A STUDY ON THE ACADEMIC IMPACT OF TRANSITIONING FROM ELEMENTARY TO JUNIOR HIGH SCHOOL IN THE SOUTHEASTERN GREENE SCHOOL DISTRICT

A Doctoral Capstone Project Submitted to the School of Graduate Studies and Research Department of Secondary Education and Administrative Leadership

> In Partial Fulfillment of the Requirements of the Degree of Doctor of Education

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Dedication

This project is dedicated to my family. You have always provided the support and strength that I needed to complete this endeavor. I can't wait to spend more time with you now that the journey is over.

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I would like to extend my sincere gratitude to those who have provided support and motivation throughout this adventure. I thank my wife and children for their patience with an obviously overwhelmed father and my parents for supporting me through all of these years of education, I love you. I want to acknowledge "Aunt Ebby" Evelyn Raber, for supporting my love of reading and for her commitment to education in the Donley family, you are missed.

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Abstract

The purpose of this Capstone research study is to uncover and analyze factors that are resulting in a consistent academic decline for students who are transitioning from sixth grade at Bobtown Elementary School to seventh grade at Mapletown Jr/Sr High School. Research will focus on comparing PSSA (Pennsylvania System of School Assessment) math and reading results in conjunction with classroom grades as students transition from elementary to junior high school. The scope of the research will incorporate data emanating from the 2014 to 2019 school years.

The researcher will survey sixth grade math and reading teachers from Bobtown Elementary and seventh grade math and seventh and eighth grade reading teachers from Mapletown Jr/Sr High School to determine differences in instructional techniques, student assessment and classroom grade composition. Teachers provided input as to biggest concerns for students during transition and on possible interventions that could aid in the transition process.

The results of the survey found significant differences in grading practices, the amount of homework assigned, student assessments, and the teaching of test taking skills. The results of the teacher survey were combined with student achievement data to expose detrimental changes that students experienced at the classroom level. The researchers overarching goal is to utilize this data to develop a systemic transition plan that will provide continuity in classroom practices and academic interventions that will reduce and ultimately eliminate academic decline during the transition from sixth to seventh grade.

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Chapter 1

Introduction to Capstone Project

The act of transitioning from one level of education to another is a challenge for students of all ages. Researchers have investigated educational transitions for many years and have created a large cache of academic, parental, physiological, and social factors that can influence the success or contribute to difficulties for transitioning students. This research project focuses on the academic effects of transition on students who are rising from Bobtown Elementary (sixth grade) to Mapletown Jr./Sr. High School (seventh grade) in the Southeastern Greene School District of Greensboro, Pennsylvania. The precipitous drop in achievement that has annually occurred as students were promoted between buildings is a problem that was readily identified and fit perfectly into the parameters of the Capstone project. Executing a detailed study that provides insight into how to limit or reverse this trend will be extremely beneficial to our students and school district.

Focus

This study will focus on a five-year span of PSSA scores originating in 2014 and continuing through the 2019 school year and will concentrate primarily on the various factors that will impact the PSSA math and reading scores of the seventh grade class in comparison to their scores in sixth grade. The researcher initially intended to focus solely on the 2020 PSSA math and reading results, with the onset of the COVID-19 crisis and the cancellation of the 2020 PSSA testing it was decided to expand the study to a five-year span of test scores. Another adaptation was to include the eighth grade reading

teacher for surveying, as she was the teacher responsible for the past five-year period of PSSA testing for reading. This is a critical issue to both our school and school district, as declining student test scores have negatively impacted our school performance profile score since the inception of the Common Core Curriculum in 2014.

The difficulties experienced by our transitioning seventh grade students are also detrimental to student achievement on an individual level, as data analysis has illustrated increased discipline referrals and a noticeable decline in overall student attendance. The negative impact of the sixth to seventh grade transition can take years to reverse with some students never reverting to pre-transition levels of achievement; this is a fact that is devastating to both our overall achievement and the individual.

Background of Study

As I considered different topics that were pertinent to the school and school district, the negative effects of the elementary to jr high school transition captured my attention. This phenomenon has followed me through my career as similar data patterns were persistent during my tenure as assistant principal at West Greene Middle/High School (2010-2011) and as high school principal at Jefferson-Morgan Middle/High School (2011-2014). I decided to formally study the elementary to middle school transition to gain insight to the causes of the decline and to develop solutions to the problem. As the current principal of Mapletown Jr/Sr High School, I am in a unique position to conduct detailed, in-depth research on this topic. I have access to important data history and trends through our EdInsight data warehouse that will be extremely useful for research purposes. The positive relationship that I have built with both my

staff and the teachers at the elementary school will promote honesty in answering survey items that will be crucial to the study.

Research Questions

Primary research questions will focus on identifying factors that are influencing the drop in PSSA achievement on the Reading and Math tests as students transition from Bobtown Elementary (sixth grade) to Mapletown Jr./Sr. High School (seventh grade). The question of whether structural and cultural differences between the two schools have an impact on student achievement will be explored and evaluated. I will survey teachers at both levels to determine if continuity exists in instructional practices and in classroom assessments and I will determine if differences in these practices lead to friction during the transition process. The final question and the most crucial for school improvement, is what kind of remedies can we create from the results of our data and overall research.

