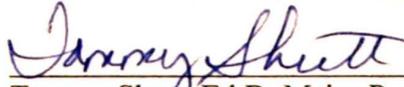


THE IMPACT OF GRADE SPAN CONFIGURATION ON STUDENT
ACHIEVEMENT IN SPRINGFIELD CITY SCHOOLS

STACIE SCOTT NICHOLSON

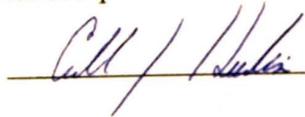
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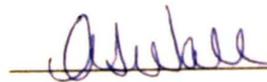
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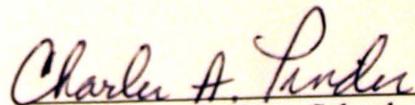
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The Impact of Grade Span Configuration on Student
Achievement in Springfield City Schools

A Field Study Report
Presented for the
Education Specialist Degree
Austin Peay State University

Stacie Scott Nicholson
August 2007

ABSTRACT

This study was intended to provide professional educators with information regarding the effects of school transitions due to grade configuration on student achievement. A literature review was completed and to date, little empirical research exists examining either grade span configuration or school transition. However, researchers agree that transitions from school to school regardless of the reason are detrimental to the learning process and grade configuration should largely depend on the developmental needs of students. A total of 71 student achievement scores were considered for this study and no significant relationships were found. Directions for future research are discussed.

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In the complicated realm of public education, it is difficult to ascertain what constitutes the best way to educate children. Effective methodology and design depend largely on the student population being served and the dynamics of the community where a school is housed. A topic that has re-emerged as part of the ongoing discussion of best practices is grade span configuration. Specifically, educators and researchers are investigating what educational structures are most beneficial to students while also looking at methods that can be employed to lessen the impact of change to make educational transitions easier. Unfortunately, no clear answers have been determined to date.

When considering grade span configuration, it becomes clear that diversity rules. According to Paglin and Fager (1997), a study in 1993 found at that point in time, seventh and eighth grade students could be observed attending school in any one of approximately 30 grade span configurations nationwide. No single configuration seems to rank supreme as the application of grade span configuration appears to be largely contextual.

It is nearly impossible to consider grade span configuration without reflecting on academic achievement as it relates to the impact of students transitioning between academic settings. Depending on the actual school being observed, student mobility occurs for a variety of reasons. Research shows the effects of moving to be the same in that student success typically wanes regardless of why the move has occurred. Bruno and Isken (1996) noted "from a school administrative and policy perspective, student

transiency at a school site level severely compromises instructional program continuity and therefore threatens school reform efforts that are intended to enhance student academic attainment” (p. 239). This statement supports the idea that continuity of educational experiences is a necessity in the lives of student today.

Statement of the Problem

Within the Springfield, Tennessee city limits, students are zoned to attend one of two kindergarten programs. The first program is housed at Bransford which is a pre-kindergarten and kindergarten building, and the second is housed at Krisle which is a kindergarten through fifth grade building. The students zoned for Bransford will go to either Cheatham Park or Westside Elementary for grades one through five. The Krisle students will remain in the same building until fifth grade. All students then feed into Springfield Middle School (SMS) as they enter the sixth grade. The question is whether or not stability of academic environment impacts subsequent academic achievement.

Purpose of the Study

The purpose of this study was to determine if students attending SMS who have experienced two school transitions by the sixth grade have been affected differently in regard to academic achievement than those who have only transitioned once. The study attempted to determine the effect of transition on academic achievement as measured by Terra Nova scores and also included data analyses pertaining to socio-economic status, gender, and ethnicity. Only those students whose transitions were related to the county grade configurations of feeder schools for SMS were considered for the study.

Significance of the Study

The areas of grade configuration and inter-school transition are ones that need further quantitative research to solidify previous anecdotal conclusions (Coladarci & Hancock, 2002; Connolly, Yakimowski-Srebnick, & Russo, 2002; Kariuki & Nash, 1999; Mao, Whitsett, & Mellor, 1998; Renschler, 2002). Therefore, this study had the potential to provide such data. Further, this study will allow Robertson County officials to examine the most effective grade configuration for K-5 students in terms of academic achievement.

