

Understanding Student Mobility and the Effects on
Student Success on State Standardized Assessments

A Special Project

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FACULTY APPROVAL

Understanding Student Mobility and the Effects on
Student Success on State Standardized Assessments

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ABSTRACT

Students' reading scores dropped in fourth through seventh grade in 2009-2010 school years. The researcher studied the effects of high student mobility on student success in reading. The research was based on the sixth, seventh, and eighth grade students for the 2010- 2011 school year. The data used for the research were compiled from students' entrance and exit school records and assessment reading scores from the MAP assessment. The data was analyzed using an experimental research method. The null hypothesis was accepted at eighth grade and parts of seventh grade, however, significance was found at the sixth and parts of the seventh grade that supported the hypothesis.

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CHAPTER 1

Introduction

Background for the Project

In 2011, state and federal expectations for students to pass state standardized assessments were at all time highs. Many schools and districts were struggling to reach the federal expectation of “No Child Left Behind.” These schools faced stiff penalties when they were unable to meet the required percentages of students passing in the content areas.

A large school district in Washington State, in 2010, reported that 71.8% of its students were eligible for free or reduced lunches, which was significantly more than the state average, which was 43.5%. This demonstrated the higher level of poverty in the school district in comparison to the state. In addition, the state experienced 1.7% migrant movement where this school district reached 9.3% migrant movement. Data demonstrating high poverty and movement for employment and other reasons were important indicators for students who struggled academically (Office of Superintendent of Public Instruction, 2010).

In September 2010, the state released data from the 2009-2010 Measurement of Student Progress assessment. Students’ reading scores dropped in fourth through seventh grade. The district created a plan for the improvement of reading scores with interventions in all classes. Due to

the district's focus on reading scores, the researcher analyzed the sixth, seventh and eighth grade students' reading scores for Measurement of Academic Progress (MAP) assessment 2009-2010 school year (OSPI, 2010).

As a teacher at the largest middle school in this school district and the state, the researcher observed many occasions when students frequently missed school on a weekly basis. Many students moved to the southern states or Mexico during the winter months and then moved back to the district. These students missed the teaching of the lessons and chunks of curriculum.

Statement of the Problem

The researcher wanted to study the effects of high student mobility on student success in reading. State standardized assessments had increased in difficulty with serious consequences for students who did not pass. Students who changed schools frequently or missed large blocks of time lost valuable learning in the classroom.

Purpose of the Project

Students struggled to pass Washington State MAP reading assessments. The researcher wanted to study the effects of high student mobility on student success in reading.

Delimitations

The school used in the research was the largest middle school located in the southwest part of Washington State. In October of 2010, the school was attended by 1,483 students. The demographics for the school were not typical for the state. There were 0.4% American Indian/Alaskan Native, 2.7% Asian, 0.3% Pacific Islander, 3.0% Asian/Pacific Islander, 1.8% Black, 44.8% Hispanic, 48.1% White, and 2.0% were two or more races. Free and reduced lunches were received by 47.7% of the students (OSPI, 2010). The research was based on the sixth, seventh, and eighth grade students for the 2010- 2011 school year. The data used for the research were compiled from students' entrance and exit school records and assessment reading scores from the Measurement of Academic Progress. The data was analyzed using a t-test for an experimental research method.

Assumptions

The average years of experience for teachers in the district was 10.8 and 65.5% of the teachers had a Master's Degree. According to the Office of Superintendent for Public Instruction, 98.1% of the teachers were Highly Qualified (OSPI, 2010). This led the researcher to believe that the teachers at the school were well trained. All students in the school district, including the middle school, had access to all materials needed for

success. If students and their families were unable to obtain materials, the schools in the district provided them. Therefore, every student had access to materials.

Hypothesis

Based on the accepted definition of mobility, students who experienced high mobility demonstrated less success in reading as measured by the Measurement of Academic Progress assessment compared to the state average.

Null Hypothesis

Based on the accepted definition of mobility, students who experienced high mobility did not demonstrate less success in reading as measured by the Measurement of Academic Progress assessment compared to the state average.