Initial data will be provided by surveying sixth and seventh grade teaching teams. Teacher surveys will focus on the composition of student classroom grades, types of questions employed for formal assessments in reading and math classes, and the characteristics and frequency of instructional techniques employed in the classrooms. Teachers will be surveyed on what types of test taking skills they emphasize with their students, which will provide insight into how students interact with the exams at each level. The survey will solicit teachers to rate academic concerns for students from both the elementary and junior high perspective, as well as possible remedies that will ease some of the difficulties students experience during transition. Student scores will be compared with their 6th grade achievement levels along with their final classroom grades for both tested subjects.

Financial Impact

This study will not have financial implications for our school district. No additional personnel, software, or hardware will be required for purchase. Financial resources may be required for professional development based on the results of the research. The researcher hopes to have a firm diagnosis on why we have experienced such difficulty in maintaining student achievement during the transition process and will be able to construct a set budget for the cost of providing focused training for the staff. We will explore the possibility that the administrative team may be able to provide professional development without the need of hiring outside consultants or sending our teachers to other locations. This decision cannot be made until the study is concluded and the findings analyzed for specific areas of need and improvement.

Conclusion

At the conclusion of the study, I hope to have a firm understanding of the differences that exist between our two buildings in regards to instruction, assessment, and overall culture. Once the differences are established, I will have a much deeper understanding of what students are experiencing and how these factors could be impacting student performance. I can then utilize this newly acquired knowledge to develop a systemic plan of focused professional development for both teachers and administrators that will eliminate the drop in achievement and provide for a better overall transition from elementary to junior high school.

Chapter 2

Review of Literature

Introduction

The act of transitioning from one level of education to another is a challenge for students of all ages. Researchers have investigated educational transitions for many years and have created a large cache of academic, parental, physiological and social factors that can influence the success, or contribute to difficulties, for transitioning students. The transition from elementary to junior high in the Southeastern Greene School District has resulted in a consistent and significant decrease in student achievement. The predominate question at the center of this research project focuses on why is this occurring and what can be done to rectify the problem. Researchers have conducted many studies on the elementary to middle school transition over the past 50 years and formed a multitude of hypotheses on why students struggle academically, socially, and psychologically with this change.

The History of Middle Schools

The middle school model originated in the late 1800's with one of the first examples being a 7th and 8th grade institution in Richmond, Indiana where students were taught core subjects in a departmentalized schedule (Weilbacher, 2019). The turn of the century saw a dramatic increase in the usage of junior high schools with most school districts utilizing elementary schools for six grades, junior high schools for three, and high schools for three. Child developmentalists believed that schools that specialized in the development of young adolescents would be more effective in educating students while dealing with the unique social and psychological needs of the age group (Kliebard, 2004).

Gruhn and Douglas (1956) recommended implementing six core functions in junior high school: 1.) integration 2.) exploration 3.) guidance 4.) differentiation 5.) socialization and 6.) articulation. Their research suggested that teachers at the middle level should act as a guide for students rather than just a source of new information. The larger goal of the new model was not to act as a pre-high school but to help develop and integrate young adolescents into the larger society (Gruhn & Douglas, 1956).

The term "middle school" originated in the early 1960's as a way to differentiate middle level education into a specific category while breaking away from the "junior" or smaller high school moniker (Gruhm & Douglas, 1956). Research found two prominent issues that also pushed the change, the first being the earlier maturation of both boys and girls that initiated the push to add 6th grade students into the middle school fold and local issues with desegregation, facilities and new enrollments. The curriculum was adapted to be more exploratory and introduced new practices such as block scheduling, teacher guidance plans, and individualized instruction (Gruhm & Douglas, 1956).

The National Middle School Association was created in 1973, leading to an increase in research based practices and professional legitimacy. In the 1990's, middle school reform focused on curricular integration and the promotion of interdisciplinary connectedness and cross-curricular instruction (George, 1996). The rise of mandated, standards-based curricula in the late 1990's drastically reduced the emphasis on cross-curricular instruction and returned middle school instruction to a more traditional curricular system (George, 1996).

The new millennium brought the era of teacher/school accountability and highstakes testing. As middle schools felt the pressure to increase test scores and improve their overall achievement profiles, they abandoned some of the core middle school principles and focused solely on curriculum and instruction designed to prepare students to pass state mandated tests (Weilbacher, 2019). The distinction between junior high schools and middle schools is still confusing to the public and the continued emphasis on accountability, test scores, and standards has limited the focus on the developmental goals that were so important at the conception of the modern middle school (Weilbacher, 2019).

Transition at Varying Levels of Education

There have been a multitude of research studies over the past 50 years on the effects of transition on student achievement. Research is typically tiered to specific transitions that either concentrates on the promotion from elementary to middle level schools or middle to high school. Studies have proven that transitions are difficult for students at both the middle and high school levels and result in academic achievement losses at both ages (Alspaugh, 1998).

Alspaugh conducted a study that focused on transitions at different ages and from a variety of school types. It was found that students who transitioned from K-8 schools to high schools demonstrated "significant" achievement losses, while students in traditional 6th to 8th grade middle schools also demonstrated academic decline, but at a less significant level (Alsphaugh, 1998). A similar study conducted by Crockett, Petersen, Graber, Schulenberg, and Ebata (1989), found that students who experienced early and multiple school transitions suffered from negative effects regarding grades and selfimage. Researchers found that female students experienced a greater decrease inmeasured effects than their male counterparts (Crockett, Petersen, Graber, Schulenberg,& Ebata, 1989).

