

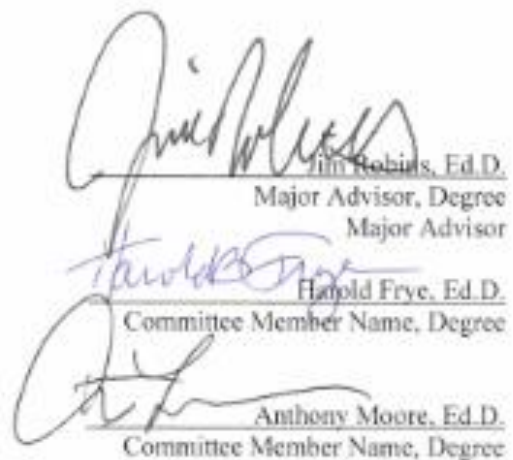
**A Study of the Relationship between State Process and Resource Standards and School District Performance for School Districts Participating in the Third Cycle Missouri School Improvement Program**


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## **Abstract**

The purpose of this study was to identify the relevance of the measured Process and Resource Standards to student performance given the criteria of the Missouri School Accreditation process. This investigation specifically examined the correlation that may have existed between the accreditation score districts earn on the Resource and Process Standards of the third cycle MSIP and the score earned on the Performance Standards 9.1.1, 9.2 and 9.3; MAP testing, Reading and ACT scores.

Motivated by the need to specifically identify what criteria led to high student achievement within the Resource and Process standards of the third cycle MSIP, this study provided the research-based data needed to justify the analysis DESE was making of school districts. At the time of the initial study there had not been a study conducted, nor evidence established, deducting an effective relationship between student performance and the Resource and Process standards sections of the MSIP. This study examined the relationship based on all 378 school districts evaluated during the third cycle.

Two research questions focused on determining these relationships provided the direction for this study. Research question one examined the relationship between the Resource Standards and student performance within the criteria determined by the third cycle MSIP. The extent of the correlation between the scores achieved by districts in the area of Resource and the Performance areas of MAP, Reading and ACT was analyzed. The results suggest that the performance level a district achieved in the area of Resource during the third cycle MSIP did have an impact on MAP and ACT scores achieved by students. The results also suggest that the performance level a district achieved in the

area of Resource did not impact whether students would perform better or worse when tested in Reading.

Research question two examined the relationship between the Process Standards and student performance within the criteria determined by the 3<sup>rd</sup> cycle MSIP. The extent of the correlation between the scores achieved by districts in the area of Process and the Performance areas of MAP, Reading and ACT was analyzed. The results suggest that how well or poor a district scored in the area of Process during the third cycle MSIP did have an impact on MAP and Reading scores achieved by students. The results also suggest that the performance level a district achieved in the area of Process did not impact whether students would perform better or worse when tested on the ACT.

## **Dedication**

This study is dedicated to my loving family. Your support and encouragement held no bounds as I worked to complete this program. For my wife, Amy, your understanding, patience and sacrifices over the years mean more to me than you will ever know. I love you! For my daughters, Anna and Scarlet, thank you so very much for understanding the late nights and weekends away from home while I worked on this. Please know everything I do, I do for you and your happiness. I love you both!

The Lord has blessed me beyond belief with this life given to me, my family and the successes I have experienced. Thank you.

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To my wife, Amy, I could not have done any of this without you. Thank you so very much for supporting this dream and what it means to me. I will forever share this accomplishment with you. I love you.

To both my daughters, Anna and Scarlet, for your supportive thoughts and joyful encouragement. Please know that not only do I share this accomplishment with each of you, but that you too can attain anything you work hard to achieve. I love you both.

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## **Chapter 1**

### **Introduction**

State governments are constantly changing policies on testing, standards, and curriculum. Districts must enact rules in response to changing policies, as well as to address local concerns. With this level of accountability to the state, and potential criticism from school districts' communities, there is an ever-growing need to have research-based systems of accountability enabling schools, their students, and their communities to receive the recognition they have earned (Hux, 2004, p.12). The Department of Elementary and Secondary Education, commonly known as DESE, should utilize research-based data indicating DESE is making the correct analysis of school districts regarding its measures of processes and resources for districts' accreditation (Hux, 2004, p.12).

This study will present an investigation of the relationship between the Resource and Process Standards of the third cycle MSIP, or the Missouri School Improvement Program, and student performance. This study will examine any correlation that may exist between the Resource and Process Standards and student performance as measured by the Performance standards in the areas of academic achievement, reading achievement, and ACT achievement for all Missouri school districts during the third cycle MSIP. Since these processes and resources are a required component to school accreditation and student performance, it is necessary to validate the MSIP as being accurate with its evaluation and measures of process and resource.

States have evaluating tools used to measure the effectiveness of their programs and academic achievement. In Missouri the primary tool used is the MSIP. This tool is divided into five cycles. Every 2-5 years the state will move on to the next cycle. The result of this measurement determines the level of accreditation for each school district (Missouri Department of Elementary and Secondary Education, 2003, p. 19). During cycle 3, years 2001-2002 through 2005-2006, the measure of processes and resources for accrediting schools was weighted with nearly 1/3 of the 149 points possible and required 38% of the 106 points to come from the areas of resources and processes to result in accreditation.

If the accreditation process was to be deemed reliable and valid, a correlation between the resource and process standards to student performance utilized by Missouri during cycle 3 needed to be established. In order to gain the status of Accredited, 66 points were to be earned in the performance area. For the performance standards identified in the study; MAP (27 Pts), Reading (18 Pts), and ACT Scores (9 Pts) there were a total of 54 points available.

As of this writing, one prior study had been conducted for the first two years of cycle 3, 2001-2002 and 2002-2003. The previous study was composed of the 142 Missouri school districts that had gone through the third cycle up to that point. This study evaluated all Missouri school districts reviewed during cycle 3. Of the 525 Missouri school districts, 378 were reviewed during the cycle.

## **Background**

The Missouri State Board of Education began the accreditation process in 1950 for Missouri public schools. There have been many changes since that time. The process

of classifying and accrediting school districts took on greater significance when the State Board of Education, in 1990, adopted new classification standards, to be implemented through the Missouri School Improvement Program (Missouri Department of Elementary and Secondary Education, 2001). The goal of the MSIP process was to promote school improvement within each district and on a statewide basis. The revised Standards and Indicators included in the Missouri School Improvement Program Integrated Standards and Indicators Manual represented a major refinement of the previous standards and promoted a stronger emphasis on student achievement and other performance measures (Missouri Department of Elementary and Secondary Education, 2001). The standards of the third cycle were to be implemented for a five-year period. They were a result of the 1993 Missouri Senate Bill 380. According to the bill, the state board of education shall consider the work that has been done by other states, recognized regional and national experts, professional education discipline-based associations and other professional education associations (Missouri General Assembly, 2002, p. 1). Missouri educators, as well as members of the Department of Education's staff created the standards (Missouri General Assembly, 2002, p. 1). Further, in establishing the academic standards and statewide assessment system, the state board of education shall adopt the work that has been done by consortia of other states (Missouri General Assembly, 2002, p. 1).

Since 1990, cycles of changes have taken place as the State Board of Education adopted new classification standards within the Missouri School Improvement Program. To attain accreditation each cycle had specific requirements and criteria districts were to follow. However, during cycle one there was no specific process to be followed. In 1998, when cycle two began, a procedural handbook had been developed along with the

Comprehensive School Improvement Handbook, and the Standards and Indicators Manual (Missouri Department of Elementary and Secondary Education, 1999). The 2001-2002 school year began the third cycle of MSIP. The second cycle procedures and standards remained in place for that year. Eventually the third cycle was implemented through the use of indicators and a procedural handbook. According to DESE publication, Third Cycle Procedures Handbook, (Missouri Department of Elementary and Secondary Education, 2002) each district's overall accreditation level was determined by both the total required number of resource/process/performance points and the total required number of performance points earned. The specific point totals listed below detail what a district was required to receive categorizing them as accredited, provisionally accredited, or unaccredited.

- Accredited: K-12 districts must earn at least 106 total points, with 66 of these points earned in Performance. K-8 districts must earn at least 71 total points, with 36 of these points earned in Performance.
- Provisionally Accredited: K-12 districts must earn at least 83 total points, with 46 of these points earned in Performance. K-8 districts must earn at least 57 total points, with 27 of these points earned in Performance. At least nine points from one of the three MAP grade spans or the two reading measures must be earned.
- Unaccredited: A district earns less than 83 (K-12) or 57 (K-8) total points or earns less than 46 (K-12) or 27 (K-8) Performance points. (Missouri Department of Elementary and Secondary Education, 2002, p. 19)

The Missouri school accreditation process for the third cycle MSIP included three distinct areas, school resources, processes, and student performance (Missouri Department of Elementary and Secondary Education, 2003, p. 17-18). Missouri required that schools earn a minimal number of accreditation points in each of these areas for school district accreditation. Districts sought to earn accreditation and were funded and or penalized substantially based upon the accreditation level they were assigned following the review process. By examining the areas used for accreditation this study will look at the validity of the Resource and Process Standards in relation to student performance demonstrated in the designated Performance Standards including MAP scores, Reading scores, and ACT scores.

### **Statement of the Problem**

If improving student performance and success was the goal of the MSIP process and Missouri school districts, then accurately identifying which standards led to achieving this goal would be imperative. The problem resided in which standards of measure are truly representative of what would lead to increased student achievement as represented within the MSIP performance standards. While the review and grading of districts was weighed heavily on the performance scores achieved, the scores gained in the resource and process areas also held great value. By utilizing research-based data DESE should be able to indicate that accurate evaluations of school districts are being made regarding the state's review and measures of processes and resources for accreditation. If the scores gained in the areas of resource and process were to hold substantial value then the correlation between the resource and process standards to student performance utilized by Missouri during cycle 3 needed to be established in order

to establish the reliability of the accreditation process. With this evaluation system in place there is a need for school districts to obtain accurate representation of their successes and their areas of needed improvement.

### **Purpose of the Study**

The purpose of this study was to identify the relevance of the measured Process and Resource Standards to student performance given the criteria of the Missouri School Accreditation process. This study will determine the relationship between the Resource and Process Standards of the MSIP and student performance.

### **Significance of the Study**

The initial study was motivated by the need to specifically identify what criteria led to high student achievement within the Resource and Process standards of the MSIP. With respect to DESE's measure of the established Resource and Process standards, research-based data were needed to justify the analysis being made of school districts. At the time of the initial study there had not been a study conducted, nor evidence established, deducting an effective relationship between student performance and the Resource and Process standards sections of the MSIP.

By continuing and expanding the initial study to include all 378 Missouri school districts reviewed, versus the 142 districts originally evaluated, a complete measure can be established. By determining whether or not there was a correlation between student achievement and the Resource and Process standards for all Missouri districts, the evidence would hold more value to school district leaders as well as state education decision makers regarding their validity. This new data should then be utilized to impact future MSIP cycle accreditation criteria, funding accountability for districts as well as

opportunities for public perceptions to be reestablished. While the findings hold significant value in these areas, data driven decision making opportunities impacting overall school improvement and innovation for Missouri's educators and students will be obtained as well.

### **Delimitations**

The study was limited to the number of K-12 Missouri schools completing the MSIP during the 2001-2002 through 2005-2006 school years of the third cycle.

1. The established boundaries for this study were narrowed to data obtained for public school districts, rural and urban, in the state of Missouri. MSIP Cycle 3, beginning in 2001-2002, was the only review cycle being examined.
2. All school districts within the state of Missouri that were reviewed for cycle 3 were included in the correlational study.
3. The Process and Resource Standards were only examined for correlation to the Performance Standards of MAP scores, Reading scores, and ACT scores.

### **Assumptions**

When examining the correlation between the Resource and Process Standards to the Performance Standards set by the state of Missouri it is reasonable to assume the following:

1. The accuracy of the Department of Elementary and Secondary Education's databases from which the majority of this study's data was obtained.
2. The data, current and historical, that was taken from DESE's database is accurate.



## **Research Questions**

**RQ1.** To what extent was there a correlation between the scores earned for Resource and the scores earned within the Performance area of student performance for MAP scores, Reading scores and ACT scores as determined by the 3<sup>rd</sup> cycle MSIP Resource and Performance Standards?

**RQ2.** To what extent was there a correlation between the scores earned for Process and the scores earned within the Performance area of student performance for MAP scores, Reading scores and ACT scores as determined by the 3<sup>rd</sup> cycle MSIP Process and Performance Standards?

## **Definition of Terms**

**DESE.** Is an acronym used to refer to the Missouri Department of Elementary and Secondary Education (Missouri Department of Elementary and Secondary Education, 2009).

**MSIP Missouri School Improvement Program.** A system of accountability used by the State of Missouri that holds districts accountable for student achievement (Missouri Department of Elementary and Secondary Education, 2012, p. 5).

**Accredited.** Refers to the level of accreditation assigned to school districts meeting necessary standards for accreditation (Missouri Department of Elementary and Secondary Education, 2002, p. 19).

**Provisionally Accredited.** Refers to the level of accreditation assigned to school districts that did not meet necessary standards for higher levels accreditation. K-12 districts must have earned at least 83 total points, with 46 of these points earned in performance. K-8 districts must have earned at least 57 total points, with 27 of these

points earned in performance (Missouri Department of Elementary and Secondary Education, 2002, p. 19).

**Unaccredited.** refers to the level of accreditation assigned to school districts that did not meet necessary standards for other accreditation (Missouri Department of Elementary and Secondary Education, 2002, p. 19).

**Performance Standards.** Includes standards 9.1.1 through 10.1.2, thirteen measures of student performance in five areas: academic achievement, reading achievement, ACT achievement, career preparation, and educational persistence (Missouri Department of Elementary and Secondary Education, 2001, p.2).

