers will implement a revised curriculum that a) is vertically aligned from one grade to the next and aligned to state standards, b) includes researched based learning strategies, and c) is rigorous based on the Tomlinson's report to the...[Wild Woods] School District...as evidenced by a revised curriculum guide, classroom observations, lesson plans, and student performance data. The new curricula will be monitored by the District Coordinators, School Leadership Team, discussed with the Turnaround Officer bi-weekly, and at a Turnaround Reality Check Meeting at mid-year and end of year.</p> | <p>X</p> |
| | <p>1. Based on this feedback, the District will design, pilot test, implement and monitor a new teacher evaluation for the entire district during the three years of this grant...[Shady Oak] Middle School will serve as a pilot site for this new evaluation system. To expedite the improvement of teacher evaluation, the Administrative Team at ...[Shady Oak] Middle School will develop a new PD monitoring and formative feedback form to be implemented in year 1 as well as a revised and targeted summative evaluation protocol. These district and school Objectives were developed to specifically address this key finding and will contribute to both school and district improvement. With the support of an external monitor, the implementation of the PD monitoring and formative feedback form will be evaluated through teacher, coach, and School Leadership Team surveys and interviews. An external monitor will also work closely with the District to pilot test and monitor the</p> | <p>X</p> |

- implementation of the new teacher evaluation model in Years 2 and 3.
- 7. While student behavior has improved in the last years, student behavior (particularly bullying and disrespect to teachers) and student motivation is still a concern.

Positive Behavior Interventions and Support (PBIS) will continue to be implemented to improve student behavior, and additional objectives have been developed to further address student behavior. These objectives include:

 - 1. The creation of a “Changing the Path” course for students who have been suspended two times....[Shady Oak] Middle School will design a “Changing the Path” Course for students who need to have specific behaviors addressed. This course will be designed and monitored in conjunction with Washington University’s Brown School of Social Work.
 - 2. With the support of ...[Wild Woods] District, ...[Shady Oak] Middle School will create a Community Education Center (CEC) and a Home/School Liaison partnership to support students and pair community members as mentors with students. With the assistance of an external provider, the School Leadership Team will evaluate the CEC program through document review, surveys, interviews and observations. Based upon the evaluations, strategic changes will be implemented by the CEC committee. With the assistance of an external monitor, the School Leadership Team will evaluate the Home/School Liaison partnership quarterly through document reviews, parent, staff and community surveys. The Professional Development team will use the data collected from the partnership evaluation to develop targeted professional development for teachers to improve parent, staff, and community communication on a quarterly basis.
 - 3. ...Shady Oak] Middle School will develop a Student Growth Monitoring System to assess the yearly growth of all students including personal, academic and career goals as well as an improved system for tracking student literacy goals. The Student Growth Monitoring System will be developed, implemented and monitored by the PD Committee, Librarian, Parent Liaisons,

Guidance Counselors, In-house Mentors, Teachers and other ...[SOMS] staff. The Student Growth Monitoring System will be monitored by Interventionists, the School Leadership Team, and discussed with the Turnaround Officer bi-weekly and at a Turnaround Reality Check Meeting at mid-year and end of year.

8. The school community should have higher expectations of students.

1. Student achievement goals will be ambitious, transparent, and attainable.

X

2. Teachers will be recruited with questions from the Competencies for Success Turnaround Protocol (which addresses a teachers belief in student learning potential)

X

3. Teachers will participate in professional development academies that will consistently address expectations of students both behaviorally and academically; The Differentiated Professional Development Plan will be monitored by the School Leadership Team, discussed with the Turnaround Officer bi-weekly, and at a Turnaround Reality Check Meeting at mid-year and end of year.

X

4. ...[Shady Oak] Middle School will develop a Student Growth Monitoring System to assess the yearly growth of all students including personal, academic and career goals as well as an improved system for tracking student literacy goals. The Student Growth Monitoring System will be developed, implemented and monitored by the PD Committee, Librarian, Parent Liaisons, Guidance Counselors, In-house Mentors, Teachers and other ...[SOMS] staff. The Student Growth Monitoring System will be monitored by Interventionists, the School Leadership Team, and discussed with the Turnaround Officer bi-weekly, and at a Turnaround Reality Check Meeting at mid-year and end of year.