This was primarily attributed to elementary schools being predominately taskoriented, while middle school instruction is focused on academic performance and mastery (Alspaugh, 1998). The structure of the middle school schedule is cited as a challenge for transitioning students, as they typically have more teachers for a shorter period of time; while at the elementary level, a single teacher will have students for the majority of the school day. It is hypothesized that the reduced time with each teacher results in weaker connections with students (Alspaugh, 1998). Research found that instruction at the elementary level is also different, as teachers tend to utilize small group instruction and individualized instruction more prevalently than middle school teachers who employ instructional practices that are focused on whole-class lecture and notetaking.

Contemporary research has proven that students who are transitioning to the highschool level from the middle-school level may benefit from "developmentally responsible" transition techniques such as self-determination theory and stagedevelopment fit theory (Ellerbrock, Denmon, Owens, & Lindstrom, 2015). Selfdetermination theory concentrates on three suggested principles that all humans require in order to be successful: 1.) the need to connect with others 2.) the ability to competently respond to one's environment and 3.) autonomous control over one's life. Stageenvironment fit theory explores the effects of school environment on the academic and social aspects of the middle school to high school transition (Eccles & Roeser, 2009). Stage-environment fit theory is extremely relevant to research on student transition and is often cited in the literature, as it suggests that changes in student environments do not meet the emotional needs of the adolescent at that stage in their development and can be applied to both middle school and high school transitions. As students transition from the middle school to high school level, the differences in academic expectations, the size of the school, and changes in social pressures can lead to conflict between expectations and the student's current level of cognitive and social development (Ellerbrock, et al).

Students transitioning to the high school from middle level schools encounter unique challenges as they face more academic pressure to succeed on honors and advanced placement levels, key decisions toward their future career choices, and increased social pressures for dating and developing relationships (Ellerbrock, et al). Research has also demonstrated strong similarities in sources of developmental conflict during both the high school and middle school transition.

Stage-environment fit theory illustrates the mismatch between the adolescent and the new environment and identifies potential reasons for conflict. Uvaas and McKevitt (2013) state that students face three areas of concern during both middle level and high school transition: 1.) academic concerns over new teachers, increased expectations, managing homework and increased academic rigor in their classes 2.) concern over differences in school procedures, physical layout, and adapting to new teachers and classes 3.) social concerns about fitting in with new classmates, making new friends, and adjusting to overall changing social expectations.

Student GPA typically drops during both middle and high school transition with recovery to pre-transition levels typically taking a full academic year (Uvaas & McKevitt, 2013). Students that reported frequent and intensive stressors typically experienced more drastic academic decline and had a longer period of recovery. Students surveyed in a similar study stated that they experienced increased anxiety, loneliness and a decline in academic achievement during the transition from middle to high school (Uvaas & McKevitt, 2013).

Jansen, Schielack, Smith, and Seeley (2012) found that the stage-environment fit perspective was relevant to their research on the effect of middle school transition on students' mathematical achievement levels. The friction produced by the difference in students' developmental needs and the structure of the schools leads to a significant decrease in student motivation and while improving a students' emotional and developmental fit within their schools can lead to improved motivation. Studies found that school districts that require students to transition from elementary to middle school and then to high school demonstrated greater overall achievement losses than schools that had a single transition from K-8 to high school (Alspaugh, 1998).

Alspaugh's research also found a strong correlation between schools with multiple transitions and schools that "pyramided" from multiple elementary schools to single middle and high schools that lead to increased dropout rates compared to schools with a single transition. Students who had difficulty in transitioning (regardless of grade level) tended to have greater absenteeism, lower academic achievement and quit school at a higher rate than those that successfully adapted to their new school (Alspaugh, 1998). Barber and Olsen (2004) conducted a longitudinal study of 933 families over a four year period encompassing grades 5-8 that focused on shared challenges and difficulties encountered by students during middle and high school transitions. The results found eight common negative changes experienced by students in the study. These changes included increases in depression, lowered self-esteem, less interest in after-school activities, decreased support from teachers, decreased support from administrators, less engagement from teachers, decreased class autonomy, and an overall decrease in enthusiasm for school.

Existing research strongly indicates that certain patterns of stressors exist during school transitions regardless of grade level or the structure of the school district. Past research has identified limiting factors while researching student transitions to middle school (Holas & Huston, 2011). Problem areas include difficulty in identifying same-grade comparison groups, a growing number of schools are promoting students in earlier grades, a perceived lack of reliable data regarding classroom quality, little diversity in geographic areas, and issue with controls for student demographics (Holas & Huston, 2011).

Sources of Academic Difficulties in Transition

While reviewing studies that focus on transition as a shared event with common challenges and perceptional obstacles, two primary categories of difficulty emerge: academic and developmental. The academic difficulties that will impact standardized test scores and overall student achievement will be primarily categorized as instructional, curricular, and pedagogical. Elementary schools tend to employ task-oriented instruction where students are striving to improve on their mathematical skills; in comparison, middle schools are more focused on performance based assessments that push students to compete with each other for placement in higher-level classes (Maehr & Anderman, 1993).

One of the primary differences between elementary and middle school instruction is found in the types of goals set for students (Maehr & Anderman, 1993). Researchers have found that task goals that are predominately utilized at the elementary level have a more positive effect on the overall culture of learning than ability goals that are routinely used in the middle levels. Task goals produced increased cognitive engagement, motivation, and facilitated higher level thinking skills than ability goals that are more concrete in nature and less abstract (Maehr & Anderman, 1993).