Significance of the Project

Students' reading scores in Washington State had dropped. Districts and schools created interventions that enhanced the curriculum in order to fill the education gaps students experienced. A positive relationship between high mobility and not passing the reading MAPs assessment would influence future interventions and enhancements within the district.

Procedure

The researcher compiled records of student mobility at the middle school through OSPI, the PowerSchool database and the attendance clerk at the school. The PowerSchool database compiled and tabulated attendance records for each student in the school. The program was used to keep daily and yearly attendance records. The researcher compiled students' scores for the Measure of Academic Progress (MAP) through the StudentTrac program and the school assessment coordinator for the fall and spring reading scores. This data was drawn from 2010-2011 sixth, seventh, and eighth grade students.

Definition of Terms

Get Ahead Club. The Get Ahead Club was an afterschool tutor program for sixth through eighth grade students at the middle school. The program was scheduled Tuesday, Wednesday and Thursday for one hour, for any class work or homework assistance.

Guided Language Acquisition Design. Guided Language Acquisition Design was a model of professional development in the area of language acquisition and literacy.

mobility. Mobility was described as students' movement from one school to another for reasons other than being promoted to the next school level.

PowerSchool. PowerSchool was the student information database that the school district used to track data relevant to students in the schools.

Professional Learning Communities. A Professional Learning Community was an ongoing process used to establish a schoolwide culture that develops teacher leadership explicitly focused on building and sustaining school improvement efforts.

predictable movement. Predictable movement was described as students' movement between grade levels and schools based on promotion.

Response to Intervention. Response to Intervention was a method of academic intervention used in the United States to provide early, systematic assistance to children who were having difficulty learning.

StudentTrac. StudentTrac was a custom database system built into PowerSchool to record, track, and visualize student achievement data. StudentTrac contained assessment, special program, and intervention data for all students.

Zone of Proximal Development. Zone of Proximal Development was described as the difference between what a learner can do without help and what he or she can do with help.

Acronyms

ELL. English Language Learner

ESEA. Elementary and Secondary Education Act of 1965

GAO. Government Accountability Office

GLAD. Guided Language Acquisition Design

GPA. Grade Point Average

MAP. Measurement of Academic Progress

MSP. Measurement of Student Progress

NCLBA. No Child Left Behind Act of 2001

OSPI. Office of Superintendent of Public Instruction

PLC. Professional Learning Community

RTI. Response to Intervention

WASL. Washington Assessment of Student Learning

ZPD. Zone of Proximal Development

CHAPTER 2

Review of Selected Literature

Introduction

State and federal expectations for students to pass state standardized assessments had increased every year. In 2011, many schools and districts struggled to reach the federal expectation of No Child Left Behind Act of 2001 (NCLBA), which reauthorized the Elementary and Secondary Education Act of 1965 (ESEA), that established a deadline of 2014 for all students to reach proficiency in reading, math, and science.

Student mobility was a condition that detracted from students' learning. Any type of change or imbalance in students' lives could have been a disruption. Once students struggled and got behind in their learning, the problem continued year after year unless the student received some kind of intervention. Schools found themselves scrambling to find interventions to meet the students' needs and fill the gap in the students' learning. More studies were needed to find the correlation, if any, between high student mobility and student success on state assessments.

Requirements for a Student to Learn

As children grew through stages from birth to adolescence, basic needs were required in order for cognitive development to take place.

According to Piaget (2011), “Children developed through four stages. The first stage was birth to two years, called sensorimotor, in which children experienced the world through movement and senses. Children, at this stage, were unable to perceive the world from others’ viewpoint” (p.1). Babies at this stage were completely dependent on the parent for their needs.