X

5. With the support of ...[Wild Woods] District, ...[Shady Oak] Middle School will create a Community Education Center. The parent liaison will develop a mentor program to support students and pair community members as mentors with students. **X**

Note. Adapted from LEA/district School Improvement Grant Application, July 2010, pp. 9-17, Missouri Department of Elementary and Secondary Education Website; Names of the district and the school have been changed for anonymity

Appendix B

Complete Data Table: Shady Oak Middle School

Student #	Gender	IEP	2010 Test MAP CA Score	2010 Test MAP CA	2010 Test MAP MA Score	2010 Test MAP MA	2011 Test MAP CA Score	2011 Test MAP CA	2011 Test MAP MA Score	2011 Test MAP MA	2012 Test MAP CA Score	2012 Test MAP CA	2012 Test MAP MA Score	2012 Test MAP MA
1	f		671	B	648	B	684	Prof	670	B	678	B	687	Prof
2	f		614	BB	600	BB	617	BB	610	BB	641	B	633	BB
3	f		633	B	618	B	639	B	640	B	649	B	671	B
4	f		641	B	646	B	640	B	646	B	646	B	663	B
5	f		624	B	608	B	631	B	623	BB	641	B	655	B
6	f		657	B	635	B	660	B	643	B	652	B	674	B
7	f		667	B	648	B	668	B	677	B	680	Prof	680	B
8	f		695	Prof	665	B	666	B	678	B	688	Prof	679	B
9	f		677	Prof	625	B	689	Prof	652	B	697	Prof	645	B
10	f		635	B	616	B	634	B	644	B	646	B	657	B
11	f		652	B	645	B	652	B	679	B	668	B	676	B
12	f		686	Prof	677	Prof	690	Prof	703	Prof	698	Prof	722	Prof
13	f		649	B	641	B	653	B	651	B	665	B	648	B
14	f	x	664	B	654	B	676	Prof	668	B	673	B	671	B
15	f		686	Prof	644	B	679	Prof	674	B	696	Prof	700	Prof
16	f		655	B	633	B	685	Prof	671	B	660	B	646	B
17	f		673	B	656	B	681	Prof	673	B	713	Adv	703	Prof
18	m	x	632	B	607	B	620	BB	619	BB	650	B	617	BB
19	m	x	625	B	607	B	630	BB	627	BB	614	BB	629	BB
20	m		684	Prof	685	Prof	697	Prof	736	Adv	717	Adv	745	Adv
21	m		692	Prof	682	Prof	668	B	692	Prof	685	Prof	674	B

Note. (BB) Below Basic, (B) Basic, (Prof) Proficient, (Adv) Advanced

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Student #	Gender	IEP	2010 Test MAP CA Score	2010 Test MAP CA	2010 Test MAP MA Score	2010 Test MAP MA	2011 Test MAP CA Score	2011 Test MAP CA	2011 Test MAP MA Score	2011 Test MAP MA	2012 Test MAP CA Score	2012 Test MAP CA	2012 Test MAP MA Score	2012 Test MAP MA
22	m	x	648	B	660	B	633	B	660	B	604	BB	568	BB
23	m		653	B	669	Prof	663	B	699	Prof	668	B	694	Prof
24	m		644	B	615	B	634	B	611	BB	615	BB	630	BB
25	m		690	Prof	695	Prof	678	Prof	740	Adv	721	Adv	764	Adv
26	m	x	649	B	603	BB	618	BB	640	B	642	B	643	B
27	m		671	B	647	B	673	B	666	B	665	B	658	B
28	m		631	B	646	B	617	BB	673	B	653	B	679	B
29	m		672	B	651	B	671	B	685	Prof	656	B	670	B
30	m		598	BB	612	B	638	B	633	B	638	B	665	B
31	m		663	B	707	Adv	660	B	696	Prof	655	B	714	Prof
TOTALS			656	23%	643	19%	656	29%	664	23%	664	29%	670	26%
	Male	13%		10%		16%		6%		19%		10%		13%
	Female	3%		13%		3%		23%		3%		16%		13%
	IEP	16%		0%		0%		3%		0%		0%		0%
32			684	Prof	659	B	694	Prof	697	Prof				
33			715	Adv	708	Adv	706	Adv	733	Adv				
34			681	Prof	648	B	675	B	673	B				
35			660	B	669	Prof	672	B	675	B				
36			642	B	603	BB	633	B	592	BB				
37			696	Prof	680	Prof	672	B	692	Prof				
38			698	Prof	675	Prof	687	Prof	694	Prof				
39			664	B	639	B	667	B	637	B				
40			654	B	635	B	646	B	662	B				
41			649	B	624	B	655	B	666	B				
42		x	485	BB	607	B	583	BB	630	B				
43			666	B	589	BB	679	Prof	638	B				
44			616	B	581	B	652	B	608	BB				
45		x	636	B	626	B	612	BB	617	BB				
46			609	BB	601	BB	614	BB	611	BB				
47			676	Prof	683	Prof	683	Prof	707	Prof				
48			693	Prof	670	Prof	702	Prof	712	Prof				
49		x	659	B	609	B								
50			662	B	634	B								

