# An Examination of Middle School Readiness Variables for Students from Two K-5 Elementary Sending Schools in Missouri 

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# An Examination of Middle School Readiness Variables for Students from Two K-5 Elementary Sending <br> Schools in Missouri 

by
Walter James Belcher

April, 2015

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

# An Examination of Middle School Readiness Variables for Students from Two K-5 Elementary Sending Schools in Missouri 

by<br>Walter James Belcher

This dissertation has been approved in partial fulfillment of the requirements for the degree of

Doctor of Education
Lindenwood University, School of Education


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$\frac{4-27-15}{\text { Date }}$

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 at Lindenwood University and that I have not submitted it for any other college or university course or degree.

Full Legal Name: Walter James Belcher

Signature:


Date:


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#### Abstract

The transition process from elementary school to middle school has created numerous obstacles for all stakeholders. Early adolescents encounter emotional and physiological challenges as their bodies mature (Lester, Waters, \& Cross, 2013). These challenges have a major impact on the academic achievement of the students (Musoleno \& White, 2010). There is a direct connection between a student's successes in middle school and how well the student will do in high school, making the transition process even more important (Andrews \& Bishop, 2012). The purpose of this study was to identify predictors which could aid in easing the transition into middle school in order to improve student achievement. Data from the study were examined to evaluate if variance in curriculum, grading practices, and academic programs from Elementary School A, Elementary School B, and Middle School C had an effect on MAP Grade-Level Assessment performance and middle school readiness. The project also involved analysis of what impact other predictors such as student poverty, teacher-assigned grades, and student attendance had on student achievement during the transition process. This causal-comparative study was conducted to analyze the amount of discrepancy between variables of the study and MAP scores. The qualitative results of this study revealed some extreme differences in the percentages of students who raised MAP achievement levels when entering Middle School C from different elementary schools. This could be caused by the differences in curriculum and educational practices among the three schools. The statistical data revealed the other predictors in the study had an impact on student achievement.


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## Chapter One: Introduction

The transition process from elementary school to middle school can be overwhelming for students. Students encounter increased academic demands, new teaching styles, unfamiliar facilities, and different classroom rules (Andrews \& Bishop, 2012). Students feel overwhelmed by all of these changes, and it is important to limit the amount of school-related stress the students encounter (Grills-Taquechel, Norton, \& Ollendick, 2010). Adams (2008) stated, "If kids don't experience a smooth transition from elementary to middle school, it can be destabilizing for many" (p. 44).

The school district is responsible for evaluating the transition process and identifying programs that best meet the academic requirements of the students (Huss \& Eastep, 2011). Developing a middle school curriculum addressing students' social skills and academic requirements is an important role for school administrators and teachers (Musoleno \& White, 2010). Williams, Kirst, and Haertel (2010) suggested, "Extensive review and use of data, proactive student interventions, and standards-based instruction are associated with improved student learning and outcomes in Communication Arts and Mathematics" (p. 57). Gorski (2013) discovered low-performing schools with high numbers of low-income students do not always implement academic programs to address areas of deficiency. If schools are really serious about providing a quality education for students during the transition process, schools will make sure adequate academic data are analyzed in a timely manner to determine the academic programs best meeting the students' needs (Andrews \& Bishop, 2012).

## Background of the Study

There has historically been a lack of collaboration and continuity of academic programs between elementary and middle schools (Williams et al., 2010). Teachers have a responsibility to work together, to identify individual student areas of weakness, and to monitor student progress throughout the school year (Andrews \& Bishop, 2012). Collaboration among the learning communities is a key component in successful middle schools (Styron \& Nyman, 2008). If schools are serious about providing a quality education for students during the transition process, schools are responsible for adequately examining all student academic data in a timely manner (Sparks, 2011). Teacher collaboration is necessary when sharing incoming student data such as literacy benchmarks, standardized test scores, and local assessments to aid in designing lessons and adjusting the curriculum to meet the academic requirements of the students (Andrews \& Bishop, 2012).

Once the areas of concern are identified, developing a plan is essential to address weak academic areas. Duke (2006) suggested teacher collaboration is a key to raising student achievement levels when it is meaningful and focused on the individual goals of the students. Data taken from ACT scores in 2009 showed fewer than $20 \%$ of eighthgrade students were on track for college-level work; in addition, students who are not prepared by eighth grade are less likely to be successful in high school ("The Forgotten Middle," 2009). The school district is obligated to provide an environment where teachers feel comfortable sharing ideas and communicating to improve educational programs (Styron \& Nyman, 2008).

Addressing issues with student poverty has a more dominant role in middle school success compared to the implementation of academic and social programs (Landsman, 2014). Schools with high percentages of low-income students are less likely to implement a rigorous school curriculum (Gorski, 2013). According to Smith (2012), student improvement is the focus, not academic obstacles students and teachers encounter in the classroom. Students from low-socioeconomic areas face numerous challenges during the educational process. Smith (2012) stated, "Our students' ethnicity, socioeconomic status, and home language will not be excuses; we must hold ourselves accountable for ensuring our students learn what we set out to teach them" (p. 24). Allensworth and Easton (2007) noted, "Students’ background characteristics explained 7 percent of the differences in failure rates among students, and test scores explained an additional 5 percent, but absences and studying explained an additional 61 percent beyond test scores and demographics" (p.19). Good teachers are successful in helping students reach maximum academic potential no matter the subject area or the circumstances involved (Allen et al., 2013).

Fullan (2011) recognized the importance of motivating teachers to strive continually for instructional improvement by working together with all stakeholders. When all stakeholder work together, even schools from low-socioeconomic areas sustained substantial growth in student achievement (Williams et al., 2010). The expectation should be for improvement in the academic programs of the school, no matter the challenges presented (Chenoweth \& Theokas, 2013).

State standardized testing provides educators with a guide for student improvement and helps to identify skills students lack (Buck, Ritter, Jensen, \& Rose, 2010). Teachers can use the results from standardized tests to determine strengths and weaknesses of students and to develop learning goals which focus on individual improvement of each student (Schneider, 2013). Standardized test scores allow teachers to identify specific areas of deficiency and to design a learning plan to address academic skills which have not been mastered (Buck et al., 2010). Standardized testing provides educators a highly valuable tool, as the results are valid and provide reliable results (Schneider, 2013). There are specific guidelines to assure the administering and scoring of the test are valid to eliminate any inconsistencies (Schneider, 2013). Therefore, the data gathered from standardized assessments provide educators valid, unbiased, academic information to aid in developing new teaching strategies in weak areas (Farah, 2013).

## Conceptual Framework

The conceptual framework for this study was based on the need for a more indepth examination into the transition process for students entering middle school. The importance of a smooth transition from elementary school to middle school is critical for continued academic success (Weiss \& Baker-Smith, 2010). The importance of this study is defined best by the National Middle School Association (NMSA), "For middle schools to be successful; for students to be successful, the school's organization, curriculum, pedagogy, and programs must be based upon the developmental readiness, needs, and interests of young adolescents" (as cited in Musoleno \& White, 2010, p. 2). Middle school is a critical time for young adolescents, not only physically, but also emotionally
and socially (Ryan, Shim, \& Makara, 2013). Young adolescents are prone to bouts of anxiety and depression, which can lead to anti-social behavior and substance abuse, making the transition from elementary school to middle school much more important (Lester et al., 2013). The process of transitioning into the middle school is not one of only a physical change of school location, but also a change in instructional practices, teachers, class sizes, social behaviors, peer groups, and individual responsibilities (Jacobson, Williford, \& Pianta, 2011). According to Andrews and Bishop (2012), "Some students find the move between schools so difficult they 'unlearn’ skills and content, beginning a potential spiral toward being retained or even dropping out" (p.8).

Students in middle school have shown signs of increased academic failure and attendance issues making intervention a high priority for student success (Williams et al., 2010). Identifying which sub-group of middle school students might be more susceptible to stress and emotional issues is an important aspect of the transition process (Ellerbrock \& Kiefer, 2013). In Sparks's (2011) research, the data revealed lower levels of academic achievement and attendance for students during the transition year between elementary school and middle school. When these issues were not addressed, students were more likely to drop out by tenth grade (Sparks, 2011).

With an increased focus placed on student preparedness for college or career opportunities, the emphasis on having a rigorous and aligned elementary and middle school curriculum is more significant than ever ("The Forgotten Middle," 2009). Allensworth and Easton (2007) asserted high schools cannot address student dropout rates and student failure by themselves; elementary and middle schools are required to
increase academic rigor and prepare students for the challenges ahead. A focus on maximizing academic opportunities in upper elementary and middle school allows high schools to increase the content matter and rigor of existing curriculum ("The Forgotten Middle," 2009). Squires (2012) explained, "We were able to demonstrate a strong, positive and significant correlation (.49) between the content of instruction and student achievement gains. Thus, instruction (taught curriculum) when aligned to standards (written curriculum) was linked to significantly increased student achievement" (p. 131).

The importance of having a transition program which supports communication among schools and focuses on preparing students for the increased academic rigor of the next school cannot be overlooked (Roybal, Thornton, \& Usinger, 2014). Andrews and Bishop (2012) discovered detailed student files containing work samples, writing samples, and other academic information are extremely useful to teachers in the transition process. Andrews and Bishop (2012) clarified, "A failure to share academic data in a timely manner can result in a mismatch between learner readiness and the levels of challenge students face in their new classrooms" (p. 11). For the transition process to be successful, the sending school is responsible for communicating students' academic abilities, areas of concern, and at-risk behaviors to the receiving school (Sparks, 2011).

## Statement of the Problem

Historically, there have been large variances in Missouri Assessment Program (MAP) scores between the two sending elementary schools, Elementary School A and Elementary School B, and the receiving middle school, Middle School C (MODESE, 2014). These differences suggest inconsistencies in academic practice among the
buildings. Over the past two decades, there have been numerous reports acknowledging the importance of cohesive transition to the middle school level (Andrews \& Bishop, 2012; Hanewald, 2013; Jacobson et al., 2011; Martinez, Aricak, Graves, Peters-Myszak, \& Nellis, 2011; Ryan et al., 2013). The increased focus on middle school improvement is due to the high priority placed on schools to produce graduates who are prepared for the workforce or the academic demands of college (Williams et al., 2010). A prerequisite for school improvement at the middle school level is to increase the connectedness among the teachers and students (Roybal et al., 2014).

Standardized testing provides educators a highly valuable tool. The results are valid and provide reliable results, because there are specific guidelines to assure the administration and scoring of the tests eliminate any inconsistencies (Schneider, 2013). The data gathered from standardized assessments provide educators valid, unbiased, academic information to aid in developing new teaching strategies to address weak areas (Farah, 2013).

The school principal is responsible for reviewing student academic data on a regular basis and identifying instructional strategies which require improvement (Fox, 2013). According to Bernhardt (2013), student achievement is the driving force in determining the effectiveness of the curriculum, and teachers will benefit from routinely collecting data and evaluating the progress of students. Flowers and Carpenter (2009) concluded schools can use data not only to define a problem area, but also to focus on a specific area to improve. Bernhardt (2013) indicated, "We want to use data to predict and ensure success, and to predict and prevent failure" (p. 108).

Sparks (2011) discussed the importance of having a transition program which supports communication among schools and focuses on preparing students for the academic changes from elementary school to middle school. A school climate supportive of students, teachers, and parents is an essential part of a successful middle school transition process (Styron \& Nyman, 2008). Schools which implemented a detailed transition process were able to keep students in school and to show greater signs of academic improvement (Benner \& Wang, 2014; Ellerbrock \& Kiefer, 2013).

Data resulting from this research can be used to stimulate discussions on determining strengths and weaknesses of the transition process and academic programs among Elementary School A, Elementary School B, and Middle School C. The purpose was to improve the transition process for students entering Middle School C. This study resulted in data which can be used to determine if the variance in curriculum and grading practices from Elementary School A, Elementary School B, and Middle School C are determinants for MAP Grade-Level Assessment performance and middle school readiness.

According to Williams et al. (2010), more attention has been placed on preparing students to be successful in college and the work force. Increased focus on academic preparedness of graduating students has filtered down to the middle school level (Jones, 2010). Williams et al. (2010) stated, "Success in the middle grades is a strong predictor of success in high school and beyond" (p. 1). In "The Forgotten Middle" (2009), it was suggested if the educational community wanted to improve college and career readiness there needed to be more attention paid to the skills being developed in upper elementary
grades and middle school. The level of academic success which students acquire by eighth grade has a greater impact on college and career readiness than do the academic skills acquired in high school ("The Forgotten Middle," 2009).

One area examined during this study was the importance of curriculum alignment throughout a district. Squires (2012) noted the importance of aligning the school curriculum to state standards to make sure the material the students are tested on in the spring has been covered throughout the year. There are few curriculums where the taught curriculum, the tested curriculum, and the written curriculum are aligned (Allensworth \& Easton, 2007). When schools have a certain amount of continuity within their academic programs, students will have more success and less failure (Poulos, Culberston, Piazza, \& D'Entremont, 2014). Developing a curriculum which addresses the adolescent student is a key to middle school success (Musoleno \& White, 2010). Allensworth and Easton (2007) also concluded schools where teachers work together and feel responsible for the education of all children have better-performing students.

The validity of teacher-assigned grades was examined during this study. Teachers tend to assign inflated grades to students because of invalid assessment of student knowledge and the addition of factors such as attitude and behavior (Shippy, Washer, \& Perrin, 2013). Randall and Engelhard (2009) explained the teacher is still responsible for determining the grade assigned for the subject. When teachers assign inflated grades, there is not an accurate record of the information the students actually know, causing a gap in information available to address the students' academic areas of weakness (Spencer, 2012).

The two secondary variables examined in this study were the significant effects of student poverty and poor school attendance on academic success. Low-income schools tend to have lower scores on standardized tests due to issues with proper nutrition, lack of medical care, poor living conditions, and limited access to computers or other academic resources in the home (Krashen, 2011). According to Gorski (2013), low-income students learn best at schools which have a rigorous curriculum and high standards for all students. Students from low-income families tend to stay in school when held to the same high academic standards as other students if a strong academic support system is provided (Ready, 2010).

Attendance is another variable which affects the success students have in middle school. Allensworth and Easton (2007) found, "Students' background characteristics explained 7 percent of the differences in failure rates among students, and test scores explained an additional 5 percent, but absences and studying explained an additional 61 percent beyond test scores and demographics" (p. 19). Attendance rate of students is a strong indicator of success on standardized tests and school success (Ready, 2010). Schools have a difficult time addressing academic areas of deficiency if students do not attend school regularly (Paredes \& Ugarte, 2011). There are many variables which can affect the success students have in middle school, but Allen et al. (2013) believed good teachers are successful in helping students reach their maximum academic potential no matter the subject area or circumstances involved.

## Purpose of the Study

The purpose of this project was to research whether variances in curriculum, grading practices, and academic programs among Elementary School A, Elementary School B (both elementary schools send students to Middle School C), and Middle School C are determinants of MAP Grade-Level Assessment performance and middle school readiness. The researcher determined the percentage of students who raised achievement levels at Middle School C on the MAP communication arts and math portions of the assessment from Elementary School A and Elementary School B. The percentages of students scoring Basic or Below Basic on the MAP math and communication arts portions of the assessment with a grade point average of 3.0 or higher in math and communication arts were calculated. Another component of the research involved establishing the percentage of students scoring Basic or Below Basic on the MAP math and communication arts portions of the assessment with a free and reduced price meal designation. Additionally, the researcher determined the percentage of students scoring Basic or Below Basic on the MAP math and communication arts portions of the assessment with less than a $90 \%$ overall attendance rate.

Predictors were examined which could have an effect on the transition process for students from Elementary School A, Elementary School B, and Middle School C. The researcher identified ways to eliminate gaps in instruction, address individual learning goals, and ease the stress levels of students when moving to middle school. Rosin stated, "The picture we got was schools that were having higher-achievement outcomes were being more intense and intentional about looking at a wider array of student data during
the middle school transition and finding out what interventions were needed quickly" (as cited in Sparks, 2011, p. 23). According to Adams (2008), there is often very little communication among elementary school teachers and middle school teachers, causing valuable instructional time to be wasted evaluating the students' areas of deficiency. Therefore, it is important for the school district to determine successful academic programs and to eliminate programs which are non-productive. Results from the research can be used by school administrators and teachers to provide a better-aligned curriculum and a cohesive transition process for the participating schools.

## Research Questions

The following research questions guided the study:

1. What percentage of students from Elementary School A and Elementary School B raised achievement levels at Middle School C on the Missouri Assessment Program (MAP) communication arts portion of the assessment during years 2010, 2011, 2012, 2013, and 2014?
2. What percentage of students from Elementary School A and Elementary School B raised achievement levels at Middle School C on the Missouri Assessment Program (MAP) math portion of the assessment during years 2010, 2011, 2012, 2013, and 2014?
3. What is the percentage of students scoring Basic or Below Basic on the Missouri Assessment Program (MAP) communication arts portion of the assessment with a grade point average of 3.0 or higher in communication arts from Elementary School A, Elementary School B, and Middle School C?
4. What is the percentage of students scoring Basic or Below Basic on the Missouri Assessment Program (MAP) math portion of the assessment with a grade point average of 3.0 or higher in math from Elementary School A, Elementary School B, and Middle School C?
5. What is the percentage of students scoring Basic or Below Basic on the Missouri Assessment Program (MAP) communication arts assessment with a free and reduced price meal designation from Elementary School A, Elementary School B, and Middle School C?
6. What is the percentage of students scoring Basic or Below Basic on the Missouri Assessment Program (MAP) math assessment with a free and reduced price meal designation from Elementary School A, Elementary School B, and Middle School C?
7. What is the percentage of students scoring Basic or Below Basic on the Missouri Assessment Program (MAP) communication arts assessment with less than a 90\% overall attendance rate from Elementary School A, Elementary School B, and Middle School C?
8. What is the percentage of students scoring Basic or Below Basic on the Missouri Assessment Program (MAP) math assessment with less than a $90 \%$ overall attendance rate from Elementary School A, Elementary School B, and Middle School C?

## Definition of Key Terms

For the purposes of this study, the following terms are defined as described:

Advanced. Advanced is a state standardized test score category defined by the Missouri Department of Elementary and Secondary Education (MODESE, 2014). Students scoring in the Advanced category have demonstrated an extensive knowledge of the material presented on the state exam (MODESE, 2014).

Annual Performance Report (APR). The MODESE (2012) combines MAP
scores with five performance standards (academic achievement, attendance, college and career readiness, graduation rate, and subgroup achievement) in an Annual Performance Report to show how districts are meeting newly-revised state standards.

Basic. Basic is a state standardized test score category defined by the MODESE (2014). Students scoring in the Basic category demonstrate a limited amount of knowledge of the material presented on the state exam (MODESE, 2014).

Below Basic. Below Basic is a state standardized test score category defined by the MODESE (2014). Students scoring in the Below Basic category demonstrate no comprehension of the material presented on the state exam (MODESE, 2014).

English language learners (ELL). Students who are unable to communicate fluently or adequately learn English and who typically require specialized or modified instruction in the English language and in their academic courses are designated as English language learners (MODESE, 2012).

Free and reduced price meal designation. Free and reduced price meal designation is a requirement for all public schools which participate in one or more of the Child Nutrition Programs to provide free and reduced price meals to needy students
(United States Department of Agriculture, 2012). The eligibility criteria for free and reduced price meals is set by the United States Department of Agriculture (2012).

Individual education program (IEP). An IEP is a written plan designed for students with delayed learning skills or other disabilities by the school's special education team with input from the parents which outlines the student's academic goals and the steps to obtain those goals (MODESE, 2012).

Middle school. Middle school grade configurations can be made up of several different combinations of grades (Weiss \& Baker-Smith, 2010). This study included the configuration of grades six, seven, and eight as the make-up of middle school.

Missouri Assessment Program (MAP). The MAP is a mandatory standardized test which is given annually to Missouri students (MODESE, 2012). Students are tested in grades three through eight in communication arts and math as well as grades five and eight in science (MODESE, 2012).

Proficient. Proficient is a state standardized test score category defined by the MODESE (2014). Students scoring in the Proficient category demonstrate adequate knowledge of the material presented on the state exam (MODESE, 2014).

Professional development. Professional development is acquiring skills and knowledge through specialized training to improve an individual's career performance (Allen et al., 2013).

Receiving school. The middle school to which a student transfers after completion of fifth grade is the receiving school (Weiss \& Baker-Smith, 2010).

Sending school. The elementary school from which a student transfers after completion of fifth grade is the sending school (Weiss \& Baker-Smith, 2010).

Socioeconomic status. Socioeconomic status is a family's financial and social standing compared to others in a surrounding environment (Smith, 2012).

Stakeholders. The stakeholders in a school community include parents, students, teachers, administrators, community leaders, and all residents of the district having an interest in the school district (Kohler-Evans, Webster-Smith, \& Albritton, 2013).

Summative assessment. Summative assessments are used to determine the level of mastery at the end of a learning period (Jung \& Guskey, 2011).

## Delimitations and Limitations

Because the study was restricted to two sending elementary schools and the middle school receiving those students in one school district in Missouri, the ability to generalize the findings may be limited to the demographics of the schools involved. The target population was a purposive, nonrandom sample which was all-inclusive of students who attended sixth grade at Middle School C in years 2012, 2013, and 2014 and who also attended grades three, four, and five in either Elementary School A or Elementary School B. Purposive sampling was used instead of convenience sampling, because the researcher selected a specific group of students based on information received prior to the study (Fraenkel, Wallen, \& Hyun, 2015).