Research Questions

The study investigated the following questions:

1. Are students affected academically by moving among schools multiple times due to county grade configurations?
2. Are students affected academically by moving among schools multiple times due to county grade configurations based on socioeconomic status?
3. Are students affected academically by moving among schools multiple times due to county grade configurations based on gender?
4. Are students affected academically by moving among schools multiple times due to county grade configurations based on ethnicity?

Null Hypotheses

This study investigated the following hypotheses:

1. There is no statistically significant difference in academic achievement between students who have experienced one transition among schools and those who have transitioned twice.

2. There is no statistically significant difference in academic achievement between students who have experienced one transition among schools and those who have transitioned twice based on socioeconomic status.

3. There is no statistically significant difference in academic achievement between students who have experienced one transition among schools and those who have transitioned twice based on gender.

4. There is no statistically significant difference in academic achievement between students who have experienced one transition among schools and those who have transitioned twice based on ethnicity.

Limitations

This study was subject to certain limitations. The students being examined as members of the two major groups based on where they went to school are made up of different demographics. Specifically, one consists of a rural population whereas the other is more urban. For example, the students who are classified as members of the low socioeconomic status in both groups live in very different situations. The students who live in the rural area are Caucasian whereas the students from the urban area are largely of minority races. Further, poverty in the rural area is a very different experience than poverty in the urban area based on housing arrangements.

Definition of Terms

Terra Nova: The Tennessee Comprehensive Assessment Program (TCAP) utilizes this test package to assess annual achievement among the state's elementary and middle school populations.

Academic achievement: This concept was measured using results from the Terra Nova instrument. Specifically, Normal Curve Equivalent (NCE) scores were utilized.

Grade configuration: This term refers to the arrangement of grade levels within a school building.

School transition: This term refers to the movement of a student among schools either due to grade configuration or moving within a geographic area.

Socio-economic status: This concept was measured by utilizing free or reduced lunch statuses of students of students that are maintained in the school database.

Chapter II

Review of the Literature

For the purpose of this study, a literature review was conducted to examine existing data on the relationship between the stability of academic environment and subsequent academic achievement. Although no studies were found on this specific topic, this chapter will provide an overview of literature addressing similar topics including student mobility and grade span configuration.

Student Mobility

Current research on the topic of student mobility is largely anecdotal in that it is primarily of commentary nature or documentary of previous research. There is some empirical work that can be found, but researchers are clear in stating that a great deal more is needed (Kariuki & Nash, 1999; Mao et al., 1998). Regardless of the design of study a researcher has followed, they all tend to agree that student mobility is directly linked to a decrease in academic performance.

In an article documenting a large-scale longitudinal study carried out by the Texas Education Agency, Mao et al. (1998) assert that families across the country are mobile and move for a variety of reasons including parental job termination, marital separation, or even death of a parent. These researchers examined data from 6,000 schools in Texas that were previously studied to take a closer look at the “overall magnitude of student mobility” (p. 3). As a result of their work, they found children from families that are considered to be economically disadvantaged tend to move more often while simultaneously becoming more likely to be low achievers and required to repeat a grade.

This finding alone implies the detrimental effect that moving from school to school can have on students.

Mao et al. (1998) report that “on average, the academic performance of mobile students is worse than that of stable students” (p.13). Specifically, they found that the standardized testing performance of mobile students in the areas of reading and math is much lower than that of their more stable counterparts. Further, these mobile students show smaller academic gains and more considerable losses than those students who do not move. The authors do note that if a student moves early in the school year, there is a greater chance that performance for the remainder of the year will not be as drastically affected.

Mao et al. (1998) conclude their article by recommending actions that can be taken to address the negative effects of student mobility. These recommendations include encouraging parents to coordinate moves with natural breaks in the school year and the suggestion that educators implement programs within their schools to address the needs of mobile students to allow them to transition more smoothly into a new environment.