**Resource Standards.** Are concerned with the basic requirements that all districts had to meet in the areas of staffing, time allowances, class size, and certifications. They are generally quantitative in nature. These include standards 1.1.1 through 5.2 (Missouri Department of Elementary and Secondary Education, 2001, p.2).

**Process Standards.** Are concerned more with the instructional and administrative processes used in schools. They include standards 6.1 through 8.13 for the areas Instructional Design and Practices (Curriculum, Assessment, Instruction, Climate, Professional Development, LMC, Guidance) Differentiated Instruction and Supplemental Programs (Special Ed., Gifted, Vocational, Preschool, Parent Ed., Community Ed., State and Federal Programs), and School Services (Governance, Facilities, Transportation, Health Services, Food Services) (Missouri Department of Elementary and Secondary Education, 2001, p.2).

**MAP Missouri Assessment Program.** The statewide student assessment program developed in response to adoption of the Outstanding Schools Act in 1993.

(Section 160.518RSMo) (Missouri Department of Elementary and Secondary Education, 2012, p.5).

**ACT American College Testing.** A test used for college admissions, indicating a student's mastery of the core academic subjects. Scores range from 1 to 36 (Missouri Department of Elementary and Secondary Education, 2012, p. 1).

### **Organization of the Study**

This study is composed of five chapters. Chapter 2 will provide supporting evidence through the review of relevant literature. Chapter 3 will discuss the methods of the study as it pertains to the study's research design, population and sample, the data analysis procedures as well as the hypothesis testing procedures. Chapter 4 goes deeper into describing the statistical analysis associated with the correlation, the hypothesis testing and other analyses. Chapter 5 gives a final overview, interpretations, and recommendations for continued research and future application.

## **Chapter 2**

### **Review of the Literature**

This chapter includes an in-depth historical review of the nation's school accreditation system. Within this section the development of organizational systems, guidelines for administering this system and accountability standards are addressed. Chapter 2 also reviews the accreditation standards specific to Missouri. This section also reviews the progression of Missouri's school district evaluation standards and indicators now observed in cycle 3 of the Missouri School Improvement Program accreditation system.

### **The History of School Accreditation**

Over the past 205 years, schools have been organized in a multitude of different ways. The government first attempted to formalize education within the Federal Land Grant Act of 1812. To help fund schools, states were provided with land. The Missouri Territory was included within this initiative. For the support of common schools many states received sections 16 and 36, designated sections of land in each township (Gates, n. d.). This was the initial attempt to formalize education by the government. This and other attempts progressed past a structural organization to an emphasis on instruction. Missouri State Superintendent Wolfe developed a recommended 'Course of Study for elementary schools in 1892. This was a significant attempt to establish statewide guidelines for instruction (Jamtgaard & Bickford, 2000). Over the next 60 years, focus on school improvement shifted to the reorganization of the 10,000 Missouri school districts to the current number of 524. Funding for public schools was further defined, a

State Board of Education was established, attendance became compulsory and a lunch program was started (Jamtgaard & Bickford, 2000).

During the second half of the twentieth century the history of American education was marked by increased public concern and numerous attempts at reform (DuFour & Eaker, 1998). In 1948 the Missouri State Board of Education established an Accreditation and Classification system: AAA, AA, A, or unclassified (Jamtgaard & Bickford, 2000). In 1951, school evaluations were considered primarily the responsibility of the school district. However, the State Department of Education required districts to submit a classification application that entailed site evaluation by school administrators, staff and the board of education. This also included students and the community (Missouri Department of Elementary and Secondary Education, 1951). Evaluations to award classification were also conducted by the State Department of Education. This process occurred annually.

At the time, there were three major factors to consider when effectively evaluating a school program. The factors were student guidance provided, the range of programs offered and quality of instruction provided. Their purpose was not standardization of schools but the development and recognition of schools. Quality and quantity of growth were of paramount importance (Missouri Department of Elementary and Secondary Education, 1951). The goals and standards used were both subjective and objective in nature. Since all grades were assessed for accreditation and classification, any grade span school could earn AAA classification, the highest classification. Class AAA schools were expected to have a minimum of 43 units of credit. For classification and accreditation, the length of each class period was also a determining factor. A Class

AAA school was to have 60-minute class periods, while 55-minutes were required of Class AA schools, and 40-minute periods of Class A schools. In addition to the curriculum and length of class period requirements, schools were also expected to achieve standards in several other areas. Requirements for superintendents, principals, teachers, and librarians were among the standards included in this process. Additionally, the process involved requirements in the areas of school facilities, equipment and curriculum supplies, health, safety, and sanitation (Missouri Department of Elementary and Secondary Education, 1951). Although the Triple-A Classification System requirements were detailed, the future of education would continue to evolve.

In 1972, the State Board of Education defined educational objectives and goals for schools to meet in order to earn accreditation. Among the items were student assessment, curriculum development, revised classification standards and high school graduation requirements (Jamtgaard & Bickford, 2000). In 1975, Missouri initiated a statewide assessment, in which random samples of students were tested.

In 1976, the State Department of Elementary and Secondary Education adopted a set of competencies for Missouri schools. According to Huff, those minimum competencies were:

1. The student should have the ability to read adequately and use the English language in speaking and writing well enough to communicate effectively with others.
2. The student should be able to perform basic arithmetic computations and to utilize mathematics in consumer situations.

3. The student should understand government and its functions well enough to participate effectively in governmental processes. (Huff, 1978, p. 8)

In 1978, the Basic Essential Skills Test for 8<sup>th</sup> graders was enacted by the State Board of Education. The focus on academic achievement was increased as a result of this test (Jamtgaard & Bickford, 2000). This came as a result of the 1976 decision to implement minimum competencies for Missouri schools.

In 1983, the National Commission on Excellence in Education gained national attention with its grim assessment of education in America. Their published document, *A Nation at Risk*, emphasized the need for accreditation standards with its critical findings (Dufour & Eaker, 1998). An example of their assessment stated, “For the first time in the history of our country, the educational skills of one generation will not surpass, will not equal, will not even approach those of their parents” (National Commission on Excellence in Education, 1983, p. 11). Their findings also stated, “International comparisons of student achievement, completed a decade ago, reveal that on 19 academic tests American students were never first or second and, in comparison with other industrialized nations, were last several times” (National Commission on Excellence in Education, 1983, p. 8). Following the document’s release, the Missouri State Board of Education published an action plan that set priorities for school improvement (Jamtgaard & Bickford, 2000).

In 1985, the Excellence in Education Act was passed requiring a multitude of changes to occur in education. For example, the Act included an incentive program aimed at encouraging district and building-level projects designed to improve instruction and student performance, which included a student testing program. Local school

districts were required to have testing programs measuring competency in seven subject areas: English, language arts, reading, science, social studies, mathematics, and civics. (Missouri Department of Elementary and Secondary Education, 1985). Supporting the criteria set forth by the Act, the Missouri Mastery Achievement Test was created. The MMAT tests evaluated educational objectives determined by educators throughout the state and by the Department of Elementary and Secondary Education (DESE) for grades 2 through 10 (Missouri Department of Elementary and Secondary Education, 1998).

In 1990, the accreditation process began to focus on academic achievement in addition to resources (Jamtgaard & Bickford, 2000). “As the excellence movement gathered steam in the 1980s, states turned their attention to graduation requirements, curricular standards, pupil assessment, teacher qualifications, and incentives for attracting and retaining good teachers...” (Sergiovanni, Burlingame, Coombs, & Thurston, 1998, p. 285). The Outstanding Schools Act, also known as Senate Bill 380, was passed in 1993. An A+ Program was also started to help reduce the dropout rate of high school students as well as other objectives. The State Board of Education would soon begin work on standards to comply with the Act.

The State Board of Education adopted new rigorous academic standards, called the Show-Me Standards. These standards were established in 1996. The Show-Me Standards were part of a two-year process involving Missouri teachers and feedback from thousands of patrons and educators. The Show-Me Standards were focused around four main goals. These goals were:

- Goal 1—students in Missouri public schools will acquire the knowledge and skills to gather, analyze and apply information and ideas.



- Goal 2—Students in Missouri public schools will acquire the knowledge and skills to communicate effectively within and beyond the classroom.
- Goal 3—Students in Missouri public schools will acquire the knowledge and skills to recognize and solve problems.
- Goal 4—Students in Missouri public schools will acquire the knowledge and skills to make decisions and act as responsible members of society. (Missouri Department of Elementary and Secondary Education, 2009)

In addition to performance standards being developed, adopted, and implemented, the Outstanding Schools Act also required the development of a standardized achievement assessment test to be administered statewide.

The state board of education shall develop a statewide assessment system that provides maximum flexibility for local school districts to determine the degree to which students in the public schools of the state are proficient in the knowledge, skills and competencies adopted by such board pursuant to subsection 1 of section 160.514. (Missouri General Assembly, 2002, p. 1)

Schools were then held accountable if they did not achieve the minimum requirements established by the State Board of Education. An article at the time stated, “In 1999, the State Board of Education was urged to take action to remove accreditation of St. Louis and Kansas City school districts” (Jamtgaard & Bickford, 2000, p. 4). The document also stated, “However, because of its desegregation settlement, the board agreed to delay its action for two years. The Kansas City School District lost its accreditation in May 1999 and must regain it within two years or face a possible takeover.” DESE then stated that the Kansas City Schools were “Provisionally

Accredited” as of the 2003-2004 school year (Missouri Department of Elementary and Secondary Education, 2003). In 2002, the St. Louis School District went through another accreditation impacting decision by the State Board (Jamtgaard & Bickford, 2000). DESE then stated that the St. Louis City Schools were “Provisionally Accredited” as of the 2003-2004 school year (Missouri Department of Elementary and Secondary Education, 2003).

The 103rd Congress of the United States of America supported the Goals 2000, Educate America Act in 1994 (103rd Congress of the United States of America, 1994). According to DuFour and Eaker (1998, p. 4), there were “six national goals for education.” With multiple standards and objectives in mind, the Educate America Act was designed to:

improve learning and teaching by providing a national framework for education reform; to promote the research, consensus building, and systemic changes needed to ensure equitable educational opportunities and high levels of educational achievement for all students; to provide a framework for reauthorization of all Federal education programs; to promote the development and adoption of a voluntary national system of skill standards and certifications; and for other purposes. (103rd Congress of the United States of America, 1994, p. 1)

Some of the national education goals in the Act established for schools to achieve were set in the following categories: school completion, school readiness, students’ citizenship and achievement, science and mathematics, discipline, safety, alcohol and drug free schools, teacher professional development and education, adult literacy, and

parental participation. By the year 2000, the Act stated that all students would be ready to learn when school started. An objective was written to meet this goal stating the following. “All children will have access to high-quality and developmentally appropriate preschool programs that help prepare children for school” (103rd Congress of the United States of America, 1994, p. 1). For the category of school completion, the Act (1994, p. 1) stated, “the high school graduation rate would increase to at least 90 percent.” An objective for this goal was written as the following. “The Nation must dramatically reduce its school dropout rate, and 75 percent of the students who do drop out will successfully complete a high school degree or its equivalent” (103rd Congress of the United States of America, 1994, p. 1).

The Act called for school improvement plans to be developed by schools. States were allowed to do this on a voluntary basis. Although by participating, the stated educational agencies could receive federal money. The Act (1994, p. 1) required school improvement plans be created by a “broad-based State panel.” Strategies for the development of standards and assessments were also defined. “A process for developing or adopting State content standards and State student performance standards for all students, in which process shall include coordinating the standards, shall be developed” (103rd Congress of the United States of America, 1994, p. 1). The Act (1994, p. 1) also required “a process for developing and implementing valid, nondiscriminatory, and reliable State assessments.” DuFour and Eaker (1998, p. 4) described how the Act stated, “American students will leave grades four, eight, and twelve having demonstrated competency in challenging subject matter.”

For states that participated, the Educate America Act required the establishment of governance, management and accountability within the state educational department. This included aspects such as: promoting bottom-up reform, making the improvements system-wide, coordination with school-to-work programs and dropout strategies. In addition, the Act (1994, p. 1) stated, “Each State improvement plan shall include specific benchmarks of improved student performance and of progress in implementing such plan, and timelines against which the progress of the State in carrying out such plan.”

The No Child Left Behind Act of 2001, signed into law in 2002, was the most significant reform of the Elementary and Secondary Education Act (ESEA) since the time it was adopted in 1965 (United States Department of Education, 2002). The ESEA was a major focus of President Lyndon Johnson’s War on Poverty (McLaughlin, 1975). Focused primarily on impoverished children, the act allocated funds to support the effort of closing the achievement gap. The No Child Left Behind Act of 2001 charged schools with high standards and accountability nearly thirty-six years later. Regarding the accountability associated with improved academic achievement, systems of rewards and sanctions were to be established by states for districts to meet (Executive Branch of the United States of America, 2002). The Act (2002) went on to describe how states were to implement detailed measurable goals focused on essential knowledge and basic skills while emphasizing the need for annual academic assessments. The act also stated for states to establish high standards for professional development and improving educator quality. The act labeled schools, imposed sanctions and withheld funds as well. The Mid-continent Research for Education and Learning (McREL) newsletter stated that the No Child Left Behind Act mandated that states use systems of proficiency that have a

minimum of three levels: advanced, proficient and basic (McREL Central Region Educational Laboratory, 2002). The No Child Left Behind Act stated:

If the identified school still has not met adequate yearly progress after two years, the district must implement corrective action and offer public school choice to all students in the failing school. If the school fails to make adequate yearly progress after three years, disadvantaged students within the school may use Title I funds to transfer to a high performing public or private school, or receive supplemental educational services from a provider of choice. All non-public providers receiving federal money will be subject to appropriate standards of accountability. (Executive Branch of the United States of America, 2002, p. 9)

There were some education analysts and officials that expressed reservations pertaining to this approach by the government, which referenced if a subgroup failed to make appropriate annual progress, the school as a whole could be labeled as deficient and subject to sanctions (McREL Central Region Educational Laboratory, 2002). “Holding schools accountable for results cannot help but make schools and governments more adversarial” (Loveless, 1998, p. 6). Government officials were also viewed as not doing enough to support schools. The following statement by Tom Loveless sums up the last 30 years of education reform:

The minimum competency movement of the late 1970’s, the wave of reforms launched by A Nation at Risk in 1983, and the national standards movement represented in the 1994 Goals 2000 legislation all suggest that the aims of education are beginning to narrow, with public opinion converging on the primacy of academic outcomes. (Loveless 1998, p. 5)

## **The Missouri Accreditation Standards**

The third cycle Missouri School Improvement Program (MSIP) standards were the result of the 1993 Missouri Senate Bill 380, and were to be in place for the five-year period associated with the cycle. The bill also stated,

The state board of education shall consider the work that has been done by other states, recognized regional and national experts, professional education discipline-based associations and other professional education associations. Further, in establishing the academic standards and statewide assessment system, the state board of education shall adopt the work that has been done by consortia of other states. (Missouri General Assembly, 2002, p. 1)

During Missouri's cycle one and two, expectations for accreditation established by other states could have been evaluated for potential use and support of standards being utilized in the MSIP. An example of what some other states were doing at the time can be seen by through the accreditation criteria established by the Southern Association of Colleges and Schools (SACS) for certain states to follow. The states that were participating in the SACS were Alabama, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Texas and Virginia.