The transition to middle school resulted in increased exposure to memorization and increased competition between students, thus producing "winners and losers" in the classroom. The study concluded that middle school administration and teachers would be well-served to explore incorporating more task-based goals into their curriculum, as the results would improve the culture of learning in their schools and increase student achievement (Maehr & Anderman, 1993).

In an international study emanating from New Zealand, Bicknell and Hunter (2002) stated that several factors determine if students have a successful transition from 6th to 7th grade with a concentration on achievement in mathematics. Curriculum continuity and classroom practices were key aspects to a successful transition, as students reported that their middle school math classes were rooted more in independent work and that they felt less of a connection with the instructor than their elementary math classes where they participated in more group work and had more opportunity to ask questions (Bicknell & Hunter, 2002).

The study found that students enjoyed group work more than independent work and found that the pacing of instruction was faster, the quantity of work was increased, and they had questions that routinely went unanswered (Bicknell & Hunter, 2002). Group work with various stations that allowed students to utilize different skills in varying activities was routinely employed as an instructional practice. Seventh grade teachers began the school year by assessing students through standardized assessments to gauge their ability level and what skills were mastered (Bicknell & Hunter, 2002). The reported results of this testing indicated that students were on lower levels of mathematical ability than the data that was provided by the 6th grade teachers.

Seventh grade teachers required students to work more independently and utilized textbooks more frequently than the 6th grade teachers, while using less visuals and modeling than their elementary counterparts. Students indicated that they had less encouragement and interaction with their teachers and were frustrated by the increased pace of instruction and the quantity of work that was assigned as both class work and homework (Bicknell & Hunter, 2002). Preparedness is a key factor for student success in mathematics as they transition from the elementary to middle level schools. Bicknell and Hunter (2002) found that 6th grade teachers strived for students to have fundamental skills mastered while building confidence to explore new mathematical principles and to build on their existing knowledge.

Students indicated that their primary concerns for being prepared for the 7th grade transition were based on being able to ask for help from their teacher, having working

knowledge of the fundamental skills needed to complete more advanced questions and having the opportunity to learn from their mistakes (Bicknell & Hunter, 2002). Another key factor identified in the study was rooted in supports for students as they made the transition. Students indicated that they received support from their parents, friends and siblings that had already experienced the transition. The school district provided informational support through scheduling visits to the middle level school, providing physical maps of the new building, and a preview of practices and expectations (Bicknell & Hunter, 2002).

Bicknell and Hunter's (2002) research indicated that the potential for a positive transition was established by the 6th grade teachers, but was hindered by the initial testing and the reset of instruction in 7th grade, which resulted in a decrease in student interest as they were re-taught previously mastered skills, and issues with student groupings. The overall mistrust between 6th grade and 7th grade teachers about the abilities and placement of the students is a theme that seems common and that is found in multiple studies. The lack of continuity in grading practices between elementary and middle school teachers is another source of academic difficulties faced by students during the middle school transition (Bicknell & Hunter, 2002).

Randall and Engelhard (2008) conducted a detailed study to compare and analyze the difference in elementary and middle school grading and how the change impacts students as they transition. Elementary students are typically graded by a single teacher instructing in multiple subjects throughout the school day. When students exit their classroom for elective classes they typically travel as a cohort and do not mix with other students. In comparison, middle school students are transient, moving from one

specialized teacher (and class) to another throughout the school day and are often assimilated with different peers in each class (Randall & Engelhard, 2008).

In this study, student effort and conduct grades were eliminated by school district policy, thus resulting in true academic grades based on established state standards. Teachers were surveyed by electronic questionnaires that focused on four primary categories: student achievement, ability, behavior, and effort (Randall & Engelhard, 2008). Scenario questions were given to middle level and elementary teachers based on the before mentioned student characteristics. The scenarios were designed to interpret how teachers would grade students that demonstrated different characteristics of the four categories. For example, Student A has high ability, average achievement, poor behavior, and poor effort and has mastered 85% of material (Randall & Engelhard, 2008).

Student grading predictions were based on mathematical conversion from the scores that the teachers provided (Randall & Engelhard, 2008). The results uncovered a statistically significant difference in grading with elementary teachers demonstrating the propensity for higher grading than middle school teachers. Past studies that focus on one primary subject provide more specific data on how transition affects a particular subject.

Midgley, Anderson, and Hicks (1995) based their research on the goal-theory approach, with the hypothesis that middle level schools emphasize performance goals over task goals that are more commonly employed at the elementary level. This surveybased study was designed to evaluate the frequency of performance-based assessments compared to task based assessments and how this impacted the culture of the middle school from both the students and teachers prospective (Midgley, Anderson, & Hicks, 1995). Researchers also reviewed the instructional practices of both middle level and

elementary teachers in order to identify the usage of task goals and task-focused achievement goals.

Fifty elementary teachers and 108 middle school teachers were surveyed, in conjunction with 291 elementary students and 678 middle school students. The primary goal of the survey was to examine the difference between the achievement goals of middle and elementary school teachers, variations of instructional practices, and the perception of goal stressors in their schools (Midgley, Et al). The initial hypothesis was confirmed, as middle school teachers perceived a greater emphasis on performance based goals than their elementary counterparts, while elementary teachers placed a greater emphasis on task-based goals. The student survey produced similar results as middle school students reported less task-based goals than their elementary counterparts.