Paik and Phillips (2002) have examined similar topics related to student mobility but with more of a focus on rural communities. The authors address the issue of student mobility as it directly relates to the reauthorization of the McKinney-Vento Homeless Assistance Act’s Education for Homeless Children and Youth which holds school systems accountable for recognizing mobility as a barrier to education and addressing its implications.

Paik and Phillips (2002) also recognize that student mobility occurs for a variety of reasons under an equally vast variety of circumstances. They also agree that those

families from a lower economic base seem to move more often and assert that they often move from the rural communities toward urban ones for more gainful employment opportunities. Regardless of the reason for moving, the authors state that “the children of poverty-stricken families are at greatest risk on three accounts – poverty increases the risk of academic failure; mobility increases the risk of academic failure; and poverty increases the risk of frequent mobility” (p. 6).

According to Paik and Phillips (2002), research clearly indicates the negative effects of student mobility. Forty-one percent of highly mobile students are classified as low achievers in contrast to only twenty-six percent of stable students. Further, those students that change schools more than three times before eighth grade are a least four times more likely to drop out of school.

A particular way that student mobility affects rural communities is in the area of funding. In school districts that are small and struggling to secure resources, students that leave take funding with them (Paik & Phillips, 2002). This type of funding dilemma presents difficulties in making staffing and calendar decisions for the smaller systems.

Paik and Phillips (2002) close their report with suggestions and strategies that can be utilized when addressing student mobility. They suggest offering professional development for the staff of schools that experience high rates of student movement to help them better understand the needs of this unique population. They also recommend identifying families in need of services that may help them address their difficulties rather than having to move to avoid them. For the students that move into the building, these authors suggest offering a newcomer program that welcomes them and provides them the support they need to get acquainted with a new building and possibly a new way

of doing things. It is imperative that schools maintain effective and efficient record transfers and implement supportive attendance and disciplinary policies to address truancy. Primarily, Paik and Phillips urge schools and systems to embrace this issue rather than avoiding it and treating it as an issue that is beyond our control.

Rumberger (2003) follows the thought of Paik and Phillips (2002) in that he addresses the impact of student mobility on not only the student that moves, but also on the schools that the student leaves or moves to. Accountability is a topic that schools have come to know very well and this mobile student population poses direct threats to this concept. Rumberger (2003) asserts that educators cannot assume that mobility in a student population is always attributed to families moving. Rather, students may move to new schools for smaller class sizes, more or less strict discipline policies, or the general academic environment. Whatever they reason for the student moving, Rumberger asserts that schools and school systems must embrace this issue and accept that it is one on which they can have a positive effect.

Rumberger's (2003) writing is in agreement with many others in that students' academic achievement is impacted negatively by mobility. In addition, he suggests that students are also suffering psychologically and socially from the moves. They must cope with environments filled with new people that may have a different set of expectations for them. It becomes difficult to determine if poor performance is a cause or symptom of the problems many students have related to mobility.

In closing his article, Rumberger (2003) offers ideas for what schools can do to address this issue. Many of his suggestions are closely associated to those previously stated, but first and foremost, it is necessary that schools work to reduce unnecessary

moves. Additionally, transition programs and programs that monitor the successes and challenges of new students for longer periods of time once they have settled in are both helpful.

An article by Kerbow, Azcoitia, and Buell (2003) documents Chicago's "Staying Put" project that is highly referenced as one of the most effective programs in place nationwide that directly addresses the issue of student mobility. Kerbow et al. acknowledge that student mobility is indeed an issue that can become fairly complicated and far reaching, but their focus is on the fact that something must be done about it. In a typical Chicago elementary school, only 50% of its students will still be enrolled in the school after a three-year period. Given this figure, Chicago schools took the issue very seriously and identified implications for policy that lead to the creation of two specific initiatives, one of which is the "Staying Put" project.

Chicago's "Staying Put" project is a "multi-level campaign to increase awareness about the effects of mobility on student achievement" (Kerbow et al., p. 162). Specifically, the project's two main goals are to encourage parents and educators to know their rights granted by law, and to establish a commitment to reduce mobility within the schools. The initiative provides clearly delineated roles for administrators, teachers, counselors, parents, and students and encourages schools to develop their own mini-programs within their buildings. Lesson plans are provided to the teachers, and students are encouraged to create "My Best Year" folders to document their best work for the year. Counselors are provided additional training on how to handle students transferring in and out of buildings in order to provide a more comprehensive idea of the particular issues students face.