The participating state school districts were to adhere to the following steps. Orientation to the process first occurred for a school. The school would then file an application to the SACS for candidacy. A representative from the association then conducted a site visit determining the school's means to meet established standards and sustain continued improvement planning. The school was to then establish an action plan focused on school improvement which would be assessed by a review team assigned by

the association. This team evaluated the school's adherence to the standards, increases in student performance and the quality of their improvement planning. Accreditation status was determined by the state committee commission delegate assembly (Commission on Elementary and Middle Schools, n.d.). Like Missouri, schools were labeled with a specific status, only with some different titles such as accredited, accredited advised, accredited warned and accredited probation. Schools could also be denied accreditation based on their initial evaluation.

Schools were to comply with 13 standards to achieve and sustain accreditation. Instructional Standards and Organizational Standards were the SACS primary areas, versus how Missouri's were divided into Process, Resource and Performance Standards. The SACS Instructional Standards addressed curriculum, instructional design, assessment, conduct and citizenship. Their Organizational Standards addressed areas such as mission and vision, leadership, community relations, human resources and school improvement (Commission on Elementary and Middle Schools, n.d.). Like Missouri, indicators were provided for the SACS standards.

The states that operated under the SACS grouped many of their standards in a similar manner to Missouri's process, resource and performance areas of the MSIP. Similar in content to areas within Missouri's process standards, the SACS standard three stated that the governing board or school was to develop clearly written procedures and policies defining the lines of relationships, accountability and authority. The SACS standard five was reflective of a category under Missouri's resource standards. Standard five stated that adequate numbers of qualified and competent staff was to be provided to support student learning and implement the administrative functions of the school.

Indicators stated within the SACS standard thirteen held similarities to Missouri's accreditation system of performance standards. Indicator 13.1 stated that the school develop and implement a comprehensive system for assessing student progress based on clearly defined desired results for student learning (Commission on Elementary and Middle Schools, n. d.).

In Missouri, requirements and criteria to earn accreditation for cycle one had been established for districts, but a specific process had not been created to follow. In 1998, when cycle two began, the procedural handbook had been created in addition to the Standards and Indicators Manual, and Comprehensive School Improvement Handbook (Missouri Department of Elementary and Secondary Education, 1999). Cycle 3 began during the 2001-2002 school year. While cycle two procedures and standards remained in place for the initial year of cycle three, the established cycle three criteria was implemented the following year and remained in place for the remainder of the cycle. Promoting a direct focus on student achievement and other district measures, the Missouri School Improvement Program Integrated Standards and Indicators Manual was comprised of significant revisions to the previous standards (Missouri Department of Elementary and Secondary Education, 2001).

According to Dr. Hux, who conducted the initial study of the relationship between state process and resource standards and school district performance for school districts participating in the third cycle MSIP, "previous to cycle 3 schools were testing kids, but there was limited use of the data. It seemed it was mainly used for low-level decisions like dividing kids equally by their academic prowess among teachers in a given grade" (Travis Hux, personal communication, March 12, 2018). Hux went on to state, "as an



academic I was excited about the research-based aspects to education that were coming. Cycle 3 was meant to move schools into a more in-depth study of testing data so that ultimately kids could improve academically. The focus was also changing from teaching to learning” (Travis Hux, personal communication, March 12, 2018). The Missouri school accreditation process for the third cycle MSIP included three distinct areas, school resources, processes, and student performance (Missouri Department of Elementary and Secondary Education, 2003, p. 17-18).

### **Resource Standards**

Referencing the Resource Standards, the 2001 MSIP Standards and Indicators Manual stated, “In general, the Resource Standards are concerned with the basic requirements that all districts must meet. They are generally quantitative in nature. Some standards are appropriate for all districts. Other standards need to be tailored for districts in different contextual settings. Dual criteria are used comparing the district with “minimums” determined by the State and what is deemed “desirable” as determined by research and/or professional judgment” (Missouri Department of Elementary and Secondary Education, 2001, p. 4).

Class size, enrollment numbers, programs of study, certification, support and administrative staff and teacher planning time were addressed in the Resource Standards. “Although a great deal of debate surrounds the level and allocation of resources to public schools, very little research has addressed how schools might organize teaching resources more effectively at the school level” (Miles and Hammond, 1998, p. 13). Miles was attributed with developing a framework and methodology that could be used to evaluate

how well schools effectively utilize their resources to support learning and teaching (Miles & Hammond, 1998). Resource allocation issues were noted in the study as:

- Specialized programs conducted as add-ons—an example being too many pullout programs.
- Isolated instruction-free time for teachers—currently many teachers have short periods of instruction free time without benefit of peer consultation.
- Formula-driven student assignment—age grades, tracking, etc.
- Fragmented high school schedules—45-50 minute periods, one subject specialization.
- High schools that are too large—Over 2000 students in many high schools; 800 students is identified as optimum.
- Inflexible teacher workday and job definition—8:00 AM to 3:00 PM, 50 minute periods, or Reading at 10:00 AM–10:50 AM on Monday, Wednesday and Friday.

(Miles & Hammond, 1998, p. 16)

Miles and Hammond acknowledged desirable reforms as objectives focused on increasing student achievement by developing a new curriculum composed of new standards, positive teacher-student relationships and increased planning time for teachers. Strategies employed by schools found to curb resource allocation issues were addressed in the study under the following six principals:

- Reduction of specialized programs to provide more individual time for all in heterogeneous groups;
- More flexible student grouping;
- Structures that create more personalized environments;

- Longer and varied blocks instructional time;
- More common planning time for staff; and
- Creative definition of staff roles and work schedules. (Miles & Hammond, 1998, p. 16)

Each resource standard contained minimum and desirable levels to be achieved.

One example for this could be seen in the English/Language Arts/Communication category. A minimum offering of 6.0 units of credit was suggested while 10.0 units were described as the desirable offering. The MSIP Integrated Standards and Indicators Manual (2001) made several such suggestions across the various standards and related indicators. While each standard had minimum and desirable units of credit to be achieved, alternative options were provided to schools in order to achieve, or sustain, accredited status. Pertaining to class size, if enrollment grew in a particular class setting including as many as ten additional students, desirable credits could still be obtained given a teacher assistant was present full time (Missouri Department of Elementary and Secondary Education, 2001). School districts could achieve a total of 11 points, one point per standard, in the area of resources (Missouri Department of Elementary and Secondary Education, 2002).

### **Process Standards**

The Process Standards included areas addressing differentiated instruction, instructional design and practices, school services and supplemental programs. While these areas had an assigned value as part of the accreditation model during the third cycle, previous cycles and reform efforts did not always provide such opportunities for school districts. Fullan states, “In the United States, starting with the publication of A

*Nation at Risk* (National Commission on Excellence in Education, 1983), attention shifted to what governments should do to accomplish badly needed large-scale reform. By and large, the efforts of the decade following 1983 concentrated on beefing up accountability expectations and requirements. These early policy initiatives, focusing only on accountability, did more damage than good. The policy initiates pressure on local systems, while providing little help, and actually increased the overload and fragmentation of effort” (Fullan, 2007, p. 237). A study conducted evaluating the evolution of school reform in six states made a similar observation. Arizona, California, Florida, Georgia, Minnesota and Pennsylvania were studied over a 7-year period, 1983 to 1990. One area of the study states,

Government fragmentation runs from central agencies to peripheral ones – that is, from federal and state governments to districts, schools, and ultimately classrooms. The study of policy implementation since the 1960s has been a history of efforts to identify ways for agencies at one level to influence those at the next level down; authoritative directions and responsive compliance turn out to be the exception. The best that can usually be expected of efforts to get districts to implement state and federal policy is mutual adaptation through which central expectations adapt to local preferences at least as much as the opposite occurs. High-quality implementation is the exception. (Firestone, Rosenblum, and Bader, 1992, p. 256)

One area of the Process Standards was Differentiated Instruction and Supplemental Programs. An example of a standard in this area stated, “The district provides opportunities for parents/guardians to learn about the intellectual and

developmental needs of their children at all ages and to participate constructively in their children's education" (Missouri Department of Elementary and Secondary Education, 2001, p. 20). An indicator for this standard stated, "parent education activities were provided, as required by the Early Childhood Development Act" according to the Manual (2001, p. 20). In this area schools could earn a total of 7 points composed of 1 point per standard (Missouri Department of Elementary and Secondary Education, 2002).

Under the area of Instructional Design and Practices one standard stated, "The district implements written curriculum for all its instructional programs" (Missouri Department of Elementary and Secondary Education, 2001, p. 14). Indicators stated how the curriculum was to include components such as goals, rationale, instructional strategies, specific learner objectives with measurable criteria, evidence of the learner objectives and their alignment to the Show-Me Standards and established district goals, and date of board approvals (Missouri Department of Elementary and Secondary Education, 2001). School districts were able to earn a total of 18 points, 2 points per standard, in this area (Missouri Department of Elementary and Secondary Education, 2002).

The School Services area of the Process Standards encompassed indicators addressing safe and effective facilities, board policies, and district goals and objectives including a Comprehensive School Improvement Plan (CSIP). An indicator stated in the Manual (2001, p. 22) stated, "Facilities are healthful, adequate size, clean, well-maintained, and appropriate to house the educational programs of the district." By meeting the indicators in this area districts could attain 1 point per standard, totaling 13 possible points. In the area of Resource and Process Standards school districts could earn

a total of 49 points (Missouri Department of Elementary and Secondary Education, 2002).

With this structure in place, the Process Standards were not quantified easily due to the layers of required criteria. A team of trained observers accomplished the assessment of these areas by conducting onsite reviews (Missouri Department of Elementary and Secondary Education, 2001). In an email correspondence with Dr. Huff, current Assistant Superintendent of Secondary Education and former member of a site review team, it was apparent that several viewpoints pertaining to the effectiveness and validity of the process could be deducted from his experiences. Regarding his time spent on a site review team he states:

- Focus on minimum standards for things such as class size, library space, counselors was still there. These non-core issues are easily pushed to the side as budgets get tight. DESE had some leverage over these standards when there is a score attached.
- It was outstanding PD. We got to take a close look at another district and see what was working and not working. I learned more on these days than in almost any other PD I have been a part of.
- The sheer volume of work to prepare for a visit required a district to put a team together. This process required a district to work collaboratively for a common purpose and was beneficial.
- The district was also required to put plans in place related to the standards. This also forced districts to look carefully at their success plans and make adjustments

based on their data. Again, a very good process. (Brian Huff, personal communication, April 2, 2018)

Huff went on to state,

I will admit that I found them onerous. I also found that the teams were comprised of some individuals who had no business telling a district how to operate. It was easy for that lack of knowledge in some team members to turn into frustration with the recommendations they would make. They may have spent a couple days reviewing everything we put together, but that was still not enough time to really get to know us. It also just turned into a show. The district put on a great performance for a couple days and hid all of the issues in order to get a good score. (Brian Huff, personal communication, April 2, 2018)

### **Performance Standards**

The Performance Standards consist of areas addressing K-12 educational persistence and achievement. Through these standards student performance was measured in the areas of reading achievement, general academic achievement, scholastic preparedness, educational persistence and career preparation. Referencing the impact on schools, Hux (2018) stated, “ultimately the goal for cycle three seemed to be holding schools accountable, with a heavy focus on academics. The result was various professional development for staff members, re-evaluation of curriculum and instruction, test preparation programs for students, etc.” (Travis Hux, personal communication, March 12, 2018).

According to the 2001 MSIP Third Cycle Procedures Handbook, one indicator stated that to measure academic achievement, a district had to show it had implemented

the Missouri Assessment Program (MAP). Another indicator pertaining to MAP achievement stated that students must have scored at a high level or were able to show improvement in performance. Another indicator stated that the percent of “proficient” achieving third- and seventh- grade students was to be at a high or increasing level, determined by reading scores obtained from the communication arts section of the MAP. Hux (2018) described this as the time where Missouri moved away from simple multiple choice tests to more performance event questions contained in the MAP. “While it was scary, we also knew it was forcing us to focus on higher levels of learning; moving from knowledge to synthesis for example” (Travis Hux, personal communication, March 12, 2018). Another indicator in this area addressed the percentage of students who scored high or at an increased level, using national mean scores as the threshold for measurement on the American College Test (ACT) program or Scholastic Aptitude Test (SAT) (Missouri Department of Elementary and Secondary Education, 2001).