Piaget (2011) then went on to state that “the preoperational stage was the next phase from age two to seven when children experienced playing and pretending and acquired motor skills. Children at this stage could not conserve or use logical thinking and were egocentric” (p.1). The preoperational stage was an important phase for the school system as this was the time the child typically entered school during this phase. The child learned the fundamentals of the school; colors, numbers, counting, reading, writing, adding, subtracting, sharing, playing and socializing. Piaget stated (2011):

The third phase, called concrete operational stage, lasted from age 7 to 11. At this stage children could conserve and think logically with practical aids and were no longer egocentric. However, children in this stage had difficulty understanding abstract or hypothetical concepts. (p.2)

This timeframe for students allowed for continued learning at the elementary level into the middle school. This was when students moved from the fundamentals into new concepts and ideas and learned to make connections from their learning to life experiences.

“From age 11 to 16 and onwards children grew through the formal operational stage. It was during this stage that children developed abstract thought and could think logically in their mind,” (Piaget, 2011, p.1).

Students attended middle and high school during the formal operational stage. The learning required continued understanding of new concepts, ideas and connections. In addition, students were required to practice and adapt to multiple models of thinking and manipulations of ideas and concepts.

Piaget’s stage theory described the cognitive development of children and involved changes in cognitive process and abilities. Schema included both a category of knowledge and the process of obtaining that knowledge. The ability to interpret and understand the world, according to Piaget, was used to modify, add to, or change previously existing schema.

In addition to Piaget’s understanding of child development, Maslow (Green, 2000) described:

The child’s need for safety was his preference for some kind of undisrupted routine or rhythm. He seems to want a predictable,

orderly world. For instance, injustice, unfairness, or inconsistency in the parents seems to make a child feel anxious and unsafe ...

Young children seem to thrive better under a system which has at least a skeletal outline of rigidity, in which there is a schedule of a kind, some sort of routine, something that can be counted upon, not only for the present but also far into the future. (p. 377)

Piaget and Maslow both understood that children grew in stages and required stability and safety in order to develop cognitively and appropriately. These were the descriptors that Vygotsky (McLeod, 2007) would have agreed that children needed to be in the zone of actual development, the place where instruction and learning took place. “A child’s new capacities could only be developed in the ZPD through collaboration in actual, concrete, situated activities with an adult or more capable peer” (p.1). In order for students to have learned beyond their own capabilities they needed environments that were consistent in order for the student to perform as much as they could independently. When the students needed help, the teacher would provide various levels of assistance. The teacher needed the consistency of the student throughout the year in order to fully understand the student’s abilities. According to Rumberger (1998), “existing research finds that students can suffer

psychologically, socially, and academically from mobility. Mobile students face the psychological challenge of coping with a new school environment. Mobile students also face the social adjustment to new peers and social expectations” (p. 2).

Mobility Detracts From Student Learning

As educators navigated the current era of high stakes accountability, the need for student achievement and factors that affected it became critical to examine. One factor that permeated American schools today was mobility, an increasingly pertinent characteristic of today’s student. School attendance was an area that had been studied since before World War II. Despite the research that had been examined and reviewed, little had been done to improve student attendance until students’ success became a national debate.

Student mobility was described as the phenomenon of students changing schools for reasons other than grade promotion during the school year. Student mobility was the practice of students changing schools other than when they were promoted from one school level to the other, such as when students were promoted from elementary school to middle school or middle school to high school. Mobile students changed schools in between school years, such as during the summer, or during the school year and were described as late entries or transfer events.

Mobile students changed schools within the same district or outside of the district and outside of the state or country. According to Washington law, children that were absent from school for 19 or more consecutive days were un-enrolled from school. These students were enrolled again upon their return. This was described as an enrollment break. Enrollment break was an action the researcher had personally experienced several times as students' families moved to southern states or Mexico during the winter months when their parents needed work. Some students enrolled in schools while gone or helped their families work while gone.