Four empirical studies related to student mobility were found for the purpose of this review. The first of those studies is by Bruno and Isken (1996). These authors took on the issue of inter and intraschool site student transiency and offer practical and theoretical implications for instructional continuity. The study examined in great depth four areas including (a) the extent of transiency at a large elementary school in Los Angeles, (b) the disruptive impact of inter and intrastudent transiency on the continuity of instructional programs, (c) the statistical relationship between interschool student transiency rates and average school site academic attainment, and (d) school administrative policies that could be directed toward providing services to students and teachers in buildings heavily impacted by student transiency.

Bruno and Isken (1996) found that the most dramatic effects of student transiency can be observed on the classroom level where direct instruction takes place. Standardized test scores did suffer for those students deemed as mobile when compared with their peers. The authors also determined that it is the schools that take a proactive approach in addressing mobility issues that seem to overcome them. As have previous articles in this review, these authors suggest programs that strive to meet the needs of transferring students to be implemented to aid them in making transitions.

A second empirical study found is by Nelson, Simoni, and Adelman (2001). These authors looked at the relationship between initial school functioning and subsequent student mobility. The subjects were 2,524 early elementary students from low-income families. The first year of the study involved tracking academic, behavioral, and school adjustment data. The students were then tracked for three years to observe mobility patterns. Statistical analyses indicated that those students classified as more

mobile tended to have had poorer initial school behavior ratings during the first year of study. These results are useful in that they suggest if educators are able to identify those students who may be at risk for a highly mobile academic career, services can be identified that may benefit both the family and student to meet the needs that may cause them to otherwise relocate.

The third empirical study found is by Bolinger and Gilman (1997) who examined the differences between stable and mobile eighth grade students attending a three-year middle school in regard to aptitude and achievement. Achievement was measured using the standardized instrument given in the system each year and an aptitude scale was utilized for the purpose of the study. Mobile students were classified as those that had been at the middle school for less than two years. The only significant correlation with mobility was on the language subtest of the standardized test. This caused the researchers to disagree with previous studies in the field by stating that no relationship was detected between mobility and academic achievement. They attribute their findings to having a small sample and assert that future research with a larger sample would lead to more reliable findings.

The fourth empirical study related to student mobility somewhat resembles the study at hand. Kariuki and Nash (1999) considered the relationship between multiple school transfers during the elementary years and student achievement. The study was conducted at a middle school in Tennessee and data was obtained by examining school records. Terra Nova scores were used to determine student achievement. Students were broken into four groups as follows: students who had transferred one time or not at all during elementary school, students who had moved twice, students who had moved three

times, and students who had moved more than three times. The results of the study did show a statistically significant correlation between multiple school transfers and student achievement. There were also significant differences in test scores between students who had transferred one time or less and students who had moved two times, three times, and more than three times. There were no other significant achievement differences found. Kariuki and Nash concluded that students who remain in stable environments display better academic achievement than those students who are mobile. Therefore, decreasing student mobility should be a priority.

Grade Span Configuration

Current literature regarding grade span configuration is much like that of student mobility in that it is largely anecdotal and in need of more empirical work (Colodarci & Hancock, 2002; Connolly, Yakimowski-Srebnick, & Russo, 2002; Renchler, 2002). It is unlike the review of student mobility literature in that there is no core agreement among researchers as to what is the most effective grade span configuration to date. In fact, this lack of agreement is the reason that more empirical work is needed.

