A Study of the Relationship Between North Kansas City School District's 3rd Grade Math Benchmark Results and MAP Assessment in Title I Buildings as Compared to Non-Title I Buildings

By

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Abstract

A study was conducted on whether there was a significant relationship between the North Kansas City School District's 3rd grade math benchmark results and student performance on the Missouri Assessment Program (MAP). The study researched if there was a true relationship between the Spring Standardized Benchmark Assessment and MAP scores using a correlation test. In addition, the study sought to determine if there was a difference in students scoring proficient and advanced at Title I schools and Non- Title I schools on the MAP. A *t*-Test was used to determine if there was a statistically significant difference in performance on the MAP Assessment in a Title I school as compared to a Non-Title I school. The findings showed that there was a statistically significant correlation between district benchmark results and performance on the MAP assessment. Findings also indicated that there was a statistically significant difference in performance Title I schools and Non-Title I schools. Based on the results of this study, the researchers suggest that further research be done to investigate the significant difference in performance of Title I students as compared to Non-Title I students that receive the same resources and curriculum.

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Pearson Correlation Between 3rd Grade Spring Math Benchmark Assessment and MAP Scores

Pearson Correlation	.441
N	21
P	.045

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Mean Performance Scores on the MAP of Title I and Non-Title I Students.

Non- Title I (1) Title I (2)	**1**	**2**
Mean:	75.327	64.190
Std. Dev:	9.747	9.357
N:	11	10
Mean Difference:	11.137	
T-Score:	2.665	
Eta Squared:	.253	
P:	.015	

Chapter One

Introduction to The Study

Background

Extant studies show a statistically significant relationship between how students perform on the 3rd grade benchmark and how they perform on the MAP assessment. Benchmark assessments are tightly aligned to the standards. By performing well on the benchmark assessments students are more likely to do well on the end of the year MAP test. Studies also showed a statistically significant difference between MAP performance of Title I buildings and Non-Title I buildings as a whole. There is some qualitative research on whether or not a relationship exists between benchmark assessments results and the end of the year MAP test results in Title I buildings as compared to Non-Title I buildings within a school district.

This study will attempt to determine the answer to two research questions. First, if there is a relationship between the North Kansas City School District's 3rd grade math benchmark results and performance on the MAP assessment. Second, if is a difference in performance of 3rd grade math students on the MAP assessment in a Title I building as compared to students in a Non-Title I building.

Conceptual Underpinnings

Teachers are expected to gather data on individual students to monitor their progress in all subject areas, but most importantly in reading and math. Data are gathered to determine the academic strengths and weaknesses of individual students. Once this data are gathered, teachers are able to determine supplemental assignments to challenge high performing students as well as interventions to aid low performing students. In school districts all across America every student takes a pre-determined set of benchmark assessments for core subject such as reading and math.

Because all students are given the same assessments, data throughout the district can be analyzed to determine trends in learning in order to make changes to the curriculum. Additionally, the data can be utilized to determine staff and administrators whose students have performed well on the assessments. This can lead to the discovery of the highly effective teaching practices that could be implemented throughout the district. Once the data are analyzed it can be compared with the end of the year MAP scores for these same students to determine if a direct correlation exists between how well the student scores on their benchmark assessments and how well the same student scored on the MAP test. A recent study determined that there is a strong correlation between students' performance on benchmark assessments and how well the students scored on the end of the year assessments (Blanc, 2010). Districts need to continually update their benchmark assessments in order to meet the demands within their own districts and those of the state.

Statement of the Problem

Determining student success on state assessments is a major component of teaching and learning. Educators must continually monitor and adjust learning opportunities in order to promote growth and success on standardized assessments. Research from Black and William (1998) explain that studies show strong evidence that frequent feedback provided by teachers to their students about their learning produce significant gains in achievement on standardized assessments but very little research has looked at the relationship, if any, between district level benchmark assessments and performance on the Missouri Assessment Program (MAP). Renth (2015) suggests that there is a large performance gap between low-income students and high-income students because of limited access to resources, but very little research has looked at whether there is a significant difference between Title I and Non-Title I buildings on the MAP

assessment when provided the same resources. This study will look at the North Kansas City School District's elementary school's performance on district benchmark assessments and the MAP assessment for the 2015-2016 school year to see if there is a correlation between benchmark results and performance on the MAP and if there is a significant difference in performance on the MAP assessment between Title I buildings and Non-Title I buildings in the same district with the same resources. For an entire school to qualify for Title I services, 40% of its population of students must qualify for free and reduced lunch services.

Purpose of the Study

This study will attempt to determine if there is a significant relationship between North Kansas City School District's 3rd grade math benchmark results and performance on the MAP. One purpose of this study is to determine if there is a significant difference in performance on the MAP between Title I students and Non-Title I students receiving the same resources and curriculum.

Research Questions

The researchers were interested in if there is a relationship between 3rd grade math benchmark results and performance on the MAP assessment from the 2015-2016 school year and if there is a difference in performance on the MAP assessment between students at Title I buildings to students in Non-Title I buildings. To investigate this topic, the researchers developed two specific research questions.

