IMPACT OF SOCIOECONOMIC STATUS ON STUDENTS AND THEIR ABILITY TO LEARN

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ABSTRACT

The purpose of this study was to analyze the impact of socioeconomic status on students and their ability to learn. The research includes findings that answer the questions, “Does a student’s socioeconomic status impact their ability to learn?” and “In what ways can we more effectively teach students of lower socioeconomic status?” Research was conducted through DESE website. The findings were analyzed through Microsoft Excel and A Statistical Program (ASP) software. T-Tests were conducted. Findings indicate that there is a negative impact on a student’s ability to learn if they are of lower socioeconomic status. Using teaching strategies that have shown to be successful with aforementioned students would be warranted. Professional development in districts with the specified demographics may be useful.

INTRODUCTION TO THE STUDY

Background, Issues and Concerns

The middle schools in the ISD are struggling to bring students up to grade level in areas such as reading and communication arts. These students are part of a district, which annexed multiple schools into its learning community when a nearby district failed to improve. Various learning strategies have been tried and students are still failing to make substantial gains. These students, which largely consist of free and reduced lunch participants, are part of a low socioeconomic status.

Practice under Investigation

The practice under investigation is how to reach students most effectively in the school setting in efforts to work past their economic status and make substantial academic growth.

School Policy To Be Informed by the Study

These middle schools have grades six through eight. These classes are taught by certified teachers, some of which who have been with the school since it being annexed over. Information regarding these students will come from statewide test results for this district in which this school resides, and surrounding schools used for comparison.

Conceptual Underpinning

Many professionals in the education field have decided that students of poverty do not have the ability to learn as well as students who live above the poverty line. These teachers have essentially predetermined the academic fate of the students in which they teach. There are

theories, examples, and methods coming to attention of the world of education that entertain the idea that these students can be taught just as effectively and made substantial academic gains. In theory, if appropriate teaching methodologies are used, students from low socio-economic areas can achieve at a high level by being provided with structure in the classroom, providing routine, and setting the bar high. Students who come from a low socioeconomic status thrive in the structure of well ran classroom, as this is something they are often missing outside of school. They work will when given a predictable routine to follow. It is also found that the teachers that use a student's socioeconomic status as an excuse for low test scores is doing a disservice to that student. Pushing them to improve results in students that can accomplish the academic gains we need them to.

Statement of the Problem

Students of poverty are not making appropriate academic gains. Effective techniques need to be found and implemented to lessen the achievement gaps.

Purpose of the Study

The purpose of the study is to gather data and information on the affect that demographics have in the role of educating diverse students. Information gathered from this study will guide myself and other educators in the most effective ways to teach students from less than desirable demographics.

Research questions

RQ: Is there a difference in student achievement based on socioeconomic status?

Null hypotheses

Ho: There is no difference in student achievement based on socioeconomic status.

Anticipated benefits of the study

The result of this study will clarify whether the demographics of a student affect their ability to learn, while highlighting the best way to teach students from less than desirable demographics. The information gathered in this study will assist teachers, like myself, in reaching more students to help close the educational gaps currently being demonstrated.

Definition of terms

NCLB: No Child Left Behind act of 2001 is the 2001 reauthorization of the Elementary and Secondary Education Act. NCLB really pushes literacy in young students and pushes for high quality teachers.

DESE: Department of Secondary Education

PD: Professional Development

BCA: Benchmark Common Assessments are tests given to students to check for growth. These students are given this test in fall and spring. It gages not only student growth, but is also used as a tool to check for teacher competency.

STAR Results: Literacy testing to determine grade level of reading ability

CWC: CWC is a class within a class. These classes provide the classroom teacher with a special education teacher and immerse the special education students into it. These classes are commonly set up in the form of co teaching.

IEP: Individual Education Program is a legally binding document that spells out exactly what special education services your child will receive and why.