Given the contextual nature of grade span configuration nationwide, the body of anecdotal work regarding the topic is vast and full of useful information. School officials can review current literature and extract from it trends and issues regarding a variety of configurations. Renchler (2002) is the author of an article that provides documented configurations that are most popular across the country and commentary as to why they are deemed as such. He states that of the 61,805 schools for students through the eighth grade nationwide, around two-thirds of them are configured to transition students into either middle or junior high schools after the sixth grade. Approximately 4,500 schools

house students from the earliest grades through the eighth grade. Slightly more than 10,000 schools are configured to be traditional middle schools, housing grades fourth, fifth, or sixth through grades seventh or eighth. There are a remaining 5,700 schools that have other, less common configurations. Renchler asserts that many existing configurations are not based on educational efficacy, but rather on issues surrounding finances and other administrative obstacles.

Coladarci and Hancock (2002) are the authors of another anecdotal article that reviews the literature regarding grade span configuration and academic achievement. They note first and foremost in their article that there is not enough empirical research from which to pull information regarding this issue, but from what they were able to find, less fragmented grade spans seem to better serve students on an academic level. Examples of such configurations include kindergarten through eighth grade versus kindergarten through fifth grade transitioning to a sixth through eighth grade building.

Coladarci and Hancock (2002) speak of the importance of continuity of experience in the educational arena. Although a great deal of research on the topic does not exist, they assert that from what research has been conducted, it appears transition effects are largely negative. Researchers have noted declines in student self-esteem, motivation, and academic performance as a result of transitioning within configurations. The absence of moving from school to school due to larger configurations provides the continuity within which students appear to thrive.

“What is a system to do?” Coladarci and Hancock (2002) ask. The authors suggest the first step a system can take is to closely examine the possibility of lessening student transition due to grade fragmented configurations. It does not appear that

separating middle grade levels translates into higher achievement. In fact, the opposite appears to be true. A second step is to address the adverse effects of the transitions by implementing activities that support students while they adjust to new environments.

Another anecdotal article that provides information regarding grade span configuration is by DeJong and Craig (2002). The article provides a historical charting of grade configuration trends through the years and argues that while many systems still view the topic from a financial perspective, configuration for grade spans should be considered from a developmental standpoint. When asked, community members answered that they preferred their children to be in kindergarten through eighth grade configuration due to the continuity of experience. However, demographics show that the most dominant configuration today is pre-kindergarten or kindergarten through fifth grade, sixth through eighth grade, and then ninth through twelfth grade. DeJong and Craig do not claim to have an answer regarding the best grade span configuration but do feel strongly that the developmental needs of the students must be addressed to ensure efficient educational environments.

Another proponent of developmentally appropriate educational environments is Hough (2005). Hough was the originator of the term "elemiddle" which is a concept that embraces the developmental needs of the traditional middle school student in grades sixth through eighth. Hough argues that any configuration is only as good as the curriculum and programming that supports it. Therefore, the simple configuring of a school by grade levels is not going to guarantee academic success. Rather, the best practices for each developmental stage must be implemented. Hough purports that this implementation is the key to success for effective configurations on any level.

A final piece of anecdotal research that must be considered regarding the topic of grade span configuration is a highly referenced report written by Paglin and Fager (1997) by request of the Northwest Regional Educational Laboratory. The purpose of this lengthy report is to increase awareness and understanding of grade span as an issue and provide examples of ways schools have addressed concerns associated with particular grade spans. The authors acknowledge that there are many factors at hand when configuration decisions are made including cost, parent involvement, and curriculum. However, they go on to say that within the entire context that surrounds the decisions, success can be experienced within a variety of configurations.

Paglin and Fager (1997) provide the tips for implementation and information for how to overcome configuration obstacles based on information that was gathered as they assembled the Northwest Sampler. The Northwest Sampler features schools of varied configurations from the Northwest area of the country with a focus on how the particular grade span emerged. There are eight schools representing seven grade span configurations and enrollment varies from 82 to 1,200 students. For each school, information is given as to how the school is structured to meet the needs of its students, what the weaknesses of the configuration are and how are they addressed, what the advantages to the configuration are and how are they maximized, and what have been the observed outcomes and keys to success. Contact information is also provided for each school and communication with them is encouraged. Paglin and Fager conclude that the key to finding success within a configuration is to embrace the context of the grade spans and building on the needs of the students.