RQ1: Is there a relationship between the North Kansas City School District's 3rd grade math benchmark results and performance on the MAP assessment?

RQ2: Is there a difference in performance of 3rd grade math students on the MAP assessment in a Title I building as compared to students in a Non-Title I building?

Null Hypotheses

H1: There is no relationship between the North Kansas City School District's 3rd grade math benchmark results and performance on the MAP assessment.

H2: There is no difference in performance of 3rd grade math students on the MAP assessment in a Title I building as compared to students in a non-Title I building.

Limitations of the Study

There are some limitations to the amount of schools used for this study. There are 21 elementary schools in the North Kansas City School District. Of those 21 there are 10 Title I buildings and 11 Non-Title I buildings. This is a relatively small data collection, but to truly determine if Title I schools perform significantly lower than Non-Title I buildings when provided the same curriculum and resources, the researchers needed to use schools in the same district that have a consistent curriculum for all elementary buildings. Only reporting data from one district is a limitation. It is also very hard to make a true connection between benchmark data and performance on the MAP for one-time period. The North Kansas City School District recently aligned their benchmark assessment, and there only is one year of data to determine the connection. Only having one year of benchmark data to review is a limitation.

Delimitations of the Study

The North Kansas City School District uses District Instructional Alignment Guides and a common curriculum as well as common benchmark assessments in all K-12 buildings. This provides a clear sense of the resources and curriculum utilized between all elementary buildings including Title and Non-Title buildings.

Definition of Terms

Benchmark Assessment: Short tests administered throughout the school year that give teachers immediate feedback on how students are meeting academic standards.

Achievement Gap: For the purpose of this study, achievement gap is the observed, persistent difference of educational measures between the performance of groups of students.

Title I building: For the purpose of this study, Title I building is a building that receives financial assistance from the state because they have at least 40% of children that qualify for free and reduced meals.

Standardized Tests: Any form of test that requires all test takers to answer the same questions, in the same way, and that is scored in a consistent manner, which makes it possible to compare the performance of individual students as compared to others.

Missouri Assessment Program (MAP): The annual set of mandatory standardized tests taken by students in the state of Missouri.

Summary

In this chapter, the researchers provided an overview of the research questions, null hypotheses, review of related literature and conceptual underpinnings, limitations and delimitations of the study and key definitions for this study of the relationships between benchmark assessment scores and performance on the MAP test in Title I and Non-Title I buildings. Benchmark assessments are an important part of maintaining a consistent level of quality teaching and learning. This study will establish if the North Kansas City School District has created tightly aligned benchmark assessments that determine levels of performance on the MAP test in Title I and Non-Title I buildings. The next chapter will explore the related literature in three areas: effectiveness of benchmark assessments, history of the MAP assessment and effectiveness of buildings receiving Title I funding.

Chapter 2

Review of Related Literature

Overview

This chapter will analyze literature that explores benchmark assessments, end-of -year MAP assessments, and student achievement in Title I schools compared to non-Title I schools. The purpose of this study was to determine whether a statistically significant relationship existed between 3rd Grade Math Benchmark Assessment results and student performance on the end of the year MAP assessment. Additionally, the researchers were interested to determine if a difference existed between students who attended Title I schools and scored proficient or advanced on the MAP test compared to those students who attended Non-Title I schools.

Three pillars of research were analyzed in order to complete the research for this paper. The first pillar explains the history and effectiveness of benchmark assessments, the second pillar considers the history and effectiveness of the MAP Assessment, and the third pillar takes into account the history and effectiveness of buildings receiving Title I funding.

Literature Relating to the Pillars of Research

Pillar 1: *The History and Effectiveness of Benchmark Assessment*.

The No Child Left Behind Act of 2001 produced an explosion in the use of assessments to measure and improve student learning. Educators learned that results from annual state tests and summative assessments came too little and too late to support and/or improve student learning. Evidence from the other end of the assessment spectrum, classroom level assessments, was clear. Teachers' use of on-going assessments to guide and inform instruction, formative assessment, effectively supports student learning in order to improve achievement across grade levels (Black & Wiliam, 1998, 2001, 2004). Benchmark assessment, located between the two

ends of the assessment spectrum, is another type of assessment. It provides school administrators and teachers with important information about student learning relative to short and long-term learning goals.

Benchmark assessments are defined as common assessments given periodically throughout the school year, at specified times during a curriculum sequence. These assessments evaluate students' knowledge and skills relative to an explicit set of longer-term learning goals. The design and choice of benchmark assessments is driven by the purpose, intended users, and uses of the instruments. Benchmark assessments can inform policy, instructional planning, and decision-making at the classroom, school, and district levels. These assessments communicate a strong message to students, teachers, and parents about what knowledge and which skills are important to learn. Information gained from the use of benchmark assessments can be beneficial to district administrators, teachers, parents, and all other staff and community members who are interested in using the data to provide meaningful, purpose driven instruction to the students. These assessments can serve curriculum and instructional planning purpose by providing educators with information that is necessary in order to adjust curriculum and instruction practices to meet the needs of their students. In order to accomplish this, benchmark assessments must be aligned with content standards and major learning goals and be able to provide reliable information on students' strengths and weaknesses relative to these goals (Herman, 2010).