Summary

NMS is located in the western Missouri and contains students in grades six through eight. It is one of four middle schools in the Independence School District, all of which are Title 1 schools. NMS has the highest free and reduced lunch percentage amongst all the middle schools in the ISD. The majority of these students are living below the poverty line and not making appropriate academic gains, which have been causing concern, as they are multiple grade levels behind. Research will be done to show the impact that their socio-economic status is making on their ability to perform in predetermined areas. The research findings will be paired with conceptual underpinnings to show the most effective ways to reach these students.

REVIEW OF LITERATURE

Due to the downward spiral of our economy, the socioeconomic status of our students has been greatly impacted. As found in "The State of Missouri's Children: 2011" it can bee seen that many of the children begin educated in this state are not only coming from poverty, but also less than desirable circumstances. (Harris, Hawks, & Thornburg, 2011) This is also supported in "U.S. Poverty Rate Hits 15.1 percent, new Census data show," an article from the Kansas City Star. (Stafford, 2011) The article in the Kansas City Star reviews poverty amongst multiple ethnicities and both male and female. The district and school mentioned in this research study are labeled Title 1 schools, meaning due to free and reduced lunch rates, the school receives funds from the governments to support our students academically.

Once an educator is familiar with the demographics in their classroom they need to have the understanding of how to appropriately address the poverty within their classroom. How the educator addresses student's socioeconomic status, it can greatly influence the atmosphere of their classroom. In the article "How to Address Poverty in the Classroom" it explains how addressing students within the aforementioned demographics can be detrimental. (Hougan, 2009) The importance of understanding the division between the two is found in "Poverty Not Race, Holds Back Urban Students". (Bainbridge & Lasley, 2002) This article brings to light why there is a gap between test results of white and black students. One reason that black students may score lower than white students is due to the very fact that we focus on the impact ethnicity has. This article also states that students who come from poverty score lower on tests, and often the students who are coming from poverty are of a minority ethnicity. Because these two qualities happen to go hand in hand, we see that students of a minority typically score lower than Caucasian students. This, however, does not mean that white and black students cannot obtain

the same academic success. However, due to the surroundings of many of the minority groups, this has been difficult to achieve.

As found in this study, students of schools with greater free and reduced lunch rates do not score as well on ACT composite tests and tend to have higher drop out rates. From this research, you will find some ways that students of these demographics may be more successful in the classroom, as found in "What You Can Do for Students Living in Poverty." (Thompson, J., 2008) These students living in poverty often have a very different mindset. Small fees, for lockers or fieldtrips, can be very difficult to pay. Because they cannot afford the same fashionable clothing as the other students, they are often a target for bullying. As teachers, we need to provide the strong relationships they are lacking with adults and help put a stop to the harassment they may be experiencing. Because students from poverty may not always know socially correct behaviors, take time to explain to them why you have particular rules in your classroom.

Because classroom management and understanding middle school students is pertinent, reviewing literature regarding these aspects is invaluable. "For Teachers, Middle School is Test of Wills" is a valuable article that highlights the developmental stage of students in middle school. (Gootman, 2007) This article addresses the fact that students have a specific topography of their brain, and for this reason it causes a high turnover rate in middle school teachers. Teachers who teach middle school, and will be successful in doing so, have to be able to judge quickly when quirky student behavior warrants discipline or deafness, as the article states. Students in middle school are at a peak in regards to being distractible and having trouble completing tasks at hand. Understanding the reasoning behind this can be found in "Middle School Manages Distractions of Adolescence." (Winnie, 2007) One of the most important ways

to manage these distractions is to start with a teacher that has a desire to work with students of the applicable age bracket. Some of the most successful middle schools only hire teachers that prefer middle school. It is also crucial to, essentially, have completely different curriculum that is focused on teaching social etiquette to these students. One program mentioned in Winnie's article is called Habits of Mind. It has 16 traits that are commonly found in highly successful people. This program not only teaches them to be flexible individuals, but to also control their impulses.