The sample of data was more than 50 students but fewer than 130 students for each year the data were collected. A school with a larger population may derive a different conclusion due to the size of the population.

The number of minority students in each group was also a limitation to the study. In relation to the number of Caucasian students in the study, there was not a large enough sample size of minority students to determine factors which might have influenced the achievement levels of those students. Fraenkel et al. (2015) stated, "Any sample size that has less than 20 to 30 individuals is too small, since that would only be 2 or 3 percent of the population" (p. 103).

## Summary

The transition process from elementary to middle school is one of great concern for educators (Andrews \& Bishop, 2012). Adolescent students go through many changes during this time frame of development. Physical and cognitive development occurs rapidly at the age students move from elementary school to middle school (GrillsTaquechel et al., 2010). Students face numerous challenges moving from the elementary school setting to the middle school, including new facilities, changes in class size, and differences in curriculum (Ryan et al., 2013).

With increased pressure on middle schools to demonstrate growth on standardized achievement tests and to prepare students for high school, scrutiny has increased on student performance across the country (Musoleno \& White, 2010). There is some debate whether the middle school grade configuration is the best setting to provide students the academic support required to be successful in high school (Weiss \& BakerSmith, 2010). School districts across the states are debating the success of the middle grade configuration (Rockoff \& Lockwood, 2010).

Collaboration among elementary schools and middle schools is a major component of a successful middle school transition process (Sparks, 2011). The principal is responsible for making sure communication is taking place (Andrews \& Bishop, 2012). Collaboration will only take place if the environment is non-threatening and provides a productive way to share ideas (Kohler-Evans et al., 2013). Administrators and teachers communicate and share student data to ensure a successful transition (Andrews \& Bishop, 2012). Curriculum, grading procedures, and student support system alignment between the elementary school and the middle school are necessary components in successful schools (Sparks, 2011).

Student poverty, school attendance, and grade inflation are other issues requiring attention from elementary and middle schools to eliminate a drop in academic achievement (Ryan et al., 2013). The main objective, no matter the challenges, is for students to receive the best education possible (Smith, 2012). School leaders are required to examine data and evaluate academic programs (Schaffhauser, 2011).

In the following chapter, literature is discussed concerning how the middle school grade configuration was developed and the positive and negative aspects of the concept. Greater detail on the components of a successful transition program for students entering middle school is outlined. Components of the transition process which have minimized the loss of academic achievement on state standardized assessments are discussed, and other factors contributing to students' anxiety entering middle school are also examined.

The effects of pressure placed on teachers and students to achieve at a high level on state standardized tests are discussed in Chapter Two, as well as the effect the
assessments have on school curriculum and teaching methods. The importance of analyzing standardized test scores and other student data is another important part of the transition process which is studied. Teacher-inflated grades, student poverty, and school absenteeism are also examined in the next chapter. Steps which can reduce the effects of these disadvantages are investigated to provide a more positive transition process for students entering middle school.

## Chapter Two: Review of Literature

School districts are examining the transition process from elementary to middle school more closely to address the academic declines which are prevalent (Andrews \& Bishop, 2012). Middle schools struggle to determine which components of the transition process best fit the adolescent student a more rigorous curriculum filled by homework and departmentalized classrooms or a curriculum which provides more guidance and emotional support (San Antonio, 2006). Many successful educational practices used in middle schools have been excluded from the curriculum because of state standardized testing (Schaeffer, Neill, \& Guisbond, 2012). Companies which produce state standardized tests are often primarily concerned with turning a profit, instead of creating an assessment tool which is useful and reliable in evaluating student achievement (Schaeffer et al., 2012). A more structured learning environment focused on fewer specific learning targets with less opportunity for social interaction has replaced a middle school curriculum which specifically addresses the adolescent student (Musoleno \& White, 2010). The capacity to solve problems and to work together alongside other students are important skills for middle school students (Jones, 2010).

Administrators and teachers have a difficult time addressing the many concerns students face when entering middle school for the first time. Students are unfamiliar with school procedures and other routines, which causes anxiety among students and declines in academic achievement, including state standardized test scores (Ellerbrock \& Kiefer, 2013). The school staff is responsible for calming the nerves of students entering middle school by providing a smooth transition (Grills-Taquechel et al., 2010). Students
entering middle school encounter the biggest change in body appearance and emotional development since early childhood, causing students to focus on many of the issues surrounding acceptance into peer groups, instead of academic priorities (Jones, 2010). Early adolescents are facing many emotional and social challenges but are also developing numerous higher-level thinking skills as well as problem-solving skills (San Antonio, 2006).

Communication among elementary and middle school staff members is a key component in a quality transition program (Adams, 2008). Instructional programs and academic standards aligned throughout a school district's curriculum are important features for students to have success (Fox, 2013). State standardized testing has forced teachers to collaborate to ensure certain educational material has been covered and reinforced (Kearns, 2011). This has eliminated areas of deficiencies within the curriculum (Buck et al., 2010). When classroom demands and expectations are similar from the elementary to the middle school, students have less stress, are more likely to show increases in grades and scores on state standardized tests, and are less likely to show decreases in motivation or academic achievement (Huss \& Eastep, 2011).

This chapter contains information about the history behind the middle school movement and concerns over declines in academic achievement students experience during middle school (Holas \& Huston, 2012). Standardized test scores are addressed, as is the impact of using students' scores as a determinant for student academic success. Literature was examined to identify any negative connotations when using standardized test results for school improvement. Some studies have shown using standardized test
scores as a method of determining student success can cause teachers to place too much emphasis on the objectives assessed on the test (Wiliam, 2010). This can lead to deficiencies within the curriculum and can diminish the students' creativity (Schaeffer et al., 2012). Standardized test scores provide student data which have extreme importance when addressing the issue of school improvement and the middle school transition process. The accountability for teachers created by state standardized tests has forced teachers to improve teaching methods and to evaluate the progress of students on a continual basis (Buck et al., 2010). Elementary teachers are obligated to share student data and teaching methods which were successful in fifth grade with the middle school faculty (Sparks, 2011). The middle school teachers have an obligation to invite elementary teachers to view classrooms and to observe the procedures and routines the elementary students will face in the future (Adams, 2008).

Within this chapter, a more in-depth examination of the impacts of grade inflation, student poverty, and school attendance on the middle school transition process and on students' performance on state standardized assessments is conducted. The increased scrutiny on student academic performance has placed more emphasis on teacher-assigned grades as a reflection of the learning targets students have mastered, rather than on effort or attitude (Jung \& Guskey, 2011). The impact of grade inflation was researched to determine if the practice is causing lower student expectations.

An analysis of the effects of poverty on student academic success and the middle school transition process was completed to determine areas of concern and methods to address these situations. Studies have determined standardized tests are made up of
questions which are biased for many groups of students (Schaeffer et al., 2012). Questions dealing with specific cultural knowledge can place students living in poverty at an unfair disadvantage, causing lower scores on state standardized tests (Armstrong, 2010). Students from families with educational resources such as computers and other electronic devices are more likely to do well on standardized tests compared to students without those resources (Gibson, 2014). Many teachers and administrators do not think standardized tests accurately measure the information students have mastered and believe using the data to determine student learning is a mistake (Wiliam, 2010).

Attendance and socioeconomic status have been shown to correlate with students' success in middle school (Morrissey, Hutchison, \& Winsler, 2014). Addressing student attendance issues is a key component to the middle school transition process (Benner \& Wang, 2014). In 2006, the National Center for Education Statistics discovered, "Children living in poverty are twenty-five percent more likely to miss three or more days of school per month" (as cited in Ready, 2010, p. 272).

## Conceptual Framework

The most difficult challenge middle schools are facing when examining the transition process from elementary school is developing a rigorous and cohesive curriculum which meets the many social and emotional needs of the adolescent child (San Antonio, 2006). The proponents for middle schools contend when both the physical and emotional needs of the students are met, academic achievement will increase (Williams et al., 2010). Middle schools which focus on maximizing instructional time and placing emphasis on developing reading, writing, and reasoning skills will see results
in academic gains (Adams, 2008). One of the factors causing students to have difficulty in ninth grade is the limited curriculum many students are exposed to in elementary and middle school (Emmett \& McGee, 2012). The limited curriculum causes deficiencies in the academic background of the students, and without the basic academic skills, students are forced to take more remedial courses (Emmett \& McGee, 2012). Enrollment in lower-level courses causes frustration with the student's progress toward graduation (Emmett \& McGee, 2012).

Adding to the confusion of designing a middle school curriculum which best fits the needs of the students is the importance of student scores on state standardized tests. The benefits and negative connotations of standardized testing were described by Huss and Eastep (2011), who found $51 \%$ of teachers from Florida who were surveyed thought the middle school curriculum had been positively affected by state standardized testing. This was in contrast with Falkner and Cook, who found Northern Kentucky teachers surveyed felt standardized testing had a negative effect on the middle school curriculum (as cited in Huss \& Eastep, 2011). Middle school curriculum is designed to address the changing cognitive needs of young adolescents and to encourage creative thinking and decision-making skills, not to be narrowly focused on high-stakes test material (Musoleno \& White, 2010). Lounsbury (2009) stated, "The overemphasis on improving test scores works against developing the very attributes needed to succeed in today's global society" (p. 5). Teachers often feel standardized test scores are used more for school accountability than to design student learning goals (Andrews \& Bishop, 2012). According to Musoleno and White (2010), the increased pressure from No Child Left

Behind forces teachers to teach the material which will be on the test, leaving out valuable parts or complete sections of the curriculum.

Students and parents experiencing middle school for the first time will have numerous concerns and questions about the curriculum, academic expectations, and procedures dealing with the school day. Teacher expectations, grading practices, and the amount of homework required can change drastically from the elementary school to the middle school setting (Ryan et al., 2013). Communication among sending and receiving school teachers is a priority to determine the academic requirements of the transitioning student and to develop a cohesive curriculum (Huss \& Eastep, 2011). Working together to address students' anxiety and answering any questions about the procedures at the receiving middle school are requirements for a successful transition program (GrillsTaquechel et al., 2010). A set time for teachers to collaborate and share ideas is a necessity for a positive learning environment (Styron \& Nyman, 2008). Duke (2006) stated, "It is impossible to imagine school improvement without a substantial amount of collaboration involving teachers and other staff members" (p. 731). Andrews and Bishop (2012) discovered one of the teachers' main concerns was not receiving student data in a timely manner to determine instructional areas of improvement for the coming year. Akos maintained, "If you teach sixth grade, you might spend your entire first quarter trying to figure out what the kids know" (as cited in Adams, 2008, p. 45).

Studies have shown a decrease in academic achievement and GPA when students do not have a smooth transition process between grade levels (Friedel, Cortina, Turner, \& Midgley, 2010). Students lacking a sense of belonging are more likely to see a decline in
academic success (Roybal et al., 2014). Identifying students who are at risk in middle school is a pivotal component of the transition process (Williams et al., 2010).

The transition process continues throughout the school year. Teachers and administrators are responsible for continually monitoring the students' progress and addressing any problems encountered in the less-structured middle school setting (San Antonio, 2006). The middle school principal is responsible for addressing the concerns of the parents and students about academic programs and other daily routines which are different than the procedures used at the elementary schools (George, 2009). The principal's role is to be available to answer questions and to explain the intervention and support programs available to the families for students needing assistance with academics or basic living essentials (Huss \& Eastep, 2011). Middle schools are responsible for providing incoming sixth-grade students a network of support systems to address organizational skills, daily routines, and new regulations (Ryan et al., 2013). Sixth-grade students are accustomed to smaller class sizes and one main teacher, whereas middle school students are exposed to several teachers and much larger class sizes (Randall \& Engelhard, 2009).

Weiss and Baker-Smith (2010) discovered the percentage of students who live in poverty does have an impact on the academic achievement levels of middle schools, as do the climate, high expectations, and academic support. Students from lowsocioeconomic families possessing high academic capabilities often want to avoid being placed in accelerated programs (Williams et al., 2010). The reasons for avoiding accelerated programs include a lack of educational resources at home or alienation from a
specific peer group (Williams et al., 2010). Even though the students have the capabilities to be successful in accelerated programs, most low-socioeconomic students do not take advantage of the programs (San Antonio, 2006). Ready (2010) suggested, "If public schools are charged with narrowing socioeconomic disparities in academic outcomes, one potential solution is to increase attendance rates among lower socioeconomic children" (p. 281). School funding is tied to attendance, adding to the financial burden of schools in socioeconomically disadvantaged communities (Ready, 2010). Teachers track student attendance patterns to identify students showing signs of frequent absenteeism to aid in identifying these at-risk students (Balfanz, 2011). Chronic absenteeism in low-socioeconomic students is often caused by health problems or issues alongside moving frequently during the school year (Ready, 2010).

## History of Middle School

The concept of grouping young adolescents in one school facility started in the early 1900s (Lounsbury, 2009). The first junior high school was established in 1909 in Columbus, Ohio, with a grade configuration of seventh, eighth, and ninth-grade students (Lounsbury, 2009). The middle school movement with a grade configuration of sixth, seventh, and eighth-grade students was established in the early 1960s (Lounsbury, 2009). The idea of moving young adolescents to an isolated facility and lessening the amount of time students spent in elementary school was the early motivation behind this new grade configuration (George, 2009). The theory was to bridge the academic gap between elementary school and high school and to develop a more rigorous curriculum (Styron \& Nyman, 2008).

Another push for the middle school concept was re-established in the 1980s because of the lack of academic rigor at the high school level revealed by the report, "A Nation at Risk" (George, 2009). Many schools moved ninth-grade students to the high school setting, making sure to expose ninth-grade students to a more strenuous academic program (George, 2009). This movement caused educators to focus more on the importance of the middle school and the development of academic school programs which were sensitive to the adolescent student (George, 2009).

In 2002, President George W. Bush signed the No Child Left Behind Act, which was a federal law addressing the issue of all students receiving a quality education (Magee \& Jones, 2012). The law called for an increase in accountability and academic achievement monitored by standardized testing (Buck et al., 2010). More focus was placed on middle school achievement levels including subgroup academic progress, academic rigor, and the school environment (Styron \& Nyman, 2008).

When middle schools were first established, the characteristics were not well defined; most of the focus was on the desegregation of the students, not on addressing the academic or the emotional needs of the students (George, 2009). Keynes stated, "Individual differences reach their peak in early adolescence as these young people, each at his or her own rate, mature physically, socially, emotionally, intellectually and morally" (as cited in Lounsbury, 2009, p. 3). Entering middle school can be a challenging time for everyone involved. Parents and students are experiencing many new challenges which are totally different from the normal elementary routine (Rockoff \& Lockwood, 2010). According to Smith (2012), examining the strengths and weaknesses
of the curriculum, academic programs, and other school processes is necessary to provide a quality education for the students. In many schools, there is no set time for elementary and middle school teachers to collaborate (Adams, 2008). Most elementary teachers do not understand the challenges students will face in middle school, and middle school teachers do not have any knowledge of the academic content students have been exposed to, making collaboration a valuable tool (Andrews \& Bishop, 2012).

There are many options for parents when choosing the type of education their children will receive in today's society. Charter schools, vouchers, private schools, and even home schooling are becoming more popular (Minow, 2011). Parents are no longer limited to the school district's program in which the family resides (Rix, 2012). Middle schools have been criticized heavily for the limited amount of success students have had on standardized assessments and for not meeting general learning goals (Rockoff \& Lockwood, 2010). Critics propose middle schools spend too much time addressing emotional and physical challenges of young adolescents and not enough time on a rigorous curriculum which will prepare students for the challenges of high school (Lounsbury, 2009).

Some school districts have abandoned the middle school model and have returned to the K-8 grade configuration because of concerns over the academic success of the students (Benner \& Wang, 2014). Middle school students have shown academic achievement loss in all four core subjects when entering sixth grade, but have made significant gains the previous grades (Ellerbrock \& Kiefer, 2013). Strong evidence suggests middle school students tend to have lower academic achievement and
motivation caused by differences in the quality of instruction and life changes during this transition period (Holas \& Huston, 2012). Keyes concluded, "Middle level schools, more than schools at other levels, exist to serve diversity; and no scheme of school organization or federal mandate for uniform achievement can wash away human variability" (as cited in Lounsbury, 2009, p. 3).

The middle school years are a critical time in maturity and cognitive development, and students experiencing these changes can show signs of a diminished attitude toward academics, making the transition process one of much importance (Ellerbrock \& Kiefer, 2013). Allensworth and Easton (2007) reported elementary teachers develop stronger relationships with their students in elementary school by building emotional bonds. Teachers are able to communicate high academic expectations and achieve more learning targets due to the levels of trust between teacher and student (Ryan et al., 2013). Barber and Olsen found, "When the first year of a middle school organized students in self-contained elementary-school like classrooms, students reported closeness to their teachers and maintained or improved their engagement in school" (as cited in Holas \& Huston, 2012, p. 334). Researchers have shown the larger the middle school compared to the sending elementary school, the more student engagement tends to diminish (Lester et al., 2013). Students do not develop the same type of teacher-student relationships which were developed in the smaller elementary schools (Ellerbrock \& Kiefer, 2013).

Middle school and high school teachers need to spend more time communicating to ensure the high academic expectations which were established in the elementary
grades continue throughout the child's education (Roybal et al., 2014). Teachers build emotional relationships among the students not only in the elementary grades, but also during middle school and high school (Grills-Taquechel et al., 2010). Teachers who are able to establish these types of strong bonds will see the results in an increase in academic productivity (Allen et al., 2013). According to Holas and Huston (2012), a majority of middle school teachers do not see the importance of building personal relationships among students unlike elementary teachers who are inclined to build strong relationships. According to Allen et al. (2013), "Improving the quality of teacher-student interaction within the classroom depends upon a solid understanding of effective teaching for adolescents" (p. 77). Holas and Huston (2012) determined quality instruction and strong teacher-student relationships are indicators for a successful middle school experience. Allen et al. (2013) also stated, "Adolescents are highly sensitive to the emotional rapport they establish with adults in school settings, and the experience of strong connections to adults has been linked to long-term academic success" (p. 93). Middle school students show more academic growth when the teacher truly cares for the students and provides a challenging curriculum (Holas \& Huston, 2012).

## The Transition Process

When students enter middle school the amount of social and emotional support is a major contributor to the academic success of the child (Ellerbrock \& Kiefer, 2013). Children of this age are very vulnerable and are still developing mentally (Martinez et al., 2011). Students entering middle school show signs of being unable to make good decisions, lack self-confidence, and have difficulty establishing new friendships (Rockoff
\& Lockwood, 2010). Adams (2008) reported how important a smooth transition from elementary school to middle school is for the students' well-being stating, "It is a time of increased risk for smoking, alcohol, and drug abuse, violence, truancy, damage to selfesteem, and referrals to mental health services" (p. 45). Students in early adolescence are facing more bouts of depression and social anxiety, which cause more stress during the transition process from elementary school to the middle grades (Emmett \& McGee, 2012). Lounsbury (2009) determined, "The middle school is not just a physical place in which teachers teach about things needed in the future; it is an environment in which youth come of age, acting out new roles as maturing social beings" (p. 5).

Students experiencing a difficult time during the transition process to middle school are less likely to build strong interpersonal relationships among teachers, to be involved in extracurricular activities, or to be actively engaged in academic achievement (Benner \& Wang, 2014). Students from K-8 grade configurations have shown higher levels of academic achievement compared to students transitioning from a middle school setting, partially because of the strong teacher bonds developed in K-8 settings (Weiss \& Baker-Smith, 2010). Schools with a positive learning environment produce a feeling of belonging for the students (Ellerbrock \& Kiefer, 2013). Students who feel important and connected to the school are more likely to show academic improvement (Benner \& Wang, 2014). When students are adjusted socially to the environment, self-esteem increases and negative feelings decrease (Emmett \& McGee, 2012).

The middle school transition process not only focuses on the emotional and social issues of the students, but addresses the cognitive development of the children
(Ellerbrock \& Kiefer, 2013). The level of academic achievement middle school students obtain by eighth grade has a direct correlation to the success students will have in high school and college ("The Forgotten Middle," 2009). If educators truly want to improve the students' skills to be better prepared for college and careers, the intervention starts in early elementary school and continues into middle school ("The Forgotten Middle," 2009). As students move through middle school, more emphasis is placed on taking responsibility for educational success and academic development (Huss \& Eastep, 2011). Allensworth and Easton (2007) stated, "Schools serving large proportions of students who have not been successful in elementary school face substantially more challenges than schools receiving mostly high-achieving students" (p. 26).

Successful middle schools implement a curriculum aligned to state standards that challenges students with valuable and relevant learning targets (George, 2009). School leaders continually evaluate educational programs and the manner in which those programs are being implemented for school improvement to take place (Balfanz, 2011). The educational process is one of continuous evaluation to provide the best education possible for the students (Fullan, 2011). School districts can develop an outstanding curriculum, but if teachers do not fully implement the program, school improvement will not take place (Kohler-Evans et al., 2013).