The area of performance contained a total of 100 points that could be earned by a district. MAP scores resulted in 27 points that could be obtained. Reading achievement accounted for another 18 points. Another nine points could also be earned through effective performance on the ACT. These selected areas of the Performance Standards totaled 54 points. In this study, the Resource and Process Standards were compared against the Performance Standards of general academic achievement, reading achievement, and scholastic preparedness (Missouri Department of Elementary and Secondary Education, 2002).

The remaining 46 points that could be achieved in the area of performance addressed educational persistence and career preparation. The dropout rate was valued at



nine points. Derived from a district's attendance rate, another nine points were determined. An additional 28 points were possible to obtain by meeting the career and educational preparation criteria (Missouri Department of Elementary and Secondary Education, 2002).

During cycle 3, the points earned by a district in the area of resources and processes combined with the points earned in the area of performance, determined their accreditation level. A district's Annual Performance Report (APR) also became a critical factor that allowed districts to attain an "Accredited with Distinction" status by successfully meeting 11 of the 12 categories. According to Hux (2018), "This is the cycle that introduced the APR score. Good or bad, performance was summed up in a number the public could understand. This did indeed force schools to intensify their focus" (Travis Hux, personal communication, March 12, 2018). The following description details the minimum point requirements for each level of accreditation.

- **Accredited:** K-12 districts must earn at least 106 total points, with 66 of these points earned in Performance. K-8 districts must earn at least 71 total points, with 36 of these points earned in Performance.
- **Provisionally Accredited:** K-12 districts must earn at least 83 total points, with 46 of these points earned in Performance. K-8 districts must earn at least 57 total points, with 27 of these points earned in Performance.
- **Unaccredited:** A district earns less than 83 (K-12) or 57 (K-8) total points **OR** earns less than 46 (K-12) or 57 (K-8) total points **OR** earns less than 46 (K-12) or 27 (K-8) Performance points. (Department of Elementary and Secondary Education, 2003, p. 18)

While the review of districts was weighed heavily on the performance scores achieved, the scores gained in the resource and process areas also held great value. In 2011 a hearing was held before the Subcommittee on Early Childhood Elementary and Secondary Education, Committee on Education and the Workforce education. Dr. Whitehurst, senior fellow and director of the Brown Center on Education Policy at Brookings Institution, made several comments pertaining to education research. At one point he made the statement, “High quality education research is critical to the nation’s effort to deliver better education and a future of opportunities to our citizens. Without good evidence we are destined to embrace education policies that move us forward, backwards, and sideways, and we are not even going to know in which of those directions we are heading” (United States, 2012, p.49).

### **Summary**

This review focused on literature and research relevant to the subject matter addressed in this study. Broken down into two topics, Missouri’s school accreditation process was the focus of this section. The first topic centered on the history of the accreditation process from its origin leading to the structure of MSIP cycle 3. The Missouri Accreditation Standards were the focus of the second topic defining the processes and expectations set forth for cycle three. Pertinent individuals and studies relevant to the historical evaluation of public schools, the development of school accreditation standards and the relationship between Missouri’s resources and processes and student performance were reviewed. Chapter 3 will introduce the research methodology conducted for the study including sections detailing the research design,

selection of participants, measurement procedures, data collection, data analysis and hypothesis testing, and the limitations of the study.

## **Chapter 3**

### **Methods**

The purpose of this study was to examine the correlation that may exist between the Process and Resource Standards and student performance in the Missouri School Accreditation process. This investigation specifically examined the relationship between the accreditation score that districts earn on the Resource and Process Standards of the third cycle MSIP and the score earned on the Performance Standards 9.1.1, 9.2 and 9.3; MAP testing, Reading and ACT scores.

Within this chapter, the research methodology conducted is described. The sections of this chapter include descriptions detailing the research design, selection of participants, and measurement procedures. A detailed description is also provided for the data collection process followed in the study. The data analysis and hypothesis testing sections are then introduced. Concluding the chapter, the limitations of the study are described and an overall summary is provided.

#### **Research Design**

A quantitative research design including archival MSIP data was utilized. Access to the data was gained through the Missouri Department of Elementary and Secondary Education. According to Creswell (2014), a quantitative research design is a means “for testing objective theories by examining the relationship among variables,” which “in turn can be measured by instruments so numbered data can be analyzed using statistical procedures” (p.4). The variables were the scores districts earned in the Resource and Process sections, and the scores districts earned in the Performance areas of MAP, Reading and ACT scores.

### **Selection of Participants**

“The target population is the group of interest to the researcher, the group to which you would like the results to the study to be generalizable” (Lunenburg & Irby, 2008, p. 167). The population for this study consisted of all school districts in Missouri, rural and urban, that were assessed for accreditation during the third cycle MSIP, years 2001-2002 through 2005-2006. Of the 525 Missouri school districts, 378 were reviewed during the cycle. No specific school district or individual was identified in any part of the study.

### **Measurement**

Historical cycle 3 MSIP data was acquired through the Department of Elementary and Secondary Education’s database to meet the needs of this study. School district information stored in DESE’s database was, and continues to be, open to the public. The public domain portion of the database excludes student identifying data. School districts were identified based on their accreditation level earned and the related scores received in the tested areas addressed in this study.

During cycle 3 MSIP all Missouri school districts were held to the same standardized Resource, Process and Performance Standards. The evaluation tools and accreditation grading scale employed by DESE during the evaluation period for school districts were also standardized throughout the state. Standardization in Missouri’s accreditation process establishes the data and data source as being valid and reliable. This can be seen through the Resource Scoring Guide (Appendix A), Process Scoring Guide (Appendix B), Performance Scoring Guide (Appendix C). District accreditation scores were retrieved from the state of Missouri to examine the relationship between the

score districts earned on the Resource and Process Standards and the score earned on the Performance Standards 9.1.1, 9.2 and 9.3; MAP testing, Reading and ACT.

The Resource Standards were measured based on the following categories: program of studies, class size/assigned enrollments, professional support staff, administrative staff and certification/planning time. School districts received one point per standard in the area of resources. School districts were able to achieve a total of 11 points in this area (Missouri Department of Elementary and Secondary Education, 2002).

The Process Standards were measured based on the following categories: instructional design and practice, differentiated instruction and supplemental programs, and school services. School districts were able to receive two points per standard regarding instructional design and practice for a possible total of 18 points in this area. Differentiated instruction and supplemental programs were valued at one point per standard, for a total of 7 points. School services were valued at one point per standard, for a total of 13 points. There were 49 points possible in the areas of the resource and process standards (Missouri Department of Elementary and Secondary Education, 2002).

The Resource and Process Standards sections awarded points towards accreditation by applying the related scoring guides, Appendix A and B, and the determinations of the Department School Improvement Committee (DSIC). The indicators for each standard listed in each scoring guide guided the decisions rendered by the DSIC. The number of points awarded for each standard had to be agreed upon by at least two of the three readers, and the remaining members of the committee had to concur (Department of Elementary and Secondary Education, 2003).

The Performance Standards measured for this study were based on the areas of general student achievement and academic preparedness. Districts were eligible to receive a maximum of 27 points for general academic achievement from MAP scores, 18 points from reading achievement derived from the percent of students that scored at the proficient level of MAP communication arts tests, and another nine points from the number of students that scored at or above the national mean on the ACT. This point system is reflected in the Performance Scoring Guide, Appendix C. Districts were determined as “Met” or “Not Met” for each of the performance measures based on whether or not they achieved the minimum criteria (Department of Elementary and Secondary Education, 2003).

### **State Assessment**

The Missouri Assessment Program (MAP) is one of several educational reforms mandated by the Outstanding Schools Act of 1993. This act required that Missouri create a statewide assessment system that measured challenging academic standards. As a result of this act, the State Board of Education directed DESE to identify the knowledge, skills and competencies that Missouri students should acquire by the end of certain grade levels and to evaluate student progress toward those academic standards; thus, Missouri Show-Me Standards were created (CTB/McGraw-Hill, 2010). The Missouri State Board of Education adopted the Show-Me Standards in 1996. As a grade-span test the MAP was developed to measure these standards. The MAP was a standardized test administered to students to ensure they were achieving the standards of learning set forth in the Show-Me Standards, as well as that they were gaining knowledge on par with students locally and nationally (CTB-McGraw-Hill, 2012).

The MAP is comprised of varying types of items: constructed-response, selected-response and performance events. Each assessment requires three to five hours of test administration time. Students are challenged to varying levels of difficulty from selecting multiple-choice answers to applying knowledge and understanding of real life situations (CTB/McGraw-Hill, 2010). MAP items included in testing were created by Missouri State Assessment authors. The test items were chosen from the TerraNova Survey from CTB/McGraw-Hill publishing company. The TerraNova survey was an abbreviated version of the Complete Battery; it provides a general measure of achievement in a minimum amount of testing time. Norm-referenced achievement scores are generated to measure students' academic levels of students in the different curriculum areas (CTB/McGraw-Hill, 2010). One of four achievement levels is achieved and then reported to DESE. Below Basic, Basic, Proficient or Advanced are the achievement levels attained by the number of correct answers provided by each test taker. Growth is expected to be shown by meeting proficiency targets yearly. These targets also increase from year to year.

**Validity and reliability.** The validity of an assessment is the extent to which the “instrument measures what it purports to measure” (Lunenburg & Irby, 2008, p. 181). Working with CTB/McGraw-Hill, DESE determined the MAP test scores to be valid and reliable. According to CTB/McGraw-Hill (2012), the MAP test items, as well as the overall test, are functioning appropriately. Scoring practices were enacted by Missouri adhering to the American Psychological Association (APA), the *Standards for Educational and Psychological Testing* set by the American Educational Research Association (AERA) and by the National Council on Measurement in Education (NCME)



(1999). In aligning with the standards set forth by the APA, AERA and NCME (1999) the reliability of each MAP test was evaluated in a variety of ways; reliability of raw scores, overall standard error of measurement, IRT-based conditional standard error of measurement, and decision consistency of achievement-level classifications (CTB/McGraw-Hill, 2012).

### **American College Testing (ACT)**

The ACT is a nationally taken test used as a system of data collection and reporting in place to primarily support high school students with their postsecondary plans related to continued education. The test also supports postsecondary institutions with student admissions and course placement decisions related to individual student scores derived from ACT test results. The standardized nature of the test, development criteria and administered conditions make the ACT an effective gauge of student knowledge and postsecondary education readiness.

Data collected from the ACT is not only used to benefit college bound students and postsecondary institutions, but is also used by high schools, states and some agencies across the nation. High schools utilize the respective data for counselor academic advising, meeting state accreditation criteria and for public relations. States primarily use the related data as a component of their respective school district assessment programs. Different agencies that award student scholarships, grants or loans link their financial assistance to academic performance shown by ACT scores (ACT Inc., 2017).

Composed of four multiple-choice tests taken by eleventh and twelfth graders, the ACT measures achievement in mathematics, English, science and reading. “The test measures what students are able to do with what they have learned in school in core

academic content areas” (ACT Inc., 2017, p. 1.4). The scores range within a possible scale score of 1 to 36 with a maximum score of 36. The number of correct answers a student earns on the test, the student’s raw score, is converted to a scale score through an equating process to ensure all reported scores have consistent value across different test forms and testing years (ACT Inc., 2017). A district is considered “Met” in this area by obtaining nine accreditation points. There are 4 scoring methods for achieving accreditation in this area described in Appendix D.

**Validity and reliability.** As a gauge of educational achievement and postsecondary preparedness, the ACT functions as a standardized measure that ensures scores earned have consistent value across different test forms and testing years. The ACT Technical Manual described the content specifications for developing the test. For grades seven through twelve the curriculum frameworks and state-approved textbooks were reviewed. Secondary and postsecondary educators were also consulted pertaining to the material reviewed. These steps were taken to determine the knowledge and skills to be tested (ACT Inc, 2017).

The test content validity is continually assessed throughout the development process. This includes each test item being reviewed at least 16 times, and the examining of the test form for consistency in following the established specifications (ACT Inc., 2017). The ACT scores reported to DESE have consistent value across different test forms and testing years. This consistency can be seen through the data collected from scale scores ranging from 1 to 36, standardized test development processes and testing procedures.

## **Data Collection Procedures**

Prior to initiating the data collection process, notice was provided to DESE regarding the intent to conduct research for the purpose of this study. Permissions from DESE were not required. Missouri district information, including test and accreditation scores, is free and open to the public. On May 14, 2018 a proposal for research (see Appendix F) was submitted to the Baker University Institutional Review Board requesting research approval. On May 15, 2018 approval was granted (see Appendix G). Historical MSIP data was then obtained through the Department of Elementary and Secondary Education's database to meet the needs of this study. District scores earned for the Process and Resource Standards, and Performance Standards 9.1.1, 9.2, and 9.3; MAP, Reading and ACT scores were retrieved. Data were stored on a secure local hard drive for the length of time required to complete the study and an additional 5 years.

## **Data Analysis and Hypothesis Testing**

To examine if there were correlations between the scores earned for Resource and Process and the scores earned within the Performance area of student performance for MAP scores, Reading scores and ACT scores as determined by the 3<sup>rd</sup> cycle MSIP Resource and Process and Performance Standards, multiple Pearson Product Moment correlation coefficients were calculated. The level of significance was set at .05 for all statistical tests.

**RQ1.** To what extent was there a correlation between the scores earned for Resource and the scores earned within the Performance area of student performance for MAP scores, Reading scores and ACT scores as determined by the 3<sup>rd</sup> cycle MSIP Resource and Performance Standards?

**H1.** There was a significant correlation between the Resource Standards and MAP scores as determined by the 3<sup>rd</sup> cycle MSIP.

To examine the relationship between the Resource Standards and MAP scores a Pearson Product Moment correlation coefficient was calculated.

**H2.** There was a significant correlation between the Resource Standards and Reading scores as determined by the 3<sup>rd</sup> cycle MSIP.

To examine the relationship between the Resource Standards and Reading scores a Pearson Product Moment correlation coefficient was calculated.