Benchmark assessments may play a role in predicting student performance on end-of-year summative and accountability assessments. Such assessments also provide educators with valuable evaluative information about the impact of a curriculum or a program. Benchmark assessments are designed to provide teachers and administrators with formative data in order to drive instruction within their classrooms. These tests are meant to measure proficiency across

domains and subsets of local curricula and state standards (Flaherty, 2014). Benchmark assessments are administered across similar periods of time throughout the academic year (e.g. every month, end of a unit, end of a semester, etc.) in specific grades and content areas across schools and districts.

When a school district supplements summative and formative assessments with benchmark assessments, teachers, principals, and district staff are able to gather data to inform classroom practice and districtwide decision-making (Flaherty, 2014). Benchmark assessments are designed to provide feedback throughout the entire year and give the teachers and administrators a clearer picture of what skills the student is mastering and what skills the student needs to still work on. Successful benchmark assessments break down test results by using the same categories required under the No Child Left Behind Act. These categories include race, income, disability, and English proficiency. Additionally, benchmark assessments provide individual progress reports that can be shared within the district, school, classroom, parents and students.

Benchmark assessments have contributed to higher student performance on the district level because districts take the time to align their assessments to those assessments given at the state level. Schools use benchmark data to track teacher as well as student performance. This data are used to plan interventions for specific students and make recommendations for intervention strategies for those students who have not mastered the skills being taught. At the classroom level, teachers use the benchmark assessment data to review individual student performance with each student. Teachers are able to use this data to inform students and parents of any strengths or weaknesses that the student may have and based on this information the teachers will be able to devise a plan of action to help the student reach the next academic level.

Through the use of external benchmarking, better practices extend outside of one's own school or district in order to embrace the study of success wherever it can be found (Flaherty, 2014). Examples of external benchmarking include studying which schools across the state have been most effective in teaching Algebra 1 to students who were at the basic level or below in math or perhaps which high schools have been most successful in improving the success of students who entered the school with poor reading skills. While internal benchmark assessments can help the immediate school population by looking at trends in instruction, external benchmark assessments can aid district personal in locating and developing best instructional practices that will enable the schools to enhance their instructional practices in order to increase student achievement.

Benchmark assessments are very beneficial and often serve four interrelated purposes. Benchmark assessments relay a strong message to students, teachers and parents about what knowledge and which skills are most important to learn. These assessments serve curriculum and planning purposes by providing educators with information needed to adjust curriculum and instruction to meet student learning needs. Benchmark assessments can also be used in order to monitor and evaluate programs/instruction by providing information on how well programs, curriculum, instructional practices, or other resources are helping students achieve their learning goals. Lastly, benchmarks can provide data to predict whether students, classes, school and districts are on course to meet specific year end goals (Herman, 2010).

Reliable benchmark assessments can be an important addition to a comprehensive assessment system within a school district. In order to be successful, it is imperative for benchmark assessments to be well aligned with curriculum and provide a continuous, comprehensive stream of information to plan and guide instruction (Herman, 2010).

Pillar 2: The History and Effectiveness of the MAP Assessment

The MAP Grade-Level assessments are a series of tests that measure whether students in Missouri are meeting Grade Level Expectations developed using the Show-Me Standards. It's a way of determining if kids are learning what they need to learn. The Missouri Assessment Program was originally developed as a response to Missouri's Outstanding Schools Act of 1993. In 1993 the Outstanding Schools Act was passed in Missouri. This law called for the development of a new assessment system for Missouri's public schools. The Show-Me Standards are part of this legislation. There are 40 "content" and 33 "process" standards. They are guides for what students should know and be able to do. In the medical field, doctors have standards for what they should know and be able to do. One can expect an auto mechanic to meet certain standards for repairing or servicing automobiles. The Show-Me Standards are similar in that they are the educational standards in Missouri. The Show-Me Standards can be found at http://dese.mo.gov/standards/index.html. The Missouri Outstanding Schools Act of 1993, a significant piece of education legislation, was a centerpiece of the late Governor Mel Carnahan's administration. It established much of the policy that governs Missouri's Schools today. The purpose of the Outstanding Schools Act (SB 380) was to significantly improve the quality of education for all students. The four major strategies are implemented by the 1993 Ac consist of:

1. Enhanced academic performance,
2. Financial equity and increased funding,
3. program innovations and enhancements, and
4. increased local accountability.

The Act provides an approach with four components to design the new "system" which will drive improved academic performance at all levels.