Some of the discovered causes of student mobility were; family instability, divorce, families lost their jobs, seasonal work, foreclosures on homes, inability of some families to pay the rent, and parents' desire to send their children to a better-performing or safer school. (Government Accountability Office, 2010, p. 20)

Beesley (2010) stated that:

Because student mobility can disrupt instruction and has been linked to negative consequences for students, both state and local administrators indicated a need to understand the extent and distribution of student mobility. This need is particularly pressing in light of the No Child Left Behind Act requirements on student proficiency rates and schools' adequate yearly progress. (p. 3)

A national study that tracked high school age students found that changing high schools was associated with lower performance on math and reading tests. Another study using the same national, longitudinal dataset found that students who changed schools two or more times from 8th to 12th grade were twice as likely to drop out of high school, or not obtain a General Equivalency Diploma, compared to students who did not change schools. Some studies found that the effect of mobility on achievement varied depending on other factors, such as the student's race/ethnicity, special needs, grade level, frequency of school change, and characteristics of the school change—whether it was between school districts or within a district, or whether it was to an urban or suburban/rural district (GAO, 1994).

Regardless of the reasons for the student's mobility, researchers understood a conclusion of the study was that a negative effect on academic achievement was caused by the impact of mobility. Rumberger (1998) stated "high rates of mobility correlated positively with poor academic performance, especially for Black and Hispanic students. Specifically, mobility translated to an increase in absenteeism for females and a decrease in GPA (grade point average) for Black females" (p. 20).

Research supported that student mobility affected academic skills. In addition to the "potentially deep and pervasive consequences for

individual students and the schools they attend, mobility can harm student's nutrition and health, increase grade retention, and disrupt the learning environment in the classroom" (Smith, 2008, p. 59).

Smith (2008) also commented:

For many schools—especially those serving high-poverty communities—the discontinuity caused by student mobility is a constant phenomenon. The most successful schools acknowledge the problem and implement school-wide reading systems to provide instructional support for all students, including students who move into the school midyear. (p. 60)

Interventions to Narrow the Gap

Many schools realized they needed a plan to help students of mobility since these children were struggling to successfully pass state assessments. No longer were schools going to be allowed to ignore the effects of this detrimental phenomenon. The NCLBA had enacted a deadline of 2014 for all students to successfully demonstrate success on all sections of the state assessments.

Smith (2008) discussed how Bethel School District from Eugene, Oregon, acknowledged the issue, "knowing that the causes of student mobility were largely beyond their control, district staff members

implemented strategies to reduce the harmful effects of mobility on students' reading achievement” (p. 60).

According to the article Student Mobility, the author shared that many states developed programs in an attempt to lower student mobility rates and mitigate the effects of mobility on students' education. Examples of these programs and strategies included: providing outreach to educate parents about minimizing the negative effects of mobility; creating buddy systems by partnering new students with current students; implementing district-wide and state-wide standardized curricula; developing efficient student record-tracking systems between schools and districts, and providing professional development to assist teachers in meeting the needs of highly mobile students (Student Mobility, 2004).

The GAO (2010) reported;

A number of teachers and principals also told us that mobile students' records are often not transferred to the new school in a timely way or at all, and, as a result, this can make it difficult for school officials to determine class placement, credit transfer, and the need for special services, such as services related to special education and language proficiency. Several teachers said that when students arrive without records, the school must observe and document whether students need special education services—a

process that is very comprehensive and can take several weeks or months. In an effort to help schools make more informed decisions about class placement and identification of students with special needs, Texas has developed a system to electronically transfer student records between schools in the state. This system allows schools to share information on what classes students took at the previous school, their grades and standardized test scores, reasons for withdrawal, annual absences, immunization records, and special circumstances, such as English proficiency, migrant status, homeless status, participation in gifted programs or special education, whether the student has an Individualized Education Program, and eligibility for National School Lunch Program. (p. 18)

Teachers and students would have benefitted from a program that transferred important documents and data. This researcher had many students at the beginning of the school year and mid-year without any data or information. The extra time and work required to assess a student's abilities and need was disappointing. Without any documentation for the administration and teachers to use, the safest plan had been to place students in mainstream classes and test them. While some tests gave immediate feedback, they were not always accurate given the students were already stressed with their new environment.