Only two empirical studies on grade span configuration were located for the purpose of this review. The first is one by Franklin and Glascock (1998) whose focus is on the relationship between grade configuration and student performance in rural schools. Specifically, the researchers looked at the relationship as it relates to student behavior and academic achievement. Grade-level data were examined for students classified as elementary (grades kindergarten through sixth or seventh), middle (grades sixth or seventh through eighth or ninth), secondary (grades seventh, eighth, or ninth through twelfth), and unit (grades kindergarten through twelfth). Students in the elementary and unit schools outperformed their middle and secondary peers in terms of student behavior and academic achievement.

Franklin and Glascock (1998) conclude that these successful configurations directly address students' developmental, social, and emotional needs. Therefore, they assert that these needs should be addressed above fiscal and physical demands. They also suggest that the unit schools and even kindergarten through eighth grade configurations offer their students the most in the way of social and academic development and should be more heavily considered as an option in many systems.

In the second empirical study found on grade span configuration, Connolly et al. (2002) examined the kindergarten through fifth grade and sixth through eighth grade configuration versus the re-emerging kindergarten through eighth grade configuration. Using a qualitative and quantitative design, the researchers investigated such questions related to the two configurations as what were parents' and principals' perceptions of schooling experiences, what were the differences in Terra Nova scores, and what were the differences in student attendance. The county in which the study was conducted had

experienced both configurations. Results of the study showed that parents and principals had better perceptions of school experiences with a kindergarten through eighth configuration and that test scores were better. Student attendance did not seem to be impacted by the configuration of the school. Connolly et al. state that although the kindergarten through eighth grade configuration seems to be the emerging trend, an accountability system must be in place to ensure that student needs are addressed on the developmental and academic levels.

Conclusions

Chapter II discusses the literature addressing student mobility and grade span configuration. Both topics include research from the anecdotal and empirical realms and within each topic, similar findings were noted.

In regard to student mobility, researchers agree that students' moving from school to school does have a negative impact on their academic performance. In some circumstances, researchers have even eluded to the fact that students suffer emotionally, socially, and developmentally as a result of the moves. It is clearly stated by many that additional empirical research is needed in this area.

It is the area of grade span configuration that gravely needs future, empirical research to allow for clearer conclusions regarding what configuration work best for students. Research to date has shown it is vital that curriculum and programming of any grade span configuration be developmentally sound for the students being served.

Chapter III

Methods and Procedures

Introduction

The purpose of this chapter is to explain the methods and procedures that were used in conducting this study. The chapter includes a brief description of the research design, sample selection, data collection procedures, the data analysis plan, and hypotheses that were tested.

Design of the Study

The purpose of this study was to determine if students attending SMS who have experienced two school transitions by the sixth grade have been affected differently in regard to academic achievement than those who have only transitioned once. The relationship between transitions and academic achievement were examined for significance based on the following variables: (a) schools attended, (b) gender, (c) free or reduced lunch classification, and (d) ethnicity.

Sample Selection

Springfield Middle School is one that receives sixth graders from three separate elementary schools. At the time of study SMS had a total enrollment of 569 students consisting of 177 sixth graders, 202 seventh graders, and 190 eighth graders. Of these students 294 (51%) were Caucasian, 205 (36%), were African American, 67 (12%) were Hispanic, and 3 (1%) were Asian. There were 308 males and 272 females in the student population. Ninety-three percent of the students were English proficient and 377 (66%) were approved to receive free or reduced lunch. The attendance rate at SMS was 93.6%

and a retention rate of only 1.3% has held steady for several years. Further, a transfer rate has remained stable at 9.69%. These figures indicate that the student population at SMS is relatively constant.

The specific participant data utilized for this study was drawn from those eighth grade students who have gone to school in the Springfield city area since kindergarten. Any students who had transferred into the Springfield city area schools between kindergarten and fifth grade were not considered for the study. A total of 71 students' scores were determined to be eligible for investigating the research questions.

Data Collection Procedures

Data was taken from the cumulative files of the eighth grade students who attended school in the Springfield city area for the duration of their academic careers. Each student was assigned a number and the following information was listed accordingly: sixth grade NCE average on Terra Nova, school group based on where the student attended kindergarten, gender, free or reduced lunch classification, and ethnicity. Once the data were gathered, they were entered into Microsoft Excel for subsequent analyses.