**H3.** There was a significant correlation between the Resource Standards and ACT scores as determined by the 3<sup>rd</sup> cycle MSIP.

To examine the relationship between the Resource Standards and ACT scores a Pearson Product Moment correlation coefficient was calculated.

**RQ2.** To what extent was there a correlation between the scores earned for Process and the scores earned within the Performance area of student performance for MAP scores, Reading scores and ACT scores as determined by the 3<sup>rd</sup> cycle MSIP Process and Performance Standards?

**H4.** There was a significant correlation between the Process Standards and MAP scores as determined by the 3<sup>rd</sup> cycle MSIP.

To examine the relationship between the Process Standards and MAP scores a Pearson Product Moment correlation coefficient was calculated.

**H5.** There was a significant correlation between the Process Standards and Reading scores as determined by the 3<sup>rd</sup> cycle MSIP.

To examine the relationship between the Process Standards and Reading scores a Pearson Product Moment correlation coefficient was calculated.

*H6.* There was a significant correlation between the Process Standards and ACT scores as determined by the 3<sup>rd</sup> cycle MSIP.

To examine the relationship between the Process Standards and ACT scores a Pearson Product Moment correlation coefficient was calculated.

### **Limitations**

“Limitations of a study are not under the control of researcher. Limitations are factors that may have an effect on the interpretation of the findings or on the generalizability of the results” (Lunenburg & Irby, 2008, p. 133). The following are the limitations of this study:

1. There is a possibility that MAP, Reading and ACT scores could have been reported inaccurately by school districts.
2. Not all students have to take the ACT exam.
3. There is a possibility that not all students completed the required MAP and Reading exams.
4. The findings of this study are reflective of Missouri and the MSIP. Therefore, the results may not be generalized, or applied, to other states.

### **Summary**

Included in this chapter was an overview of the quantitative research presented. With respect to the accreditation process, the research design will describe the correlation that may exist between the Process and Resource Standards and student performance in the Missouri School Accreditation process. The selection of participants was then

explained in detail. The measurement of the source data and scoring variables in the study was also described and shown to be valid and reliable. Data collection procedures were described referencing the initial study on the subject and DESE archival data as the primary source for the required data. Additionally, the research questions with each corresponding hypotheses were stated. The limitations impacting the parameters of the study were listed. A detailed description of the statistical analysis pertaining to the correlation of the standards and the established hypothesis tests are addressed in chapter four. Chapter five provides a final overview of the study, conclusions and recommendations for future research and application of the data.

## **Chapter 4**

### **Results**

The purpose of this study was to examine the correlation that may exist between the Process and Resource Standards and student performance in the Missouri School Accreditation process. This investigation specifically examined the relationship between the accreditation score districts earn on the Resource and Process Standards of the third cycle MSIP and the score earned on the Performance Standards 9.1.1, 9.2 and 9.3; MAP testing, Reading and ACT scores. This chapter contains sections addressing the descriptive statistics and hypothesis testing related to the results. A summary is also included focusing on the main points from the chapter.

#### **Descriptive Statistics**

The variables consisted of the MSIP accreditation scores earned by school districts in the areas of Resource and Process and the scores achieved in Performance. The data analyzed consisted of the scores for Resource, Process and Performance in the categories of MAP, Reading and ACT.

Table 1 detailed the descriptive statistics for the 378 Missouri school districts reviewed during all 5 years of the third cycle MSIP. The number of school district participants, mean, standard deviation, minimum points possible and maximum points possible for each variable were presented in the table.

Table 1

*Descriptive Statistics*

Standards	<i>n</i> =	Mean	Standard Deviation	Minimum Points	Maximum Points
Resource	378	10.18	0.94	6	11
Process	378	34.44	3.69	13	38
MAP	378	22.00	6.67	0	27
Reading	378	12.48	6.25	0	18
ACT	378	5.45	4.40	0	9

**Hypothesis Testing**

To examine if there were correlations between the scores earned for Resource and Process and the scores earned within the Performance area of student performance for MAP scores, Reading scores and ACT scores as determined by the 3<sup>rd</sup> cycle MSIP Resource and Process and Performance Standards, multiple Pearson Product Moment correlation coefficients were calculated. The level of significance was set at .05 for all statistical tests. This section includes the research questions, the hypotheses that address each question and the results of the analysis for each addressed area.

**RQ1.** To what extent was there a correlation between the scores earned for Resource and the scores earned within the Performance area of student performance for



MAP scores, Reading scores and ACT scores as determined by the 3<sup>rd</sup> cycle MSIP Resource and Performance Standards?

***H1.*** There was a significant correlation between the Resource Standards and MAP scores as determined by the 3<sup>rd</sup> cycle MSIP.

To examine the relationship between the Resource Standards and MAP scores a Pearson Product Moment correlation coefficient was calculated. Outliers were detected and one outlier was found. The outliers were excluded from the following analysis. The correlation coefficient ( $r = .301$ ) provided evidence for a moderate positive relationship between Resource scores and MAP scores. The results of the one-sample  $t$  test indicated a statistically significant positive relationship between Resource scores and MAP scores,  $df = 375, p < .001$ . As Resource scores increase the MAP scores increase, and as Resource scores decrease the MAP scores decrease as well.

***H2.*** There was a significant correlation between the Resource Standards and Reading scores as determined by the 3<sup>rd</sup> cycle MSIP.

To examine the relationship between the Resource Standards and Reading scores a Pearson Product Moment correlation coefficient was calculated. Outliers were detected and one outlier was found. The outliers were excluded from the following analysis. The correlation coefficient ( $r = -.007$ ) provided no evidence for a relationship between Resource scores and Reading scores. The results of the one-sample  $t$  test indicated no relationship between Resource scores and Reading scores,  $df = 375, p = .891$ . The Resource scores and Reading scores do not co-change, so how one changes has no impact on how the other one changes.

**H3.** There was a significant correlation between the Resource Standards and ACT scores as determined by the 3<sup>rd</sup> cycle MSIP.

To examine the relationship between the Resource Standards and ACT scores a Pearson Product Moment correlation coefficient was calculated. Outliers were detected and one outlier was found. The outliers were excluded from the following analysis. The correlation coefficient ( $r = .255$ ) provided evidence for a weak positive relationship between Resource scores and ACT scores. The results of the one-sample  $t$  test indicated a statistically significant positive relationship between Resource scores and ACT scores,  $df = 375, p < .001$ . As Resource scores increase the ACT scores increase, and as Resource scores decrease the ACT scores decrease as well.

**RQ2.** To what extent was there a correlation between the scores earned for Process and the scores earned within the Performance area of student performance for MAP scores, Reading scores and ACT scores as determined by the 3<sup>rd</sup> cycle MSIP Process and Performance Standards?

**H4.** There was a significant correlation between the Process Standards and MAP scores as determined by the 3<sup>rd</sup> cycle MSIP.

To examine the relationship between the Process Standards and MAP scores a Pearson Product Moment correlation coefficient was calculated. Outliers were detected and 35 outliers were found. The outliers were excluded from the following analysis. The correlation coefficient ( $r = .139$ ) provided evidence for a weak positive relationship between Process scores and MAP scores. The results of the one-sample  $t$  test indicated a statistically significant positive relationship between Process scores and MAP scores,  $df$

= 341,  $p = .010$ . As Process scores increase the MAP scores increase, and as Process scores decrease the MAP scores decrease as well.

**H5.** There was a significant correlation between the Process Standards and Reading scores as determined by the 3<sup>rd</sup> cycle MSIP.

To examine the relationship between the Process Standards and Reading scores a Pearson Product Moment correlation coefficient was calculated. Outliers were detected and 35 outliers were found. The outliers were excluded from the following analysis. The correlation coefficient ( $r = .123$ ) provided evidence for a weak positive relationship between Process scores and Reading scores. The results of the one-sample  $t$  test indicated statistically significant positive relationship between Process scores and Reading scores,  $df = 341$ ,  $p = .023$ . As Process scores increase the Reading scores increase, and as Process scores decrease the Reading scores decrease as well.

**H6.** There was a significant correlation between the Process Standards and ACT scores as determined by the 3<sup>rd</sup> cycle MSIP.

To examine the relationship between the Process Standards and ACT scores a Pearson Product Moment correlation coefficient was calculated. Outliers were detected and 35 outliers were found. The outliers were excluded from the following analysis. The correlation coefficient ( $r = .064$ ) provided no evidence for a relationship between Process scores and ACT scores. The results of the one-sample  $t$  test indicated no relationship between Process scores and ACT scores,  $df = 341$ ,  $p = .236$ . The Process scores and ACT scores do not co-change, so how one changes has no impact on how the other one changes.

**Summary**

This study examined the statistical correlation that may exist between the Process and Resource Standards and student performance in the Missouri School Accreditation process. Specifically, the study measured the relationship between the accreditation scores all 378 districts earned on the Resource and Process Standards and the scores earned on the Performance Standards 9.1.1, 9.2 and 9.3; MAP testing, Reading and ACT scores of the third cycle MSIP. The results suggested that there are significant positive relationships between the scores earned in Resource and MAP, Resource and ACT, Process and MAP, and Process and Reading. Chapter 5 includes sections addressing major findings, findings related to the literature, conclusions, implications for action, recommendations for future research and concluding remarks.

## **Chapter 5**

### **Interpretation and Recommendations**

The purpose of this study was to examine the correlation between the Process and Resource Standards and student performance in the Missouri School Accreditation process. This investigation specifically examined the relationship between the accreditation score districts earned on the Resource and Process Standards and the score earned on the Performance Standards 9.1.1, 9.2 and 9.3; MAP testing, Reading and ACT scores of the third cycle MSIP.

This study was composed of five chapters. Chapter 1 provided the purpose and significance of the study, the problem that existed, the associated background information and established the research questions for the study. Chapter 2 provided supporting evidence through the review of relevant literature. Chapter 3 discussed the methods of the study as it pertained to the study's research design, population and sample, the data analysis procedures as well as the hypothesis testing procedures. Chapter 4 went deeper into describing the statistical analysis associated with the correlation, the hypothesis testing and other analyses.

#### **Study Summary**

This chapter contains a summary of the study. The section provides an overview of the problem, the purpose statement and research questions, a review of the methodology, the major findings from the study, findings related to the literature, conclusions and implications for action. Recommendations for future research and concluding remarks are also included.

**Overview of the problem.** Improving student performance and success was the goal of the MSIP process and school districts in the state of Missouri. Accurately identifying which standards led to achieving this goal would be imperative. The problem was in determining which standards of measure are truly indicative of what would lead to increased student achievement as represented within the third cycle MSIP performance standards.

The review and grading of school districts was based on the performance scores achieved, while the scores gained in the resource and process areas also held great value. DESE needed to be able to indicate that the agency was making accurate evaluations of school districts by utilizing research-based data. A correlation between the resource and process standards to student performance needed to be established to determine the reliability of the accreditation process. With this evaluation system in place it is important that school districts obtain accurate representation of their successes and their areas of needed improvement.

**Purpose statement and research questions.** The purpose of this study was to identify the relevance of the measured Process and Resource Standards to student performance given the criteria of the Missouri School Accreditation process. This investigation specifically examined the correlation that may have existed between the accreditation score districts earn on the Resource and Process Standards of the third cycle MSIP and the score earned on the Performance Standards 9.1.1, 9.2 and 9.3; MAP testing, Reading and ACT scores. This was achieved by answering two research questions focused on determining these relationships.

The first research question addressed the correlation between the scores earned for Resource Standards and the scores earned within the three Performance areas. The second research question addressed the correlation between the scores earned for Process Standards and the scores earned within the three Performance areas. A total of six hypotheses were used to determine the relationship between each non-curricular area and each Performance area.

Motivated by the need to specifically identify what criteria led to high student achievement within the Resource and Process standards of the third cycle MSIP, this study provided the research-based data needed to justify the analysis DESE was making of school districts. At the time of the initial study there had not been a study conducted, nor evidence established, deducting an effective relationship between student performance and the Resource and Process standards sections of the MSIP. This study examined the relationship based on all 378 school districts evaluated during the third cycle.

**Review of the methodology.** A quantitative research design including archival MSIP data was utilized. Access to the data was gained through the Missouri Department of Elementary and Secondary Education. The population for this study consisted of all 378 Missouri school districts that were assessed for accreditation during the third cycle MSIP. The third cycle MSIP review took place during years 2001-2002 through 2005-2006. No specific school district or individual was identified in any part of the study.

The variables were the scores districts earned in the Resource and Process sections, and the scores districts earned in the Performance areas of MAP, Reading and ACT scores. Multiple Pearson Moment correlation coefficients were calculated to

determine if there were correlations between the scores attained in Resource and Process and the scores earned in Performance. The Performance areas of MAP, Reading and ACT were reviewed to determine the relationships that exist and have an impact on student performance. The level of significance was set at .05 for all correlation statistical tests.

**Major findings.** Research question one examined the relationship between the Resource Standards and student performance within the criteria determined by the third cycle MSIP. The extent of the correlation between the scores achieved by districts in the area of Resource and the Performance areas of MAP, Reading and ACT was analyzed. The results suggest that the performance level a district achieved in the area of Resource during the third cycle MSIP did have an impact on MAP and ACT scores achieved by students. The results also suggest that the performance level a district achieved in the area of Resource did not impact whether students would perform better or worse when tested in Reading.

Research question two examined the relationship between the Process Standards and student performance within the criteria determined by the third cycle MSIP. The extent of the correlation between the scores achieved by districts in the area of Process and the Performance areas of MAP, Reading and ACT was analyzed. The results suggest that how well or poor a district scored in the area of Process during the third cycle MSIP did have an impact on MAP and Reading scores achieved by students. The results also suggest that the performance level a district achieved in the area of Process did not impact whether students would perform better or worse when tested on the ACT.