1. Create high attainable performance standards
2. Create and implement new curriculum designed to promote learning at high levels.
3. Implement a performance-based assessment system.
4. Strengthening pre-service and strong professional development opportunities for teachers (DESE, 2015).

The Missouri Outstanding Schools Act of 1993 also mandated a new assessment system to be put into place that would bring uniformity in all end of year testing throughout the state of Missouri. The Missouri Assessment Program (MAP) was developed as part of the new assessment system that the Missouri Outstanding Schools Act of 1993 sought to put into place. The MAP encompasses several statewide assessments that meet state and federal statutory requirements (DESE, 2015). MAP Grade-Level Assessments are administered to students in grades 3 through 8 to determine their progress toward the Show-Me Standards/Missouri Learning Standards. As directed by the outstanding Schools Act, the Show-Me Standards were developed by the Missouri Department of Elementary and Secondary Education (DESE), in cooperation with teachers, school administrators, parents, and business professionals throughout the state, to identify the knowledge, skills, and competencies that Missouri students should acquire prior to graduating from high school (DESE, 2015). The Missouri Learning Standards articulate the Show-Me Standards in each content area across the grade levels. MAP Grade-Level Assessment items are aligned with the Missouri Learning Standards.

MAP ELA and Mathematics Testing in grade levels 3-8 include three item types. The item types include: selected response items, also known as multiple-choice, present students with a question followed by three or more response options. Short text items require students to type an appropriate response. Technology-enhanced items use innovative technology to allow

students to demonstrate their knowledge in ways that are not possible using paper/pencil assessments. For example, the items may include embedded video or audio; they may require students to drag and drop data into a table, click on "hot spots" within a graphic, or indicate their response on a grid. These items are scored using machines. Short-text items are scored by trained readers using specific criteria. Trained readers are humans, not machines.

MAP Grade Level assessment data are used to help students become more successful. Several groups use the results. These results play a major role in the determination of accountability for providing education for students. MAP tests are used in part for state, school, and teacher accountability making the state, school districts, and teachers accountable for providing the best education possible.

State officials use this information to identify schools in need of improvement or that are top performers. This can aid DESE in providing resources to schools that need help, or to study high performing schools in hopes of passing along "best practices." DESE can also compare the Missouri results with the results of schools in other states to see how Missouri school districts measure up nationally.

School districts can use the results to set goals or create plans to improve in areas where expectations are not met. Personnel can also compare the results to those of nearby districts and to the state of Missouri as a whole. Test results are used to compare data from previous years as well.

Teachers can identify any improvement areas in content or process standards. For example, the data might show that most fifth graders could name the body systems, but a low percentage of the same students could identify the function of each system. The teacher could use the information gained to devote more time to teaching the functions of each body system. A

teacher might also use the information to address needs of individual students. Based on the results, certain teachers can also receive additional training to become more effective.

Parents can not only see how well children performed, but also can see how well the teachers are teaching children. Parents can work with the community to support schools when they need help. The reports also give us ideas to help our children achieve greater academic success.

Children benefit from the test results when the state, school district, teachers, and parents collaborate in order to make improvements by monitoring and adjusting instruction daily for our students. Individual results can help identify students who need extra help or enrichment.

All of these groups factor into the success of the Missouri Assessment Program and the impact that it has on our educational system. These groups work together to improve educational opportunities for students and are a vital aspect of student success on the MAP test.

Pillar 3: The History and Effectiveness of Buildings Receiving Title I Funding.

In order for a school setting to be successful and provide a quality education for all students within that setting an equal partnership between the family, the school, and the community must be successfully established. Unfortunately, these types of relationships with low-income and minority populations within our school systems remain relatively non-existent. In 1994, Congress passed a version of the Elementary and Secondary Act (ESEA) that seeks to address this challenge with the inclusion of several parental involvement mandates. This included the development of a school-family compact in every school receiving Title I funding (Evans, 2014). Partnerships are an integral part of insuring the successful school experience of any student. A partnership between the school, the family, and the community enhances the

probability for the student to achieve the dream of a high school diploma. Partnerships also help form positive attitudes towards school and aid in increasing test scores across all grade levels.

Title I is a federal program that provides funds to districts and schools with at least 40% of students that receive free and reduced meals. Economically disadvantaged students who attend Title I schools often come from families who are living well below the poverty line, don't have access to quality healthcare, early childhood education, before or after school programs, summer school, or affordable housing. These students are more likely to attend schools that are poorly funded and lack many of the resources that schools in more affluent area enjoy. The Title I legislation provides additional resources and funding for these schools in an attempt to close the gap. The goal of Title I funding is to improve academic outcomes for all students while bridging the gap between school and home (US Department of Education, 2004).

Research that supports family engagement with the school and the community is promising; however, many challenges get in the way of the lower socio-economic families' ability to become more involved with their child's school. Often these families lack reliable transportation, lack of affordable childcare for younger siblings, lack of employment, and work schedules that aren't conducive to taking the time off in order to attend school functions, language and cultural differences, and often parents of the lower socio-economic students did not have a very successful school experience so they are hesitant to become involved with their child's school.