In the article written by Smith (2008), strategies for reaching out to all families, including those who were new to the school or district, included these suggestions:

Organize a family resource center in the school; include educational materials in multiple languages; identify parent liaisons (including some who speak families' home languages) who can effectively explain the school's reading program to parents; identify a staff member who can check in with each new student (and family) frequently during the student's first weeks in the school. This person can help establish a bond among the student, family, and school and may also be able to recommend attendance and behavior programs when appropriate. Establish an attendance incentive program. Families who move a great deal may not enroll their children in their new school right away and may not see school attendance as a high priority. Schedule a parent conference within a few weeks of the student's enrollment. If needed, have a translator available who can describe the student's progress and instructional plan. (p. 62)

These strategies were excellent ideas for interventions. The researcher's school district used several of these strategies but would have benefitted with the use of all of them. The district the researcher

worked for diligently used home liaisons for students with established concerns (not for preventative issues), attendance clerks affiliated with the juvenile courts, and translators for Spanish only. In addition, the district used several programs and interventions to help students meet standards.

Guided Language Acquisition Design (GLAD) was a model of professional development in the area of language acquisition and literacy. The strategies and model promoted English language acquisition, academic achievement, and cross-cultural skills. GLAD was developed and field tested for nine years in the Fountain Valley School District and was based on years of experience with integrated approaches for teaching language. Tied to standards, the model trained teachers to provide access to core curriculum using local district guidelines and curriculum (Project GLAD March 18, 2011).

This model provided teachers a common base of understanding and scaffolding, direct experiences, films, visuals, and teacher read-alouds. Students were taught how to organize thoughts and texts utilizing multiple intelligences: graphic organizers, summaries, visuals, or contextual and semantic clues.

Not all the teachers in the district used the model, however those teachers that did found success with their students. Teachers used posters rich with vocabulary and pictures, graphic organizers, big books,

chants, and many more valuable strategies that aided students who were behind or missing content.

Another intervention model used by teachers in the district was called Response to Intervention (RTI):

RTI was a method of academic intervention used in the United States, designed to provide early, effective assistance to children who were having difficulty learning. RTI sought to prevent academic failure through early intervention, frequent progress measurement, and increasingly intensive research-based instructional interventions for children who continued to have difficulty. Students who did not show a response to effective interventions were likely (or, more likely than students who responded) had biologically-based learning disabilities and to be in need of special education. Multi-level prevention system includes three levels of intensity or prevention. The primary prevention level includes high quality core instruction. The secondary level includes evidence-based intervention(s) of moderate intensity. The tertiary prevention level includes individualized intervention(s) of increased intensity for students who show minimal response to secondary prevention. At all levels, attention should be on fidelity of implementation, with

consideration for cultural and linguistic responsiveness and recognition of student strengths (Response to Intervention, n.d.).

This intervention model in combination, with Professional Learning Communities, helped teachers and administrators in the district create enhancement classes that targeted students' specific needs with state standards. Students were given opportunities to fix class assignments and retake summative and common assessments. Students were also given extra time to work on assignments including during their lunch time and after school. Sometimes students were expected, not just invited, to make up work or time. These were just a few of the strategies teachers used with RTI.

In addition to these interventions the district offered after school homework clubs, Get Ahead Club, at all grade levels. Students used Get Ahead Club as parents, teachers and the students deemed necessary.

Summary

State and federal expectations for students to pass state standardized assessments had increased every year with the belief that every student in America would have success by 2014. The reality of this outcome had been criticized due to gaps in education. Students' movement, or mobility, had been overlooked as a cause for students'

inability to successfully pass state standardized assessments. In summation, understanding the requirements students needed to learn, as explained by Piaget, Maslow and Vygotsky, demonstrated the deficits students suffered from mobility during their formative years. States and districts defined mobility from school to school, within and outside of districts and from state to state and out of the country. Schools and districts determined what constituted the label of mobility. Reasons for mobility were identified. States and districts found themselves in need of interventions to stop the gap in student's education. Interventions that met student's needs academically, culturally, and linguistically were reviewed.

CHAPTER 3

Methodology and Treatment of Data

Introduction

The author conducted an experimental research that compared the effects of high student mobility on student success, in reading, on the MAPs state assessment. Quantitative sampling was used for this research for evaluating the students' scores.