The hypothesis that middle school teachers employ instructional practices that are performance based in order to prepare students to reach achievement based goals, while elementary teachers employ task based instructional goals, was found to be partially accurate (Midgley, Et al). Teachers from both levels confirmed that middle school practices emphasized achievement based goals at a higher level than elementary schools, but differed on instructional practices. Elementary teachers reportedly utilized task-based instruction more frequently than middle school teachers; however both cohorts emphasized different forms of performance based instructional practices (i.e. rewards for the highest achieving students).

The study also found that middle school students are exposed to more personal performance goals and focus more on competing with each other than elementary

students (Midgley, Et al). Elementary students responded that they were more concerned with understanding material than with grades.

Research conducted by Jansen, Schielack, Smith, and Seeley (2012) examined how transition impacted student achievement in mathematics at the middle school, high school, and post-secondary levels. In regards to the elementary to middle school transition, it was found that curricular differences in both substance and appearance had a negative effect on student achievement (Jansen, Schielack, Smith, & Seeley, 2012). It was found that aesthetic differences between the middle school and elementary curricular appearance produced a negative consequence on student learning, as elementary texts tend to have large print and many pictures while middle school texts are more symbolic and compact.

The impact of having a variety of teachers with different instructional styles, unique methods of assessment, and pedagogical variance also leads to increased academic challenges. Middle school teachers utilize more direct instruction while elementary teachers facilitate more exploratory learning activities. Research indicated that students also had to adjust to increased expectations for completing class work independently while coping with the increased stress of multiple homework assignments (Jansen, Et al).

Sources of Developmental Difficulties in Transition

A study conducted by Midgley, Feldlaufer and Eccles (1989) focused on the impact that transition had on students' motives, values, beliefs, and overall behavior. The study measured students' perception of the value of mathematics at the beginning and end of their 7th grade year. The researchers' hypothesis that students' perception of valuing mathematics is related to the difference in teacher support that they experience while transitioning from 6th to 7th grade was confirmed. Students who were taught by supportive teachers did not have a significant change in their value of mathematics while students who perceived that they were not supported suffered a decrease in their value of mathematics (Midgley, Feldlaufer & Eccles, 1989).

Students who transitioned from less supportive 6th grade teachers to more supportive 7th grade teachers saw a significant increase in mathematic value, indicating that the transition could lead to positive results in the presence of a supportive teacher (Midgley, Et al). A separate study led by Eccles (with Midgley, Wigfield, Reuman, Iver & Feldlaufer, 1993) focused on middle school students perceived decrease in motivation as they transition from elementary school. Researchers found that middle school teachers implemented more control over student learning, while demonstrating less efficacy towards their classes, thus leading to a decrease in the quality of student/teacher relationships when compared to student experiences in elementary school. The study indentified an additional factor in decreased motivation stemming from the introduction of ability grouping at the middle school level (Eccles Midgley, Wigfield, Reuman, Iver & Feldlaufer, 1993).

Midgley, Anderson, and Hicks (1995) surveyed elementary and middle school teachers and found that elementary teachers felt more efficacious towards their students than the middle level teachers, but middle school students felt more efficacious than their elementary peers. Middle school teachers were more likely to feel that student ability levels are fixed, while students at both levels felt that school ability was modifiable. Further research was dedicated to the impact on student self-perception and selfesteem in four primary domains (English, math, social activities, and athletics) during the transition from elementary to middle school (Wigfield, Eccles, MacIver, Reuman, & Midgley, 1993). Students were surveyed at the conclusion of 6th grade and multiple times after the transition to junior high school on their values, beliefs, and attitudes regarding the four primary domains. The study found that students reported a significant decrease in overall self-esteem at the onset of the transition, with a subsequent rebound in perception as they progressed through the 7th grade (Wigfield, Et al).

Student self-concept at the time of transition correlated with student ability levels for English, social activity and sports, with higher-level students retaining high levels of self-concept with middle level students and lower level students demonstrating a decrease in perception. Student self-concept in math produced different results as high level students experienced a slightly decreased score along with significant drops in average and below average students (Wigfield, Et al). Students reported sharper decreases in self-concept of English over the other domains, while self-concept of social activities dropped immediately during the transition then rebounded throughout the year. Student self-concept of sports declined sharply at the onset of junior high and remained lower throughout the year (Wigfield, Et al).

Significant gender differences were uncovered, as boys had higher self-esteem and self-concept in math and sports, while girls experienced higher scores in English and social activities. Both genders experienced drops at the beginning of 7th grade and improved through the year, but not to pre-transition levels (Wigfield, Et al). Researchers concluded that students experienced decreased self-esteem and self-concept due to factors such as transitioning to a new learning environment, disrupted peer networks, and being the youngest students in the building.

Berk (1993) found that pubescent teenagers experiencing physical, emotional, and social changes tend to be emotionally charged and more defiant of adults than prepubescent students. Students will hit puberty at various times and at varying rates that can have an impact on student perception of school and ultimately on their overall academic achievement (Berk, 1993).

The impact of friends and friendships on the transition from elementary to junior high school was evaluated by Berndt, Hawkins, and Jiao (1999). Sixth grade students were interviewed about their friends in the spring of their 6th grade year and again during the fall and spring of their 7th grade years. The study found that students that have high quality, stable friendships have an easier adjustment during the transition to junior high school (Berndt, Hawkins, & Jiao, 1999). Stability was a key indicator to increased sociability-leadership scores in rising 6th grade students, but also lead to a positive correlation in behavioral problems. Students who had the benefit of well-adjusted friends also had a greater propensity to have greater social competence (Berndt, Et al).