Teachers set the academic rigor and climate for the classroom and have the best understanding of the concepts which are being taught (Wiliam, 2010). The educational leaders of the school have the responsibility to address every student's academic goals and to determine which learning style best meets the requirements of the student (Huss \&

Eastep, 2011). Chenoweth and Theokas (2013) discovered high expectations are an important part of motivating students from low-income families to achieve academic success. Teachers with high expectations who provide quality, positive feedback are more likely to see an increase in student academic success (Emmett \& McGee, 2012). Yecke stated, "Many contemporary middle schools overemphasize cooperative learning, peer tutoring, and heterogeneous grouping and thus, drastically lower expectations and achievement for pupils, especially those who possess high academic ability" (as cited in Huss \& Eastep, 2011, p. 2). The school's leadership team develops and integrates a curriculum which promotes creativity and challenging expectations to promote college and career readiness (Kohler-Evans et al., 2013).

High-performing middle schools use a standards-based curriculum, employ qualified middle school teachers, promote good physical and mental health, and involve all stakeholders in the educational process (Holas \& Huston, 2012). Highly qualified teachers are required to provide students with the knowledge to be successful at each level of school (Armstrong, 2010). School districts with an inadequate teaching staff do not provide students with the skills to be successful in college and in the workforce (Kohler-Evans et al., 2013). This causes a lack of community support and collaboration (Kohler-Evans et al., 2013). Huss and Eastep (2011) found middle schools which are successful are able to address the physical, social, and mental issues of young adolescents while continuing to have high academic rigor.

Andrews and Bishop (2012) detailed how important it is for teachers who are involved in the transition process "to share information about the students and discuss
curricular cohesion" (p. 10). A key component of a quality transition process is collaboration between elementary school staff and middle school staff with an emphasis on the increased academic demands students will face in the coming years (Ellerbrock \& Kiefer, 2013). When teachers and administrators work together for the betterment of the learning environment, student achievement increases (Styron \& Nyman, 2008). According to George, "High-performing middle schools have high-performing, learnercentered principals and teachers who collaboratively work together to enhance student learning" (as cited in Huss \& Eastep, 2011, p. 2).

One of the obstacles faced by many middle schools is the likelihood of hiring teachers and administrators who have not been properly trained to teach young adolescents (Huss \& Eastep, 2011). Mashburn, Dower, Hamre, Justice, and Pianta concluded, "Professional development focused specifically on teachers' emotional, organizational, and instructional interactions with students may enhance teachers' effectiveness in ways that have a direct effect on student learning" (as cited in Allen et al., 2013, p. 95). Teacher preparation programs have neglected the middle school teacher by not providing adequate training in educational methods best suited for the young adolescent child (Huss \& Eastep, 2011). There is little, if any, teacher training which is specific to the adolescent student (Huss \& Eastep, 2011). State departments of education have not required or provided teacher training which addresses the differences between middle school teaching techniques and the traditional teaching methods used for elementary and secondary students (Huss \& Eastep, 2011).

## Standardized Testing

Standardized testing can be a highly valuable tool for educators when used properly. State standardized tests provide districts with useful data on specific content information (Buck et al., 2010). The tests also aid in giving direction for learning goals and a time frame for covering information (Buck et al., 2010). State standardized tests were not designed to evaluate teachers or school districts (Musoleno \& White, 2010; Schaeffer et al., 2012; Wiliam, 2010). When politicians place such emphasis on state standardized tests to determine school success, teachers are more likely to focus the curriculum on specific information addressed on the state assessment (Schaeffer et al., 2012).

The expectation for schools is academic improvement, no matter the challenges presented (Smith, 2012). Schools which do poorly tend to place the blame on the students, but when collaboration with stakeholders is lacking, even the best educational programs will not be successful (Kohler-Evans et al., 2013). State standardized testing provides educators with a guide for student improvement (Buck et al., 2010). The focus is on skills the students lack and developing ways to improve those skills (Buck et al., 2010). The results from standardized tests are to be used to determine strengths and weaknesses of the students, and lessons can be developed which focus on the individual learning goals of each student and eliminate areas of deficiency (Buck et al., 2010).

When standardized tests were developed, the intended use was to evaluate student achievement, enhance learning programs, and provide funding to necessary programs (Musoleno \& White, 2010). In today's society, standardized tests are being used to
evaluate teachers and as a rating system for school districts (Musoleno \& White, 2010). This has led to districts using the material on the test to drive instruction in hopes of improving the students' tests scores (Kearns, 2011). State standardized testing was implemented to improve classroom instruction instead of narrowing the curriculum (Schaeffer et al., 2012). The educational material covered on state standardized tests is not intended to be used to develop grade-level curriculum (Musoleno \& White, 2010). Groups of administrators, teachers, and parents from many states are pushing to eliminate the ramifications of high-stakes testing and to place the attention back on classroom instruction (Schaeffer et al., 2012).

The school principal is responsible for reviewing student academic data on a regular basis and organizing data teams to aid in this process (Fox, 2013). The teams are responsible for identifying areas of improvement and developing instructional strategies which will address these areas (Fox, 2013). The learning process is goal-directed and is based on student achievement (Fullan, 2011). Ronka revealed, "Many educators don't have training or experience in using data to make decisions and thus feel overwhelmed by the prospect" (as cited in Flowers \& Carpenter, 2009, p. 65). According to Bernhardt (2013), student achievement is the driving force in determining the effectiveness of the curriculum, and teachers will benefit greatly from routinely collecting data and evaluating the progress of students.

Schools use data not only to define a problem area, but also to focus on a specific area to improve (Flowers \& Carpenter, 2009). Bernhardt (2013) indicated, "We want to use data to predict and ensure success, and to predict and prevent failure" (p. 108).

Schmoker reported, "The aim of data analysis isn't to gather large quantities of data, but to gather and use meaningful data" (as cited in Flowers \& Carpenter, 2009, p. 64). When data are aligned with the school improvement plan, the chances of the information being used to benefit student achievement increases (Shen et al., 2012). Release time is required for administrators and teachers to analyze educational data and to determine which areas of the academic process are not working (Bernhardt, 2013). The areas can then be addressed and school improvement can take place (Bernhardt, 2013).

Determining the correct data to be analyzed can be a large task, according to Flowers and Carpenter (2009). Narrowing the search for meaningful data can aid in focusing on only information beneficial to the students (Shen et al., 2012). School systems tend to focus on only data retrieved from state standardized tests, but there are numerous other sources of data readily available to schools (Flower \& Carpenter, 2009). Other examples of sources of data available to schools include student attendance rates, parental surveys, student portfolios, discipline rates, and curriculum materials (Musoleno \& White, 2010).

Placing too much importance on test results can limit the benefits of a child's education. Lounsbury (2009) stated, "The overemphasis on improving test scores works against developing the very attributes needed to succeed in today's global society" (p. 5). Solely using standardized tests to evaluate school curriculum and the educational programs of a district is a mistake (Magee \& Jones, 2012). State assessment data are best suited for determining academic areas which are inadequate instead of forcing teachers to address only those objectives covered on the test (Schneider, 2013). Many school
districts have placed increased pressure on teachers to perform well on state standardized tests (Musoleno \& White, 2010; Schaeffer et al., 2012; Wiliam, 2010).

The high stakes of standardized testing have caused many middle schools to focus on aligning the curriculum to the state standards and eliminating many of the learning components which were found to be successful with middle school students, such as group learning, differentiated instruction, enhancement electives, and social programs from the curriculum (Huss \& Eastep, 2011). Opportunities for student interaction through group work and special projects are an essential part of a quality middle school curriculum (Huss \& Eastep, 2011). When middle schools focus only on material assessed on standardized tests, students miss out on numerous special activities and projects which enhance the learning experience (Musoleno \& White, 2010). Adolescents have many distinct characteristics which educators are obligated to address when creating a creative and productive learning environment (Musoleno \& White, 2010). Increasing academic pressure to perform well on state standardized tests has minimized the opportunities for students to engage in decision-making situations and to develop other cognitive skills necessary to be successful in the future (Musoleno \& White, 2010).

Education leaders have expressed concerns with validity of state standardized tests. There have been countless claims of invalid test questions and scoring errors which have placed doubts on the reliability of the results (Schaeffer et al., 2012). Farah (2013) stated the results are valid and provide reliable data for educational teams to address students' learning objectives. There are specific guidelines to assure the administration and scoring of the tests eliminate any inconsistencies (Buck et al., 2010). Therefore, the
data gathered from standardized assessments provide educators valid, unbiased, academic information to aid in developing new teaching strategies to address weak areas (Buck et al., 2010).

## Analyzing Data

Data analysis can be useful in identifying successful instructional strategies as well as areas of improvement (Bernhardt, 2013). Today numerous electronic methods of storing and analyzing data can be used to monitor a student's progress (Schaffhauser, 2013). According to Schaffhauser (2011), every subject a student enrolls in throughout school can be tracked and the data compared by numerous subgroups. Specific instructional practices can be designed to addresses weak areas, and the instruction can be differentiated to favor a specific learning target (Balfanz, 2011). School leaders are responsible for providing adequate professional development on analyzing data (Schaffhauser, 2011). Teachers require training on methods to analyze data correctly (Flowers \& Carpenter, 2009). When data analysis is done correctly the child's educational experience improves (Schaffhauser, 2011).

According to Flowers and Carpenter (2009), analyzing data annually is critical to all instructional practices and to reevaluating the goals of the improvement plan. Once the data have been collected, the team can determine the information which is relevant to the school improvement plan and can set goals to address those areas (Fox, 2013).

Flowers and Carpenter (2009) stated, "The process of prioritizing the goals can begin to create consensus among staff and administrators regarding a starting point for school improvement" (p. 65). Continually evaluating the effectiveness of the learning strategies
and the amount of progress being made by the students is the main characteristic of any quality school improvement plan (Fox, 2013).

Duke (2006) recognized the importance of teachers working together to identify individual student areas of weakness and to monitor student progress throughout the school year. Once the areas of concern are identified, a plan is developed to address academic areas which are weak (Duke, 2006). School districts continue to collaborate with parents to develop a plan to address the areas of concern if student achievement is going to improve (Kohler-Evans et al., 2013). Duke (2006) suggested teacher collaboration is a key to raising student achievement levels when the discussions are meaningful and focused on the individual goals of the student. School leaders are required to provide time for teacher collaboration and analysis of student data to see any increases in the students' academic achievement (Emmett \& McGee, 2012). School administrators and teachers are compelled to communicate with all stakeholders to maximize the talents of each individual involved in the learning process (Flowers \& Carpenter, 2009). Each group needs to focus on student achievement, so the vision of school improvement can take place (Kohler-Evans et al., 2013). Productive discussions among teachers, principals, and parents are the keys to producing a relevant team focused on the vision of providing students with the best education possible (Kohler-Evans et al., 2013).

According to Smith (2012), the attention is placed on student improvement, not on the many academic obstacles students and teachers face. There are numerous challenges students from low-socioeconomic areas are faced with during the educational
process; Smith (2012) stated, "Our students’ ethnicity, socioeconomic status, and home language will not be excuses, we must hold ourselves accountable for ensuring our students learn what we set out to teach them" (p. 24). School leaders are responsible for making sure collaboration is taking place and school improvement is the focal point of the discussions (Smith, 2012). A significant amount of time is used to address the academic and social needs of the student (Kohler-Evans et al., 2013). Duke (2006) identified the following critical elements in school reform: "assisting students with academic needs, collaboration, monitoring students' progress, data driven decision making, strong leadership, organizational structure, and staff development" (p. 730). Schools in low-socioeconomic areas also showed growth when these elements were in place (Cuthrell, Stapleton, \& Ledford, 2010).

## Teacher-assigned Grades

Over the past 100 years, there have been few if any changes to the current school grading system that includes point values for extra-credit, projects, attendance, and behavior, which do not give an accurate account of the learning targets mastered by students (Jung \& Guskey, 2011). The original purpose for using grades was to determine if children were qualified to be promoted to the next grade and to establish a ranking system for students (Spencer, 2012). Determining the criteria for student grades continues to cause debate between proponents of student achievement and student growth. Students may receive points for effort or only for the skills the student has mastered, which has led to the controversy over the inconsistency of student grades (Cox, 2011).

The teacher is responsible for providing students and parents with an accurate evaluation of a student's progress in the course (Spencer, 2012). Student grades have traditionally been one of the chief communication tools schools have used to provide information to parents about the child's progress in school (Kohn, 2011). Student report cards are still one of the leading ways to communicate the student's success in school (Jung \& Guskey, 2011). Teacher-assigned grades become part of the student's permanent record and are used by college admission boards and employers (Cox, 2011). Both groups assume a student's grade point average is a direct result of the learning skills the student has mastered (Cox, 2011). Student grades provide evidence of skills mastered, performance on summative assessments, and demonstrate student growth (Jung \& Guskey, 2011).

Providing inaccurate grades which do not reflect mastery of skills does not allow the student to improve on weak academic areas (Shippy et al., 2013; Spencer, 2012). Successful teachers take time to assess the student's academic capacities accurately and to provide descriptive feedback on areas needing improvement (Jung \& Guskey, 2011). Along with creating meaningful assessments, teachers are required to provide students and parents with descriptive feedback on the academic skills mastered and the areas in which students lack comprehension (Shippy et al., 2013). Inflated grades do not give an accurate picture of the academic skills which have been mastered, so the grades are not a good indicator of how students will perform on end-of-the-year standardized assessments (Brookhart, 2011; Jung \& Guskey, 2011).

There have been numerous concerns regarding students with high teacherassigned grades who score poorly on state standardized tests (Jung \& Guskey, 2011). Students with high GPAs who score Basic or Below Basic on state standardized tests may be receiving inflated grades which do not reflect the amount of mastery on specific learning goals (Cox, 2011). The importance of a consistent and accurate grading system continues to increase with more emphasis being placed on schools producing students who are college and career ready (Brookhart, 2011). Teacher-assigned grades provide valid information about the knowledge a student has gained in the subject area (Randall \& Engelhard, 2009).

Numerous students scoring Proficient or Advanced on state standardized tests did not always obtain high marks in the classroom due to homework being figured into the final course grades (Jung \& Guskey, 2011). One of the issues with using homework as part of a student's overall grade is the uncertainty of the amount of work actually completed by the student (Cox, 2011). Homework assignments can be completed with friends or family, skewing the actual amount of work completed by the students (Cox, 2011). Homework and special projects can be an important part of a child's educational process, but should be assessed separately from the actual achievement of the learning targets (Shippy et al., 2013). Numerous teachers continue to determine a student's grade by effort on homework and class projects, which inflate the grades (Cox, 2011). When the grades are inflated, there is no true measure of academic progress. Teachers justify adding homework and special projects into the final grade as a measure of effort (Cox, 2011; Jung \& Guskey, 2011; Shippy et al., 2013). Effort and dedication are qualities
which are necessary to be successful in the business world, according to many educators who support adding homework and effort scores to the final grade calculations (Cox, 2011).

Letter grades are not really the problem, but using a single grade to assess countless homework assignments, projects, and effort without a specific criteria leads to an invalid assessment of a child's knowledge (Shippy et al., 2013). According to Jung and Guskey (2011), when teachers inflate grades, the student begins to believe true academic understanding is not important and only focuses on completing the assignments without concern for actual mastery of the learning objectives. Marzano and Heflebowe concluded, "Homework, behavior, attendance, notebooks, and group work should not be factored into a student's grade" (as cited in Shippy et al., 2013, p. 14). Teachers justify using homework and extra-credit projects to raise a student's grade as a form of motivation (Cox, 2011). Parents continue to place a great importance on the letter grade a child receives, even though there is very little achievement information provided by the teacher on the actual academic skills or learning targets which were mastered (Spencer, 2012).

The inflation of grades is due in part to the increased pressure placed on teachers to produce students with high scores (Randall \& Engelhard, 2009). With an increased focus on student achievement, teachers are being scrutinized for providing high grades to students for good attitudes and work ethic (Cox, 2011). The traditional intent of grades was to build up the students' self-esteem and motivate them to complete the learning activity (Randall \& Engelhard, 2009). Too much emphasis is being placed on
punishment or rewards and not enough on the academic skills being mastered (Spencer, 2012).

Student grades in today's system are based on numerous benchmarks which are not centered on instructional competencies and are often used to recognize outstanding scholarly achievement or to gain participation in extra-curricular activities (Spencer, 2012). Elementary schools are obligated to evaluate grading practices to reflect more of the student's academic growth and newly-acquired skills (Randall \& Engelhard, 2009). Elementary teachers often put more emphasis on improvement, where middle school teachers assess more on academic achievement and behavior (Randall \& Engelhard, 2009). School districts are placing too much emphasis on improving a certain skill and not on mastering the benchmarks (Jung \& Guskey, 2011). When teachers do not assign grades which reflect a certain level of mastery, parents are given an inaccurate report of the student's academic progress (Randall \& Engelhard, 2009).

One of the causes for grade discrepancy between elementary school to middle school is the configuration of the educational layout. Traditional elementary schools are designed for one teacher to teach the majority of all core subjects to the students (Randall \& Engelhard, 2009). Middle schools are designed for a seven-period day where students travel from class to class receiving specialized instruction for each subject (Rockoff \& Lockwood, 2010; Weiss \& Baker-Smith, 2010). Elementary students receive grades basically from one teacher, while middle school students are evaluated by seven teachers (Randall \& Engelhard, 2009).

Teachers establishing specific learning targets and determining fair and accurate methods of assessing those goals have a better understanding of the learning targets which have been mastered (Shippy et al., 2013). Teachers at the elementary level spend more time with students and build stronger bonds (Grills-Taquechel et al., 2010). The emotional connection can influence the grades assigned (Randall \& Engelhard, 2009). Elementary teachers are more sympathetic to the outside obstacles which students overcome to be successful in school and are concerned more with a student's self-esteem (Holas \& Huston, 2012). Elementary teachers tend to fail fewer students than middle school teachers and very seldom retain students based on the level of academic mastery (Randall \& Engelhard, 2009).

Another explanation for the drop in academic scores for middle school students is the importance students place on obtaining good grades. As students enter middle school, the focus becomes more on social acceptance instead of receiving good grades (Ellerbrock \& Kiefer, 2013; Martinez et al., 2011; Ryan et al., 2013). With the increased pressure on teachers to produce high student test scores, the expectations for students have grown (Musoleno \& White, 2010; Schaeffer et al., 2012; Wiliam, 2010). Teachers are placing more emphasis on homework and effort, causing students' grades to drop (Randall \& Engelhard, 2009). The majority of teachers still put more emphasis on tests than on homework and special projects when assigning students' grades, but even calculating a small point total into the final score can cause inflation of the grade (Cox, 2011).

Teachers in middle school frequently use grades to motivate students to be engaged in the subject matter and to have better control of classroom behavior (Randall \& Engelhard, 2009). Teachers' individual attitudes and philosophies can also have an effect on the way teachers assign grades (Cox, 2011). Middle school teachers allow preconceived notions of the student's ability to influence the assigned grades (Randall \& Engelhard, 2009). Teachers at the middle school level often factor in student potential, instead of focusing only on the learning targets actually mastered (Randall \& Engelhard, 2009).

The traditional report card may need to be revised to give a better understanding of student skills mastered. An additional category may be added to express effort and attitude (Cox, 2011). Traditional grading systems give students an unrealistic view of their academic success by adding other areas of class work such as homework and group projects to the overall class grade (Shippy et al., 2013). Grade inflation has made determining the learning skills which students have actually mastered very difficult (Shippy et al., 2013). Academic grades should provide parents and students with a clear picture of the learning objectives and the level of mastery which has been obtained (Spencer, 2012). Designing specific learning targets and an accurate method for assessing goals are prerequisites in developing a quality grading system (Shippy et al., 2013). Teachers placing emphasis on student achievement often allow retests and do not assign grades to homework (Cox, 2011). A variety of student assessments are given to determine the amount of understanding a student has gained on a specific learning target (Kohler-Evans et al., 2013). Teachers need to compile several sources of data to
determine if the student has mastered the skill (Jung \& Guskey, 2011). Using only limited assessments does not provide the data necessary to determine of the target has been met (Kohler-Evans et al., 2013).

Allensworth and Easton (2007) stated high schools cannot address student dropout rates and student failure by themselves; elementary and middle schools are obligated to increase academic rigor to prepare students for the challenges ahead. According to Kohn (2011), teacher grades can limit the amount of interest in a specific learning target when the grade does not reflect mastery of the skill. Spencer (2012) found traditional grading systems give students an unrealistic view of their academic success by adding other areas of class work such as homework and group projects to the overall class grade, which lowers the academic standards of the class. Without having an accurate measurement of the students' academic skills, understanding the learning skills the student has mastered is almost impossible (Cox, 2011; Jung \& Guskey, 2011; Shippy et al., 2013; Spencer, 2012). Student grades based on achievement and skill level obtained, not on special projects or extra credit, give accurate information on the learning targets mastered (Jung \& Guskey, 2011). When teachers provide numerous opportunities to inflate a grade, exceptional students are not challenged and struggling students are not identified (Shippy et al., 2013). A common measure of achievement is essential to have a fair and consistent measure of student grades (Cox, 2011).

## Student Poverty

Educating students living in poverty is one consistent challenge faced by all schools in America. Students affected by poverty do not only attend large inner city
schools, but also attend smaller rural schools (Marquis-Hobbs, 2014). The achievement gap among socioeconomic classes continues to grow from the early elementary years until graduation (Morrissey et al., 2014). Students who live in poverty have lower reading levels and graduation rates compared to other students (Emmett \& McGee, 2012).