To promote success for students at Title I buildings with 40% or more students that receive free and reduced lunch, several things need to take place. Strong communication between the home and the school is vital to the success of Title I funded schools; however, communication is only one piece of the puzzle when it comes to reaching these families. Too often educators tend

to over compensate by providing more information than the parent understands in an effort to engage the families in the educational process. In order for Title I funded schools to truly be a successful means of reaching lower socio-economic students, educators must include the parents not just in passive roles, but in active roles. Parents know their children well and if they are given the opportunity to truly engage in the school community, parents will become change agents who can actively help transform urban school and neighborhoods.

Successful schools have the ability to build relationships with their parents and all stakeholders that allow them to share in the responsibility and take credit for the student's success. Successful schools make a deep connection with the parents and create hope for parents who otherwise felt defeated. Creating a meaningful connection with the parents, especially the parents of Title I students, reveals a strong school culture. A strong school culture is categorized by consistently promoting a positive connection between the home and the school

Conclusion

The research has provided evidence that benchmark assessments, when used correctly by personnel, can provide data to predict whether students, classes, schools and districts are on course to meet specific year end goals, or commonly, be classified as proficient on the end of the year state test. Results that predict end-of- year performance can be disaggregated at the individual student subgroup, classroom, and school levels to identify students who need additional help and to provide it (Herman, 2010). This study will establish if there is a relationship between student performance on benchmark assessments and results on the MAP assessment. Results from this study will indicate the district's level of alignment on the benchmark assessment to the MAP assessment. The research on Title I funding used to improve academic performance of economically disadvantaged students suggests the need for more than

strong communication to build the foundation of a successful school. This study will determine if there is a significant difference in performance on the MAP assessment between students that attend Title I buildings as compared to students that attend Non-Title I buildings.

Chapter Three

Research Design and Methodology

Problem and Purpose Overview

This study investigates the relationship between 3rd Grade Math Benchmark Assessment results and student performance on the MAP assessment. In order to find the relationship between benchmark assessment results and student performance on the MAP assessment, the researchers used a Pearson Product Coefficient of Correlation test (Kranzler, 2011). The researchers used math benchmark assessment scores provided by the North Kansas City School District and MAP assessment scores from the Department of Elementary and Secondary Education (DESE). The purpose of this study is to analyze the relationship between district created benchmark assessment results and student performance on the MAP. This study will determine if benchmark assessment results can provide teachers with an idea of how students will perform on the MAP assessment.

This study will also determine if there is a difference in performance of students at Title I buildings and Non-Title I buildings on the MAP assessment in the same school district. In order to find the difference between student performance on the MAP assessment at Title I buildings and Non-Title I buildings, the researchers used a t-Test (Kranzler, 2011). The researchers used the scores provided by DESE for the 2015-2016 school year. The purpose of this study is to determine if there is a significant difference in performance levels of students at Title I buildings than students at Non-Title I buildings.

Research Design

This study was conducted using the 2015-2016 district Spring Math benchmark results and the 2015-2015 MAP assessment scores. The North Kansas City School District and DESE

provided the scores to the researchers. There are 21 elementary schools represented in the study. Of the 21 schools, 10 are Title I and 11 are Non-Title I. A Pearson Product Coefficient of Correlation test and a t-Test were chosen because the correlation test describes the relationship between two variables, and the t-test describes the difference between two variables. If the results of the study showed a p-value less than the statistically significant level of a=0.05, the null hypothesis would be rejected.

Variables Used in the Study

The two variables used for this study are the 2015-2016 3rd grade Math benchmark assessment scores and the 2015-2016 3rd grade Math MAP scores.

Research Questions

RQ1: Is there a relationship between the North Kansas City School District's 3rd grade math benchmark results and performance on the MAP assessment?

RQ2: Is there a difference in performance of 3rd grade Math students on the MAP assessment in a Title I building as compared to students in a Non-Title I building?

Null Hypotheses

H1: There is no relationship between the North Kansas City School District's 3rd grade Math benchmark results and performance on the MAP assessment.

H2: There is no difference in performance of 3rd grade Math students on the MAP assessment in a Title I building as compared to students in a non-Title I building.

Study Group

The study group was made up of the 1,311 2015-2016 3rd grade students in the North Kansas City School District. There were a total of 21 elementary schools included in this study.

Data Collection

The researchers used data collected from the North Kansas City School District math benchmark report and the Department of Elementary and Secondary Education (Dese, 2016).

Data Analysis Strategies

The researchers used a Microsoft Excel spreadsheet with the EZAnalyze software to analyze the data. A Pearson Product Coefficient of Correlation test was used to identify the relationship between 3rd grade math spring benchmark results and student performance on the MAP test. A T-Test was used to identify the difference between performance of Title I students and Non-Title I students on the MAP assessment.