Data Analysis Plan

Once the data were collected and entered into Excel they were statistically analyzed by SPSS for Windows. An unpaired t-test was run between the school groups and NCE averages. Subsequently, and Analysis of Variance (ANOVA) was run among the other variables in question. The relationship of each analysis was evaluated at the .05 confidence level.

Chapter IV

Presentation and Analysis of Data

Introduction

This study was undertaken to determine if students attending Springfield Middle School (SMS) who have experienced two school transitions by the sixth grade have been affected differently in regard to academic achievement than those who have only transitioned once. The study attempted to determine the effect of transition on academic achievement as measured by Terra Nova scores. Permission to conduct this study was requested and granted by both the Institution Review Board of Austin Peay State University and Robertson County Schools.

This study utilized descriptive statistics to analyze four hypotheses. An unpaired t-Test was used to test Hypothesis One: the difference in academic achievement between students who have experienced one transition among schools and those who have transitioned twice. An ANOVA was conducted to test the subsequent hypotheses. This chapter discusses each research question and hypothesis and provides detailed statistical information and related tables.

Presentation and Analysis of the Data

Question One. Are students affected academically by moving among schools multiple times due to county grade configurations? This question was answered by the use of descriptive statistics. Table 1 gives a listing of the number of students within each group, the mean NCE score and the standard deviation for each.

Table 1

Group Statistics

School Attended	n	Mean NCE	Standard Deviation
1 - Bransford Cheatham Park Westside	61	51.82	14.518
2 - Krisle	10	55.50	18.501

As the table indicates, there is a slight difference in the scores between those students in groups one and two. Therefore, it could be assumed that the lack of transition among group two has had a more positive effect on Terra Nova scores.

Hypothesis One. There is no statistically significant difference in academic achievement between students who have experienced one transition among schools and those who have transitioned twice. This hypothesis was tested using a t-Test that examined student NCE scores in relation to the school they attended in grades K-5. Table 2 illustrates the results.

Table 2

t-Test Results

NCE Average	t value	Significance
	-.715	.477

To interpret the F value and significance indicated by the t-Test, a .05 confidence level was utilized. Therefore, the significance value of .477 is not statistically significant which will result in the acceptance of the null hypothesis.

Subsequent Research Questions & Hypotheses. Table 3 below illustrates the statistical findings of the Oneway ANOVA that was run to answer the subsequent research questions and hypotheses. A confidence level of .05 was utilized when significance levels were determined.

Table 3

ANOVA Results

		F	Sig. (p)
NCE Avg	Between Groups	.511	.477
Gender	Between Groups	.111	.740
F/R Class	Between Groups	1.727	.193
Ethnicity	Between Groups	4.761	.033

Question Two. Are students affected academically by moving among schools multiple times due to county grade configurations based on socioeconomic status? The results of the ANOVA indicated above in Table 3 suggest that there is no significant impact on academic performance in regard to school transitions and socioeconomic status.

Hypothesis Two. There is no statistically significant difference in academic achievement between students who have experienced on transition among schools and those who have transitioned twice based on socioeconomic status. The p value of .193 indicated in Table 3 as a result of the ANOVA is not significant and therefore this hypothesis would be accepted.

Question 3. Are students affected academically by moving among schools multiple times due to county grade configurations based on gender? The results of the ANOVA indicated above in Table 3 suggest that there is no significant impact on academic performance in regard to school transitions and gender.

Hypothesis Three. There is no statistically significant difference in academic achievement between students who have experienced one transition among schools and those who have transitioned twice based on gender. The p value of .740 indicated in Table 3 as a result of the ANOVA is not significant and therefore this hypothesis would be accepted.

Question Four. Are students affected academically by moving among schools multiple times due to county grade configurations based on ethnicity? The results of the ANOVA indicated above in Table 3 suggest that there may be a significant impact on academic performance in regard to school transition and ethnicity.