Students living in poverty do not live in conditions which provide for the basic necessities such as food, clean living conditions, and an atmosphere which promotes education (Armstrong, 2010). Marquis-Hobbs (2014) noted, "Nationally, one of every five public schools were classified as a high-poverty school in 2011 by the U.S. Department of Education a nearly $60 \%$ increase in 10 years" (p. 34). Educators do not always believe the school is responsible to meet essential living requirements of the child, but if the student does not having adequate nutrition or clothing, academic failure is a certainty (Landsman, 2014). Armstrong (2010) concluded the school is responsible for providing many of the basic essentials for students living in poverty as well as for designing educational programs to address the specific limitations of these students. Successful schools from areas of high poverty are providing programs such as weekend backpacks with food for students, parent transportation for school meetings, and creating an atmosphere where all stakeholders feel welcome (Landsman, 2014).

Armstrong (2010) made this deduction about living in poverty, "To thrive in school and in life, these children need early, intensive, sustained interventions starting with good nutrition and health care" (p.50). Children growing up in poverty are exposed to numerous situations which hinder students from being successful in school, such as
residential inconsistencies, lack of substantial rest, and inadequate nutrition (Morrissey et al., 2014). One of the biggest obstacles children face growing up in poverty is hunger (Krashen, 2011). Children who live in poverty come to school hungry and have a difficult time focusing on academics, because the students' nutritional requirements have not be met (Guynes, Jackson, Macer, \& Cox, 2014).

Armstrong (2010) discovered students who live in poverty often have vitamin deficiencies, lead poisoning, asthma, and other conditions which slow cognitive development. Ready (2010) discovered children living in poverty are much more susceptible to asthma because of exposure to tobacco smoke and living in areas of high air pollutants, which is common for families from disadvantaged socioeconomic status. The neural systems of children living in poverty can develop years behind other children because of poor living conditions and a lack of proper nutrition (Armstrong, 2010). Students from high-poverty families show signs of developing cognitively behind students from higher socioeconomic classes (Krashen, 2011). Dental, vision, and hearing problems are also more common in children from high-poverty areas and are all disadvantages for school academic success (Ready, 2010).

High-poverty schools are faced with providing emotional support as well as providing academic training for students to be successful in the future (Balfanz, 2011). One of the most productive strategies when promoting high achievement in schools is addressing the obstacles faced by students who live in poverty (Brown, 2014). Armstrong (2010) also discovered students living in poverty encounter tremendous amounts of stress created by living in neighborhoods filled with crime and violence.

Poverty can affect a student's mental health by the numerous stressors the child is exposed to on a daily basis such as hunger, violence, neighborhood crime, and family drama (Guynes et al., 2014). Students living in neighborhoods in high-poverty communities are often faced with violence, gang activity, and exposure to drugs on a daily basis, making getting to school a dangerous situation (Morrissey et al., 2014).

Students who live in poverty have a higher rate of absenteeism from school, causing lower scores on state standardized tests (Krashen, 2011). Morrissey et al. (2014) reported the correlation between the number of days absent from school and the level of academic achievement obtained by the student. Subjects which are best taught using a scaffolding method, such as math, are difficult to comprehend if school attendance is sporadic (Ready, 2010). Being absent from school causes students to miss valuable instructional time and interaction with peers and teachers, all of which promote better academic scores (Morrissey et al., 2014).

Families living in poverty tend to be very mobile, moving several times during the school year to avoid paying bills or moving in with relatives for shelter (Armstrong, 2010). Changing residency during the school year causes students to miss valuable instructional time, keeps the students from building strong bonds with teachers and peers, and limits any type of school routines or continuity in learning objectives (Armstrong, 2010). These frequent residency changes are the cause of numerous deficiencies in academic development, due to the number of hours missed in the classroom setting (Ready, 2010). Armstrong (2010) revealed the homeless population continues to grow in the United States, causing more students to be faced with the challenges of a lack of
permanent residence. Homeless students have no consistent area conducive to studying outside of school hours (Armstrong, 2010). Morrissey et al. (2014) learned when changes occurred to the family's economic status or residency, changes also occurred to the academic success of the children.

Many parents living below the poverty level work long hours or work the night shift, which limits the amount of parental supervision or support given to the child (Morrissey et al., 2014). School-based health care centers and early childhood learning centers are excellent programs which support families living in poverty, but are often a strain on school budgets (Armstrong, 2010). Students who lack academic support will require constant encouragement to be successful in schools (Landsman, 2014). Brown (2014) suggested teachers can collaborate and share techniques to allow students from disadvantaged neighborhoods to become successful. All stakeholders are responsible for monitoring students who are at risk of dropping out of school (Emmett \& McGee, 2012).

Teachers do not always understand the obstacles students living in poverty face just to survive (Landsman, 2014). Teachers working in schools with high rates of poverty tend to employ teachers who are not qualified for the assignment (Armstrong, 2010). The teachers often lack experience and knowledge in the teaching field the school district has assigned, making professional development a key in high-poverty school districts (Armstrong, 2010).

Identifying students at risk in early adolescence is a main priority for schools in high-poverty regions. Early identification provides academic and emotional support which aids in making sure the students stay on track for graduation (Balfanz, 2011).

Students from low-income families who fall behind academically in middle school have a much higher rate of dropping out of high school than students from other backgrounds (Balfanz, 2011).

Parents living in poverty often have not obtained high levels of education and are unable to give academic support to the children in the home (Ready, 2010). The child is at a disadvantage because of the lack of educational support and learning resources found in the home (Ready, 2010). Children from low-income families experience a lack of school support and resources for academic support outside of school, causing disparity among academic abilities of students from other social classes (Ready, 2010). A lack of educational materials present in the home causes the child to be behind before the educational process even gets started, making early academic intervention a key for students in poverty to be successful (Ready, 2010). Participation rates for extracurricular activities and other after school programs are lower for students from low-socioeconomic families (San Antonio, 2006). The lower rate of participation in these programs could be due to lack of transportation, cost of participation, or other responsibilities at home (San Antonio, 2006).

Students who attend schools in high-poverty neighborhoods are faced with large class sizes, fewer highly qualified and experienced teachers, inadequate facilities, and a school curriculum which does not promote career and college readiness (Armstrong, 2010). High-poverty schools have fewer experienced teachers and larger numbers of staff members who are not highly qualified or lack the proper teacher certification (Armstrong, 2010). Large class sizes are common in schools in high-poverty
communities (Landsman, 2014). School districts which have large class sizes have a difficult time recruiting highly qualified teachers (Armstrong, 2010). Districts in highpoverty communities are responsible for recruiting strong teachers to provide a quality education and to address the many individual issues of the at-risk students attending these schools (Ready, 2010). Schools in high-poverty areas are required to have the same resources available to students as other affluent schools if school improvement is going to take place (Guynes et al., 2014).

Students from traditionally poor communities can be faced with anxiety created by preconceived notions of academic success by not only students, but also teachers (San Antonio, 2006). Landsman (2014) addressed the disservice some teachers are doing by determining teaching methods and strategies used according to the students' economic background, saying, "Teachers often hear that poor kids come from violent, chaotic homes and that only regimented curriculums will allow them to succeed, while wealthier children are taught through a variety of approaches that emphasize developing the whole child" (p. 17). High-poverty schools which focus extensively on improving standardized test scores do a disservice to students by not providing the basic skills necessary to be successful in college or the workforce (Duke, 2006).

Schools with high populations of low-income students are faced with designing a curriculum which will address academic deficiencies but will also be challenging and prepare the students for the future (Landsman, 2014). A rigorous curriculum which contains numerous interactive hands-on activities is an important part of the academic program in low-socioeconomic middle schools (Landsman, 2014). Educational research
supports the idea of a middle school curriculum in high-poverty schools that contains student-centered activities in which the student works through an activity to gain understanding of the concept or learning objectives (Landsman, 2014). When the curriculum is not rigorous and aligned with the learning objectives, the students struggle on state standardized tests (Squires, 2012). Students from high-poverty schools continue to score lower on the math portion of standardized tests than other students, causing the education gap between socioeconomic classes to widen (Krashen, 2011).

According to Armstrong (2010), training on instructional strategies that work best for students who live in poverty is a key component for any low-socioeconomic school. Teachers who grew up in middle class societies have not experienced the many challenges which students from poverty are faced with on a daily basis (Armstrong, 2010). Hiring highly qualified teachers from the community helps build strong bonds between the teacher and students because of the understanding the teacher possesses about the daily struggles students face (Landsman, 2014). Teachers who have high expectations for students from poverty provide the best example of the unlimited possibilities which can be obtained through education (Cuthrell et al., 2010).

Schools located in disadvantaged socioeconomic neighborhoods are more likely to have numerous intervention programs and do not provide the challenging classroom experiences required to prepare students for a skill-based career or the demands of college (Ready, 2010). Students from traditionally poor communities are often faced with anxiety created by preconceived notions of academic success by not only students, but also teachers, when entering middle school (San Antonio, 2006). High-poverty
schools needing improvement often offer numerous intervention programs, but so do high-poverty schools which are succeeding (Duke, 2006). This supports the theory intervention programs do not guarantee school improvement (Duke, 2006).

## Attendance

Absenteeism is a growing problem in public schools in the United States. Benner and Wang (2014) found a decrease in student attendance from kindergarten through twelfth grade due to the differences in the transition programs from school to school. Students who had poor school attendance in middle school continued to show signs of decline in attendance in high school, supporting the importance of middle school success (Schoeneberger, 2012). Poor student attendance in school is linked to decreased academic achievement, lower standardized test scores, and increases in high school dropout rates; this puts the focus of school improvement plans on student attendance rates (Schoeneberger, 2012).

The No Child Left Behind Act placed a great importance on student achievement and school absenteeism (Parke \& Kanyongo, 2012). Students who had poor attendance rates also scored low on state standardized tests (Parke \& Kanyongo, 2012). Every day a student is absent from school, the child misses a day of valuable instruction time which cannot be recovered (Parke \& Kanyongo, 2012). The learning objectives which were covered on the day of the absence will likely only be briefly reviewed in the coming days (Parke \& Kanyongo, 2012). This causes the student to have a much more difficult time understanding the core information of the unit (Parke \& Kanyongo, 2012). Students who miss several days of instructional time will often have lower grades and insufficient
knowledge of the subject matter (Parke \& Kanyongo, 2012). Good school attendance is a critical component of building the academic foundation for students (Benner \& Wang, 2014).

Students with high rates of absenteeism tend to do poorer on state standardized exams compared to students who miss a few days of school (Balfanz \& Byrnes, 2012). Students score 20 points lower on state standardized tests when absent $20 \%$ of the school year (Balfanz \& Byrnes, 2012). Attending school on a regular basis has a direct correlation with student success on standardized math exams; students attending school at a high percentage score better on the math portion of state standardized tests than students with high rates of absenteeism (Parke \& Kanyongo, 2012). Balfanz (2011) determined a strong to moderate correlation between student achievement and attendance in schools.

Years of poor school attendance can cause a void in the continuity of the academic process, limiting the number of learning objectives mastered. Benner and Wang (2014) discovered dropout rates are due to academic deficiencies and other social stressors which have built up over the years. These limitations, which started as early as elementary school, have built frustration for the students' lack of academic success (Benner \& Wang, 2014). The relationship between school attendance and dropping out of school has been studied numerous times, but the correlation between dropping out and social issues of welfare, incarceration, and unemployment are often overlooked (Wilkins, 2008). Adolescents experience numerous challenges when going through the school transition process. Students who struggle with this process should be identified and at-
risk intervention strategies implemented, if attendance and dropout rates are going to be addressed (Benner \& Wang, 2014).

High mobility rates are common with students who live in poverty (Parke \& Kanyongo, 2012). There is a connection between high mobility rates and school attendance with students from low-socioeconomic families (Parke \& Kanyongo, 2012). Families which move several times during the school year do not provide structure for a child to be successful in the educational setting (Parke \& Kanyongo, 2012). Students stay behind and miss the continuity of the curriculum, causing lapses in the learning process which promote a tendency for poor attendance (Parke \& Kanyongo, 2012). Researchers have reported poor attendance numbers in school have increased due to lowsocioeconomic status, lack of academic support, limited family structure, and an insufficient understanding of the school's attendance policies (Wilkins, 2008).

There is some relationship between poverty and graduation rates, but the educational programs provided by the school have a more direct effect on students' success than socioeconomics (Balfanz, 2011). Curriculum which is relevant and demanding also plays a major role in student attendance (Gorski, 2013). Students want to learn but often do not see the importance of the curriculum and are not challenged by the material (Marquis-Hobbs, 2014). Schools which do not provide the academic rigor and emotional support students require to be successful have a higher absentee rate (Allensworth \& Easton, 2007).

Schools with smaller student bodies exhibit higher attendance rates than larger schools due to student and teacher support systems, stronger peer relationships, and a
more individualized educational system (Wilkins, 2008). School size has a direct association with school attendance; students attending larger schools have a difficult time identifying with a specific peer group and often do not build strong bonds with other students (Wilkins, 2008). Limited peer and teacher relationships cause students to assume the school does not care about the wellbeing of students and leads to school anxiety and feelings of desolation (Wilkins, 2008). Schools perceived by students to take an active interest in the child's well-being have higher attendance rates (Allensworth \& Easton, 2007). Students attending smaller schools are able to build strong relationships with teachers and receive the academic assistance needed, which promotes better school attendance (Benner \& Wang, 2014). High-achieving schools tend to have better attendance rates and have an easier time providing intervention programs for the students chronically absent because of the fewer numbers of students (Allensworth \& Easton, 2007). High-achieving schools have already implemented many of the programs which promote better student attendance (Allensworth \& Easton, 2007).

Larger urban schools tend to employ teachers with less experience or subject area expertise, which has a direct effect on the students' academic success (Benner \& Wang, 2014). Larger urban schools have bigger class sizes, and teachers are unable to address many of the students' individual academic and social problems (Benner \& Wang, 2014). Students attending schools with smaller school populations are more likely to participate in extracurricular activities and to be active members of the student body (Benner \& Wang, 2014). Students are more connected and invested in the school if involved in
numerous school activities (Wilkins, 2008). Extracurricular activities build confidence and better relationships among peers (Wilkins, 2008).

The pedagogy of the school has as much of an impact on student school attendance as socioeconomic status, parental support, or family trauma (Gorski, 2013). School absenteeism is a result of avoiding stressors such as school violence, uncomfortable social interaction, and embarrassment of academic abilities (Balfanz \& Byrnes, 2012; Parke \& Kanyongo, 2012). Providing a safe and nurturing school climate is a key component in addressing school attendance issues (Balfanz \& Byrnes, 2012; Parke \& Kanyongo, 2012). A positive school climate which provides the social and academic support necessary for students will address many of the fears with which students with poor attendance struggle (Wilkins, 2008).

Addressing the numerous contributing variables causing low averages of daily attendance is mandatory for schools wanting to address school improvement (Balfanz \& Byrnes, 2012). If school-wide improvement is going to take place, teachers and administrators are responsible for taking an active interest in promoting good school attendance (Balfanz \& Byrnes, 2012). Students who have issues with attendance also often have difficulty with social issues and a lack of educational support at home (Benner \& Wang, 2014). Daily school attendance percentages and individual student attendance data are monitored closely by school personnel because of the impact being in school has on a student's academic success (Balfanz, 2011). Building strong bonds with students is an important concept in developing a sense of pride and responsibility in the learning process (Balfanz, 2011). Teachers who take a genuine interest in the lives of students not
only with school issues, but outside of school time, build strong relationships (Balfanz, 2011). Being involved in students' other interests, struggles, and activities is a big step in building trust between the teacher and student (Wilkins, 2008).

## Implementing Change

For whole system reform to take place, school districts are obligated to involve parents, teachers, staff members, and the community in the process (Fullan, 2010). The school leaders are responsible for developing a plan and vision for the school to achieve school improvement (Fullan, 2010). The educational leader designs a plan to improve the educational practices of the school and to encourage teachers to take an active role as leaders in the instructional organization (Shen et al., 2012). School districts employing educational leaders with a vision for the future and the capabilities to implement changes to improve academic programs will be successful (Chubb, 2014). Collaboration dealing with whole school reform is not always easy; conflicts do arise, but when the focus is on providing a better education for students, the challenges are worthwhile (Fullan, 2011). District administrators will meet some resistance when implementing new educational strategies, but they cannot give up on the vision of school improvement (Fullan, 2010). School leaders who are willing to address the issue of change in the school setting are required to stay committed to the process when resistance is met (Chubb, 2014).

School districts which are truly invested in an overall whole system reform have principals who are committed to making sure all schools in the district are successful (Fox, 2013). Communication among schools in the district is a key to promoting a shared vision of school improvement (Fullan, 2011). When schools begin to work together on a
shared vision of school improvement, the amount of collaboration increases and a bond is built among schools (Fullan, 2010). School leaders have to possess a vision for school improvement and the motivation to implement the changes (Fullan, 2010). The strategy for whole school reform is based on eliminating gaps in instruction and challenging students to achieve at much higher levels (Fullan, 2011). School districts which focus on state standardized testing to stimulate school improvement are not promoting wholesystem reform, but are instead promoting dissension among staff (Fullan, 2011). Teacher collaboration builds stronger bonds among staff and a more shared vision of school improvement (Poulos et al., 2014).

Successful school administrators share the vision of school improvement and encourage teachers to take part in the leadership of whole-system reform (Fullan, 2010). According to Fullan (2011), "Focused collaborative practices mobilize and customize knowledge in the system, enabling teachers to know what other teachers do and to learn from them" (p. 12). All schools within a district are required to be focused on the goal of school improvement (Fullan, 2010). There can be no competition among schools within a district, but instead a culture of sharing ideas and strategies to improve the education of the students (Smith, 2012). When principals in the district are concerned about the success of all schools, educational practices improve for the whole district (Smith, 2012).

All schools within the district are obligated to invest the effort to change the educational processes of the district for true school improvement to take place (Fullan, 2010). School change is a difficult process, but all stakeholders have to be committed to seeing the educational transformation of the district (Chubb, 2014). Teachers are
encouraged to communicate with other staff members and share ideas, while the school principal is responsible for promoting a culture of school collaboration which is focused on school improvement (Fullan, 2011). As Fullan (2010) revealed, "When teachers work together, led by an instructionally-focused principal, they are much more successful than when they work alone" (p. 26).

Successful school districts have specific educational targets and curricular alignment across the district (Squires, 2012). The schools in the district engage in meaningful feedback and keep student improvement at the center of conversation (Fullan, 2010). An essential component for academic improvement to take place is teachers' willingness to evaluate the strategies used in the classroom and to have confidence in each student's ability to improve academically (Fullan, 2010). Educators are responsible for evaluating which are the best educational strategies to use for school improvement (Poulos et al., 2014). A common language of instruction across the district is a prerequisite for school improvement (Schaffhauser, 2013). High-performing schools have a common academic language which allows teachers and principals to monitor the student's progress from grade to grade (Schaffhauser, 2013).

Most educational leaders have been trained to preserve current educational practices, not to transform schools into new and innovative learning centers which incorporate collaboration into the daily school schedule (Chubb, 2014). School administrators are the key component in making sure teachers are collaborating on addressing the learning targets of the students (Poulos et al., 2014). One of the
characteristics which successful schools have demonstrated is a culture of collaboration which promotes instructional alignment among subjects and grade levels (Fullan, 2010).

For teacher collaboration to have a meaningful impact on the curriculum and teaching strategies, school districts are obligated to provide time within the daily schedule for collaboration to take place (Poulos et al., 2014). Teachers with scheduled release time to design a curriculum which not only addresses the state standards, but also assesses them at the appropriate levels of difficulty, will show greater academic gains (Poulos et al., 2014). The alignment of the school's curriculum among all grade levels is essential for students' success (Squires, 2012). The objectives for each grade level need to be specific, detailed, and assessed in a way which provides accurate data on the achievement levels of the students (Squires, 2012).

The school district is responsible for making sure the curriculum which is being taught covers the appropriate state standards and is consistent throughout the district (Squires, 2012). Curriculum alignment is a necessity for students to improve academic performance (Squires, 2012). Collaboration addressing curriculum alignment, implementation of new teaching strategies, and methods of identifying student needs to increase student achievement is imperative (Poulos et al., 2014). Aligning a school curriculum takes commitment by teachers and administrators. The process of developing a curriculum which covers the correct state standards at the appropriate grade levels is tedious and time-consuming (Squires, 2012).

School districts which promote working together on aligning the curriculum and improving teaching strategies show continued academic improvement (Poulos et al.,
2014). When teacher-led instruction matches the state standards, student academic achievement increases (Squires, 2012). Trust among all stakeholders in the district is a necessity if true school improvement is going to take place. School leaders are obligated to build relationships with teachers, parents, and community members to gain the necessary support to implement new academic programs into the school (Chubb, 2014).