Note. (BB) Below Basic, (B) Basic, (Prof) Proficient, (Adv) Advanced; shaded students were dropped from the study

TAKING THE RIGHT PATH: SCHOOL TURNAROUND 125

Student #	Gender	IEP	May 2010 SRI	May 2010 SRI Level	Aug 2010 SRI	Aug 2010 SRI Level	Nov 2010 SRI	Nov 2010 SRI Level	May 2011 SRI	May 2011 SRI Level	SRI Growth May 10-May 11	Aug 2011 SRI	Aug 2011 SRI Level	Oct 2011 SRI	Oct 2011 SRI Level	Feb 2012 SRI	Feb 2012 SRI Level	May 2012 SRI	May 2012 SRI Level	SRI Growth May 11-May 12	Aug 2012 SRI	Aug 2012 SRI Level	SRI Growth 2010-2012
1	f		768	B	873	B	835	B	888	B	120	796	B	842	B	816	B	787	B	-101	883	B	115
2	f		x	x	457	BB	309	BB	175	BB	-282	457	BB	484	BB	526	BB	676	B	501	770	B	313
3	f		592	BB	640	B	722	B	781	B	189	792	B	909	Prof	931	Prof	893	B	112	778	B	186
4	f		452	BB	479	BB	691	B	773	B	321	731	B	779	B	834	B	1070	Prof	297	1074	Prof	622
5	f		488	BB	368	BB	309	BB	266	BB	-222	425	BB	540	BB	550	BB	530	BB	264	580	BB	92
6	f		969	Prof	889	B	892	B	855	B	-114	890	B	858	B	856	B	783	B	-72	748	B	-221
7	f		x	x	846	B	674	B	753	B	-93	827	B	813	B	859	B	881	B	128	938	Prof	92
8	f		823	B	848	B	908	Prof	983	Prof	160	1045	Prof	1024	Prof	1087	Prof	1164	Adv	181	1118	Prof	295
9	f		775	B	744	B	728	B	846	B	71	940	B	861	B	959	Prof	988	Prof	142	976	Prof	201
10	f		593	BB	x	x	x	x	x	x	-98	495	BB	615	B	728	B	798	B	303	x	x	205
11	f		720	B	728	B	787	B	814	B	94	845	B	868	B	920	Prof	924	Prof	110	957	Prof	237
12	f		928	Prof	873	B	990	Prof	998	Prof	70	1099	Prof	1167	Adv	1099	Prof	1089	Prof	91	1125	Prof	197
13	f		683	B	778	B	842	B	818	B	135	855	B	863	B	944	Prof	900	Prof	82	844	Prof	161
14	f	x	689	B	778	B	837	B	858	B	169	1023	Prof	946	Prof	1057	Prof	1019	Prof	161	1076	Prof	387
15	f		931	Prof	909	Prof	1004	Prof	980	Prof	49	1033	Prof	1025	Prof	986	Prof	1068	Prof	88	1138	Prof	207
16	f		771	B	816	B	607	B	657	B	-114	893	B	921	Prof	957	Prof	1015	Prof	358	953	Prof	182
17	f		706	B	914	Prof	936	Prof	869	B	163	980	Prof	985	Prof	982	Prof	931	Prof	62	961	Prof	255
18	m	x	424	BB	322	BB	353	BB	564	BB	140	580	BB	554	BB	644	B	671	B	107	758	B	334
19	m	x	544	BB	x	x	319	BB	247	BB	-297	332	BB	367	BB	437	BB	493	BB	246	401	BB	-143
20	m		x	x	1245	Adv	1318	Adv	1339	Adv	94	1286	Adv	1239	Adv	1335	Adv	1343	Adv	4	1413	Adv	168
21	m		891	B	1006	Prof	879	B	930	Prof	39	1018	Prof	1075	Prof	1104	Prof	1146	Prof	216	1116	Prof	225
22	m	x	666	B	325	BB	343	BB	421	BB	-245	217	BB	232	BB	338	BB	426	BB	5	486	BB	-180
23	m		613	B	x	x	x	x	x	x	86	699	B	757	B	829	B	1017	Prof	318	847	B	234