Overall, research demonstrated that students that have friends that have high social-confidence are more likely to demonstrate social-confidence themselves. As students progressed through 7th grade their behaviors and perceived cognitive competence could be predicted by their friends' perceptions (Berndt, Et al). The study found that students tended to change the criteria for friendship from the 1st to 2nd semester of their 7th grade year. The conclusion that students become less similar than their friends

as they progress through their 7th grade year was not expected in the initial hypothesis of the study (Berndt, Et al).

Akos (2002) conducted research-based questionnaires submitted to students in four phases during the transition year from elementary to middle school and focused on student expectations and trepidations about the transition, followed by how expectations changed as they went through the year. The researcher found that students' pre-transition concerns focused on questions about rules and procedures for classrooms and hallways, participating in extracurricular activities, selecting elective classes, and expectations for in-class and homework assignments (Akos, 2002).

The second phase questionnaire found that students were primarily concerned with their interactions with older students, completing homework, locker usage, and overall grades and achievement (Akos, 2002). Phase III found that students were focused primarily on rules and procedures, along with homework, and dealing with bullies and negative interactions with other students. The final phase of the study found that the majority of student responses focused on being anxious about getting lost in the building and in making new friends (Akos, 2002).

Students reported that their favorite aspect of middle school was choosing classes and making new friends while stating that they received the majority of their support from friends (40%) and teachers (23%). Akos asked students what advice they would give the next year's group of transitioning elementary class; they stated that they should learn the rules along with expectations and responsibilities. Overall, Akos noted that students seemed to be concerned with rules and procedures consistently throughout the study. He recommended that any dedicated transition program address this concern in the induction process so that students have clear expectations for the beginning of the school year (Akos, 2002).

Overall, students are anxious and have various worries throughout the transition process, with bullying being a prevalent source of anxiety in students. A dedicated antibullying program was recommended based on student responses on the topic. Akos (2002) analysis of academic concerns indicated that teachers would benefit from instructing students about study skills and homework completion in hopes of increasing resiliency and confidence. Detailed school tours conducted by teachers, students, and administrators were suggested to alleviate the fear of getting lost and not being comfortable in operating their lockers (Akos, 2002).

A study by Bahena, Schueler, McIntyre, and Gehlbach (2016) focused on parent perception of student fit in their new schools and how student fit impacted student perception and academic success. Parents were surveyed on how they perceived the culture of the middle school, academic preparedness, and continuity of teaching style. Questions that focused on the personality of the individual child included questions about interest in extracurricular activities, feeling of belonging, level of comfort, and effectiveness of discipline procedures (Bahena, Schueler, McIntyre, & Gehlbach, 2016). The study found that parents focused on their child's academic and social experience as keys to whether they will fit at their new school and also were concerned with fit for racial and ethnic reasons. The study found that parents' perception of student fit decline as their child transitions from elementary to middle school.

Parents from lower socio-economic levels reported lower-levels of perceived student fit than parents that were of higher socio-economic levels. It was also found that

parents have a more positive perception of student fit during the transition to high school than the transition from elementary to middle school (Bahena, Et al). A detailed study by Holas and Huston (2011) focused on middle school transition that occurred in 5th and 6th grade. The study measured classroom quality by surveying teachers and by embedding trained observers in the classes. The observers scored teachers on two primary qualities: socio-emotional and instructional. Their final total was the sum of the two scores. The surveys focused on two areas with one item on relationships with student participants (I share affection and a warm relationship with my students) and four items on sense of efficacy (questions on support from home, discipline, and establishing a positive school environment) (Holas & Huston, 2011).

Students were divided into three groups based on when they entered middle school with the "early" group being 5th grade, "standard" 6th grade, and "late" 7th grade. The results of the study found that 5th grade students did not demonstrate a decline in academic performance, while the 6th grade group demonstrated a lower-level of involvedness than their 7th grade peers (Holas & Huston, 2011). For the 5th grade group, a significant correlation was found between classroom quality, teacher-rated achievement, and student-school attachment, but no significant direct effects were discovered from transitioning at an earlier grade. The 6th grade cohort experienced a lower-level of classroom quality that correlated with a significant drop in achievement (Holas & Huston, 2011).

It is pertinent to mention that both the 6th and 7th grade groups experienced indirect factors that impact achievement, such as attending larger, more diverse schools with a lower socio-economic population than the "early" cohort. Holas and Huston

attributed indirect effects for lower school involvement in the older students, while the younger group felt more involved. The results of the study found that 6th grade students experienced lower school involvement while the other control groups did not exhibit any changes from elementary school; the research team stated that this was "unexpected," as they anticipated the results to discover more discrepancies during the transition (Holas & Huston, 2011). The overarching result strongly correlates with past research, as data analysis showed that the level of classroom quality and school characteristics are stronger indicators of student success than the age in which the transition occurs.

Jansen, Schielack, Smith, and Seeley (2012) determined that changes in student grouping from heterogeneous assignments into class sections based on student ability level in mathematics increased anxiety as early adolescents are already in a state of heightened self-focus. Researchers determined that the relationship between the teacher and students on a personal level evolves at the middle school level as instructors tend to be more distant and offer fewer choices to the class at a time where adolescents are seeking more autonomy and strong relationships with adults outside of their immediate families (Jansen, Schielack, Smith, & Seeley, 2012). It was found that students interpreted the mathematics curriculum at the middle school level to be less meaningful and relevant than the elementary curriculum.