## Summary

There are numerous factors which can influence the success students have when transitioning into the middle school (Lester et al., 2013). Quality schools are constantly reevaluating the academic programs of the district to provide the best possible education for the students ("The Forgotten Middle," 2009). Research supports the concept of addressing the social and physical challenges of the young adolescent student as well as the student's cognitive development (Andrews \& Bishop, 2012). Researchers determined a decline in student motivation and academic achievement during the transition from elementary school to middle school (Holas \& Huston, 2012). Some of the deficiency in academic success is due to not addressing the social issues of the students and to a limited amount of rigor within the school's curriculum (Friedel et al., 2010). Weiss and BakerSmith (2010) believed, "Adolescents generally do better in schools that offer a supportive environment, hold students to high standards, and have an efficient organization with well-trained teachers and involved parents" (p.28).

A rigorous curriculum which is challenging and meaningful is an important part of the educational process in low-socioeconomic schools (Balfanz, 2011). A purposeful curriculum can be developed and implemented when teachers and administrators are
focused on school improvement. Students from high-poverty schools are required to have clear learning targets and to understand the importance of the academic information being taught (Cuthrell et al., 2010). High standards and rigorous coursework are necessary components in schools with high levels of student poverty (Chenoweth \& Theokas, 2013). Teacher-assigned grades should be a reflection of the learning targets which have been mastered and should identify areas of academic deficiency (Shippy et al., 2013).

Absenteeism is a big factor in the academic success a student will achieve in school (Balfanz \& Byrnes, 2012; Paredes \& Ugarte, 2011; Parke \& Kanyongo, 2012). Students who miss numerous days of instruction fall behind academically (Parke \& Kanyongo, 2012). During the transition period to middle school, student attendance issues start to become a problem (Balfanz \& Byrnes, 2012). Middle schools which do not address the transition process and factors which contribute to the students' academic challenges will see a decline in school attendance (Benner \& Wang, 2014). A middle school environment which provides a positive and safe learning experience for students will promote better school attendance (Benner \& Wang, 2014).

Standardized test scores cannot be the only data used to determine the success of a middle school. Studies have shown extreme bias in standardized testing with questions dealing with specific cultural knowledge, which students living in poverty have not experienced (Armstrong, 2010). State assessments which are based on student performance or learning tasks provide more informative data than multiple choice assessments (Schaeffer et al., 2012). Other factors such as attendance, student grade
point averages, and even high school graduation rates are an integral part of the data to be studied (Lounsbury, 2009). Each of these factors provides a better measure of a student's overall success in school than standardized test scores (Lounsbury, 2009). The United States is the only nation which uses multiple choice data retrieved from state standardized assessments to evaluate student performance and to drive instruction (Schaeffer et al., 2012). Other nations evaluate the success of schools and students based on writing examples, special projects, and other types of performance-based tests (Schaeffer et al., 2012).

Middle schools wanting to show academic improvement are obligated to address several issues to support the adolescent student (Lester et al., 2013). When teachers and administrators collaboratively work together for the best interest of the students, a caring and supportive learning environment can be established (Wilkins, 2008). A system of trust among educators can be developed with the focus being on school improvement (Smith, 2012).

In Chapter Three, a closer examination of the percentages determined in this study is explained. The percentages of students raising MAP achievement levels at Middle School C were calculated. Also the percentages were calculated between specific predictors and MAP scores. The predictors used in the study were student attendance, student GPA, and free and reduced price meal status.

## Chapter Three: Methodology

Within Chapter Three, the variances in curriculum and grading practices among Elementary School A, Elementary School B, and Middle School C are examined. These variances are determinants for MAP Grade-Level Assessment performance and middle school readiness (Brookhart, 2011; Fullan, 2010; Landsman, 2014). The purpose was to identify predictors which could aid in easing the transition into middle school while improving student achievement. The middle school experience is one of great importance due to the impact on the educational progress of the student (Ryan et al., 2013). Middle schools have not typically prepared students to be successful in high school, which is a major factor in graduation rates ("The Forgotten Middle," 2009). A smooth transition from one school to the other is directly related to how well students achieve at the next level of the educational process (Weiss \& Baker-Smith, 2010).

All students in grades three through eight in Missouri are required to take the MAP test in communication arts and math (MODESE, 2014). Some students are exempt from taking part or all of the assessment, including but not limited to students with an Individual Education Program (IEP) and English Language Learners (ELLs) (MODESE, 2014). The assessment is administered in school districts during the spring of the year (MODESE, 2014). The assessments are sent to the state department, which grades and posts the assessment data online during the summer (MODESE, 2014).

MAP data and other indicators are gathered initially by the MODESE (2014) and Elementary School A, Elementary School B, or Middle School C for required school data extraction for Annual Performance Report (APR). Percentages of students who raised
achievement levels at Middle School C on the MAP communication arts and math portions of the assessment after coming from Elementary School A and Elementary School B were determined. The data were used to aid in identifying which school's academic programs are best meeting the learning goals of the students.

Percentages of students scoring Basic or Below Basic on the MAP math and communication arts portions of the assessment with a grade point average of 3.0 or higher in math and communication arts were calculated. Also established was the percentage of students scoring Basic or Below Basic on the MAP math and communication arts portions of the assessment with a free and reduced price meal designation. Additionally, the researcher determined the percentage of students scoring Basic or Below Basic on the MAP math and communication arts portions of the assessment with less than a $90 \%$ overall attendance rate. The results from this research can be used by school administrators and teachers to identify variables which are determinants of student success in middle school. The data can also be used to align curriculum and aid in developing a cohesive transition process for the participating schools.

## Problem and Purpose Overview

Research was conducted to determine strengths and weaknesses of the transition process and academic programs of Elementary School A, Elementary School B, and Middle School C. The purpose was to improve the transition process for students entering Middle School C, and in turn, produce improved state standardized assessment scores. The research conducted for the study was completed using quantitative methods.

In quantitative research, the investigator collects and calculates data and reports the information in the form of scores (Fraenkel et al., 2015). A quantitative method of study was chosen for this project to determine the percentages of students from Elementary School A, Elementary School B, who improved MAP performance levels when attending Middle School C. Weiss and Baker-Smith (2010) stated, "There are compelling reasons to think that features of the sending school might influence how successfully a student makes the transition into a receiving school" (p. 825). Understanding the transition process and being able to provide the best programs to meet the students' emotional and academic challenges will aid in the success of middle school students (Benner \& Wang, 2014).

## Research Questions

The following research questions guided the study:

1. What percentage of students from Elementary School A and Elementary School B raised achievement levels at Middle School C on the MAP communication arts portion of the assessment during years 2010, 2011, 2012, 2013, and 2014 ?
2. What percentage of students from Elementary School A and Elementary School B raised achievement levels at Middle School C on the Missouri Assessment Program (MAP) math portion of the assessment during years 2010, 2011, 2012, 2013, and 2014?
3. What is the percentage of students scoring Basic or Below Basic on the Missouri Assessment Program (MAP) communication arts portion of the assessment with
a grade point average of 3.0 or higher in communication arts from Elementary School A, Elementary School B, and Middle School C?
4. What is the percentage of students scoring Basic or Below Basic on the Missouri Assessment Program (MAP) math portion of the assessment with a grade point average of 3.0 or higher in math from Elementary School A, Elementary School B, and Middle School C?
5. What is the percentage of students scoring Basic or Below Basic on the Missouri Assessment Program (MAP) communication arts assessment with a free and reduced price meal designation from Elementary School A, Elementary School B, and Middle School C?
6. What is the percentage of students scoring Basic or Below Basic on the Missouri Assessment Program (MAP) math assessment with a free and reduced price meal designation from Elementary School A, Elementary School B, and Middle School C?
7. What is the percentage of students scoring Basic or Below Basic on the Missouri Assessment Program (MAP) communication arts assessment with less than a 90\% overall attendance rate from Elementary School A, Elementary School B, and Middle School C?
8. What is the percentage of students scoring Basic or Below Basic on the Missouri Assessment Program (MAP) math assessment with less than a $90 \%$ overall attendance rate from Elementary School A, Elementary School B, and Middle School C?

## Research Design

The research for this study was completed using a quantitative method. The variables in this study were chosen based on experience and theory relative to the study (Fraenkel et al., 2015). A quantitative method of study was chosen to determine statistical differences among MAP score achievement levels of Elementary School A, Elementary School B, and Middle School C. The data from teacher-assigned grades, free and reduced price meal designation, and attendance were also calculated to determine the percentage of students scoring Basic or Below Basic on the MAP test.

Descriptive research was used in this study to determine the percentages of students from Elementary School A and Elementary School B who raised MAP achievement levels at Middle School C. The data were used to aid in determining if the variances in curriculum and grading practices from Elementary School A, Elementary School B, and Middle School C were having an impact on achievement. This study involved methods and procedures used to determine if there are statistical differences among students scoring Basic or Below Basic on the math and communication arts portions of the MAP test and free and reduced price meal designation, and if there is a difference among students scoring Basic or Below Basic on the math and communication arts portions of the MAP test and those students with less than a $90 \%$ overall attendance rate.

The dependent variables in the study included the students' scores from the MAP test. The number of students scoring Basic or Below Basic on math and communication arts portions of the MAP test was compared to the other independent variables of the
study. The independent variables in this study included teacher-assigned grades, free and reduced meal status, and student attendance.

Standardized testing is commonly used to measure student achievement levels throughout schools in the United States (Magee \& Jones, 2012; Musoleno \& White, 2010; Schaeffer et al., 2012). Using standardized tests does provide educators with a consistent instrument to measure student achievement (Buck et al., 2010). Standardized testing offers teachers and administrators the opportunity to compare students across a specific state or country (Farah, 2013).

There are some areas of concern with using standardized tests as a gauge to define student achievement. Middle schools basing academic accountability on state standardized testing are moving away from the middle school curriculum and more toward test taking strategies (Huss \& Eastep, 2011). Another concern to the validity of using standardized test scores for analyzing student achievement is the correlation between the opposition of standardized tests and the viewpoint of the improbability of the state creating an unbiased assessment (Magee \& Jones, 2012). The correlation supports the theory of possible bias on the test questions in relation to the socioeconomic status of the student (Magee \& Jones, 2012).

## Population and Sample

The population was a purposive, nonrandom sample which was all-inclusive of students who attended sixth grade at Middle School C in years 2012, 2013, and 2014. The sample was selected from the population of students who attended Elementary School A, Elementary School B, and Middle School C for three consecutive years.

Purposive sampling was used instead of convenience sampling, because the researcher selected a specific group of students based on information received prior to the study (Fraenkel et al., 2015). The sample of data used included greater than 150 but fewer than 360 students.

The population studied included three classes of sixth graders over a three-year period from a Missouri middle school. This was a nonrandom sample, selecting students who attended Middle School C in sixth grade for the school years 2013-2014, 2012-2013, and 2011-2012. Student Group One consisted of 95 sixth-grade students (mean age $=11$ years, 7 months) from Middle School C for the school year 2011-2012, with a free and reduced meal designation of 59 students for $62.1 \%$ rate of designation. The class contained one African American student and three Hispanic students. The group contained 50 girls and 45 boys.

Student Group Two consisted of 92 sixth-grade students (mean average age $=11$ years, 9 months) from Middle School C for the school year 2012-2013, with a free and reduced price meal designation of 63 students for $62.4 \%$ rate of designation. The class contained three African American students, five Hispanic students, and one Asian student. The group contained 51 girls and 41 boys.

Student Group Three consisted of 97 students (mean average age $=11$ years, 7 months) from Middle School C for the school year 2013-2014, with a free and reduced price meal designation of 64 students for a $66.0 \%$ rate of designation. The class contained three African American students and three Hispanic students. The group contained 46 girls and 51 boys (see Table 1).

Table 1

## Demographic Data

| Student Group One | Student Group Two | Student Group Three |
| :---: | :---: | :---: |
| 95 Students | 92 Students | 97 Students |
| $62 \%$ Free and Reduced <br> Price Meal Designation | $62 \%$ Free and Reduced <br> Price Meal Designation | $66 \%$ Free and Reduced <br> Price Meal Designation |
| $.04 \%$ Minorities | $.09 \%$ Minorities | $.06 \%$ Minorities |
| 50 Girls/45 Boys | 51 Girls/41 Boys | 46 Girls/51 Boys |
| 11.7 mean average age | 11.9 mean average age | 11.7 mean average age |

Note. The population studied included three classes of sixth graders over a three-year period from a Missouri middle school. This as a nonrandom sample, selecting students who attended Middle School C in sixth grade for the school years 2013-2014, 2012-2013, and 2011-2012.

By analyzing MAP data for grades four, five, and six from students of Elementary School A, Elementary School B, and Middle School C, strengths and weakness of academic programs were identified. This research aided in identifying the strengths and weaknesses of the transition process from elementary to middle school.

## Instrumentation

The data collected for this research project were student attendance data, GPA information, MAP scores, and free and reduced price meal designation. Elementary School A, Elementary School B, and Middle School C maintain a comprehensive system
of attendance records for each student. Each teacher is responsible for the accurate reporting of daily attendance in the classroom. The building principal is responsible for supplying information to parents/guardians about student absences and for submitting attendance information to the superintendent's office. Student grade point average (GPA) is figured on a 4.0 scale. The GPA is figured by adding the points earned for each class and dividing by the number of courses taken. All schools maintain a comprehensive system of recording grades for each student. Teachers are required to assign grades and to record the data on grade cards, which are both mandatory per the school district board of education, to indicate academic progress of enrolled students. Each teacher is responsible for maintaining an accurate report of grades for each student. Grade cards are available at the end of each quarter.

MAP assessment is a mandatory standardized test given annually to Missouri students (MODESE, 2014). Students are tested in grades three through eight in communication arts and math as well as grades five and eight in science (MODESE, 2012). Free and reduced price meal designation is a requirement for all public schools which participate in one or more of the Child Nutrition Programs to provide free and reduced price meals to needy students (United States Department of Agriculture, 2012). The eligibility criteria for free and reduced price meals is set by the United States Department of Agriculture (United States Department of Agriculture, 2012).

The data were extracted from student records available at Elementary School A, Elementary School B, and Middle School C from files within the school district's archives as well as those from the Missouri Comprehensive Data System. No data were
extracted until the research project was approved and written permission forms from all school administrators were on file (see Appendix A and Appendix B). A third party made photographic copies of student records from available files within the school district's archives as well as those from the Missouri Comprehensive Data System portal and removed all identifiers to assure anonymity. Entries were de-identified and coded with letters or numbers according to APA standards. As data were collected, the information was securely stored in a locked file cabinet in the researcher's office. Three years after completion of the project, all electronic data will be deleted and paper documents will be shredded and incinerated by the researcher. No human participants were used in this study.

## Data Collection

Written permission forms for accessing school MAP data, student grade point averages, attendance records, and free and reduced meal designations were designed and distributed to the principals at Elementary Schools A and B, as well as the superintendent of the district. The signed permission forms were obtained from these school administrators before any data were collected. Once the permission forms were signed and filed, data were collected from sixth-grade MAP results from years 2012, 2013, and 2014 from student archival data at Middle School C. Then data were collected from fifth-grade MAP results from years 2011, 2012, and 2013 from archival data at Elementary Schools A and B, as well as data from fourth-grade MAP results from years 2010, 2011, and 2012 from archival data at Elementary Schools A and B. Then data were collected from attendance records from years 2010, 2011, 2012, 2013, and 2014
from Elementary School A, Elementary School B, and Middle School C, and yearly attendance percentages for Study Groups One, Two, and Three were determined. The next step was to collect student semester grades for communication arts (CA) and math (MA) for grade six from years 2012, 2013, and 2014, along with student semester grades for CA and MA for grade five from years 2011, 2012, and 2013, and student semester grades for CA and MA for grade four from years 2010, 2011, and 2012 (see Table 2).

Free and reduced price meal designation for Student Groups One, Two, and Three were determined according to the requirements of the United States Department of Agriculture (2012). The next procedure was to examine the data and determine any variances in curriculum and grading practices from Elementary School A, Elementary School B, and Middle School C, as determinants for MAP Grade-Level Assessment performance and middle school readiness. The final step was to examine data to measure the strength of a linear association between MAP Grade-Level Assessment performance and the following variables: free and reduced price meal designation, student attendance, teacher assigned grades, and curricular programs.

Table 2
Data Collected for Analysis

| Data Collected | Date Collected | Provided By |
| :--- | :--- | :--- |
| Attendance Data | Fall 2014 | Building Principals |
| Free and Reduced Price <br> Meal Designation | Fall 2014 | Building Principals |
| MAP Data | Fall 2014 | MODESE |
| Student GPAs | Fall 2014 | Building Principals |

Note. Data were collected to determine the relationship between MAP score achievement levels and student attendance, free and reduced price meal designation, and teacherassigned grades.

## Data Analysis

The data analyzed for this study included MAP scores for math and communication arts, student attendance data, free and reduced price meal designation, and grade point averages (GPAs) for fourth, fifth, and sixth grades. The data extracted were for three specific classes of students for three consecutive years. Study Group One consisted of 95 students with data extracted from the school years 2011-2012, 2010-2011, and 2009-2010. Study Group Two consisted of 92 students with data extracted from the school years 2012-2013, 2011-2012, and 2010-2011. Study Group Three consisted of 97 students with data extracted from the school years 2013-2014, 2012-2013, and 20112012. The data collected covered a grade span of fourth, fifth, and sixth grades.

Once all of the data were collected and compiled, percentages of students from Elementary A and Elementary School B who raised achievement levels on the MAP assessment while at Middle School C were determined. This information helped to determine if differences in curriculum and grading practices had an impact on student success on the MAP assessment. Fraenkel et al. (2015) indicated categorical data are used to determine the amount of frequency of specific properties or certain essential qualities of a particular group.

The data comparison was of student achievement levels on the MAP assessment compared to teacher-assigned grades, student attendance, and free and reduced price meal designation. Student MAP achievement levels from Elementary School A, Elementary School B, and Middle School C were compared to determine the percentage of students scoring in specific categories. Student MAP achievement levels, specifically the number of students scoring Basic or Below Basic, were compared to the number of students with a GPA of 3.0 or higher in communication arts and math. The number of students with an overall attendance rate of $90 \%$ or less was compared to the percentage of students scoring Basic or Below Basic on the MAP categories of math and communication arts. The percentage of free and reduced price meal designation was compared to students scoring Basic or Below Basic on the MAP assessment on the communication arts and math portions of the assessment.

## Ethical Considerations

The researcher's relationship to the participants in the study was that of a supervisor at Middle School C. Archival data from the researcher's school (Middle

School C) and the sending elementary schools (Elementary Schools A and B) were used in this study. Students, teachers, and other staff members were not coerced, as archival data were used. Valid informed consent was obtained from school administrators of Elementary School A, Elementary School B, and Middle School C for extracting archival data including individual MAP scores, student attendance, free and reduced price meal designation, and teacher-assigned student grades.

## Summary

The research for this study was conducted in a quantitative manner to compare student achievement on the MAP assessment with teacher-assigned grades, free and reduced price meal designation, and student attendance. The data allowed the researcher to determine the percentages between students scoring Basic or Below Basic on the MAP assessment compared to the number of students with less than $90 \%$ attendance rates, and also the comparison between students scoring Basic or Below Basic on the MAP assessment compared to the students with free and reduced price meal designation.

The populations studied were three classes of students from a Missouri middle school using existing data from the students' fourth, fifth, and sixth-grade academic school years. The student groups were less than 110 students, but more than 50 students, ranging from different social classes and racial backgrounds. The data collected for the study groups were archival data retrieved from MODESE and each school's record system. All student record information was kept confidential. The research project was approved and all proper permission forms were signed and collected before any data were collected and analyzed. The data provided reliable statistical information on the possible
areas to improve to provide a smoother transition process and a better academic experience for middle school students.

The following chapter includes a review of the procedures used in determining the variables considered in the research and how the data were extracted. Once the MAP data were collected, percentages of students scoring in the Basic or Below Basic categories were determined and compared to the other variables in the study. The percentages of students scoring Basic or Below Basic on the Missouri Assessment Program (MAP) assessment were compared to the percentages of students with free and reduced price meal designation, $90 \%$ or less overall attendance, and GPAs of 3.0 in math and communication arts.

Two bar graphs were created to illustrate which elementary school had the highest percentages of students raising achievement levels on the MAP assessment of the communication arts and math portions of the test when enrolled at Middle School C. Next, two parallel bar graphs were created to illustrate the percentage of students scoring Basic or Below Basic on the MAP math and communication arts portions of the assessment with a grade point average of 3.0 or higher in the specific subject tested. Two more parallel bar graphs were created to illustrate the percentages of students scoring Basic or Below Basic on the MAP math and communication arts portions of the assessment with a free and reduced price meal designation. Additionally, two more parallel bar graphs were created to illustrate the percentages of students scoring Basic or Below Basic on the MAP math and communication arts portions of the assessment with less than a $90 \%$ overall attendance rate.

## Chapter Four: Analysis of Data

The purpose of this study was to research whether the variances in curriculum, grading practices, and academic programs from Elementary School A, Elementary School B, and Middle School C were determinants for Missouri Assessment Program (MAP) Grade-Level Assessment performance and middle school readiness. Developing students who are college and career ready has become a major focal point of the high school curriculum (Jones, 2010). Students transitioning into the high school setting lacking the proper academic background are behind when starting in ninth grade (Williams et al., 2010). Career planning needs to begin in middle school, so students can start to explore academic options which will prepare them for college and skill training (Jones, 2010).