One successful way of assisting students struggling with behaviors in the classroom, in which may make it difficult to assist students of poverty, is a Behavior Action Plan, as found in the article "Middle School Classroom Management: Behavior Action Plan." (Waxler, 2007) This is a plan that a student fills out, addressing three sentences to be finished by the student. The first question addresses why they are filling out a behavior action plan, the second question addresses why the behavior was not appropriate, and the third component addresses how they could prevent this behavior from happening again. Students in middle school do not always have a clear understanding of proper social etiquette. This is a great tool to teach them proper classroom behaviors, and also to hold them accountable.

Continuing to search for best practices for the classroom and staying focused professionally is key to pushing any student to excel. Continuous change as a teacher is undeniable, and favorable, as found in "Be a Pro-Changing Teacher." In this article it explains how teachers who have been teaching for many years often fear change, as they are set in their ways. As our student body changes, our curriculum changes, and new ideas come about, teachers must be ready to change continuously. This article recommends having students give the teacher feedback on how a lesson could have went better or simply what they would do as a

teacher if given their job for a day. While teachers need to be prepared for some unreasonable responses, if they look closely, they will find ways to refresh their learning style and improve their ability to reach their students. (Martin, N/A)

RESEARCH METHODS

Research Design

The alpha level was set at 0.25 for all tests with this research. The independent variable was free and reduced lunch. The dependent variable was test scores. T-tests were performed to compare standardized testing results for math and communication arts between four schools of low socioeconomic status and four schools with low percentages of free and reduced lunch qualifiers.

Study Group Description

The district being used as the focus of this study has 18 elementary schools, 4 middle schools, 3 high schools and 1 alternative school. The particular district that is the focus of this study has 3,051 students divided into four middle schools. The middles schools all have grades six through eight. These grade levels are co-ed and majority of IEP students are mainstreamed. There are CWC classes in each grade level. All four schools are classified as Title 1 schools, due to having a high number of free and reduced lunch rates. The four middle schools being used for comparison have a low number of free and reduced lunch percentages, and have a combined number of 3,568 students, all containing grades six through eight. These schools come from surrounding districts from the same geographic area.

Data Collection and Instrumentation

Information regarding these students comes from the DESE web site. These will include MAP tests, enrollment numbers, and school's rate of free and reduced lunch.

Data Analysis Methods

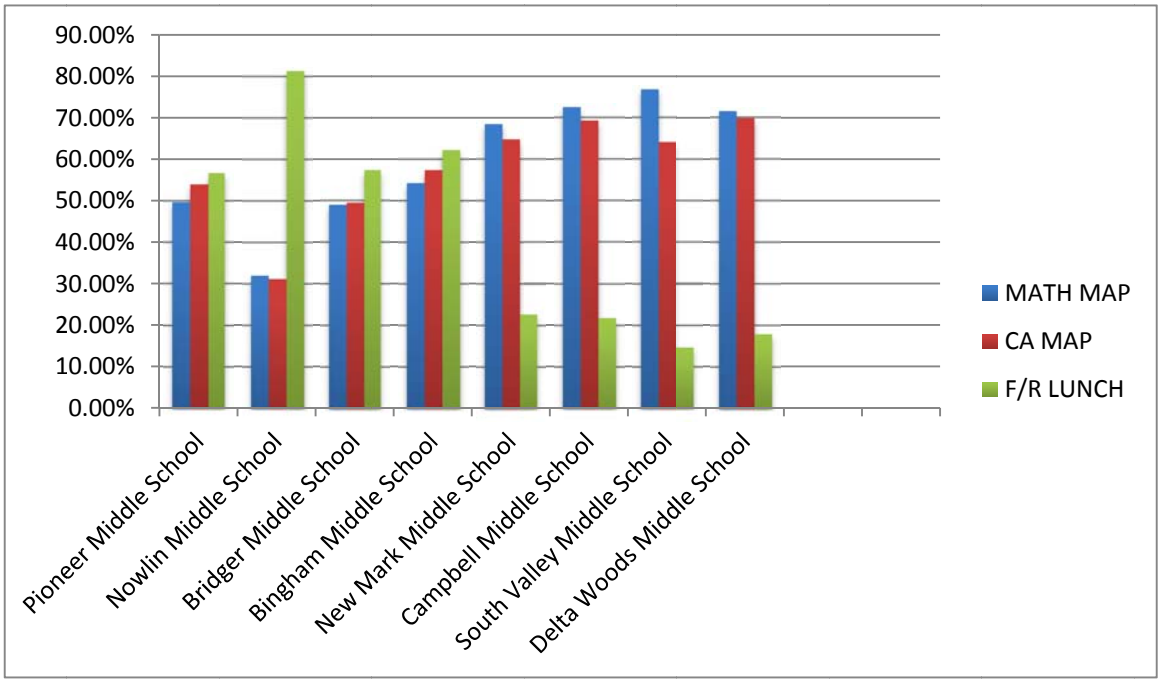
A Statistical Package (ASP) software was used to complete the statistical calculations in this study. T-test was used to obtain information, along with Microsoft Excel to compile some totals used in this research.