Research conducted by Harter, Whitesail, and Kowalski (1992) focused on changes in student self-concept and motivation, as they experienced changing educational environments. Students were surveyed on perception of their school competence, motivational orientation, anxiety levels, and their general attitude toward school performance. Research subjects included students transitioning from 5th to 6th grade and

6th to 7th grade in the same school, while another cohort transitioned from the same grades while changing from elementary buildings to dedicated middle schools. Researchers hypothesized that students who are changing buildings will re-evaluate their educational competency as they are exposed to new comparison groups and an increased emphasis on achievement (Harter, Whitesail, & Kowalski, 1992).

Survey items focused on students' perception of the importance of grades, academic competition, teacher emphasis on grades, teacher emphasis of knowing correct answers, teacher control over student achievement, and how smart students believe that they are (Harter, Et al). The survey also included items based on social comparisons that asked about the level of knowledge that students had on how well others were doing and how frequently they compared their achievement to others.

Researchers found that 50% of students in all cohorts felt increases or decreases in their perception of competence while 50% maintained stability. Students who reported an increase in their perception of competence also reported an increase in intrinsic motivation while students who experienced a decrease reported declining intrinsic motivation (Harter, Et al). Students who changed schools experienced an increase in anxiety compared to their peers that did not, while also reporting a clear increase in emphasis on their performance. Students reported a steady increase in social comparisons, however, few students admit to comparing their academic prowess with their peers.

Structural Differences in Elementary and Middle Level Schools

Alspaugh and Harding (1995) conducted research on the effects of transition on school grade-level organization as students adapted from self-contained classes to departmentalized schedules. The study concentrated on the effects of this structural change during the transition process and how it impacted student achievement. Research goals focused on correlations between achievement losses during transition at differing grade-levels, while also exploring average achievement levels associated with grade-level organization (Alspaugh & Harding, 1995).

Researchers concluded that students consistently experienced a significant drop in achievement when transitioning from self-contained to departmentalized classrooms, regardless of what year the change occurred. Students then exhibited improved scores in subsequent years following the initial transition as they adjusted to their new environments (Alspaugh & Harding, 1995). Students in K-8 schools did not endure achievement loss as they progressed from elementary to middle-level classes; however, the mean achievement levels between schools were not statistically significant.

Akos (2002) studied the effects of transition on students who were promoted from neighborhood elementary schools where they were largely self-contained to a large, central middle school where core classes were departmentalized. New student challenges such as showering after gym class, longer bus rides, locker assignments and an overall increase in both responsibility and freedom were accounted for as factors that will impact the overall experience of transition (Akos, 2002). Chung and Schneider (1998) concluded that the organizational philosophies of typical middle schools are not conducive to building warm, stable interactions between students and teachers. Departmentalization is a primary factor in the lack of connection between 7th grade students and their teachers. Sixth grade teachers typically have students throughout the school day allowing them to get to know students at a deeper level and to develop higher levels of rapport than middle school teachers who routinely instruct students in 45 minute to 90 minute sessions (Chung & Schneider, 1998).

Researchers did not uncover any statistically significant data in regards to gender, as both male and female students required supportive relationships from teachers and were equally affected when connections were not made. It is important to note that standardized testing was not used in this study; rather the student's perception of the value of mathematics in their education was measured. A similar study conducted by Akos (2002) found that students that are transitioning from elementary to middle school are primarily concerned about fitting in with new peers in a bigger facility with more students, meeting new teachers, and adjusting to new behavioral and academic expectations. In a study by Holas and Huston (2011), it was found that the larger populations in middle schools lead to students feeling less connected to the school and in turn with their teachers.

Transition and Student Subgroups

Students who experience the added stress of low socioeconomic status experienced additional challenges while transitioning from the elementary to middle school level. Past research has explored the positive effects of parental involvement and school belonging on students that are experiencing a transition in schools, developmental

changes, and the burden of low socioeconomic status (Okilwa, 2016). Okilwa's research focused on three primary aspects of transition for 8th grade students of low socioeconomic status: the impact of parental involvement on student achievement, the correlation between a feeling of school belonging and student achievement, and the relationship between parental involvement and the perception of school belonging. The study found that the strongest predictor of 8th grade achievement was 5th grade achievement, validating the notion that past success is a strong predictor of future success regardless of the grade level.

Other variables that produced statistically significant data were identified. Students that reported a sense of belonging in their school had higher achievement scores than those that did not, while data focused on parental involvement was found to be insignificant in regards to impacting student achievement (Okilwa, 2016). Results also found that students of lower socioeconomic status, minority students and students, with established disabilities scored lower than their peers. Data also indicated that female students had a higher level of achievement than their male counterparts.

Okilwa determined that school belonging is a significantly more relevant factor in the academic success of 8th grade students of low socioeconomic status than parental involvement and that past achievement was the best predictor of future results. Witherspoon and Ennett (2010) focused their research on rural students as they studied the effects of transition on middle and high school students. The study tracked rural students' academic achievement, feeling of school belonging, sense of value in education, discipline data, and participation in extracurricular activities during their middle and high

school transitions. Researchers also sought to determine if the transitions had negative academic consequences for the subjects (Witherspoon & Ennett, 2010).