Methodology

A quantitative method of research was used with an experimental test (Gay, Mills, & Airasian, 2006). An independent t-test was performed using students' spring and fall reading MAPs scores for the 2010-2011 school year. First, students' scores from the MAPs assessment, from spring and fall, that were in sixth, seventh, and eighth grade during 2010-2011, were gathered. Next, identification numbers for students that registered after the regular promotion scheduled times were gathered. In addition, students that withdrew prior to testing were removed from the pool of student identifications. Then, the researcher separated students with late or irregular registration dates from the students with predictable movement. Finally, the data was recorded into tables and a t-test was conducted with .05, .01, and .001 set as levels of significance.

Participants

The participants in the study consisted of all male and female students who took the spring and fall reading MAPs during sixth, seventh, and eighth grade in the years 2010 to 2011. The total number of students tested was 284. Of those students tested 133 were students of mobility and 151 were students that experienced predictable movement through the grades.

Instruments

The researcher required a number of instruments to conduct the research. The first instrument was the MAPs results provided in the form of an Excel spreadsheet provided by the school's assessment coordinator. Another instrument that was used was the late registration and withdrawal records provided by the school's attendance clerk. The researcher also used a computer to record data using Microsoft Excel, and StatPak software to conduct multiple t-tests.

Design

The researcher designed the study around existing MAPs data and late registration and withdrawal records. The data collected was used to compare MAPs scores between students of mobility and students that experienced predictable movement through the grades.

Procedure

The researcher began the study by collecting MAPs data for the sixth, seventh, and eighth grade students for the 2010-2011 school year. Then, data for students that registered late or withdrew during the school year was collected. Students that withdrew were removed from the MAPs list, as they had no scores. Next, the researcher separated the scores for students of mobility from the rest of the student body scores. Given the size of the list for the regular student body, a random sample size of 50 for each grade level was applied. Students' scores were then separated by grade level to compare sixth grade spring scores of students of mobility to the scores of students that experienced predictable movement. This process was repeated for fall and spring scores at all three grade levels.

Treatment of the Data

The researcher used StatPak software to compare the mean of one set of data to another to test the significance of students of mobility to students with predictable school movement. The tests were for the purpose of comparing the effects of student mobility on student success on MAPs assessments. The tests were presented in tables that described the means of distribution and the levels of significance.

Summary

The researcher used sixth, seventh and eighth grade spring and fall MAPs data to compare students of mobility with the regular population of students. This data was used to make a comparison of students' ability to successfully pass the state assessment.

CHAPTER 4

Analysis of the Data

Introduction

The researcher was aware that fourth through seventh grade MSP reading scores across the state of Washington had dropped in 2009. As a teacher at the largest middle school in this school district and the state, the researcher observed many occasions when students frequently missed school on a weekly basis. Many students moved to the southern states or Mexico during the winter months and then moved back to the district. These students missed the teaching of the lessons and chunks of curriculum. The district created a plan for the improvement of reading scores with interventions in all classes. Due to the district's focus on reading scores, the researcher analyzed the sixth, seventh and eighth grade students' reading scores for MAP assessment 2009-2010 school year (OSPI, 2010).

Description of the Environment

The school used in the research was the largest middle school located in the southwest part of Washington State. In October of 2010, the school was attended by 1,483 students. The demographics for the school were not typical for the state. There were 0.4% American Indian/Alaskan Native, 2.7% Asian, 0.3% Pacific Islander, 3.0% Asian/Pacific Islander,

1.8% Black, 44.8% Hispanic, 48.1% White, and 2.0% were two or more races. Free and reduced lunches were received by 47.7% of the students (OSPI, 2010). The research was based on the sixth, seventh, and eighth grade students for the 2010- 2011 school year. The data used for the research were compiled from students' entrance and exit school records and assessment reading scores from the Measurement of Academic Progress. The data was analyzed using a t-test for an experimental research method.

Hypothesis

Based on the accepted definition of mobility, students who experienced high mobility demonstrated less success in reading as measured by the Measurement of Academic Progress assessment compared to the state average.