Summary

This study will analyze the relationship between the North Kansas City School District's 3rd grade Math benchmark results and the MAP assessment in Title I buildings as compared to Non-Title I buildings. The researchers will report the findings of this study in the following chapter.

Chapter Four

Findings and Results from Data Analysis

The purpose of this study was designed to provide information and analysis on the relationship between North Kansas City School District's 3rd grade math benchmark results and performance on the MAP assessment for the 2015-2016 school year. Another purpose of this study is to determine if there is a significant difference in performance on the MAP assessment between Title I students and Non-Title I students in the North Kansas City School District.

Results for Research Question #1

RQ1: Is there a relationship between the North Kansas City School District's 3rd grade Math benchmark results and performance on the MAP assessment?

Table 1:

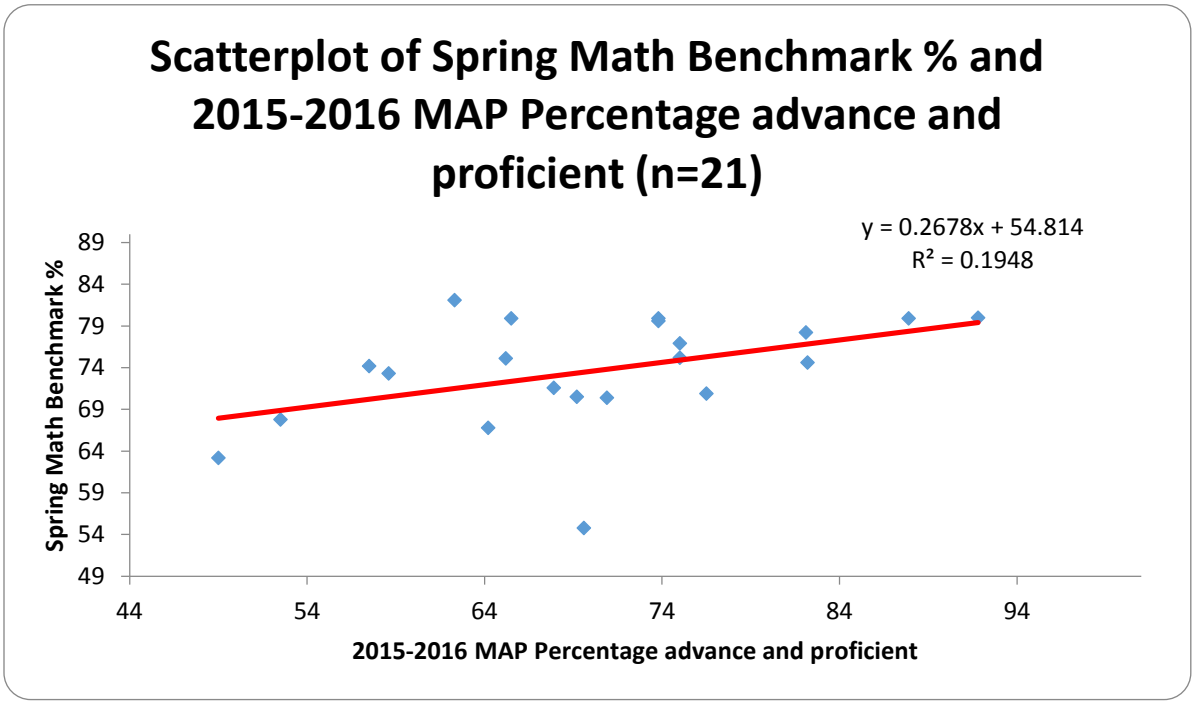
The correlation of spring math benchmark percentages and students performing advanced or proficient on the 2015-2016 MAP assessment can be seen in Table 1.

Pearson Correlation Between 3rd Grade Spring Math Benchmark Assessment and MAP Scores.

Pearson Correlation	.441
N	21
P	.045

Figure 1:

A scatterplot illustrating the relationship of the Spring Math Benchmark percentages of students scoring advanced and proficient on the 2015-2016 MAP can be seen in Figure 1.



A Pearson Product Coefficient of Correlation was applied to the data to determine if there was a statistically significant relationship between the variables. The Pearson Coefficient of Correlation is .441 and the r-squared is .19, accounting for about 19% of the variance between the benchmark results and performance on the MAP assessment. The students' performance in Title I buildings counts for the variance between results and performance on the MAP assessment. The observed p-value is .045 which is less than a=0.05 resulting in a statistically significant relationship between spring benchmark results and performance on the MAP assessment. Researchers reject the null hypothesis that there is no relationship between the North Kansas City School District's 3rd grade Math benchmark assessment results and performance on the MAP assessment.

Results for Research Question #2:

RQ2: Is there a difference in performance of 3rd grade math students on the MAP assessment in a Title I building as compared to students in a Non-Title I building?