FINDINGS

The middle schools Nowlin Middle School, Pioneer Ridge Middle School, Bingham Middle School, Bridger Middle School, New Mark Middle School, South Valley Middle School, Campbell Middle School, and Delta Woods were chosen for comparison. Through the tables, graphs, and narratives below, the comparison of attributes of free or reduced lunch, math MAP proficiency results, and communication arts MAP proficiency results of each school are presented in this descriptive analysis.

Comparison of Free/Reduced Lunch Percentages with MAP Scores

School	2011 Math MAP Proficiency	2011 CA MAP Proficiency	F/R Lunch
Pioneer Middle School	49.70%	54%	56.70%
Nowlin Middle School	32%	31.20%	81.30%
Bridger Middle School	49%	49.50%	57.30%
Bingham Middle School	54.30%	57%	62.20%
New Mark Middle School	68.40%	64.80%	22.70%
Campbell Middle School	72.50%	69.30%	21.80%
South Valley Middle School	76.80%	64.10%	14.70%
Delta Woods Middle School	71.50%	69.80%	17.90%



When comparing 8 middle schools, it can be seen that there is a correlation between free and reduced lunch rate and students performance on the state standardized MAP test. South Valley Middle School has the lowest free and reduced lunch rate, at 14.7%, with the highest percentage of students scoring proficient or advanced on the MAP test. South Valley has 76.8% of their students scoring proficient or advanced on their Math portion of the test, with 64.1% scoring proficient or advanced on the Communication Arts portion. Delta Woods Middle School had the next lowest percentage of free and reduced lunch, at 17.9%. Delta Woods also had one of the highest percentages for students scoring proficient or advanced on the MAP test. Delta Woods Middle School students scored 71.5% on the Math portion of the MAP test and 69.8% on the Communication Arts portion. Nowlin Middle School had the highest free and reduced lunch rate, at 81.3%. Nowlin also had the lowest scores on the MAP test. Nowlin scored a 32% on the Math portion and a 31.2% on the Communication Arts portion.

t-Test Analysis Results for Free and Reduced Lunch and Communication Arts MAP Scores

Source	Mean	Mean D	*t*-test	df	*p*-value
Lower 50% (n=4)	67				
Upper 50% (n=4)	48	19	3.1508	6	0.0197

Note: Significant when p<=0.25

Eight middle schools in the state of Missouri were randomly selected to observe differences between socio-economic status and Communication Arts MAP scores. The free or reduced lunch percentages of each district were evaluated to produce two groups: the lower 50% (bottom 4) were placed in one group and the highest 50% (top 4) were placed in another. The mean of the more affluent schools was 67% and the mean of the higher poverty schools was 48%. The Mean D, or difference between the two groups, was 19%. The t-test result was 3.1508 and the df was 6. The null hypothesis states there is not a significant difference in Communication Arts MAP scores based on socio-economic status, indicated by free or reduced lunch percentages. Since the p-value was 0.0197, and the Alpha number was set at 0.25, the null hypothesis must be rejected. Therefore, there is a significant difference in Communication Arts MAP scores based on the percentage of free or reduced lunch students each middle school contains. The lower 50% with the mean score of 67% scored significantly higher than the upper group with the mean score of 48%. The lower the free or reduced lunch percentage, the more significant the actual Communication Arts MAP score becomes.