Hypothesis Four. There is no statistically significant difference in academic achievement between students who have experienced one transition among schools and those who have transitioned twice based on ethnicity. The p value of .033 indicated in Table 3 as a result of the ANOVA is significant and therefore this hypothesis would be rejected.

Summary

The purpose of this study was to determine if students attending SMS who have experienced two school transitions by the sixth grade have been affected differently in regard to academic achievement than those who have only transitioned once. At the time of study, students in the Springfield City area of Robertson County School System came to Springfield Middle School (SMS) from one of three feeder elementary schools. For some students, the move to SMS was the second transition into a new school building where for others it was only the first.

Research in the areas of student mobility and grade configuration has been largely anecdotal with minimal empirical work to draw from. The body of research regarding student mobility does indicate a uniform idea that students' moving from school to school has a negative impact on academic performance. However, the research regarding grade configuration is not as consistent in determining the most appropriate grade structure for students to experience. The researchers do agree that developmental needs of students must be considered when considering any configuration's implementation.

The sample for this study was 71 eighth grade students attending Springfield Middle School. All of the selected students had attended Springfield city schools since kindergarten. The relationship between transitions and academic achievement were examined for significance based on the following variables: (a) schools attended, (b) gender, (c) free or reduced lunch classification, and (d) ethnicity. An unpaired t-Test was run between the school groups and NCE averages and subsequently an ANOVA was run

among the other variables in question. The study was conducted to test four hypotheses stated in the null and assumed an alpha of .05. The data collected for the study were analyzed by the statistical software program, SPSS for Windows.

Findings

The major purpose of this study was to determine if transitioning from building to building due to grade configuration had a significant effect on academic achievement as measured by NCE scores on the Terra Nova. The study found a minimal difference in NCE averages between those students in groups one and two based on schools attended.

Hypothesis One: There is no statistically significant difference in academic achievement between students who have experienced one transition among schools and those who have transitioned twice.

This relationship was tested using a t-Test at the .05 confidence level. A significance value of .651 was generated which is not considered statistically significant. Therefore, this hypothesis was accepted.

Hypothesis Two: There is no statistically significant difference in academic achievement between students who have experienced one transition among schools and those who have transitioned twice based on socioeconomic status.

This hypothesis was tested utilizing an ANOVA that determined a significance value of .193 at the .05 confidence level. This value is not statistically significant and therefore this hypothesis was accepted.

Hypothesis Three: There is no statistically significant difference in academic achievement between students who have experienced one transition among schools and those who have transitioned twice based on gender.

This hypothesis was tested utilizing an ANOVA that determined a significance value of .740 at the .05 confidence level. This value is not statistically significant and therefore this hypothesis was accepted.

Hypothesis Four: There is no statistically significant difference in academic achievement between students who have experienced one transition among schools and those who have transitioned twice based on ethnicity.

This hypothesis was tested utilizing an ANOVA that determined a significance value of .033 indicating statistical significance. This suggests that it is likely that ethnicity plays a role in determining academic achievement among those students who transition due to grade configuration.

Conclusions

The purpose of this study was to determine if there is a statistically significant relationship between the number of school transitions a student experiences due to grade configuration and subsequent academic achievement. The study examined the Terra Nova NCE scores of 71 students of which 61 had experienced two transitions and 10 had only experienced one. Based on the findings of this study, the following conclusions were presented:

1. There was not a significant difference in mean NCE Terra Nova scores between those students who experienced one or two school transitions due to grade configuration.
2. There was not a significant difference in mean NCE Terra Nova scores between those students who experienced one or two school transitions due to grade configuration based on socioeconomic status.

3. There was not a significant difference in mean NCE Terra Nova scores between those students who experienced one or two school transitions due to grade configuration based on gender.

4. There was a slightly significant difference in mean NCE Terra Nova scores between those students who experienced one or two school transitions due to grade configuration based on ethnicity.

Recommendations

Based on the findings of this study, the following recommendations are made:

1. Educators should pay special mind to the needs of those students of minority status when grade configuration results in multiple transitions from building to building.
2. Future research should focus on empirical consideration of grade configuration and student mobility.
3. Future research on these issues should be conducted in areas where larger sample sizes are available.

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