Null Hypothesis

Based on the accepted definition of mobility, students who experienced high mobility did not demonstrate less success in reading as measured by the Measurement of Academic Progress assessment compared to the state average.

Results of the Study

In Table 1 the null hypothesis was rejected. The sixth grade data showed the hypothesis was supported at 95, 99, and 99.9 percent error of

margin. The MAP scores' expectations for incoming sixth graders were 213 and exiting sixth graders were to increase three points to 216.

Table 1

t-test of significance of the 6th grade students for MAPs assessment 2009-2010

Students of mobility	Students with predictable movement
Fall (19 students)-mean 197.74	Fall (50 students)-mean 202.94
Spring (51 students)-mean 213.75	Spring (50 students)-mean 214.74
t-value 3.98	t-value 4.47
df 68	df 98

margin of error	0.05	0.01	0.001	margin of error	0.05	0.01	0.001
t-value	3.98	3.98	3.98	t-value	4.47	4.47	4.47
df	2	2.66	3.46	df	1.96	2.58	3.291
	0.05	0.01	0.001		0.05	0.01	0.001
null hypothesis	R	R	R	null hypothesis	R	R	R
hypothesis	S	S	S	hypothesis	S	S	S

In Table 2, the null hypothesis was accepted for the students of mobility in the 95 percentile, but rejected at the margin of error for 0.01 and 0.001, and across all levels for the students who experienced

predictable movement for seventh grade. The hypothesis was supported across all levels for students with predictable movement and at 95 percent for students of mobility. At seventh grade the expected MAP scores for fall were 217 and spring 219.

Table 2

t-test of significance of the 7th grade students for MAPs assessment 2009-2010

Students of mobility	Students with predictable movement
Fall (8 students)-mean 203.75	Fall (50 students)-mean 208.08
Spring (42 students)-mean 216.07	Spring (50 students)-mean 219.06
t-value 2.20	t-value 3.86
df 48	df 97

margin of error	0.05	0.01	0.001	margin of error	0.05	0.01	0.001
t-value	2.2	2.2	2.2	t-value	3.86	3.86	3.86
df	2.021	2.704	3.551	df	1.98	2.617	3.373
	0.05	0.01	0.001		0.05	0.01	0.001
null hypothesis	R	A	A	null hypothesis	R	R	R
hypothesis	S	N.S	N.S	hypothesis	S	S	S

Table 3 contained eighth grade data. The null hypothesis was accepted at every level for students of mobility and students who experienced predictable movement. The hypothesis was not supported. The fall Map scores were expected at 220 and spring at 223.

Table 3

t-test of significance of the 8th grade students for MAPs assessment 2009-2010

Students of mobility	Students with predictable movement
Fall (8 students)-mean 203.75	Fall (50 students)-mean 208.08
Spring (42 students)-mean 216.07	Spring (50 students)-mean 219.06
t-value 2.20	t-value 3.86
df 48	df 97

margin of error	0.05	0.01	0.001	margin of error	0.05	0.01	0.001
t-value	0.84	0.84	0.84	t-value	1.91	1.91	1.91
df	2.021	2.704	3.551	df	1.98	2.617	3.373
	0.05	0.01	0.001		0.05	0.01	0.001
null hypothesis	A	A	A	null hypothesis	A	A	A
hypothesis	N.S	N.S	N.S	hypothesis	N.S	N.S	N.S

Findings

Given the analysis of the data and the testing of the hypothesis and null hypothesis, a limited number of findings become apparent. The researcher found the null hypothesis was accepted at eighth grade and a portion of seventh grade. And the researcher found significance at the sixth and a portion of the seventh grade that supported the hypothesis. The hypothesis stated that students who experienced high mobility demonstrated less success in reading as measured by the MAP reading assessment. The researcher recognized, based on the t-tests, that sixth grade students were affected by mobility. As the students moved into the seventh grade, there was less of an effect, and there was no effect by the eighth grade.