Note. (BB) Below Basic, (B) Basic, (Prof) Proficient, (Adv) Advanced

TAKING THE RIGHT PATH: SCHOOL TURNAROUND 126

Student #	Gender	IEP	May 2010 SRI	May 2010 SRI Level	Aug 2010 SRI	Aug 2010 SRI Level	Nov 2010 SRI	Nov 2010 SRI Level	May 2011 SRI	May 2011 SRI Level	SRI Growth May 10-May 11	Aug 2011 SRI	Aug 2011 SRI Level	Oct 2011 SRI	Oct 2011 SRI Level	Feb 2012 SRI	Feb 2012 SRI Level	May 2012 SRI	May 2012 SRI Level	SRI Growth May 11-May 12	Aug 2012 SRI	Aug 2012 SRI Level	SRI Growth 2010-2012
24	m		751	B	890	B	831	B	723	B	-28	720	B	761	B	801	B	866	B	143	936	Prof	185
25	m		1202	Adv	1119	Prof	1154	Adv	1115	Prof	-87	1057	Prof	1136	Prof	1016	Prof	1044	Prof	-71	1023	Prof	-179
26	m	x	778	B	795	B	607	B	698	B	-80	749	B	754	B	765	B	769	B	71	842	B	64
27	m		771	B	666	B	773	B	845	B	74	894	B	983	Prof	826	B	838	B	-7	885	B	114
28	m		x	x	907	Prof	795	B	934	Prof	27	1026	Prof	970	Prof	1008	Prof	989	Prof	55	845	B	-62
29	m		809	B	x	x	868	B	830	B	21	878	B	911	Prof	934	Prof	973	Prof	143	1012	Prof	203
30	m		637	B	605	B	468	BB	428	BB	-209	551	BB	600	B	695	B	804	B	376	843	B	206
31	m		956	Prof	682	B	742	B	824	B	-132	886	B	835	B	844	B	840	B	16	895	B	-61
TOTALS				18%		22%		21%		24%			29%		42%		48%		52%			53%	159.613
	M	13%				10%							13%									16%	
	F	3%				6%							16%									35%	
	IEP	16%				0%							3%									3%	
32			991	p	943	p	1000	p	1118	p		1058	p	1073	p	1139	p	1230	adv		1305	adv	314
33																							
34																							
35																							
36																							
37																							
38																							
39																							
40																							
41																							
42		x																					
43																							
44																							
45		x																					
46																							
47																							
48																							
49		x																					
50																							

Note. (BB) Below Basic, (B) Basic, (Prof) Proficient, (Adv) Advanced; shaded students were dropped from the study

TAKING THE RIGHT PATH: SCHOOL TURNAROUND 127

Student #	Gender	IEP	READING CLASS (6th)	READING CLASS (7th)	2010-11 Referrals	2011-12 Referrals	2010-11 Attendance rate	2011-12 Attendance rate	2010-11 Parent contacts	2011-12 Parent Contacts	2010-11 GPA	2011-12 GPA	2010 SS	2011 SS	2010-11 Teacher attendance	2011-12 Teacher attendance
1	f				1	2	96.55	94.83	11	8	2.444	2.833	y	y	95%	92%
2	f			READING	3	12	89.94	95.98	26	19	1.611	1.631	n	y	95%	92%
3	f		READING		4	14	89.94	98.28	20	18	1.429	1.458	y	y	95%	92%
4	f		READING		2	2	91.09	94.25	9	22	2.643	2.786	y	n	95%	92%
5	f			READING	1	0	95.69	98.28	7	7	2.667	2.698	y	y	95%	92%
6	f				1	11	98.28	93.97	19	26	2.278	2.167	y	y	95%	92%
7	f				4	11	90.52	89.66	24	19	2.778	2.556	y	n	95%	92%
8	f				2	29	87.07	82.18	34	43	2.611	2.278	n	n	95%	92%
9	f				1	3	89.94	92.53	26	13	3.056	2.806	y	n	95%	92%
10	f			READING	1	21	97.99	87.36	13	26	2	1.672	n	y	95%	92%
11	f		READING		0	0	91.67	96.84	10	7	2.267	2.616	n	y	95%	92%
12	f				0	3	100	99.43	4	26	3.778	3.611	y	n	95%	92%
13	f				2	3	88.79	80.75	18	5	2.813	2.765	y	n	95%	92%
14	f	x		READING	1	1	98.85	100	7	5	3.235	3.143	n	n	95%	92%
15	f				4	1	91.09	100	10	16	3.667	3.722	y	n	95%	92%
16	f				0	0	92.24	94.54	7	5	2.611	2.734	n	n	95%	92%
17	f				0	0	98.28	97.13	9	2	4	3.972	y	n	95%	92%
18	m	x		READING	1	2	91.95	92.24	31	10	2.722	2.841	y	y	95%	92%
19	m	x		READING	2	8	96.55	94.83	33	15	1.813	1.638	n	y	95%	92%
20	m				4	4	95.69	99.43	6	2	3.722	3.639	n	n	95%	92%
21	m				1	3	88.22	88.22	17	9	3	2.806	n	n	95%	92%
22	m	x	READING	READING	4	11	93.1	90.8	34	22	1.667	1.689	y	y	95%	92%
23	m			READING	11	15	88.44	92.53	22	13	3.444	3.365	n	y	95%	92%