## **Findings Related to the Literature**

This section addresses the findings from this study as they relate to the existing literature pertaining to the relationship that may exist between the Process and Resource Standards and student performance in the Missouri School Accreditation process. The first topic centered on the history of the accreditation process from its origin leading to the structure of MSIP cycle 3. The Missouri Accreditation Standards were the focus of the second topic defining the processes and expectations set forth for cycle 3. Pertinent individuals and studies relevant to the historical evaluation of public schools, the development of school accreditation standards and the relationship between Missouri's resources and processes and student performance were reviewed.

Dr. Whitehurst, senior fellow and director of the Brown Center on Education Policy at Brookings Institution, made several comments pertaining to education research. At one point he made the statement,

“High quality education research is critical to the nation's effort to deliver better education and a future of opportunities to our citizens. Without good evidence we are destined to embrace education policies that move us forward, backwards, and sideways, and we are not even going to know in which of those directions we are heading.” (United States, 2012, p.49)

Class size, enrollment numbers, programs of study, certification, support and administrative staff and teacher planning time were addressed in the Resource Standards. “Although a great deal of debate surrounds the level and allocation of resources to public schools, very little research has addressed how schools might organize teaching resources more effectively at the school level” (Miles and Hammond, 1998, p. 13). The findings of

this study support the contention that the Resource Standards hold a valid role in supporting student achievement in the areas of MAP and ACT performance. The results also support previous research regarding a lack of evidence to support how the Resource Standards would improve Reading performance and the corresponding test scores.

The Process Standards included areas addressing differentiated instruction, instructional design and practices, school services and supplemental programs. With this structure in place, the Process Standards were not quantified easily due to the layers of required criteria. A team of trained observers accomplished the assessment of these areas by conducting onsite reviews (Missouri Department of Elementary and Secondary Education, 2001). The findings of this study support the contention that the Process Standards hold a valid role in supporting student achievement in the areas of MAP and Reading performance. The results also support previous research regarding a lack of evidence to support how the Resource Standards would improve ACT performance and the corresponding test scores.

### **Conclusions**

The purpose of this study was to identify the relevance of the measured Process and Resource Standards to student performance given the criteria of the Missouri School Accreditation process. This study examined the relationship between the Resource and Process Standards of the MSIP and student performance. The results of this study indicated that during the third cycle of MSIP the majority of student performance-based testing areas examined were impacted by the non-curricular areas of Resource and Process. This indicated that the level of successful implementation of the criteria required within the Resource and Process standards would ultimately impact whether

students would perform better or worse when tested in most areas. While the findings of this study held several positive outcomes for the accreditation standards used to assist districts' growth and hold them accountable, the performance areas not impacted are still a concern.

**Implications for action.** Improving student performance and success was the goal of the MSIP process and of the school districts of Missouri. To successfully attain this goal, accurately identifying which standards led to increasing student performance and success should be imperative. While the review and grading of districts was weighed heavily on the performance scores achieved, the scores gained in the resource and process areas also held great value. By utilizing research-based data DESE should have been able to indicate that accurate evaluations of school districts were being made regarding the state's review and measures of processes and resources for accreditation.

The initial study only included 142 districts originally evaluated through the MSIP process at that time. A complete measure was established by continuing and expanding the initial study to include all 378 Missouri school districts reviewed. The evidence established now holds more value to school district leaders as well as state education decision makers regarding the validity of the Resource and Process Standards. Focusing on research supported strategies can support parent and district acceptance, quality professional development for staff and ultimately higher student achievement. This study strongly suggests that DESE can now indicate those evaluations were accurate to a degree in several areas of the Resource and Process standards, including the state's related accreditation measures through the MSIP process. Utilizing the data obtained through this study, the state can now validate how the Resource Standards have impacted

student learning and achievement in the areas of MAP and ACT. DESE can also validate how the Process Standards have an impact on student learning and achievement in MAP and Reading. DESE should also pursue state and local initiatives to successfully identify what factors contained within the area of Resource should be changed to support higher student achievement and increased scores in Reading. Research based findings should be included focusing on accreditation areas in other states that are similar to Missouri's Resource standards. DESE should undergo the same course of action to successfully identify what factors contained within the area of Process should be changed in order to support higher student achievement and increased scores on the ACT.

This new data should be utilized to impact future MSIP cycle accreditation criteria, funding accountability for districts as well as opportunities for public perceptions to be reestablished. While the findings hold significant value in these areas, data driven decision-making opportunities impacting overall school improvement and innovation for Missouri's educators and students should be obtained as well.

School districts should be able to use the data established in this study to improve student achievement on multiple fronts. Superintendents can take advantage of this information focusing their efforts on the areas proven to impact student growth. Equal to these efforts, district leaders should also target areas of needed improvement resulting in improved professional development and instructional design. In the political arena, superintendents should stress to their community, stakeholders and employees what successes their students and district have achieved based on the validated areas of this study. This objective is also valuable when incorporating the same groups to work on areas of needed improvement. Advisory committees are an excellent semi-formal setting

for facilitating such dialogue. Based on their leaders' recommendations, school boards should be able utilize the data derived from this study to make data-driven decisions in a detailed manner supporting district-wide growth initiatives, as well as incorporating focused strategies for success on future MSIP cycles.

**Recommendations for future research.** The purpose of this study was to identify the correlation between the Process and Resource Standards and student performance in the Missouri School Accreditation process. This investigation specifically examined the relationship between the accreditation score districts earned on the Resource and Process Standards and the score earned on the Performance Standards 9.1.1, 9.2 and 9.3; MAP testing, Reading and ACT scores of the third cycle MSIP. Recommendations for future research to expand and bring further insight into this study include the following:

1. Replication of this study should be conducted to further valid the findings of this study.
2. Replication of this study should be conducted for subsequent MSIP cycles to assist educational officials with measurement and evaluative revisions to be considered for future MSIP cycles.
3. A study should be conducted to determine the impact of socio-economic factors on the variables included in this study.
4. A study should be conducted to measure educators' perception, relative to this study, toward the MSIP accreditation process and study findings.
5. Further study in this area should be conducted that would result in finding significant relationships between the Resource Standards of the MSIP and

student performance in the area of Reading achievement. Recommendations for sustaining or revising the accreditation measurements used in this area should be included.

6. Further study in this area should be conducted that would result in finding significant relationships between the Process Standards of the MSIP and student performance in the area of ACT achievement. Recommendations for sustaining or revising the accreditation measurements used in this area should be included.

**Concluding remarks.** The results of this study indicated that during the third cycle MSIP the majority of student performance-based testing areas examined were impacted by the non-curricular areas of Resource and Process. This indicated that how successfully a district implemented the criteria required within the Resource and Process standards would ultimately impact whether students would perform better or worse when tested in most areas. While the findings of this study held several positive outcomes for the accreditation standards used to assist districts' growth and hold them accountable, the performance areas not impacted are still of concern. Missouri school districts and their students deserve accurate direction from DESE including research based systems of accountability and enhanced student achievement supports. As the state continues the development and implementation of future MSIP cycles it is imperative that more studies, and the effective analysis of them, become an embedded component of the accreditation process.

## References

- 103<sup>rd</sup> Congress of the United States of America. (1994). *H.R. 1804 goals 2000: educate America act*. Retrieved from [www2.ed.gov/legislation/GOALS2000/TheAct/index.html](http://www2.ed.gov/legislation/GOALS2000/TheAct/index.html)
- ACT Inc. (2017). *ACT technical manual*. Retrieved from [https://www.act.org/content/dam/act/unsecured/documents/ACT\\_Technical\\_Manual.pdf](https://www.act.org/content/dam/act/unsecured/documents/ACT_Technical_Manual.pdf)
- Commission on Elementary and Middle Schools. (n. d.). *Standards and policies for the accreditation of elementary schools*. Greensboro, NC: Southern Association of Colleges and Schools.
- Creswell, J. W. (2014). *Research design: qualitative, quantitative, and mixed methods approaches* (4th ed.). Los Angeles, CA: Sage Publications.
- CTB/McGraw-Hill. (2010). *Missouri assessment program grade-level assessments guide to interpreting results*. Monterey, CA: Author.
- CTB/McGraw-Hill. (2012). *Missouri assessment program grade-level assessments technical report 2012*. Monterey, CA: Author.
- DuFour, R., & Eaker, R. (1998). *Professional learning communities at work: best practices for enhancing student achievement*. Bloomington, IN: National Educational Services.
- Executive Branch of the United States of America. (2002). *No child left behind*. Washington, DC: U.S. Government Printing Office.
- Firestone, W., Rosenblum, S., & Bader, B. (1992). Recent trends in state educational reform. *Teachers College Record*, 94(2), 256.

- Fullan, M. (2007). *The new meaning of educational change* (4<sup>th</sup> ed.). Teachers College, Columbia University New York and London.
- Gates, P. W. (n. d.). *Public land policy*. Retrieved from [http://college.hmco.com/history/readerscomp/rcah/html/ah\\_071800\\_publiclandpo.htm](http://college.hmco.com/history/readerscomp/rcah/html/ah_071800_publiclandpo.htm)
- Huff, G. E. (1978). *An investigation into the relationship of recorded information on selected eighth grade students and their performance on the basic essential skills test* (Doctoral dissertation). Retrieved from Dissertation Abstracts International. (7915250)
- Hux, T. (2004). *A study of the relationship between state process and resource standards and school district performance for school districts participating in the third cycle Missouri school improvement program*. (Doctoral dissertation). St. Louis University, St. Louis, MO.
- Jamtgaard, K., & Bickford, A. (2000). *Missouri education in the 1990's*. Retrieved from <http://www.moforum.org:80/2000/building/history/part3.cfm>
- Loveless, T. (1998). Uneasy allies: The evolving relationship of school and state. *Educational Evaluation and Policy Analysis*, 20(1), 4-6.
- Lunenburg, F. C., & Irby, B. J. (2008). *Writing a successful thesis or dissertation: Tips and strategies for students in the social and behavioral sciences*. Thousand Oaks, CA: Corwin Press.
- McLaughlin, M. (1975). *Evaluation and reform: the elementary and secondary education act of 1965, title I*. Cambridge, Massachusetts: Ballinger Publishing Company.



- Mid-continent Research for Education and Learning Central Region Educational Laboratory. (2002). *Adequate yearly progress: In depth* (winter ed.) Aurora, CO: Author.
- Miles, K. H., & Hammond, L. D. (1998). Rethinking the allocation of teaching resources: Some lessons from high-performing schools. *Educational and Evaluation Policy Analysis, 20*(1), 9-29.
- Missouri Department of Elementary and Secondary Education. (1951). *The school administrator's handbook: for the state of Missouri* (No. 75 ed.). Jefferson City, MO: Author.
- Missouri Department of Elementary and Secondary Education. (1985). *Major provisions of the excellence in education act of 1985*. Jefferson City, MO: Author.
- Missouri Department of Elementary and Secondary Education. (1998). *Missouri mastery and achievement tests: guide to score interpretation and use*. Jefferson City, MO: Author.
- Missouri Department of Elementary and Secondary Education. (1999). *Missouri school improvement program procedures handbook* (second cycle ed.). Jefferson City, MO: Author.
- Missouri Department of Elementary and Secondary Education. (2001). *Missouri school improvement program integrated standards and indicators manual: accreditation standards for public school districts in Missouri* (third cycle ed.). Jefferson City, MO: Author.
- Missouri Department of Elementary and Secondary Education. (2001). *Missouri school improvement program third cycle procedures handbook*. Retrieved from

<http://www.dese.state.mo.us:80/divimprove/sia/msip/ThirdCycleProceduresHandbook.doc>

Missouri Department of Elementary and Secondary Education. (2002). *Missouri school improvement program third-cycle procedures handbook* (revision 4 ed.). Jefferson City, MO: Author.

Missouri Department of Elementary and Secondary Education. (2003). *Missouri assessment program examiner's manual: communication arts assessment*. Monterey, CA: CTB/McGraw-Hill.

Missouri Department of Elementary and Secondary Education. (2003). *Missouri school improvement program third-cycle procedures handbook* (revision 5 ed.). Jefferson City, MO: Author.

Missouri Department of Elementary and Secondary Education. (2003). *Missouri's "no child left behind" accountability plan approved*. Retrieved from <https://web.archive.org/web/20030604225644/http://www.dese.state.mo.us/news/2003/accountabilityplan.htm>

Missouri Department of Elementary and Secondary Education. (2009). *The show-me standards*. Retrieved from <https://dese.mo.gov/show-me-standards>

Missouri Department of Elementary and Secondary Education. (2012). *Glossary of reporting terms*. Retrieved from <http://www.dese.mo.gov>

Missouri General Assembly. (2002). *Missouri revised statutes*. Retrieved from <http://www.moga.state.mo.us:80/STATUTES/STATUTES.HTM>

National Commission on Excellence in Education. (1983). *A nation at risk*. Retrieved from <http://www.ed.gov/pubs/NatAtRisk/risk.html>

Sergiovanni, T. J., Burlingame, M., Coombs, F. S., & Thurston, P. W. (1998).

*Educational governance and administration* (4th ed.). Boston, MA: Allyn and Bacon.