The researcher also found, through the t-tests, that the means of the students of mobility against the means of the students that experienced predictable movement were at a greater discrepancy at sixth grade compared to eighth. The difference of the means for sixth grade was 5.2 in the fall and 0.99 by the spring. By seventh grade the difference in the means from fall to spring was separated by 1.34. The eighth grade means showed that in the fall the students that experienced predictable movement had 0.34 smaller means than students of mobility. By the

spring the mean rose for the students that experienced predictable movement.

Discussion

The null hypothesis was accepted at the eighth grade for students of mobility and students with predictable movement. The null hypothesis was also accepted at 99 and 99.9 percent at the seventh grade for students of mobility. Statistical significance was found in the t-test for independence where sixth grade and part of seventh grade supported the hypothesis. Piaget and Maslow both understood that children grew in stages and required stability and safety in order to develop cognitively and appropriately. Maslow also stated that young children thrived better under systems of rigidity. This was demonstrated by the outcome of the t-tests for the 11 and 12 year old students. As the student grew older, a conclusion was that students became less affected by mobility.

Summary

The researcher wanted to study the effects of high student mobility on student success in reading using the state MAP assessment. The researcher gathered data for sixth, seventh, and eighth grade students for the 2009-2010 school year. Then the data was organized and tested using StatPak. Of the 284 students, 133 were students of mobility and 151 were students of predictable movement. The null hypothesis was accepted for

eighth grade students of mobility and students with predictable movement and seventh grade students of mobility and the 99 and 99.9 percent. Statistical significance was found for sixth grade students of mobility and students with predictable movement. Seventh grade students of predictable movement also supported the statistical significance. The hypothesis was supported by the sixth grade and a portion of the seventh grade data.

CHAPTER 5

Summary, Conclusions and Recommendations

Introduction

In September 2010, the state released data from the 2009-2010 Measurement of Student Progress assessment. Students' reading scores dropped in fourth through seventh grade. The district created a plan for the improvement of reading scores with interventions in all classes. Due to the district's focus on reading scores, the researcher analyzed the sixth, seventh and eighth grade students' reading scores for Measurement of Academic Progress (MAP) assessment 2009-2010 school year (OSPI, 2010).

The researcher wanted to study the effects of high student mobility on student success in reading. State standardized assessments had increased in difficulty with serious consequences for students who did not pass. Students who changed schools frequently or missed large blocks of time lost valuable learning in the classroom.

Summary

Students' reading scores in Washington State had dropped. Districts and schools created interventions that enhanced the curriculum in order to fill the education gaps students experienced. A positive relationship between high mobility and not passing the reading MAPs

assessment would influence future interventions and enhancements within the district. The data used for the research were compiled from students' entrance and exit school records and assessment reading scores from the Measurement of Academic Progress. The data was analyzed using a t-test for an experimental research method.

The null hypothesis was accepted at the eighth grade for students of mobility and students with predictable movement. The null hypothesis was also accepted at 99 and 99.9 percent at the seventh grade for students of mobility. Statistical significance was found in the t-test for independence where sixth grade and part of seventh grade supported the hypothesis.

Conclusions

Piaget and Maslow both understood that children grew in stages and required stability and safety in order to develop cognitively and appropriately. Maslow also stated that young children thrived better under systems of rigidity. This thought process supported the evidence from the experimental tests. The data from sixth grade students of mobility supported the hypothesis that mobility affected their ability to successfully pass reading MAPs assessments. As the students aged up to eighth grade the null hypothesis was accepted. This demonstrated that as the children grew older they were not impacted by the mobility.

Recommendations

Research could be conducted in the district with the other two middle schools to find if the results of the t-tests would be comparable. The researcher believes this experimental test should also be conducted again in the district with elementary through high school students to determine whether the elementary grades are more effected by mobility than the older students. Lastly, studies of other districts with similar demographics could be measured to discover if these findings are localized or if there is a trend in the outcomes.

The effect of mobility on students' success has been conducted in a number of researches, but primarily at high school levels and from other countries. More studies on this increasingly problematic issue must be researched as graduation requirements become more and more challenging and mobility for multiple purposes increases.

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