Note. (BB) Below Basic, (B) Basic, (Prof) Proficient, (Adv) Advanced

TAKING THE RIGHT PATH: SCHOOL TURNAROUND 128

Student #	Gender	IEP	READING CLASS (6th)	READING CLASS (7th)	2010-11 Referrals	2011-12 Referrals	2010-11 Attendance rate	2011-12 Attendance rate	2010-11 Parent contacts	2011-12 Parent Contacts	2010-11 GPA	2011-12 GPA	2010 SS	2011 SS	2010-11 Teacher attendance	2011-12 Teacher attendance
24	m			READING	1	14	94.83	95.4	15	28	1.833	1.753	n	y	95%	92%
25	m			READING	1	7	96.63	95.11	9	20	3.333	3.278	n	n	95%	92%
26	m	x			0	1	98.85	94.19	8	3	2.389	2.889	y	y	95%	92%
27	m				8	16	86.78	83.33	25	33	2.944	2.806	n	n	95%	92%
28	m		READING		6	11	89.94	88.79	48	35	1.063	1.286	n	y	95%	92%
29	m				9	25	91.38	89.37	28	22	2.278	2.115	y	y	95%	92%
30	m		READING		5	9	92.53	92.53	37	25	1.923	1.855	n	y	95%	92%
31	m			READING	1	0	97.13	97.7	12	4	3.278	3.167	y	n	95%	92%
TOTALS			19%	35%	14%	25%	93.22	93.24	579	508	2.622	2.518	52%	52%	95%	92%
	M	13%	10%	23%	10%	13%	93.00	92.46	56%	47%	2.529	2.509	16%	29%		
	F	3%	10%	13%	5%	12%	93.41	93.88	44%	53%	2.699	2.673	35%	23%		
	IEP	16%	3%	13%	3%	4%	94.83	92.63	18%	15%	2.410	2.433	10%	13%		
32													y		95%	92%
33													n		95%	92%
34				READING									n		95%	92%
35			READING										y		95%	92%
36			READING	READING									n		95%	92%
37			READING	READING									n		95%	92%
38				READING									y		95%	92%
39															95%	92%
40			READING												95%	92%
41															95%	92%
42		x													95%	92%
43															95%	92%
44			READING												95%	92%
45		x													95%	92%
46															95%	92%
47															95%	92%
48															95%	92%
49		x													95%	92%
50			READING												95%	92%

Note. (BB) Below Basic, (B) Basic, (Prof) Proficient, (Adv) Advanced; shaded students were dropped from the study

Vitae

Katherine Chambers is currently an assistant principal at a middle school located in a large suburban district in Saint Louis, Missouri. She has over nine years of experience in education; she served as a school and community resource volunteer with the United States Peace Corps in South Africa, a middle school social studies teacher, and an assistant principal in two different middle schools that adopted federal reform models. Her work in the Peace Corps focused on teacher professional development, curriculum development, organization of school structures, and alternatives to corporal punishment. Chambers holds a bachelor's degree in secondary education with a focus in social sciences from Arizona State University and a master's degree in educational administration from Saint Louis University. Chambers' passion for school turnaround was sparked by her experiences working with educators in rural South African villages who were eager for support to change their failing educational systems.