Table 2:

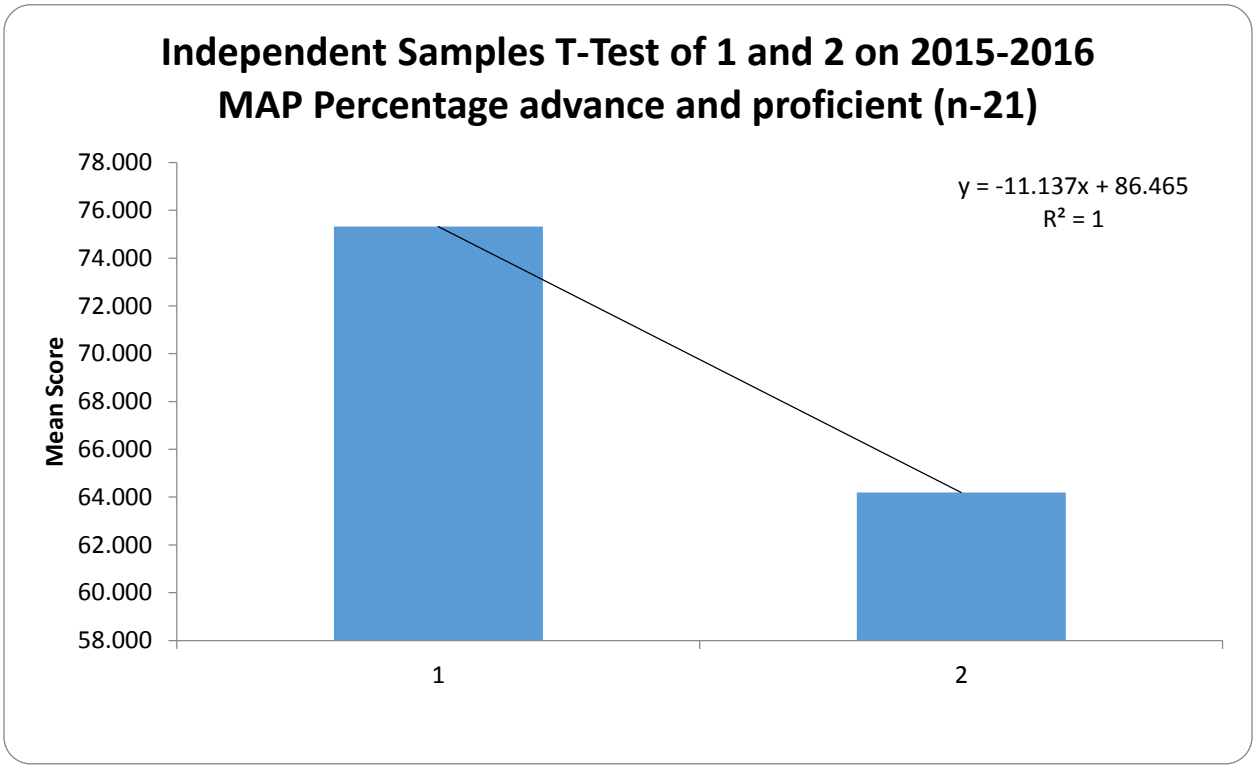
The mean difference in performance of students scoring advanced and proficient on the 2015-2016 MAP in Title I and Non-Title I schools can be seen in Table 2.

Mean Performance Scores on the MAP of Title I and Non-Title I Students.

Non- Title I (1) Title I (2)	1	2
Mean:	75.327	64.190
Std. Dev:	9.747	9.357
N:	11	10
Mean Difference:	11.137	
T-Score:	2.665	
Eta Squared:	.253	
P:	.015	

Figure 2:

A T-Test graph illustrating the difference in performance of students scoring advanced and proficient on the 2015-2016 MAP in Title I and Non-Title I schools can be seen in Figure 2.



A T-Test was applied to the data to determine if there was a statistically significant difference in performance on the MAP assessment between Title I students and Non-Title I students. Table 2 illustrates a mean difference of approximately 11.14 and the r-squared is 1, accounting for about 10% of the variance between the difference in results of Title I students and Non-Title I students. The observed p-value is .015 which is less than a=0 .05 resulting in a statistically significant difference between MAP performance of Title I students and Non-Title I students. Researchers reject the null hypothesis that there is no difference in performance of 3rd grade Math students on the MAP assessment in a Title I building as compared to students in a non-Title I building.

Chapter Five

Conclusions, Implications and New Learning

Overview

The purpose of the study was to determine if there was a statistically significant relationship between the North Kansas City School District's 3rd grade math benchmark results and performance on the MAP assessment. Within the study, the researchers also attempted to determine whether there was a statistically significant difference in the performance of 3rd grade math students on the MAP assessment in a Title I building as compared to students in a Non-Title I building.

Discussion of Findings

Results of the study indicated a statistically significant relationship between the North Kansas City School District's 3rd grade math benchmark results and these students' performance on the MAP assessment. The Pearson Coefficient of Correlation is .441 and the r-squared is .19. This accounts for about 19% of the variance between the benchmark results and performance of the MAP assessment. Based on the observed P-value of .045 (which is less than a=0.05) the researchers rejected the null hypothesis that there is no relationship between the North Kansas City School District's 3rd grade math benchmark assessment results and performance on the MAP assessment.