t-Test Analysis Results for Free and Reduced Lunch and Math MAP Scores

Source	Mean	Mean D	*t*-test	df	*p*-value
Lower 50% (n=4)	72				
Upper 50% (n=4)	46	26	5.017	6	0.0024

Note: Significant when p<=0.25

Eight middle schools in the state of Missouri were randomly selected to observe differences between socio-economic status and Math MAP scores. The free or reduced lunch percentages of each district were evaluated to produce two groups: the lower 50% (bottom 4) were placed in one group and the highest 50% (top 4) were placed in another. The mean of the more affluent schools was 72% and the mean of the higher poverty schools was 46%. The Mean D, or difference between the two groups, was 26%. The t-test result was 5.017 and the df was 6. The null hypothesis states there is not a significant difference in Math MAP scores based on socio-economic status, indicated by free or reduced lunch percentages. Since the p-value was 0.0024, and the Alpha number was set at 0.25, the null hypothesis must be rejected. Therefore, there is a significant difference in Math MAP scores based on the percentage of free or reduced lunch students each middle school contains. The lower 50% with the mean score of 72% scored significantly higher than the upper group with the mean score of 46%. The lower the free or reduced lunch percentage, the more significant the actual Math MAP score becomes.

CONCLUSIONS AND RECOMMENDATIONS

The null hypothesis stated that there is no difference in student achievement based on socioeconomic status. The results of this study indicate that there is a significant difference in student achievement based on socioeconomic status. Students of poverty scored lower, overall, on their state tests. The four middle schools with the highest level of free of reduced lunch participants (Nowlin, Bingham, Bridger, and Pioneer Middle Schools) had significantly lower scores on their Communication Arts and Math portions of their MAP test. The four middle schools with significantly lower free and reduced lunch participants (South Valley, Delta Woods, Campbell, and New Mark Middle Schools) all had significantly higher scores on their MAP test.

The results show that students are negatively impacted if they are of a lower socioeconomic status. These students are less likely to graduate from high school and score significantly lower on tests. Teachers play witness to a variety of reasons this occurs. Often family support is nonexistent, not allowing them to see help on homework at home. Many times these same students that are qualifying for free and reduced lunches are not being offered food at home. They will return to school each day, and have not eaten since their free/reduced lunch from the day before. These students also may not have the means to be prepared for class with appropriate learning materials. Teachers have also experienced students that come to school with physical ailments that their family cannot afford to treat.

For each these aforementioned reasons, these students find it difficult, if not impossible, to thrive academically. Teachers have seen these students try to learn while hungry or ill. They have been distracted in class due to not having the materials they needed to learn.

After researching, running T-tests and reading literature related to these findings, several approaches are recommended. Schools could go beyond supplying a free/reduced lunch and

they could join other schools in their efforts to feed students at home. Local schools have started sending home a backpack at night that contains food to help them get through the night. Middle schools in the Independence School District already hold food drives throughout the year, but currently donate most of the food. It is recommended that schools use all the food donated to create this type of backpack system.

It is also recommended that ISD should accept our students current supply situation and should dedicate a portion of our budget to helping them be supplied and ready for class. This budget would cover materials such as paper, pencils, backpacks, erasures, calculators and coloring tools. When students are able to show up to class prepared they are much less distracted.

Professional development for teachers and staff could be provided, so they may be educated on the best way to interact with students of low socioeconomic status. Teachers often create a poor learning environment by unintentionally not speaking the language of these particular students. Ruby Pane is known for deciphering this language, and her materials may prove to be useful at this recommended professional development.

What is important to take from this research is that students that are coming from a lower socioeconomic status are not thriving academically; rather, they are being left behind? Teachers need to be able to turn the reasoning away from them, and back on themselves. Teachers have to ask themselves what they can do to better support these students, which involves teachers pushing themselves to be ever evolving educators.

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