Students entering ninth grade struggle with the more rigorous curriculum and academic demands of high school, placing a greater need for a more demanding curriculum at the middle school level (Weiss \& Baker-Smith, 2010). When sixth-grade students enter middle school, the change from a task-oriented curriculum to a curriculum which focuses on skill attainment can be a difficult adjustment (Ellerbrock \& Kiefer, 2013). Students entering middle school are accustomed to working with one teacher and understanding the learning targets and expectations which accompany the goals set in elementary school (Weiss \& Baker-Smith, 2010). Middle school students are faced with seven different teachers and a new set of learning targets and classroom expectations for each class (Ryan et al., 2013). The transition to having seven separate subjects with seven different teachers is one with which students struggle when entering middle school
(Dove, Pearson, \& Hooper, 2010). Middle schools must face the challenge of providing academic support for students with a rigorous curriculum (Friedel et al., 2010).

The percentages of students who raised achievement levels at Middle School C on the Missouri Assessment Program (MAP) communication arts and math portions of the assessment after attending Elementary School A and Elementary School B were determined. The percentages of students scoring Basic or Below Basic on the MAP math and communication arts portions of the assessment with a grade point average of 3.0 or higher in math and communication arts were calculated. The percentages of students scoring Basic or Below Basic on the MAP math and communication arts portions of the assessment with a free and reduced price meal designation were also established. Additionally, the percentages of students scoring Basic or Below Basic on the MAP math and communication arts portions of the assessment with less than a $90 \%$ overall attendance rate were determined.

Results from this research can be used by school administrators and teachers to provide a better-aligned curriculum and a cohesive transition process for the participating schools. The findings will add to the research regarding transition processes.

## Research Questions

The following research questions guided this study:

1. What percentage of students from Elementary School A and Elementary

School B raised achievement levels at Middle School C on the Missouri Assessment Program (MAP) communication arts portion of the assessment during years 2010, 2011, 2012, 2013, and 2014?
2. What percentage of students from Elementary School A and Elementary School B raised achievement levels at Middle School C on the MAP math portion of the assessment during years 2010, 2011, 2012, 2013, and 2014 ?
3. What is the percentage of students scoring Basic or Below Basic on the MAP communication arts portion of the assessment with a grade point average of 3.0 or higher in communication arts from Elementary School A, Elementary School B, and Middle School C?
4. What is the percentage of students scoring Basic or Below Basic on the MAP math portion of the assessment with a grade point average of 3.0 or higher in math from Elementary School A, Elementary School B, and Middle School C?
5. What is the percentage of students scoring Basic or Below Basic on the MAP communication arts assessment with a free and reduced price meal designation from Elementary School A, Elementary School B, and Middle School C?
6. What is the percentage of students scoring Basic or Below Basic on the MAP math assessment with a free and reduced price meal designation from Elementary School A, Elementary School B, and Middle School C?
7. What is the percentage of students scoring Basic or Below Basic on the MAP communication arts assessment with less than a $90 \%$ overall attendance rate from Elementary School A, Elementary School B, and Middle School C?
8. What is the percentage of students scoring Basic or Below Basic on the MAP math assessment with less than a $90 \%$ overall attendance rate from Elementary School A, Elementary School B, and Middle School C?

## MAP Achievement Level Data Analysis

Archival MAP data were collected from the school district's files and the Missouri Comprehensive Data System portal. The sixth-grade MAP results from years 2012, 2013, and 2014 from Middle School C were collected and analyzed. The archival fifth-grade MAP results from years 2011, 2012, and 2013, and fourth-grade MAP results from years 2010, 2011, and 2012 from Elementary Schools A and B were also collected and analyzed for this study.

The MAP data were categorized into several different groups for this project. The first set of MAP data collected involved the communication arts portion of the MAP assessment. The MAP scores were analyzed to determine the percentages of students from Elementary School A and Elementary School B who raised achievement levels on the MAP communication arts portion of the test when attending Middle School C (see Figure 1). The percentage of students from Elementary School A who raised achievement levels on the MAP communication arts portion of the test were Group 2018 with $33.3 \%$, Group 2019 with $35.8 \%$, and Group 2020 with $28.8 \%$. The percentage of students raising achievement levels on the communication arts portion of the MAP test from Elementary B in sixth grade at Middle School C were Group 2018 at $22.2 \%$, Group 2019 at $26.5 \%$, and Group 2020 at $0.6 \%$ (see Figure 1).

Elementary School A had much higher percentage of students who raised achievement levels while at Middle School C. The mean of the percentage of students who raised achievement levels on the communication arts portion of the MAP assessment
from Elementary School A was $32.6 \%$ compared to Elementary School B which had a mean of $16.4 \%$, for a difference of 16.2 percentage points between schools.

The same process was completed for the math portion of the assessment as well (see Figure 2). The percentage of students raising achievement levels on the MAP math portion of the assessment from Elementary A in sixth grade at Middle School C were Group 2018 at $19.2 \%$, Group 2019 at $29.8 \%$, and Group 2020 at $32.7 \%$. The percentage of students raising achievement levels on the math portion of the MAP assessment from Elementary B in sixth grade at Middle School C were Group 2018 at 0.06\%, Group 2019 at $0 \%$, and Group 2020 at $0.6 \%$ (see Figure 2).

The greatest percentage of students raising achievement levels on the MAP test was Elementary Group 2019 with a $29.8 \%$ increase. The lowest percentage of students increasing achievement levels were Elementary School B Groups 2018 and 2020 with a $0.6 \%$ increase. The range between scores for Elementary A was 13.5 points. The range between scores for Elementary B was 0.6 points.

There was an even greater discrepancy between the means of students who raised achievement levels on the math portion of the MAP assessment from Elementary School A compared to Elementary School B. Elementary School A had a mean of 27.2\% compared to a much lower Elementary B mean of $0.4 \%$, for a difference of 27.2 percentage points between schools. The highest percentage of students increasing achievement levels was Elementary School A Group 2020 with a $32.7 \%$ increase. Elementary B Group 2019 had no students who increased achievement levels. The range
between scores from Elementary School A was 13.5 points. The range between scores from Elementary B was 0.6.


Figure 1. Percentage of students raising MAP achievement level in communication arts at Middle School C. Percentages were calculated for each of the two sending elementary schools.


Figure 2. Percentage of students raising MAP achievement level in math at Middle School C. Percentages were calculated for each of the two sending elementary schools.

## Achievement Levels and GPA Data Analysis

The second portion of data analyzed for this project was calculation of percentages of students scoring Basic or Below Basic on the communication arts portion of the MAP assessment with a GPA of 3.0 or higher in communication arts from Elementary School A, Elementary School B, and Middle School C (see Figure 3). The percentage of students scoring Basic or Below Basic on the MAP communication arts portion of the assessment with a grade point average of 3.0 or higher from Elementary School A included fourth-grade Group 2018 at 45.5\%, Group 2019 at 42.9\%, and Group 2020 at $46.2 \%$. Elementary School B fourth-grade percentages were Group 2018 at $58.3 \%$, Group 2019 at $28.6 \%$, and Group 2020 at $11.1 \%$. Elementary School A fifthgrade results were Group 2018 at $65.5 \%$, Group 2019 at $30.3 \%$, and Group 2020 at $52.4 \%$. Elementary School B fifth-grade percentages were Group 2018 at 66.6\%, Group

2019 at $44.4 \%$, and Group 2020 at $30 \%$. Middle School C percentages totals were Group 2018 at $46.1 \%$, Group 2019 at $29.4 \%$, and Group 2020 at $28.1 \%$.

Elementary School A had a slightly higher mean percentage of fifth-grade students scoring Basic or Below Basic on the communication arts portion of the test with a mean of $49.4 \%$ compared to Elementary School B with a mean of $47.0 \%$. Elementary A had a fourth-grade mean of $44.9 \%$ compared to Elementary B with a mean of $32.7 \%$ of students scoring Basic or Below Basic on the communication arts portion of the MAP test with a 3.0 or higher GPA in communication arts. Middle School C had a mean average of $34.5 \%$ of students scoring Basic or Below Basic with a 3.0 or higher GPA in communication arts. The school with the highest percentage of students scoring Basic or Below Basic with a GPA 3.0 in communication arts was Elementary School B fifth-grade Group 2018 with $66.6 \%$. The school with the lowest percentage was Elementary B fourth-grade Group 2020 with $11.1 \%$. The greatest range was 47.2 for Elementary School B fourth grade compared to Elementary School A with a range of 3.3 points. Elementary School B had a fourth-grade range of 36.6 points compared to Elementary School A with a range of 35.2 points. The middle school range was 18 points (see Figure 4).


Figure 3. Percentage of students scoring Basic or Below Basic on the communication arts portion of the MAP test with a 3.0 GPA or higher. Percentages were calculated for each of the two sending elementary schools and the middle school over a three-year period.


Student Achievement Levels

| ■ Elementary School A Fourth Grade | ■Elementary School A Fifth Grade |
| :--- | :--- |
| $■$ Elementary School B Fifth Grade | ■Elementary School B Fourth Grade |
| ■Middle School C Sixth Grade |  |

Figure 4. The range and mean of students scoring Basic or Below Basic on the communication arts portion of the MAP test with a 3.0 GPA or higher. The range and mean were calculated for each of the two sending elementary schools and the middle school over a three-year period.

The same percentages were calculated using the math portion of the MAP test to determine the number of students with a GPA of 3.0 or higher in math who scored Basic or Below Basic from Elementary School A, Elementary School B, and Middle School C (see Figure 5). The percentage of students scoring Basic or Below Basic on the MAP math portion of the assessment with a grade point average of 3.0 or higher from Elementary School A were fourth-grade Group 2018 at 64.3\%, Group 2019 at 44.7\%, and Group 2020 at $45.8 \%$. Elementary School B fourth-grade percentages were Group 2018 at $80 \%$, Group 2019 at $25 \%$, and Group 2020 at 18\%. Elementary School A fifth-grade
results were Group 2018 at 16\%, Group 2019 at 23.7\%, and Group 2020 at $38.5 \%$. Elementary School B fifth-grade percentages were Group 2018 at 83.3\%, Group 2019 at $0 \%$, and Group 2020 at 18\%. Middle School C percentage totals were Group 2018 at $40.9 \%$, Group 2019 at $50 \%$, and Group 2020 at $66.7 \%$.

Middle School C continued to show growth in the number of students scoring Basic or Below Basic in math with a 3.0 GPA or higher over the three-year period. Middle School C had the highest mean with $52.5 \%$ of students scoring Basic or Below Basic on the math portion of the MAP test with a GPA of 3.0 or higher. Elementary School A and Middle School C were the only schools showing an increase of students over the three-year span, but Elementary School A fifth grade also had the lowest mean of students with $26.1 \%$. Elementary B had an extremely high percentage of students scoring Basic or Below Basic with a GPA of 3.0 or higher in fifth-grade in 2018, 83.3\%, but this could be caused by the low number of students scoring Basic or Below Basic on the math portion of the test. The largest range was 83.3 points for Elementary School B fifth-grade compared to Elementary A fifth grade with a range of 22.5 points. Elementary School B fourth-grade scores had a range of 62 points compared to Elementary School A with a range of 19.6 points. Middle School C had a range of 25.8 points. Elementary School B fifth-grade Group 2019 had no students scoring Basic or Below Basic on the math portion of the MAP test with a GPA of 3.0 or higher (see Figure 5).


Figure 5. Percentage of students scoring Basic or Below Basic on the math portion of the MAP test with a 3.0 GPA or higher. Percentages were calculated for each of the two sending elementary schools and the middle school over a three-year period.


Figure 6. The range and mean of students scoring Basic or Below Basic on the math portion of the MAP test with a 3.0 GPA or higher. The range and mean were calculated for each of the two sending elementary schools and the middle school over a three-year period.

## Achievement Levels and Free and Reduced Price Meal Designation Data Analysis

The next portion of data analyzed for this project was calculation of percentages of students scoring Basic or Below Basic on the communication arts portion of the MAP assessment with free and reduced price meal designation from Elementary School A, Elementary School B, and Middle School C (see Figure 7). The percentage of students scoring Basic or Below Basic on the MAP communication arts portion of the assessment with a free and reduced price meal designation from Elementary School A were fourth-
grade Group 2018 at $60.9 \%$, Group 2019 at 61.9\%, and Group 2020 at 57.9\%.
Elementary School B fourth-grade percentages were Group 2018 at 62.5\%, Group 2019 at $55.5 \%$, and Group 2020 at $62.5 \%$. Elementary School A fifth-grade results were Group 2018 at $63.8 \%$, Group 2019 at $63.4 \%$, and Group 2020 at $52.4 \%$. Elementary School B fifth-grade percentages were Group 2018 at $37.5 \%$, Group 2019 at $77.8 \%$, and Group 2020 at $62.5 \%$. Middle School C percentages totals were Group 2018 at 30.4\%, Group 2019 at $53.8 \%$, and Group 2020 at $55.2 \%$.

Elementary School A and Elementary B had slightly higher means of $60.2 \%$ over the mean of Middle School C with $46.5 \%$. Elementary School A fourth grade had a range of 4 points, Elementary School A fifth grade had a range of 11.4 points, Elementary School B fourth grade had a range of 7 points, Elementary School B fifth grade had a range of 40.3 points, and Middle School C had a range of 24.8 points. The highest percentage was Elementary School B fifth-grade Group 2019 with a $77.8 \%$. The lowest percentage was Middle School C Group 2018 with a $30.4 \%$ (see Figure 8).


Figure 7. Percentage of students scoring Basic or Below Basic on the communication arts portion of the MAP test with free and reduced price meal designation. Percentages were calculated for each of the two sending elementary schools and the middle school over a three-year period.


Figure 8. The range and mean of students scoring Basic or Below Basic on the communication arts portion of the MAP test with free and reduced price meal designation. The range and mean were calculated for each of the two sending elementary schools and the middle school over a three-year period.

The same percentages were calculated using the math portion of the MAP test to determine the number of students with free and reduced price meal designation who scored Basic or Below Basic from Elementary School A, Elementary School B, and Middle School C (see Figure 9). The percentage of students scoring Basic or Below Basic on the MAP math portion of the assessment with a free and reduced price meal designation from Elementary School A were fourth-grade Group 2018 at 67.4\%, Group 2019 at $61.9 \%$, and Group 2020 at $60.5 \%$. Elementary School B fourth-grade percentages were Group 2018 at 25\%, Group 2019 at $44.4 \%$, and Group 2020 at $68.7 \%$.

Elementary School A fifth-grade results were Group 2018 at 44.7\%, Group 2019 at $68.3 \%$, and Group 2020 at $54.8 \%$. Elementary School B fifth-grade percentages were Group 2018 at 18.8\%, Group 2019 at $44.4 \%$, and Group 2020 at 71.4\%. Middle School C percentage totals were Group 2018 at 50\%, Group 2019 at $51.9 \%$, and Group 2020 at $56.9 \%$.

Elementary School B and Middle School C continued to show growth in percentage points over the three years. Elementary School A fourth grade had the highest mean of students with free and reduced price meal designation scoring Basic or Below Basic on the MAP test with $63.3 \%$. The overall highest percentage of students scoring Basic or Below Basic on the math portion of the test with free and reduced price meal designation was Elementary School B fifth-grade Group 2020 with $71.4 \%$. Elementary School B fifth-grade Group 2018 had the lowest percentage with $18.8 \%$. Elementary School A fourth grade had a range of 6.9 points, Elementary School A fifth grade had a range of 23.6 points, Elementary School B fourth grade had a range of 43.7 points, Elementary School B fifth grade had a range of 52.6 points, and Middle School C had a range of 6.9 points (see Figure 10).


Figure 9. Percentage of students scoring Basic or Below Basic on the math portion of the MAP test with free and reduced price meal designation. Percentages were calculated for each of the two sending elementary schools and the middle school over a three-year period.


Figure 10. The range and mean of students scoring Basic or Below Basic on the math portion of the MAP test with free and reduced price meal designation. The range and mean were calculated for each of the two sending elementary schools and the middle school over a three-year period.

## Achievement Levels and Attendance Data Analysis

Achievement levels and attendance data were analyzed for this project to determine the percentage of students scoring Basic or Below Basic on the communication arts portion of the MAP assessment with less than $90 \%$ attendance from Elementary School A, Elementary School B, and Middle School C (see Figure 11). The percentage of students scoring Basic or Below Basic on the MAP communication arts portion of the assessment with less than a $90 \%$ overall attendance rate from Elementary School A
were fourth-grade Group 2018 at 80\%, Group 2019 at $66.7 \%$, and Group 2020 at $44.4 \%$. Elementary School B fourth-grade percentages were Group 2018 at 0\%, Group 2019 at 66.7\%, and Group 2020 at $83.3 \%$. Elementary School A fifth-grade results were Group 2018 at $81.8 \%$, Group 2019 at $71.4 \%$, and Group 2020 at $60 \%$. Elementary School B fifth-grade percentages were Group 2018 at 16.7\%, Group 2019 at 100\%, and Group 2020 at 100\%. Middle School C percentages totals were Group 2018 at 30.7\%, Group 2019 at $72.7 \%$, and Group 2020 at $73.3 \%$.

Elementary School B had the highest mean percentage of fifth-grade students scoring Basic or Below Basic on the communication arts portion of the MAP test with less than $90 \%$ attendance with a mean of $72.7 \%$. Elementary B fourth grade had the lowest mean with $50 \%$. The biggest range between scores were the fourth and fifth-grade classes from Elementary B which both had a range of 83.3 points compared to Elementary A fourth grade with a range of 35.6 and Elementary A fifth grade with a range of 21.8 points. Middle School C had a range of 42.6 points. The highest overall percentage of students scoring Basic or Below Basic with overall attendance less than 90\% were Elementary B Group 2019 and Elementary B Group 2020 with $100 \%$. Elementary A and B were the only groups to decline in percentage points over the threeyear period (see Figure 12).


Figure 11. Percentage of students scoring Basic or Below Basic on the communication arts portion of the MAP test with less than $90 \%$ attendance. Percentages were calculated for each of the two sending elementary schools and the middle school over a three-year period.


Figure 12. The range and mean of students scoring Basic or Below Basic on the communication arts portion of the MAP test with less than $90 \%$ attendance. The range and mean were calculated from each of the two sending elementary schools and the middle school over a three-year period.

The percentage of students scoring Basic or Below Basic on the MAP math portion of the assessment with less than a $90 \%$ overall attendance rate from Elementary School A were fourth-grade Group 2018 at 70\%, Group 2019 at 66.7\%, and Group 2020 at 66.7\%. Elementary School B fourth-grade percentages were Group 2018 at 16.7\%, Group 2019 at 66.7\%, and Group 2020 at 100\%. Elementary School A fifth-grade results were Group 2018 at $72.7 \%$, Group 2019 at $71.4 \%$, and Group 2020 at 70\%. Elementary School B fifth-grade percentages were Group 2018 at 16.7\%, Group 2019 at 100\%, and

Group 2020 at 100\%. Middle School C percentage totals were Group 2018 at 23\%, Group 2019 at 72.7\%, and Group 2020 at $60 \%$ (see Figure 13).

The percentages calculated using the math portion of the MAP test determined the highest mean was $72.2 \%$ for Elementary School B fifth grade, which was slightly higher than Elementary School A fifth grade with 71.4\% (see Figure 14). The lowest mean percentage was Middle School C with $51.9 \%$. There were three groups from Elementary School B with 100\% (fourth-grade Group 2020, fifth-grade Group 2019, and fifth-grade Group 2020) for the highest percent of students scoring Basic or Below Basic on the MAP test with free and reduced price meal designation. This high percentage could have been caused by a smaller school population with a high percentage of students qualifying for free and reduced price meal designation. The biggest range between scores was the fourth and fifth grade from Elementary B on the math portion of the MAP test with less than $90 \%$ attendance which was the exact same as the communication arts portion of the MAP, both again having a range of 83.3 points. Elementary A fourth grade had a range of 3.3 and Elementary A fifth grade had a range of 2.7 points. Middle School C had a range of 49.7 points.


Figure 13. Percentage of students scoring Basic or Below Basic on the math portion of the MAP test with less than $90 \%$ attendance. Percentages were calculated from both sending elementary schools and the middle school over a three-year period.


Figure 14. The range and mean of students scoring Basic or Below Basic on the math portion of the MAP test with less than $90 \%$ attendance. The range and mean were calculated from both sending elementary schools and the middle schools over a threeyear period.

## Summary

In conclusion, the three-year data analysis revealed there were some large statistical differences between Elementary Schools A and B in the number of students who raised achievement levels while at Middle School C. Elementary School A had a much higher percentage of students who raised achievement levels while at Middle C on the communication arts portion of the MAP test. The mean for improving achievement levels between Elementary School A and Elementary School B was $32.6 \%$ compared to
$16.4 \%$. The percentage of students who raised achievement levels on the MAP test on the math portion was even greater between schools. Elementary School A raised achievement levels $27.2 \%$ compared to Elementary School B with less than $1 \%$ improvement. This information strongly suggested the differences in curriculum, grading practices, and academic programs between schools is a determinant for MAP GradeLevel Assessment performance and middle school readiness. The issue is to determine which programs are the most beneficial. Determining if the high percentage of students who raised achievement levels at Middle School C was caused by continuity between the school's academic procedures and programs or a high number of students scoring Basic or Below Basic at the sending elementary schools is debatable. The purpose of the research was to stimulate discussions on determining strengths and weaknesses of the transition process and academic programs of Elementary School A, Elementary School B, and Middle School C and to improve the transition process for students entering Middle School C. This study has provided valuable data which will be used to examine the variance in curriculum and grading practices between schools and to determine which programs are most effective.