The researchers provided evidence that a statistically significant relationship between the Spring benchmark results and student performance on the MAP assessment did exist. Additionally, the finding of research question two provided affirmation that a statistical significant difference between MAP performance of Title I students and Non-Title I students was evident. The results of a T-test revealed a mean difference of approximately 11.14 and the r-

squared is 1. These results accounted for about 10 % of the variance between the difference in results of the Title I students and Non-Title I students. The observed p-value is .015 which is less than a=0 .05 resulting in a statistically significant difference between MAP performance of Title I students and Non-Title I students. This led the researchers to reject the null hypothesis that there is no difference between performance of 3rd grade math Students on the MAP assessment in a Title I building as compared to students in a non-Title I building. The null hypothesis for question two was rejected because the observed p-value came out to be .015 which is less than a=0.05 and this resulted in a statistically significant difference between MAP performance of Title I students and Non-Title I students.

Conclusions

The researchers found the district created benchmarks were closely aligned to the MAP assessment. Student performance on the benchmark assessment correlated to how they performed on the MAP assessment. Additionally, the MAP test results for Title I and Non-Title I schools were significantly different. This led the researchers to conclude that the demographics of the school highly influence the student's overall academic achievement score because the demographics are the basis for qualification to receive Title I founding. The findings support the notion that schools with more than 40% of students that face economic hardships are in need of additional supports through programs, such as, Title I services to help enhance learning opportunities and support growth on district and state assessments.

Further Research

The researchers believe that additional extensive research on this topic should be conducted before definitive conclusions on this topic can be published. This study would benefit from expanding the data set to include additional school districts across Missouri. This study

only compared 3rd grade students in the North Kansas City School District who attended Title I schools with other third grade students in the North Kansas City School District who attended Non-Title I schools.

The data analyzed for this study was a very small sample and if expanded to include additional schools, school districts, or even grade levels within the same school district would produce data that potentially could turn out to be beneficial to educators across the entire state of Missouri. Rural school districts vs. Urban/Suburban school districts could be explored further in order to provide support for the study that was done in the North Kansas City School District. A larger, more diverse sample may generate different results than what was provided in this study.

The researchers would like to suggest the following for further research:

1. It is suggested that a further study be expanded to encompass additional, if not all, of the districts within the state of Missouri. A larger data set would produce a better representation of the achievement levels of all students attending Title I and Non-Title one schools.
2. This study only analyzed data from a 3rd grade population within the North Kansas City School District. A comparison of additional grade levels within the same district may produce varying results from those that were found during this study.
3. Additional research should be conducted that would show comparative data for all 3rd grade students across Missouri to determine if the same trend is being identified with district benchmark assessments and the end of the year MAP assessment.
4. Further research should attempt to identify factors that may have an influential significance on the outcomes of the benchmark assessment scores and the MAP assessment scores. Such factors could include stability of the student's home life, level

of parental involvement, outside organizations that may provide additional resources or tutoring, and the level of student motivation with the school or district.

Recommendations for Policy and Practice

The researchers would like to suggest the following recommendations from the data and research from this study:

1. The district should continue to use District Instructional Alignment Guides to create Benchmark Assessments.
2. It is suggested that the district continue to use Benchmark Assessment results to monitor and adjust instructional practices to enhance learning opportunities for students.
3. The district should analyze their use of Title I funds to determine if Title I schools can use the funds to enhance opportunities to "close the gap."

Summary

Despite the socio-economic status of a school within a district, educators have the opportunity on a daily basis to make a difference in the educational development of a student. While this study produced evidence that showed a statistically significant difference in performance on the MAP assessment, high levels of instruction must continue to occur daily in all classrooms. The results also concluded that there is a significant relationship between benchmark results and performance on the MAP assessment. The district has tightly aligned the benchmark assessment to the MAP and educators in Title-I schools could continue to use the benchmark assessment results to monitor and adjust instruction to help support growth on the MAP. The goal of Title I funding is to improve academic outcomes for all students while bridging the gap between school and home (US Department of Education, 2004). Continued studies need to be conducted on how to support instructional practices in Title-I schools to close

the gap between performance levels.

Appendix A

Percent of North Kansas City School District's 3rd Grade Math student's in Title and Non-Title schools scoring Proficient and Advanced on the Spring Benchmark and MAP Assessment

School	Year	Spring Benchmark Score	MAP Percentage scoring Advanced or Proficient	Title I (1) or Non-Title I (2)
School A	2016			
School B	2016			
School C	2016			
School D	2016			
School E	2016			
School F	2016			
School G	2016			
School H	2016			
School I	2016			
School J	2016			
School K	2016			
School L	2016			
School M	2016			
School N	2016			
School O	2016			

School P	2016			
School Q	2016			
School R	2016			
School S	2016			
School T	2016			
School U	2016			
School V	2016			

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