U. S. Department of Education. (2002). *No child left behind act of 2001*. Retrieved from

<https://web.archive.org/web/20030602210950/www.ed.gov/offices/oese/esea>

United States. (2012). *Education research: Identifying effective programs to support*

*students and teachers: hearing before the subcommittee on early childhood,*

*elementary and secondary education, committee on education and the workforce,*

*U.S. House of Representatives, 112<sup>th</sup> Cong., first session, hearing held in*

*Washington, DC, November 16, 2011*. Washington: U.S. G.P.O. Retrieved from

<https://www.gpo.gov/fdsys/pkg/CHRG-112hrg71259/html/CHRG->

[112hrg71259.htm](https://www.gpo.gov/fdsys/pkg/CHRG-112hrg71259/html/CHRG-112hrg71259.htm)

## Appendices

## **Appendix A: Resource Scoring Guide**

## Resource Scoring Guide

### **PROGRAM OF STUDIES**

**1.1.1 Elementary (typically self-contained) – Each elementary student receives regular instruction in reading, language arts, mathematics, science, social studies, comprehensive health, art, music, and physical education. In K-8 elementary schools, students have access to a total of four exploratory classes.**

**1 Point Awarded if:**

*Instruction is provided in accord with the standard and a locally developed schedule. 50 minutes of art, music, and physical education instruction are provided weekly for grades 1-6. 25/50 minutes of instruction in art, music, and physical education are provided each week for half-/full-day kindergarten.*

**1.2 Junior High/Middle School (typically departmentalized) – Each junior high/middle school student receives regular instruction in language arts, mathematics, science, social studies, career education, health, and physical education and has access to art and music plus four exploratory classes. Students in grades 7-8 have regular instruction in United States and Missouri Constitutions and American History.**

**1 Point Awarded if:**

*Instruction is provided in accord with the standard and a locally developed schedule. Four exploratory/elective courses are available over a period of 2 years; two of these courses may be additional art and music courses.*

**1.3 High School – Each high school has a current minimum offering of at least 40.5 units of credit, with sufficient sections in each course to meet the needs of all students in grades 9-12 and the state high school graduation requirements.**

**1 Point Awarded if:**

*The district meets the minimum standards (40.5) overall and has no more than one “deficiency” in the high school course of studies. Courses in 4 of 7 vocational areas are offered over a two-year period. Courses in two subjects may be offered over a two-year period; these credits count to meet subject area requirements, but not to meet the overall credits (40.5).*

### **CLASS SIZE/ASSIGNED ENROLLMENTS**

**2.1 Class Size and Assigned Enrollments – Enrollments are consistent with both class-size standards and total enrollment requirements.**

**1 Point Awarded if:**

*95% of the self-contained classes meet minimum requirements. 95% of the individual classes in a departmentalized structure meet the minimum requirements. Categorically funded program classes meet program standards.*

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### **PROFESSIONAL SUPPORT STAFF**

**3.1 Library Media Staff – Certificated librarians and/or library media specialists are assigned consistent with the ratios, based on the student enrollment at each building.**

**1 Point Awarded if:**

*Services are provided at all sites, and total certificated staffing is within 95% of the minimum standards, at both the elementary and secondary levels.*

**3.2 Guidance and Counseling Staff – Certificated counselors are assigned consistent with the ratios, based on the student enrollment in each building.**

**1 Point Awarded if:**

*Services are provided at all sites, and total professional staffing is within 95% of the minimum at the elementary and secondary levels.*

### **ADMINISTRATIVE STAFF**

**4.1 Superintendent – A certificated superintendent is assigned to serve full-time as the district's chief administrative officer.**

**1 Point Awarded if:**

*A properly certificated, full-time superintendent is employed, except as specified in the options included in the Standards and Indicators.*

**4.2 Associates/Assistants to the Superintendent – Associates/assistants to the superintendent in the areas of curriculum and instruction have, as a minimum, a Master's Degree and a valid Missouri teaching certificate. All other associates/assistants to the superintendent have appropriate training in their field.**

**1 Point Awarded if:**

*The number of assistants/associates to the superintendent is within 95% of the minimum standards.*

**4.3 Principals/Building Administrators – Certificated principals, vocational directors, and assistant administrators are employed and assigned consistent with the MSIP staff ratios.**

**1 Point Awarded if:**

*Staffing ratios are met. Total staffing is within 95% of the minimum standards at all levels.*

### **CERTIFICATION AND PLANNING TIME**

**5.1 Teacher Certification** – *All administrators and teachers are appropriately certificated for their assignments in accordance with the guidelines contained within the Core Data Manual.*

**1 Point Awarded if:** *All professional staff members hold a current Missouri certificate. Five percent or less of the district's professional staff are not properly certificated. Individual assignments for which appropriate certification is not held are converted to staff FTEs according to the amount of assigned time used for such classes. Certification applications are submitted to DESE for all staff, if needed, before the on-site review.*

**5.2 Planning Time** – *Each full-time classroom teacher, including kindergarten teachers, has a minimum of 250 minutes of scheduled planning time each school week. It is desirable to have 50 minutes of planning time each day. Planning time is calculated between the official start and close of the school day and does not include travel time, lunch time, or time before or after school. (Planning time is not required for administrators, counselors, or librarians.)*

**1 Point Awarded if:**

*Ninety-five percent (95%) or more of the district's classroom teachers have the minimum required planning time (Department of Elementary and Secondary Education, 2003).*



## **Appendix B: Process Scoring Guide**

## Process Scoring Guide

### ***INSTRUCTIONAL DESIGN AND PROCESSES***

***6.1 The district implements written curriculum for all its instructional programs.***

***2 Points Awarded if:***

*The curriculum standard was “Met” in the second-cycle MSIP report or if the team in the third-cycle MSIP review indicates that the second-cycle MSIP requirements are “Met”. Written curriculum will be reviewed only if the district failed to meet this standard during second cycle.*

***6.2 The district administers state-required tests and other tests and uses disaggregated and longitudinal assessment data to adjust its curriculum and instruction.***

***2 Points Awarded if:***

*The district assessment plan contains all required features. A variety of assessment data is used in the district’s decision-making process. The board reviews disaggregated performance data on at least a yearly basis. Changes have been made to instructional and assessment programs based on the board’s review of performance data. An evaluation of the effect of those changes on student performance has been done. Strategies have been implemented to motivate students to perform their best on standardized tests.*

***6.3 The district has implemented instructional programs designed to meet the assessed needs of its students, as well as the practices and procedures needed to support these programs.***

***2 Points Awarded if:***

*The district has focused on a set of instructional strategies for all teachers that are supported by an ongoing professional development initiative. It is clear that the instructional strategies are selected based on an analysis of student performance and that teachers are using the selected strategies in the delivery of instruction. Opportunities for student learning outside the regular school day/year are in place. Adequate alternative delivery systems are in place. An organized, deliberate approach including formal identification procedures, targeted instruction, and other services, as well as an evaluation of the results of those services, is used to identify and serve various sub-populations of students. The district has implemented a balanced reading program based on research of effective reading instructional strategies.*

***6.4 Instructional resources and equipment that support and extend the curriculum are readily available to teachers and students.***

***2 Points Awarded if:***

*Instructional resources and technology that support the curriculum are adequate. Technology is integrated into classroom instruction and is supported by appropriate training. Staff clearly articulate how they use technology in their classroom instruction.*

**6.5 The district has created a positive climate for learning and established a focus on academic achievement.**

**2 Points Awarded if:**

*Advance questionnaire responses indicate that each building has created a positive climate for learning. Staff, students, and parents agree that each building has established a focus on academic achievement. Specific requirements have been established for promotion, and programs are in place to address the instructional needs of students at risk of retention.*

**6.6 The schools are orderly; students and staff indicate they feel safe at school.**

**2 Points Awarded if:**

*A written code of conduct is in place and is enforced consistently. Staff have received training on the district's code of conduct. Students and teachers feel safe at school. Data are gathered on student violence and substance abuse, and are used to modify programs and strategies to ensure safe and orderly schools.*

**6.7 Professional development is an integral part of the educational program and all school improvement initiatives.**

**2 Points Awarded if:**

*Staff development initiatives are long-term and include follow-up, coaching, and evaluation activities; these activities address issues directly related to student achievement, and evidence suggests that all faculty members are involved in professional development activities. Professional development activities provide opportunities for teachers and administrators to work together to enhance their professional skills. The professional development program focuses on specific instructional strategies. Professional development activities are clearly related to goals in the CSIP. Professional development activities have been evaluated in terms of their impact on improving student achievement. A written procedural professional development plan, which meets all legal requirements, is in place. Adequate time and resources for professional development are provided.*

**6.8 Library Media Center (LMC) resources and services are an integral part of the instructional program.**

**2 Points Awarded if:** *LMC resource acquisitions are collaboratively selected and support the improved academic achievement of the students served. Each LMC is open and staffed before, during, and after school, and students have access to the LMC resources. Evidence suggests that the LMC resources are appropriate and adequate for*

*the populations they serve. Appropriate technological resources are available in each LMC. Modifications to the LMC procedures, policies, and programs reflect student achievement improvement priorities in the building or district; and, a regular review of the LMC resources is conducted. All LMC materials are cataloged, classified, and processed. The LMC handbook contains all required policies and procedures and has been cooperatively developed by teachers, administrators, and the LMC staff.*

**6.9 Guidance services are an integral part of the instructional program.**

**2 Points Awarded if:**

*A written guidance program/procedural plan is in place with all required components. A needs assessment to determine the specific guidance curriculum has been conducted, and the overall effectiveness of the guidance program has been evaluated. Guidance competencies reflect student needs at all grade levels. Career-awareness and educational-planning activities are implemented at the middle school and high school levels. A formal educational planning process is in place by grade eight. Adequate resources and responsive services (both inside and outside the district) are available to meet the personal counseling needs of students. System support activities are in place.*

**DIFFERENTIATED INSTRUCTION AND SUPPLEMENTAL PROGRAMS**

**7.1 Comprehensive services for all resident children with disabilities, as required by the Individuals with Disabilities Education Act (IDEA) and Chapter 162, RSMo, are an integral component of the district's educational program.**

**1 Point Awarded if:**

*The district is in compliance with state and federal regulations implementing the IDEA. Students with disabilities are provided services that provide them access to the general education curriculum and general education environment. The performance of students with disabilities is increasing or is being maintained at a high level. General and special education staff indicate that they are provided with the necessary supports to provide for the needs of students with disabilities in their classrooms. Postsecondary opportunities for students with disabilities are provided through activities focusing on persistence to graduation, college preparatory studies, and vocational preparation programs.*

**7.2 The district identifies gifted/talented students at all levels and provides them differentiated instruction suitable for their levels of intellectual and social maturity.**

**1 Point Awarded if:**

*The district identifies and provides services to gifted students in grades K-12.*

**7.3 Vocational education is an integral component of the district's educational program.**

**1 Point Awarded if:** Vocational education is an integral part of the instructional programs of the district. There is a competency-based curriculum, appropriate student organizations, transition activities, and an accountability system.

**7.4 Preschool educational activities/programs are available to the district's children.**

**1 Point Awarded if:** Preschool activities/programs are available to most of the preschool children in the collected information from the community related to any preschool program needs.

**7.5 The district provides opportunities for parents/guardians to learn about the intellectual and developmental needs of their children at all ages and to participate constructively in their children's education.**

**1 Point Awarded if:**

The district has created, implemented, and evaluated strategies to increase parental involvement in the educational processes related to their children. Parents as Teachers (PAT) services are provided to eligible families within the district at an acceptable level. Evidence suggests that parents feel welcome at school and are knowledgeable about their child's educational experiences. The district cooperates with other agencies or groups to provide information related to child development and/or parenting skills.

**7.6 The school district provides or arranges with other local groups, agencies and organizations to provide educational, vocational, recreational, cultural, enrichment and/or other services for the local community.**

**1 Point Awarded if:**

The district assesses the continuing education needs of the community and informs the community about adult education opportunities (including ABE and GED classes) available within the community.

**7.7 The district complies with all provisions, regulations and administrative rules applicable to each state and federal program, which it has implemented.**

**1 Point Awarded if:**

The district is in substantial compliance with all applicable state and federal program rules and regulations.

## **SCHOOL SERVICES**

**8.1 At least biennially, the district reviews the goals and objectives of each program and service; receives reports of the effectiveness of each program and service; and, takes action to ensure that these programs efficiently achieve their goals.**

**1 Point Awarded if:**

*A districtwide program evaluation plan is in place that clearly contains all required components and is used for all programs in the district. Evidence suggests that changes in programs have been made as a result of the evaluation process. Required follow-up studies of graduates have been conducted. Formal surveys of employers and colleges have also been completed.*

**8.2 The district has an ongoing, written Comprehensive School Improvement Plan (CSIP), which directs the overall improvement of its educational programs and services.**

**1 Point Awarded if:** *A majority of the measurable objectives in the district's CSIP are directly related to improving student achievement. The district has evaluated the effectiveness of its strategies for improving student performance and has data that substantiates those improvements. The district has made modifications to those strategies that have not resulted in improved student performance. Representatives of the entire community have participated in the CSIP process.*

**8.3 The board has adopted a current set of policies and procedures, meets regularly, and has secured the required training for its members.**

**1 Point Awarded if:**

*Board policy manuals are comprehensive and updated regularly. Required policies are in place. The board of education meets regularly and keeps accurate minutes, which are available to the public as required. All board members have completed required training. The board carries out policy-making functions, and administrative functions are carried out by the superintendent and other administrators. Dropouts are reported to the Missouri Literacy Hotline.*

**8.4 The board of education employs staff members in accordance with statutory requirements and local employment policies and procedures.**

**1 Point Awarded if:**

*Job descriptions are available for each category of employee. Job applications and vacancy notices include assurances of equal employment opportunity, and the district has a policy of nondiscrimination. No prohibited lines of inquiry are included in district job applications. The district meets minimum salary requirements.*

**8.5 The community, through the board of education, provides sufficient financial resources to ensure an educational program of quality.**

**1 Point Awarded if:**

*The district's budget contains all required components. The board regularly reviews the fiscal condition of the district. Staff members have opportunities for input into the budget preparation process. The district's levy is sufficient to provide an adequate instructional*

*program. The district complies with all Missouri statutes related to fiscal operation and is not financially stressed.*

***8.6 The board establishes and the administrators implement systematic procedures to ensure efficient fiscal management and accountability.***

***1 Point Awarded if:*** *Systematic procedures are in place to ensure effective fiscal management. The most recent audit indicates the district's operations conform to all state and federal requirements for audited programs. The district has acceptable fund balances, and expenditures conform to Missouri statutory requirements. Financial and audit reports are prepared and submitted in a timely manner to appropriate agencies. The Chief Administrative officer (CAO) has received training in Missouri school finance.*