Other data such as students scoring Basic or Below Basic on the MAP math and communication arts portions of the assessment were also analyzed. Teacher-inflated grades have been an issue in many elementary and middle schools (Brookhart, 2011; Cox, 2011; Jung \& Guskey, 2011; Spencer, 2012). Teachers tend to base grades on numerous categories besides mastery of academic learning targets (Shippy et al., 2013). There is evidence of grade inflation at all three schools in this study. With such a high
percentage of students scoring Basic or Below Basic on the communication arts portion of the MAP test with GPAs of 3.0 or higher, there is strong evidence which supports teacher-assigned grades are not a true reflection of the academic skills mastered by the students. The percentage of students scoring Basic or Below Basic on the math portion of the MAP test was slightly less at $41.0 \%$.

Students living in poverty continue to struggle, making fewer academic gains than other students not faced with the same economic challenges (Morrissey et al., 2014). The data indicated high percentages of students scoring Basic and Below Basic on the math and communication portion of the MAP test with free and reduced price meal designation. The mean for all five schools for communication arts was $57.2 \%$ compared to $52.6 \%$ in math. Both percentages were over $50 \%$, showing the importance of addressing the academic needs of students living in poverty. The school is responsible for addressing academic and social challenges with which students living in poverty are confronted on a daily basis if student improvement is a goal (Armstrong, 2010).

The data analysis on the percentage of students scoring Basic or Below Basic with less than $90 \%$ overall attendance revealed the importance of regular school attendance. The mean average of all five schools for students scoring Basic or Below Basic on the communication arts portion of the test with less than $90 \%$ attendance was $63.2 \%$. The mean average of all five schools for students scoring Basic or Below Basic on the math portion of the test with less than $90 \%$ attendance was $64.9 \%$. Data support the theory that students with high rates of absenteeism do not score well on state standardized tests
(Balfanz \& Byrnes, 2012). Schools wanting to see areas of academic school improvement will have to address student attendance (Allensworth \& Easton, 2007).

Chapter Five provides a summary of the complete study. The research questions are discussed along with the summary of the analysis of data. Conclusions are made based on the outcomes of the study and the data analysis. Deficiencies in the research are identified and addressed. Recommendations for future studies and additional research are discussed. Chapter Five also includes implications for school improvement, addressing the areas of this study concerning the transition process and middle school readiness among all three schools.

## Chapter Five: Summary and Conclusions

The transition from elementary school to middle school has great implication for further academic success and can have a direct impact on high school graduation rates (Roybal et al., 2014). When students encounter high levels of anxiety, certain academic skills which have been previously mastered can be unlearned (Andrews \& Bishop, 2012). The importance of a smooth transition from elementary school to middle school cannot be downplayed. Curriculum alignment and correctly addressing the academic essential skills of the students are crucial for school improvement (Poulos et al., 2014).

Collaboration between elementary and middle schools is a major component to making sure the educational systems align (Squires, 2012). School administrators are responsible for making sure educators afford time for meaningful collaboration among all stakeholders to share new ideas and techniques in addressing student learning issues (Kohler-Evans et al., 2013).

Middle school students are faced with many challenges when making the move from elementary school to middle school. Students living in poverty are faced with an even more difficult task when attempting to gain an education (Armstrong, 2010; Guynes et al., 2014; Landsman, 2014). The obstacles students living in poverty encounter can be so onerous that dropping out of school becomes a consideration (Ready, 2010). Children from low-socioeconomic families do not often have adequate medical care, appropriate living conditions, and access to educational resources to be successful in school (Krashen, 2011). Children living in poverty start to exhibit warning signs of dropping out of school in early adolescence (Balfanz, 2011). All schools in the district are responsible
for addressing these issues and collaborating to keep students on track for graduation (Balfanz, 2011).

## Purpose Summary

The purpose of the study was to determine if the variations in curriculum, grading practices, and academic programs between the elementary schools in this study were having an effect on MAP test achievement levels of students when entering Middle School C. State standardized tests have become the measuring tool to determine students' academic success. The tests have been deemed to provide reliable data to determine learning goals which have been met and areas needing improvement (Farah, 2013). Secondly, the percentage of students scoring in lower achievement levels of the MAP test and having a GPA of 3.0 or higher in the specific subject area were determined. Grade inflation, which does not give an accurate description of the learning goals a student has mastered, can be a hindrance for academic improvement (Spencer, 2012).

The level of success students living in poverty were having on MAP achievement levels was determined during this study. School districts are responsible for addressing the learning requirements of all students. Students living in poverty are confronted with countless problems which interfere with the educational process which schools are in charge of addressing (Armstrong, 2010).

In addition, information was gathered to verify the impact of low average daily attendance on state standardized testing, specifically on MAP achievement levels. Daily attendance in school has been proven valuable to the number of learning objectives a student can master (Parke \& Kanyongo, 2012). The more educational goals a student
masters, the more likely the student will graduate from high school (Schoeneberger, 2012). When a student misses an abundance of days from school, a void in the learning process is created (Benner \& Wang, 2014).

The goal is for teachers and school administrators to use this information to prompt discussions on ways to align curriculum and educational practices. A more cohesive and smooth transition process between schools will have a major impact on the success of the students (Adams, 2008; Andrews \& Bishop, 2012; Hanewald, 2013; Lester et al., 2013; Styron \& Nyman, 2008). Equally important was to identify any other predictors which could influence the academic success of students.

Quantitative methods were used for this research to determine percentages between predictors by collecting and analyzing archival data to determine statistical differences among MAP score achievement levels of Elementary School A, Elementary School B, and Middle School C. The data from teacher-assigned grades, free and reduced price meal designation, and attendance were also analyzed. This was a descriptive study used to aid in determining if the variances in curriculum and grading practices from Elementary School A, Elementary School B, and Middle School C were determinants for MAP Grade-Level Assessment performance and middle school readiness. The statistical differences among students scoring Basic or Below Basic on the math and communication arts portions of the MAP test and free and reduced price meal designation were determined, and the statistical difference among students scoring Basic or Below Basic on the math and communication arts portions of the MAP test and those students with less than a $90 \%$ overall attendance rate were analyzed.

The dependent variables in the study included the students' achievement levels from communication arts and math portions of the MAP assessment. Specifically, the number of students scoring Basic or Below Basic on math and communication arts portions of the MAP test was compared to the other independent variables of the study. The independent variables in this study were teacher-assigned grades, free and reduced meal status, and student attendance for three specific groups of students from grades four through six. Descriptive statistics were used to determine percentages of students, the mean of scores, and the range between scores.

Three specific groups of sixth-grade students were chosen for this study. The three groups of student population totaled 284 students. After gaining written permission from all schools in the study, the sixth-grade MAP results from years 2012, 2013, and 2014 from student archival data at Middle School C were collected. Then fifth-grade MAP results from years 2011, 2012, and 2013 from archival data at Elementary School A and Elementary School B were collected, and finally fourth-grade MAP results from years 2010, 2011, and 2012 from archival data at Elementary School A and Elementary School B were collected. Attendance data and free and reduced price meal designation data were retrieved from years 2010, 2011, 2012, 2013, and 2014 from Elementary School A, Elementary School B, and Middle School C. Student semester grades for communication arts and math for grades four through six were collected from years 2010, 2011, 2012, 2013, and 2014.

The data were analyzed to determine the percentages of students from Elementary School A and Elementary School B who raised achievement levels at Middle School C
on the MAP communication arts and math portions of the test during years 2010, 2011, 2012, 2013, and 2014. The percentages of students scoring Basic or Below Basic on the MAP assessment in communication arts and math from Elementary School A and Elementary School B who raised achievement levels at Middle School C were analyzed to determine if variances between curriculum and grading practices were having an impact on MAP student achievement levels. The percentages of students scoring Basic or Below Basic on the MAP communication arts and math portions of the assessment and students with grade point averages of 3.0 or higher in communication arts and math from Elementary School A, Elementary School B, and Middle School C were calculated. The percentages of students scoring Basic or Below Basic on the MAP communication arts and math portions of the assessment and students who have free and reduced price meal designation from all schools of the study were also calculated, as well as students who scored Basic or Below Basic on the MAP communication arts and math portions of the assessment with less than a $90 \%$ overall attendance rate.

## Findings

Grills-Taquechel et al. (2010) cited strong evidence of the amounts of anxiety adolescents encounter when moving from elementary school to middle school. Anxiety can have a major impact on the success students have in school (Grills-Taquechel et al., 2010). Significant findings relating to the importance of smooth transition from elementary school to middle school have been well documented (Adams, 2008; Andrews \& Bishop, 2012; Hanewald, 2013; Lester et al., 2013; Styron \& Nyman, 2008). When the curriculum and academic programs are aligned between schools, this eliminates much
of the stress and anxiety students experience when moving to the middle school (Andrews \& Bishop, 2012).

As was discovered during this study, there are some differences in the percentages of students who raised MAP achievement levels between elementary schools when entering Middle School C (see Figures 1 and 2). This could be caused by the differences in curriculum and educational practices among the three schools. Further research could help determine how these differences affect achievement levels. The lack of collaboration among schools could be producing some deficiencies in the curriculum. The challenge is to increase collaboration among buildings and to improve instruction. Kohler-Evans et al. (2013) reported the importance of purposeful collaboration with all stakeholders for true school improvement to take place.

The other predictors researched in the study, students with 3.0 or higher GPAs, students with free and reduced price meal designation, and students with lower than $90 \%$ attendance, also produced data supporting the importance of addressing these educational deterrents (see Figures 3 through 14). Allensworth and Easton (2007) explained how several predictors can have an impact on the success students achieve in school. Students who have poor attendance, reside in low-socioeconomic neighborhoods, and are not provided a challenging curriculum have an increased rate of dropping out of school (Balfanz, 2011).

## Research Questions

The following research questions guided the study:

1. What percentage of students from Elementary School A and Elementary School B raised achievement levels at Middle School C on the Missouri Assessment Program (MAP) communication arts portion of the assessment during years 2010, 2011, 2012, 2013, and 2014 ?

The percentage of students raising achievement levels on the MAP communication arts portion of the test from Elementary A while in sixth grade at Middle School C were Group 2018 at $33.3 \%$, Group 2019 at $35.8 \%$, and Group 2020 at $28.8 \%$. The percentage of students raising achievement levels on the communication arts portion of the MAP test from Elementary B while in sixth grade at Middle School C were Group 2018 at $22.2 \%$, Group 2019 at $26.5 \%$, and Group 2020 at $0.6 \%$.

Elementary School A had a much higher percentage of students who raised achievement levels at Middle School C than did Elementary School B. The mean of the percentage of students who raised achievement levels on the communication arts portion of the MAP assessment from Elementary School A was $32.6 \%$ compared to Elementary School B with a mean of $16.4 \%$, for a difference of 16.2 percentage points between schools. The same process was completed for the math portion of the assessment as well. The greatest percentage of students who raised achievement levels on the MAP test was Elementary Group A 2019 with a $35.8 \%$ increase. The lowest percentage of students who increased achievement levels was Elementary School B Group 2020 with a 0.6\% increase. The range between scores for Elementary A was 7 points, and the range between scores for Elementary B was 25.9 points.
2. What percentage of students from Elementary School A and Elementary School B raised achievement levels at Middle School C on the MAP math portion of the assessment during years 2010, 2011, 2012, 2013, and 2014 ?

The percentage of students who raised achievement levels on the MAP math portion of the assessment from Elementary A in sixth grade while at Middle School C were Group 2018 at $19.2 \%$, Group 2019 at $29.8 \%$, and Group 2020 at $32.7 \%$. The percentage of students who raised achievement levels on the math portion of the MAP assessment from Elementary B in sixth grade while at Middle School C were Group 2018 at $0.06 \%$, Group 2019 at $0 \%$, and 2020 at $0.6 \%$.

There was an even greater discrepancy between the means of students who raised achievement levels on the math portion of the MAP assessment at Elementary School A compared to Elementary School B. Elementary School A had a mean of 27.2\% compared to a much lower Elementary B mean of $0.4 \%$, for a difference of 26.8 percentage points between schools. The highest percentage of students who increased achievement levels was Elementary School A Group 2020 with a $32.7 \%$ increase. Elementary B Group 2019 had no students who increased achievement levels. The range between scores from Elementary School A was 13.5 points. The range between scores from Elementary B was 0.6.
3. What is the percentage of students scoring Basic or Below Basic on the MAP communication arts portion of the assessment with a grade point average of 3.0 or higher in communication arts from Elementary School A, Elementary School B, and Middle School C?

The percentage of students scoring Basic or Below Basic on the MAP communication arts portion of the assessment with a grade point average of 3.0 or higher from Elementary School A included fourth-grade Group 2018 at 45.5\%, Group 2019 at $42.9 \%$, and Group 2020 at $46.2 \%$. Elementary School B fourth-grade percentages were Group 2018 at $58.3 \%$, Group 2019 at $28.6 \%$, and Group 2020 at $11.1 \%$. Elementary School A fifth-grade results were Group 2018 at 65.5\%, Group 2019 at 30.3\%, and Group 2020 at 52.4\%. Elementary School B fifth-grade percentages were Group 2018 at $66.6 \%$, Group 2019 at $44.4 \%$, and Group 2020 at 30\%. Middle School C percentage totals were Group 2018 at $46.1 \%$, Group 2019 at $29.4 \%$, and Group 2020 at $28.1 \%$.

Elementary School A had a slightly higher mean percentage of fifth-grade students scoring Basic or Below Basic on the communication arts portion of the test with a mean of $49.4 \%$ compared to Elementary School B with a mean of $47.0 \%$. Elementary A had a fourth-grade mean of $44.9 \%$ compared to Elementary B which had a mean of $32.7 \%$ of students scoring Basic or Below Basic on the communication arts portion of the MAP test with a 3.0 or higher GPA in communication arts. Middle School C had a mean average of $34.5 \%$ of students who scored Basic or Below Basic with a 3.0 or higher GPA in communication arts. The school with the highest percentage of students scoring Basic or Below Basic with a GPA of 3.0 in communication arts was Elementary School B fifthgrade Group 2018 with $66.6 \%$. The school with the lowest percentage was Elementary B fourth-grade Group 2020 with $11.1 \%$. The greatest range was 47.2 for Elementary School B fourth grade compared to Elementary School A with a range of 3.3 points.

Elementary School B had a fourth-grade range of 36.6 points compared to Elementary School A with a range of 35.2 points. The middle school range was 18 points.

The overall trend was a decrease in the percentage of students scoring Basic or Below Basic with a GPA of 3.0 or higher on the communication arts portion of the MAP test. The 2020 mean was $33.6 \%$, down from 2019 mean of $35.1 \%$ and much lower than the 2018 mean of $56.4 \%$.
4. What is the percentage of students scoring Basic or Below Basic on the MAP math portion of the assessment with a grade point average of 3.0 or higher in math from Elementary School A, Elementary School B, and Middle School C?

The percentage of students scoring Basic or Below Basic on the MAP math portion of the assessment with a grade point average of 3.0 or higher from Elementary School A were fourth-grade Group 2018 at 64.3\%, Group 2019 at $44.7 \%$, and Group 2020 at $45.8 \%$. Elementary School B fourth-grade percentages were Group 2018 at $80 \%$, Group 2019 at 25\%, and Group 2020 at 18\%. Elementary School A fifth-grade results were Group 2018 at 16\%, Group 2019 at $23.7 \%$, and Group 2020 at $38.5 \%$. Elementary School B fifth-grade percentages were Group 2018 at $83.3 \%$, Group 2019 at 0\%, and Group 2020 at 18\%. Middle School C percentages totals were Group 2018 at 40.9\%, Group 2019 at 50\%, and Group 2020 at $66.7 \%$. Middle School C continued to show growth in the number of students scoring Basic or Below Basic in math with a 3.0 GPA or higher over the three-year period. Middle School C had the highest mean with 52.5\% of students scoring Basic or Below Basic on the math portion of the MAP test with a GPA of 3.0 or higher. Elementary School A and Middle School C were the only schools
showing an increase of students over the three-year span, but Elementary School A fifth grade also had the lowest mean of students with $26.1 \%$. Elementary B had an extremely high percentage of students scoring Basic or Below Basic with a GPA of 3.0 or higher in fifth grade in 2018, $83.3 \%$, but this could be caused by the low number of students scoring Basic or Below Basic on the math portion of the test. The largest range was 83.3 points for Elementary School B fifth grade compared to Elementary A fifth grade with a range of 22.5 points. Elementary School B fourth-grade scores had a range of 80 points compared to Elementary School A with a range of 19.6 points. Middle School C had a range of 25.8 points. Elementary School B fifth-grade Group 2019 had no students scoring Basic or Below Basic on the math portion of the MAP test who had a GPA of 3.0 or higher.
5. What is the percentage of students scoring Basic or Below Basic on the MAP communication arts assessment with a free and reduced price meal designation from Elementary School A, Elementary School B, and Middle School C?

The percentage of students scoring Basic or Below Basic on the MAP communication arts portion of the assessment with a free and reduced price meal designation from Elementary School A were fourth-grade Group 2018 at 60.9\%, Group 2019 at $61.9 \%$, and Group 2020 at $57.9 \%$. Elementary School B fourth-grade percentages were Group 2018 at $62.5 \%$, Group 2019 at $55.5 \%$, and Group 2020 at $62.5 \%$. Elementary School A fifth-grade results were Group 2018 at 63.8\%, Group 2019 at $63.4 \%$, and Group 2020 at $52.4 \%$. Elementary School B fifth-grade percentages were Group 2018 at $37.5 \%$, Group 2019 at $77.8 \%$, and Group 2020 at $62.5 \%$. Middle School

C percentages totals were Group 2018 at 30.4\%, Group 2019 at 53.8\%, and Group 2020 at $55.2 \%$.

Elementary School A and Elementary B had a slightly higher mean of $60.2 \%$ over the mean of Middle School C, which had the lowest mean with 46.5\%. Elementary School A fourth grade had a range of 4 points, Elementary School A fifth grade had a range of 11.4 points, Elementary School B fourth grade had a range of 7 points, Elementary School B fifth grade had a range of 40.3 points, and Middle School C had a range of 24.8 points. The highest percentage was Elementary School B fifth-grade Group 2019 with a $77.8 \%$. The lowest percentage was Middle School C Group 2018 with a $30.4 \%$.
6. What is the percentage of students scoring Basic or Below Basic on the MAP math assessment with a free and reduced price meal designation from Elementary School A, Elementary School B, and Middle School C?

The percentage of students scoring Basic or Below Basic on the MAP math portion of the assessment with a free and reduced price meal designation from Elementary School A were fourth-grade Group 2018 at $67.4 \%$, Group 2019 at $61.9 \%$, and Group 2020 at 60.5\%. Elementary School B fourth-grade percentages were Group 2018 at $25 \%$, Group 2019 at $44.4 \%$, and Group 2020 at $68.7 \%$. Elementary School A fifthgrade results were Group 2018 at $44.7 \%$, Group 2019 at $68.3 \%$, and Group 2020 at $54.8 \%$. Elementary School B fifth-grade percentages were Group 2018 at 18.8\%, Group 2019 at $44.4 \%$, and Group 2020 at $71.4 \%$. Middle School C percentage totals were Group 2018 at 50\%, Group 2019 at 51.9\%, and Group 2020 at $56.9 \%$.

Elementary School B and Middle School C continued to show growth in percentage points over the three-year period. Elementary School B had the highest mean of students with free and reduced price meal designation scoring Basic or Below Basic on the MAP test with $71.4 \%$. The overall highest percentage of students scoring Basic or Below Basic on the math portion of the test with an overall GPA of 3.0 was Elementary School B fifth-grade Group 2020 with a $71.4 \%$. Elementary School B fifth-grade Group 2018 had the lowest percentage with $18.8 \%$. Elementary School A fourth grade had a range of 6.9 points, Elementary School A fifth grade had a range of 23.6 points, Elementary School B fourth grade had a range of 43.7 points, Elementary School B fifth grade had a range of 52.6 points, and Middle School C had a range of 6.9 points.
7. What is the percentage of students scoring Basic or Below Basic on the MAP communication arts assessment with less than a $90 \%$ overall attendance rate from Elementary School A, Elementary School B, and Middle School C?

The percentage of students scoring Basic or Below Basic on the MAP communication arts portion of the assessment with less than a $90 \%$ overall attendance rate from Elementary School A were fourth-grade Group 2018 at 80\%, Group 2019 at $66.7 \%$, and Group 2020 at $44.4 \%$. Elementary School B fourth-grade percentages were Group 2018 at 0\%, Group 2019 at 66.7\%, and Group 2020 at $83.3 \%$. Elementary School A fifth-grade results were Group 2018 at $81.8 \%$, Group 2019 at $71.4 \%$, and Group 2020 at 60\%. Elementary School B fifth-grade percentages were Group 2018 at 16.7\%, Group 2019 at 100\%, and Group 2020 at $100 \%$. Middle School C percentage totals were Group 2018 at $30.7 \%$, Group 2019 at $72.7 \%$, and Group 2020 at $73.3 \%$.

Elementary School B had the highest mean percentage of fifth-grade students scoring Basic or Below Basic on the communication arts portion of the MAP test with less than $90 \%$ attendance with a mean of $72.2 \%$. Elementary B fourth grade had the lowest mean with $50 \%$. The biggest range between scores were the fourth and fifth grade from Elementary B which both had a range of 83.3 points, compared to Elementary A fourth grade with a range of 35.6 and Elementary A fifth grade with a range of 21.8 points. Middle School C had a range of 42.6 points. The highest overall percentage of students scoring Basic or Below Basic with an overall attendance of less than $90 \%$ were Elementary B Group 2019 and Elementary B Group 2020 with 100\%. Elementary A and B were the only groups to decline in percentage points over the three-year period.
8. What is the percentage of students scoring Basic or Below Basic on the MAP math assessment with less than a $90 \%$ overall attendance rate from Elementary School A, Elementary School B, and Middle School C?

The percentage of students scoring Basic or Below Basic on the MAP math portion of the assessment with less than a $90 \%$ overall attendance rate from Elementary School A were fourth-grade Group 2018 at 70\%, Group 2019 at 66.7\%, and Group 2020 at $66.7 \%$. Elementary School B fourth-grade percentages were Group 2018 at 16.7\%, Group 2019 at $66.7 \%$, and Group 2020 at $100 \%$. Elementary School A fifth-grade results were Group 2018 at $72.7 \%$, Group 2019 at $71.4 \%$, and Group 2020 at $70 \%$. Elementary School B fifth-grade percentages were Group 2018 at $16.7 \%$, Group 2019 at 100\%, and Group 2020 at 100\%. Middle School C percentage totals were Group 2018 at 23\%, Group 2019 at $72.7 \%$, and Group 2020 at $60 \%$.

The percentages calculated using the math portion of the MAP test determined the highest mean was $72.2 \%$ for Elementary School B fifth grade, which was slightly higher than Elementary School A fifth grade with $71.4 \%$. The lowest mean percentage was Middle School C with a $51.9 \%$. There were three groups from Elementary School B with 100\% (fourth-grade Group 2020, fifth-grade Group 2019, and fifth-grade Group 2020) for the highest percentage of students scoring Basic or Below Basic on the MAP test with free and reduced price meal designation. This high percentage could have been caused by a smaller school population with a high percentage of students qualifying for free and reduced price meal designation. The biggest range between scores were the fourth and fifth grade from Elementary B on the math portion of the MAP test with less than $90 \%$ attendance, which was the exact same as the communication arts portion of the MAP, both having a range of 83.3 points. Elementary A fourth grade had a range of 3.3 points and Elementary A fifth grade had a range of 2.7 points. Middle School C had a range of 49.7 points.

## Conclusions

The variances in curriculum, grading practices, and academic programs between the elementary schools in this study had an effect on the MAP test achievement levels of students when entering Middle School C. Poulos et al. (2014) concluded student instruction will only improve when teachers work together and share ideas. When productive teacher collaboration is absent, school improvement will show limited gains (Smith, 2012). When examining the percentage of students from Elementary School A and Elementary School B who raised achievement levels while at Middle School C on the
communication arts portion of the assessment, there are some definite differences in scores. Elementary School A had a much higher percentage of students who raised achievement levels at Middle School C compared to Elementary School B. The scores were collected from three specific groups of students for a three-year span. The difference between mean percentage scores was 16.2 points. This large difference in percentages of students raising achievement levels between schools shows the variances between the elementary schools' educational practices are having an impact on student achievement. Students from Elementary School A are definitely raising achievement levels on the communication arts portion of the MAP test at a much greater percentage compared to Elementary School B, but are the differences caused by a more aligned curriculum, grading practices, and academic programs, or are the differences caused by a higher number of students entering Middle School C with lower achievement levels on the MAP test?

The percentage of students who raised MAP achievement levels on the math portion of the assessment was even greater than the communication arts portion. The difference between the mean percentages of students raising achievement levels on the math portion of the MAP test between schools was 26.8 points. Elementary School B had less than $1 \%$ of students in all three groups who raised achievement levels. This low number supports either the theory students have reached their academic potential and are unable to move up achievement levels on the MAP test, or they are having difficulties adjusting to the differences in curriculum, grading practices, or other educational programs which are causing the students difficulty in grasping the new material. Sparks
(2011) explained the importance of an aligned curriculum and consistent academic practices, "After the sixth grade transition, middle school students fell by .12 standard deviations in math and .09 standard deviations in reading compared with students at K-8 schools" (p. 23).

The administration and faculty at Middle School C are responsible for addressing these concerns and designing a plan to provide the academic support the students require to be successful. The focus will be on improving the instruction and curriculum of Middle School C to address the needs of the students. The curriculum is either not challenging enough for the students, or the differences between the educational systems are not allowing the students to improve academically. Only through collaboration among buildings will this issue be addressed and the individual learning goals met.

Another important goal of this research was to examine other predictors which could have an effect on the transition process for students from Elementary School A, Elementary School B, and Middle School C. The research was designed to identify obstacles which could have an impact on instruction and individual learning goals. Eliminating gaps in the instruction process and easing the stress levels of the students when moving to the middle school were the initial goals of the project. One of the predictors researched was the number of students scoring Basic or Below Basic on the Missouri Assessment Program (MAP) math and communication arts portions of the assessment with a grade point average of 3.0 or higher in math and communication arts. The percentages calculated over a three-year period revealed the sixth-grade students at Middle School C displayed a consistent decline in the percentages of students with a 3.0

GPA in communication arts. The percentage dropped from $46.1 \%$ for Group 2018, $29.4 \%$ for Group 2019, and $28.1 \%$ for Group 2020. Elementary School B also exhibited a decline in percentage of students with a GPA of 3.0 or higher in communication arts and scoring Basic or Below Basic on the same portion of the MAP test. Elementary B decreased from fourth-grade percentages of Group 2018 at 58.3\%, Group 2019 at 28.6\%, and Group 2020 at $11.1 \%$. Elementary B fifth-grade percentages declined from Group 2018 at $66.6 \%$, Group 2019 at $44.4 \%$, and Group 2020 at $30 \%$. Elementary A showed no decrease in grades four or five over the three-year period in communication arts.

On the Missouri Assessment Program (MAP) math portion of the assessment only Elementary School B showed a steady decline in the percentages of students with a grade point average of 3.0 or higher in math for grades four and five over the three-year study. Middle School C and Elementary School A show no signs of a decline in percentages.

These findings support the theory the grading systems at all three schools are not producing accurate information on the student learning objectives which have been mastered. There are enormous differences in the criteria teachers use for determining a student's achievement level (Guskey, Jung, \& Swan, 2011). These variations often lead to a grading system within a school district which does not actually measure what academic skills a student has mastered. When there is a large difference in the criteria of what dictates a specific skill level mastered, each new teacher is required to make his or her own determination of what skills the student has mastered (Brookhart, 2011).

Another component of the research was to establish the percentage of students scoring Basic or Below Basic on the MAP math and communication arts portion of the
assessment with a free and reduced price meal designation. School districts are responsible for the success of all students, including children growing up in poverty. Students living in low-socioeconomic situations are faced with a number of disadvantages including health care issues, emotional problems, and a lack of educational resources (Krashen, 2011). School administrators and teachers are responsible for designing academic programs which allow disadvantaged students to succeed (Cuthrell et al., 2010).

The percentage of students scoring Basic or Below Basic on the MAP communication arts portion of the assessment with a free and reduced price meal designation was extremely high. Elementary School B Group 2018 grade five had the highest percentage of students scoring Basic or Below Basic with free and reduced price meal designation with $77.8 \%$. Elementary School A and Elementary B had a slightly higher mean of $60.2 \%$ over the mean of Middle School C, which had the lowest mean of $46.5 \%$ of students scoring Basic or Below Basic with free and reduced price meal designation.

Additionally, the percentages were calculated using the math portion of the MAP test to determine the number of students with free and reduced price meal designation who scored Basic or Below Basic. Elementary School B and Middle School C continued to show growth in the percentage of students scoring Basic or Below Basic with a free and reduced price meal designation. Elementary School A fourth grade had the highest mean of students with free and reduced price meal designation scoring Basic or Below Basic on the math portion of the MAP test with $63.3 \%$. Elementary School B fifth grade
had the lowest mean scoring Basic or Below Basic on the math portion of the MAP test with free and reduced price meal designation with $44.9 \%$. Middle School C had 52.9\%, and Elementary B fourth grade had slightly lower mean of students scoring Basic or Below Basic on the math portion of the MAP test with free and reduced price meal designation with $46 \%$.

The high percentages point out a deficiency in the academic programs at all three schools. The factual data indicate the focus at all three schools must be to improve the curriculum and academic programming at all three schools. The school district is responsible for addressing the appropriate teaching techniques required for children living in poverty. Schools are responsible for developing a challenging curriculum while not overlooking the basic needs of the students (Landsman, 2014).

The research also resulted in attainment of the percentages of students scoring Basic or Below Basic on the MAP math and communication arts portions of the assessment with less than a $90 \%$ overall attendance rate. Middle School C had $58.9 \%$ of students scoring Basic or Below Basic on the communication arts portion of the MAP test with less than a $90 \%$ overall attendance rate for the lowest mean for the three years. Elementary School A's mean calculated to $67.4 \%$, and Elementary School B had a mean of $61.1 \%$. Middle School C also had the lowest mean of $51.9 \%$ of students scoring Basic or Below Basic on the math portion of the MAP test with less than $90 \%$ attendance. Elementary School A had a mean of $69.6 \%$, and Elementary School B had a mean of $66.7 \%$ of students scoring Basic or Below Basic on the math portion of the MAP test with less than $90 \%$ attendance. Good school attendance has a positive effect on a
student's success in school (Morrissey et al., 2014). The data collected point to a strong connection between success on the MAP test and good attendance. The learning interaction which takes place during teacher instruction is very difficult to replace (Parke \& Kanyongo, 2012). Every day a student misses school, the specific learning objectives taught and the student/teacher interaction for the day cannot be simulated through makeup work (Paredes \& Ugarte, 2011).

One of the goals of this study was to stimulate discussions to determine strengths and weaknesses of the transition process and academic programs among all three schools to improve the transition process for students entering Middle School C. This factual data have provided clear evidence there are some major differences in MAP achievement levels among the schools. Further research will need to be conducted to determine what programs are most beneficial for the academic success of the students that could be implemented in all schools of the district.

## Implications for Practice

The research conducted for this study resulted in data supporting how differences in academic practices among buildings are having an impact on student achievement. One of the main issues to be addressed is the lack of collaboration among schools. This is a common problem for schools involved in the process of transitioning students from one school setting to another (Andrews \& Bishop, 2012; Roybal et al., 2014). The first step to improving collaboration is to design specific times for teachers to meet (Poulos et al., 2014). Teachers require time to discuss ways to improve instruction and to align academic processes (Smith, 2012). Districts which do not provide time for teachers to
collaborate do not exhibit the amount of school improvement compared to districts which provide scheduled days for collaboration (Poulos et al., 2014). The format of the meetings must be held in a non-threatening climate where all participants feel comfortable to share ideas (Poulos et al., 2014). The specific educational differences among all schools should be the first topic of discussion (Smith, 2012). Issues such as curriculum alignment, daily routines, and addressing specific student's academic challenges should all be addressed (Smith, 2012).

The next step would be to examine the possibility of moving toward a standardsbased grading system. The data collected indicated high percentages of students with GPAs of 3.0 or higher who still scored Basic or Below Basic on the MAP test. The data clearly show a grading system which does not solely measure the academic skills which have been mastered. Implementing a standards-based grading system could provide a clearer picture to the teachers and parents of the skills the students have actually mastered (Guskey et al., 2011).

The high number of students qualifying for free and reduced price meal designation scoring Basic or Below Basic on the MAP test is another concern. The school district is obligated to address the basic living necessities of these students. Students without basic health care, adequate living conditions, and food are not going to achieve at the same level as students with those necessities (Armstrong, 2010).

Numerous civic organizations with state and federal agencies can provide many of the basic essential nutritional requirements for students as well as health care.

Schools can address academic needs by providing extra tutoring and extended learning times for students without a quality place to study at home. Extra educational materials and supplies may also be provided to students who cannot afford to purchase basic educational resources. School districts are also responsible for designing a curriculum which addresses the specific needs of students from poverty and for providing the teacher support for students to be successful (Balfanz, 2011).

School attendance is another obstacle schools are responsible for addressing if student improvement is going to take place. Poor attendance has a direct impact on the success a student has throughout the child's educational career (Schoeneberger, 2012). Researchers have determined a direct relationship between school attendance and poverty (Allensworth \& Easton, 2007; Balfanz \& Byrnes, 2012; Morrissey et al., 2014). School districts which have a high percentage of students qualifying for free and reduced price meal designation are responsible for being aware of the correlation and addressing the attendance challenges students from poverty encounter. An attendance policy which addresses the importance of being in school is required. Having high expectations for all students is essential for academic success. Schools are obligated to provide the supports necessary for students to attend school regularly, including not only financial support, but more within the emotional and social realm (Ready, 2010). Administrators and teachers can provide mentors for students with high absenteeism to provide educational support and to make sure students know the school's staff care about their wellbeing (Landsman, 2014).

## Recommendations for Future Research

This study could be strengthened by an in-depth analysis of what specific educational programs each school uses. This study was designed to determine if the differences in the academic programs among the schools were having an impact on the academic achievement of the students. With just a small amount of research into the academic programming of each school, there was evidence of a lack of collaboration and curriculum alignment. There were differences in reading programs, math curriculum, text books, and class schedules to name just a few. Even though the data supported the theory student achievement was being affected by the lack of collaboration and alignment, there was no research conducted to see what specific programs were being implemented and why those programs were chosen. This information could be used to determine which academic programs were the best for the students.

Another consideration for future research is determining the effects of the transition process from middle school to high school. This study only examined the transition process from elementary to middle school, but with additional research conducted on the transition from middle school to high school other successful traits and obstacles could be identified. A closer examination of the transition from middle school to high school would provide schools with a more detailed plan to address all transition processes students face in school.

This study was conducted by examining three specific groups of sixth-grade students over a three-year period. While collecting data, it was obvious there were several students who did not attend the schools for three consecutive years. Students
living in poverty have high mobility rates, typically because of a lack of finances (Morrissey et al., 2014). A study conducted on poverty, high mobility rates, and student achievement could be beneficial in providing information on the importance of a cohesive state-wide or nationwide curriculum. Students with high mobility rates often miss important parts of the curriculum because of the lack of alignment between schools (Parke \& Kanyongo, 2012).

## Summary

The transition process from elementary school to middle school can be one of the toughest challenges adolescents face during school. Children at this age will encounter numerous developmental changes which can influence their emotional and psychological state of mind (Grills-Taquechel et al., 2010). When all of the physical and emotional developmental stressors are combined with changes in educational settings, the process can set back many students academically (Grills-Taquechel et al., 2010).

This study was designed to provide information for school personnel to aid in providing a smoother transition process for students. The schools in this study had varying degrees of differences in the specific educational processes implemented at each facility. These differences only create more stress for the students when entering a new building. Some of the differences cannot be helped, such as different facilities, new teachers, and bigger class sizes, but an aligned curriculum and similar academic programs can be addressed.

The data collected on the percentage of students who raised MAP achievement levels in communication arts and math were calculated between the two sending
elementary schools and the receiving middle school. The percentages calculated supported the theory the lack of collaboration and continuity of academic programs among Elementary School A, Elementary School B, and Middle School C are having an impact on student achievement.

The grading systems in each school also require further research. The high percentage of students with a GPA of 3.0 or higher who scored Basic or Below Basic in the same content subject on the MAP test supports the theory the grading system is not providing accurate information on the learning objectives which have been mastered. This is critical not only for teachers at each grade level to examine previous grades to determine academic areas which are requiring specialized instruction, but also for the parents to have a better understanding of the academic progress the child is making. When numerous factors influence the overall grade, no credible information is provided on the actual knowledge of the child.

In addition to the transition process, the study included an examination of the effects of poverty on student achievement. At least $50 \%$ percent of the students in this study qualify for free and reduced price meal designation. Poverty can be an extreme hindrance for the learning process. The data collected showed a high percentage of students from all of the schools scoring in the lower levels of the MAP assessment in math and communication arts. This information indicated the schools are not addressing the academic needs of students living in low socioeconomic conditions. All students deserve the best education possible, and the school is responsible for addressing any challenges the students encounter.

School attendance was the final component researched within this study. All educators understand the importance of regular daily school attendance (Balfanz \& Byrnes, 2012; Schoeneberger, 2012). There have been many studies conducted showing how poor attendance can have detrimental consequences on a child's education (Balfanz \& Byrnes, 2012; Paredes \& Ugarte, 2011; Parke \& Kanyongo, 2012; Schoeneberger, 2012). This study was no different, indicating high percentages of students with less than $90 \%$ attendance scoring Basic or Below Basic on the math and communication arts portions of the MAP test. The schools in the study would benefit greatly by designing an attendance policy which all schools could adopt and consistently enforce.

The purpose of the study was to stimulate discussions on determining strengths and weaknesses of the transition process and academic programs among Elementary School A, Elementary School B, and Middle School C. The data collected from the study will prompt discussions among administrators and teachers at all three schools, which will enhance collaboration and a better educational process for the students. The data analysis in this study could be used for any school system's transition process between grade levels

## Appendix A



## LINDENWOOD UNIVERSITY ST.CHARLES, MISSOURI

DATE:

TO:
FROM:

STUDY TITLE:

IRB REFERENCE \#:
SUBMISSION TYPE: New Project
ACTION: APPROVED
APPROVAL DATE: January 30, 2015
EXPIRATION DATE: January 30, 2016
REVIEW TYPE: Expedited Review

Thank you for your submission of New Project materials for this research project.
Lindenwood University Institutional Review Board has APPROVED your submission.
This approval is based on an appropriate risk/benefit ratio and a study design wherein the risks have been minimized. All research must be conducted in accordance with this approved submission.

This submission has received Expedited Review based on the applicable federal regulation.

## Appendix B

# Lindenwood University 

School of Education 209 S. Kingshighway
St. Charles, Missouri 63301

## Informed Consent for Participation in Research Activities

"An Examination of Middle School Readiness Variables for Students for Two K-5 Elementary Sending Schools in Missouri"

Principal Investigator: Walt Belcher
Telephone: 417-247-7236 E-mail: wjb786@lindenwood.edu
Participant: $\qquad$ Contact info: $\qquad$

You are invited to participate in a research study conducted by Walt Belcher under the guidance of Dr. Julie R. Williams. The purpose of this research is to determine if there is any statistical difference between student success in middle school compared to the academic programs and procedures of the two sending elementary schools.

1. a) Your participation will involve
> Allowing the researcher to have permission to use Missouri Assessment Program (MAP) Data, attendance data, free and reduced price meal designation, and teacher assigned student grades from the elementary schools and middle school in your district.
The grade levels included will be fourth and fifth-grades. The content areas will be English Language Arts and Math for the school years 2009-2014 which will be extracted from
$>$ The data will be used to determine best academic practices involving the transition process from elementary school to the middle school. The data will also be used to determine if there is any statistical difference between MAP test success and free and reduced price meal designation or student attendance.

Approximately 300 students' data will be involved in this research.
There is a risk of loss of privacy, which the researcher will reduce by not using any real names or other identifiers in the written report. The researcher will also keep all data in a locked file cabinet in a secure location. Only the researcher will have access
to the data. The archival data compiled from all three schools will be destroyed after the study.
2. The possible benefits to you and your school for allowing research to be done on data extracting from your district's school are identifying best academic practices. Students in the district will benefit from this research by providing them with a higher quality education.
3. Your participation is voluntary and you may choose not to allow the researcher to extract data you're your district or to withdraw your consent at any time. You will NOT be penalized in any way should you choose not to participate or to withdraw.
4. We will do everything we can to protect the privacy of the students. As part of this effort, their identity will not be revealed in any publication or presentation that may result from this study and the information collected will remain in the possession of the investigator in a safe location.
5. If you have any questions or concerns regarding this study, or if any problems arise, you may call the Investigator, Walt Belcher, 417- or the Supervising Faculty, Dr. Julie R. Williams, 417-256-6150. You may also ask questions of or state concerns regarding your participation to the Lindenwood Institutional Review Board (IRB) through contacting Dr. Jann Weitzel, Vice President for Academic Affairs at 636-949-4846.

I have read this consent form and have been given the opportunity to ask questions. I will also be given a copy of this consent form for my records. I consent to my participation in the research described above.

| Participant's Signature Date |
| :--- | :--- |
| Signature of Principal Investigator Date |

[^0]Signature of Principal Investigator Date

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## Vita

Walter J. Belcher graduated from Slater High School in Slater, Missouri, in 1983. After high school, Walt continued his education at Missouri Valley College at Marshall, Missouri, earning a Bachelor's Degree in Physical Education in 1987. He then pursued a Masters of Education in School Administration from William Woods University at Fulton, Missouri, earning his degree in 2003. He also obtained his Education Specialist in Administration Degree from William Woods University in 2007.

Walt has spent the past the past 11 years as the middle school principal for the Mountain View-Birch Tree R-III School District. He has spent 26 years in public education teaching several subjects and coaching numerous sports. He has also taught college-level courses for William Woods University and Central Methodist University in Fayette, Missouri.


[^0]:    Participant's Printed Name