***8.7 Patrons, parents, and students have opportunities to discuss concerns with the district, file complaints, and serve on committees, including those required by state or federal regulations, to study specific issues and problems.***

***1 Point Awarded if:*** *Required committees are functioning and include community representation. The district has a written complaint policy or procedures for resolving complaints. Parents, patrons, and students have a defined procedure for presenting ideas and concerns to the board.*

***8.8 The board of education and the staff systematically and frequently provide information to the public about the condition of school programs.***

***1 Point Awarded if:***

*The board creates an Annual Report that meets state guidelines and distributes that report to the media and area legislators. Current information about programs, services, and student performance is made available.*

***8.9 Facilities are healthful, adequate in size, clean, well maintained, and appropriate to house the educational programs of the district.***

***1 Point Awarded if:***

*The district's facilities are adequate for the instructional programs they house, are in good repair, are clean, and have an entrance and a restroom accessible to people with disabilities.*

***8.10 The district's facilities are safe.***

***1 Point Awarded if:***

*No district facilities contain serious safety hazards. All required safety inspections and equipment are present and functional in each building. Required emergency procedures and drills have been conducted in each building. A safety coordinator has been appointed and is knowledgeable about local, state, and national violence-prevention programs.*

*Training has been provided on the safe and proper use of all safety and emergency devices.*

***8.11 The district has developed and implemented a program for school health services, which includes goals and objectives, service activities, and an evaluation design.***

***1 Point Awarded if:***

*A written comprehensive health services procedural plan containing all required components has been implemented. Program improvement strategies have been identified, implemented and evaluated for effectiveness. The health services plan and program is reviewed by a registered nurse and/or consulting physician.*

***8.12 A school foods program is available which makes at least one nutritionally balanced meal available to all students each day in accordance with Federal and State Child Nutrition Program regulations and guidelines.***

***1 Point Awarded if: the district's food services program is operated in accordance with all applicable regulations and guidelines.***

***8.13 Safe and efficient transportation to and from school is provided in compliance with Missouri statutes, regulations, and local board policy.***

***1 Point Awarded if: The district's transportation services are operated in a safe and efficient manner and are in compliance with Missouri statutes, regulations, and local board policy (Department of Elementary and Secondary Education, 2003).***



## **Appendix C: Performance Scoring Guide**

## Performance Scoring Guide

### **PERFORMANCE EVALUATION (K-12)**

*Each of the Performance Measures for K-12 districts will be designated either “Met” or “Not Met.” Points will be awarded, as follows, for each measure that is determined to be “Met.”*

#### ***Points Possible for Performance Standards in K-12 Districts:***

<b><u>Standard Areas</u></b>	<b><u>Points Possible</u></b>
<b>9.1.1</b> (MAP at three grade spans/9 points for each “Met”)	3 x 9 points
<b>9.2</b> (Reading at two grade levels/9 points for each “Met”)	2 x 9 points
<b>9.3</b> (ACT)	1 x 9 points

#### ***Points Possible for Performance Standards in K-8 Districts:***

<b><u>Standards Areas</u></b>	<b><u>Points Possible</u></b>
<b>9.1.1</b> (MAP at three grade spans/9 points for each “Met”)	2 x 9 points
<b>9.2</b> (Reading at two grade levels/9 points for each “Met”)	2 x 9 points

(Department of Elementary and Secondary Education, 2003).

## **Appendix D: ACT Scoring Guide**

## ACT Scoring Guide

### Standard 9.3

(ACT -- A district is considered “Met” with 9 accreditation points.)

*The following details 4 scoring methods allowable to obtain 9 accreditation points.*

<b>Method</b>	<b>Description</b>	<b>Points</b>
<b>High (H):</b>	12 points if in 4 of the last 5 years of data 31% or more of the graduates scored at or above the national average on the ACT.	12
<b>Average (A):</b>	9 points if during the last 5 years of data the percentage of graduates scoring at or above the national average on the ACT averaged at least 27%.	9
<b>Yearly Increase (Y):</b>	3 points for each of the last 5 years of data the percent of graduates scoring at or above the national average on the ACT increased from the previous year by at least 1%.	12
<b>Rolling Average (R):</b>	5 points for each of the last five years the rolling average increased by at least 1%.	15

(Department of Elementary and Secondary Education, 2003).

**Appendix E: DESE Research Contact**

6/26/2018

Raytown Quality Schools Mail - RE: research data request



Tim Young &lt;tim.young@raytownschools.org&gt;

**RE: research data request**

1 message

Tim Young <tim.young@raytownschools.org>  
 To: "Katnik, Paul" <Paul.Katnik@dese.mo.gov>  
 Bcc: Tim Young <tim.young@raytownschools.org>

Wed, Jan 31, 2018 at 5:45 PM

Thank you.

Tim

On Jan 31, 2018 4:00 PM, "Katnik, Paul" &lt;Paul.Katnik@dese.mo.gov&gt; wrote:

Tim,

I don't have access to the kind of data you are needing. Things about MSIP actually originate from the Office of Quality Schools. Given what you are looking for, I might suggest that you do an official data request. The link I have provided below should give you the information that you need.

<https://apps.dese.mo.gov/DataRequestForm/DataRequest.aspx>

Best of luck to you on your dissertation!

Paul

*Paul Katnik, Assistant Commissioner**Office of Educator Quality**Department of Elementary and Secondary Education**PO Box 480**Jefferson City, MO 65102**Phone 573-751-2990**Fax 573-522-6526*

**From:** Tim Young [mailto:tim.young@raytownschools.org]  
**Sent:** Sunday, January 28, 2018 12:08 PM  
**To:** Katnik, Paul  
**Subject:** research data request

Mr. Katnik,

6/26/2018

Raytown Quality Schools Mail - RE: research data request

My name is Tim Young. I am currently employed with the Raytown C-2 School district and working towards the completion of a doctoral degree from Baker University. My dissertation is focused on MSIP cycle 3 and the correlations that exist between the Resource and Process scores and the Performance scores earned by districts. The initial study conducted on the subject only reviewed the first 2 years of the cycle. I am seeking to review the entire cycle including all districts reviewed in our state.

Respectfully, I am requesting assistance with the obtaining of all of MSIP cycle 3 data related to district scores in the areas of Resource and Process, and Performance. Is there a historical database that could be accessed, or simply a file that could be shared? Thank you in advance for your assistance.

Tim

Tim Young  
Director of Food Services  
Raytown Quality Schools  
10500 E 60<sup>th</sup> Terr  
Raytown, MO 64133  
816-268-7076

*WE FEED SUCCESS!*

Confidentiality Notice for Raytown C-2 School District: This correspondence and any attachments are for the sole use of the intended recipient(s) and may contain confidential or privileged information. Any unauthorized use, disclosure, or distribution is prohibited and may be unlawful. If you are not the intended recipient or a person responsible for delivering this message to the intended recipient(s), please contact the sender and destroy all copies of the original message.

**Appendix F: Baker University IRB Application**





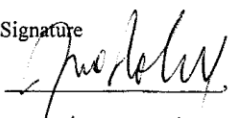
SCHOOL OF EDUCATION  
GRADUATE DEPARTMENT

Date: \_\_\_\_\_  
IR.B PROTOCOL NUMBER \_\_\_\_\_  
(IR.B USE ONLY)

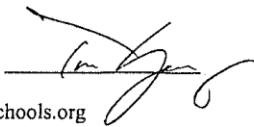
IR.B REQUEST  
**Proposal for Research**  
**Submitted to the Baker University Institutional Review Board**

**I. Research Investigator(s)** (Students must list faculty sponsor first)

**Department(s)**      School of Education Graduate Department

- | Name                  | Signature   |                             |
|-----------------------|---|-----------------------------|
| 1. Dr. Jim Robins     |  | Major Advisor               |
| 2. Li Chen-Bouck, PhD | <u>Li Chen-Bouck</u>  | Research Analyst            |
| 3.                    |   | University Committee Member |
| 4.                    |   | External Committee Member   |

Tim Young:  
Phone: 816-335-5987  
Email: tim.young@raytownschools.org  
Mailing address: 21011 S. Raffurty Rd, Pleasant Hill, MO 64080



Faculty sponsor:  
Phone:  
Email:

Expected Category of Review: \_\_\_ Exempt \_\_\_ Expedited \_\_\_ Full

**II: Protocol: (Type the title of your study)**

*A Study of the Relationship between State Process and Resource Standards and School District Performance for School Districts Participating in the Third Cycle Missouri School Improvement Program*

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### Summary

**In a sentence or two, please describe the background and purpose of the research.**

*This will be a replicated study examining all districts that were evaluated during MSIP cycle three rather than just the 142 districts evaluated during the first 2 years of that cycle as seen in the original study. This study will determine the validity between the Resource and Process Standards of the MSIP and student performance by determining any correlation between the accreditation score a school district earns on the Resource and Process Standards of the 3rd cycle MSIP and the score earned by districts on the Performance Standards for MAP testing, reading sores and ACT scores.*

**Briefly describe each condition or manipulation to be included within the study.**

*All 525 K-12 school districts in Missouri, rural and urban, that were evaluated for accreditation during the MSIP third-cycle beginning in the year 2001-2002. District MSIP scores will be retrieved in the areas of Process and Resource Standards, and Performance Standards in the areas of MAP scores, Reading scores, and ACT scores.*

**What measures or observations will be taken in the study? If any questionnaire or other instruments are used, provide a brief description and attach a copy.**

*Archival MSIP data will be used. The primary means of obtaining data for the purposes of this study will be through the Department of Elementary and Secondary Education database. This will allow for district MSIP scores to be retrieved in the areas of Process and Resource Standards, and Performance Standards in the areas of MAP scores, Reading scores, and ACT scores.*

**Will the subjects encounter the risk of psychological, social, physical, or legal risk? If so, please describe the nature of the risk and any measures designed to mitigate that risk.**

*There will be no risk of psychological, social, physical or legal issues for any individual.*

**Will any stress to subjects be involved? If so, please describe.**

*There will be no stress involved for any individual.*

**Will the subjects be deceived or misled in any way? If so, include an outline or script of the debriefing.**

*No individuals will be deceived or misled in any way.*

**Will there be a request for information which subjects might consider to be personal or sensitive? If so, please include a description.**

*There will be no requests for personal or sensitive information.*

**Will the subjects be presented with materials which might be considered to be offensive, threatening, or degrading? If so, please describe.**

*No offensive, threatening or degrading materials of any kind will be presented to any individual.*

**Approximately how much time will be demanded of each subject?**

*There will no time required of any individual.*

**Who will be the subjects in this study? How will they be solicited or contacted? Provide an outline or script of the information which will be provided to subjects prior to their volunteering to participate. Include a copy of any written solicitation as well as an outline of any oral solicitation.**

*All Missouri school districts reviewed during the third cycle MSIP. Archival data will be collected from DESE. No individuals will be contacted or identified.*

**What steps will be taken to insure that each subject's participation is voluntary? What if any inducements will be offered to the subjects for their participation?**

*Archival MSIP data will be used, and no inducements will be offered.*

**How will you insure that the subjects give their consent prior to participating? Will a written consent form be used? If so, include the form. If not, explain why not.**

*Archival MSIP public data will be used.*

**Will any aspect of the data be made a part of any permanent record that can be identified with the subject? If so, please explain the necessity.**

*There will be no aspect associated with the data that could be identified with any individual.*

**Will the fact that a subject did or did not participate in a specific experiment or study be made part of any permanent record available to a supervisor, teacher or employer? If so, explain.**

*This information will not be made part of any individual's permanent record available to anyone.*

**What steps will be taken to insure the confidentiality of the data? Where will it be stored? How long will it be stored? What will be done with it after the study is completed?**

*The data collected will not identify individuals and is already open to the public. The data will be stored on a personal computer, username and password protected, only accessible by the researcher. The data will be stored in this secure location for up to 5 years following the completion of the study. After 5 years the data will be properly deleted from the computer hard drive.*

**If there are any risks involved in the study, are there any offsetting benefits that might accrue to either the subjects or society?**

*There are no inherent risks to students, districts or society as a result of this study. The benefit to society could be a data driven and backed review process with proven standards that support higher achievement for students and districts resulting in a more accurate representation of what schools are doing well and the areas they need to improve upon.*

**Will any data from files or archival data be used? If so, please describe.**

*Yes. Archival data will be obtained from DESE pertaining to MSIP cycle three scores obtained in the areas of Resource and Process, and the Performance areas of MAP, ACT and Reading.*

**Appendix G: Baker University IRB Approval Letter**



*Baker University Institutional Review Board*

May 15<sup>th</sup>, 2018

Dear Tim Young and Jim Robins,

The Baker University IRB has reviewed your project application and approved this project under Exempt Status Review. As described, the project complies with all the requirements and policies established by the University for protection of human subjects in research. Unless renewed, approval lapses one year after approval date.

Please be aware of the following:

1. Any significant change in the research protocol as described should be reviewed by this Committee prior to altering the project.
2. Notify the IRB about any new investigators not named in original application.
3. When signed consent documents are required, the primary investigator must retain the signed consent documents of the research activity.
4. If this is a funded project, keep a copy of this approval letter with your proposal/grant file.
5. If the results of the research are used to prepare papers for publication or oral presentation at professional conferences, manuscripts or abstracts are requested for IRB as part of the project record.

Please inform this Committee or myself when this project is terminated or completed. As noted above, you must also provide IRB with an annual status report and receive approval for maintaining your status. If you have any questions, please contact me at [npoell@bakeru.edu](mailto:npoell@bakeru.edu) or 785.594.4582.

Sincerely,

*Nathan Poell, MA*  
Chair, Baker University IRB

Baker University IRB Committee  
Scott Crenshaw  
Erin Morris, PhD  
Jamin Perry, PhD  
Susan Rogers, PhD