They expected students' sense of belonging to decrease during middle school, then increase at the high school level as they became accustomed to teacher expectations, the school environment, and new peers. The cohorts' perception of the value of education was expected to remain consistent throughout their education, as past research indicated that rural students' aspirations for college enrollment were high. Student grades were expected to decrease as the cohort advanced from middle to high school, while reported incidents of misbehavior and participation in extracurricular activity were predicted to increase (Feldlaufer, Midgley, & Eccles 1988).

The results of the study found that student grades remained relatively constant through both transitions, while student perception of school belonging steadily decreased until 10th grade where the trend reversed but remained low. Student value of education remained consistently high throughout both transitions, while evidence of misbehavior slightly increased from 6th to 9th grade before decreasing from 10th grade forward. Student participation in extracurricular activities decreased throughout middle school, then increased, as predicted at the high school level (Witherspoon & Ennett, 2010).

Transition Programs

Akos (2002) research study found that building-dedicated transition programs based on student enthusiasm and excitement for the middle school transition produced positive results. The exuberance that students exhibit can counteract anxiety and worry about their new surroundings. Seventy percent of the students in this study stated that

they were excited about middle school and had a positive outlook going into the transition. The orientation process should highlight what students perceive as positive aspects of middle school that are unique and not found in elementary school. Students reported that increased freedom and choices, the opportunity to change classes, having different teachers, and being assigned their own lockers were key aspects in which they were in favor (Akos, 2002).

Akos recommends including peers and student relationships when building a transition program, as students in his survey indicated that their friends were their primary source of support during the transition. Assigning responsible and positive students as ambassadors for transitioning classmates is a recommended means of easing anxiety and building positive relationships with older students. Having upperclassmen interacting with transitioning students can also be a tool to combat bullying by the older kids (Akos, 2002). Students were also appreciative of teachers who actively participated in transition orientation through describing classroom and school rules and procedures in detail to alleviate anxiety and to increase familiarity with staff.

Bahena, Schueler, McIntyre, & Gehlbach (2016) state that schools that serve students from high socio-economic backgrounds tend to have more effective transition based orientation programs than schools with lower socio-economic profiles. This is attributed to the perceived fit by students and parents being higher in the more affluent areas. Okilwa's (2016) research in studying the academic success of 8th grade students of low socioeconomic status found that students who lack school-home supports respond positively to support and positive relationships with teachers. Researchers recommend

training teachers in positive behavioral supports throughout the middle school level with an emphasis on positive interactions with young adolescents (Okilwa, 2016).

A 1993 study in the Elementary School Journal asked middle principals to predict what practices would be added to middle schools over the foreseeable future. The principals stated that interdisciplinary teams, common planning time for teams of teachers, assigned teacher mentors, assigning students to the same homeroom teacher from transition throughout middle school, cooperative learning, and exploratory periods would be trends that would contribute to easing the difficult transition from elementary to middle school. The study also included parent workshops for transitioning students as well as inviting families to volunteer for roles in the school (MacIver & Epstein, 1993).

Middle school principals made these recommendations with improving transition and continued support throughout middle school as goals. A follow up study of schools that implemented these practices found a significant increase in overall program performance and had a school wide expectation for increased achievement and less discipline issues. MacIver & Epstein (1993) recommend adopting these "signature practices" which are more responsive to the middle school age range with the intent of developing subject-matter mastery, higher level thinking skills, and improved studentteacher relationships. The study concluded that building programs that are responsive to the unique characteristics of early adolescents yield more positive results than adjusting grade spans and constructing new facilities (MacIver & Epstein, 1993).

Research conducted by Bicknell and Hunter (2002) indicated that transitioning middle school students received the majority of their social supports from parents, friends and siblings that had already experienced the transition. The school district provided

informational support through scheduling visits to the middle level school, providing physical maps of the new building, and a preview of practices and expectations. Bicknell and Hunter's research indicated that the potential for a positive transition was established by the 6th grade teachers, but was hindered by the initial testing and the reset of instruction in 7th grade which resulted in a decrease in student interest as they were retaught previously mastered skills and issues with student groupings. The overall mistrust between 6th grade and 7th grade teachers about the abilities and placement of the students is a theme that seems common and that is found in multiple studies.

Jansen, Schielack, Smith, and Seeley (2012) in their research on the effects of transition on mathematics recommend improving teacher communication across the transition, regardless of grade level, as means of improving the transition experience for students. Teachers at the lower-grade level of transition can help prepare students for transition if they have a working knowledge of the changes and challenges that will occur in mathematics classes at the next level of education (Jansen, Schielack, Smith, & Seeley, 2012). The study emphasizes the importance of school administration in creating dialogue between schools that participate in the transition process while developing opportunities for professional development, focusing on creating shared practices for math, facilitating classroom visits, and expectations for mathematics instruction, class work, and homework.

Researchers suggest that teachers, administrators, counselors, and parents form a network that will create a vision for describing the benefits of being "good in mathematics" and relate mathematical aptitude to students' future success. Middle school math teachers can dictate classroom culture to be more engaging and supportive of young

adolescents' emotional, cognitive, and overall social development at their current levels. Research indicates that mathematics teachers should focus on shaping students through encouraging effort and determination while promoting a sense of belonging in math class regardless of the ability level (Jansen, Et al).

Cauley and Jovanovich (2006) comprehensibly studied the developmental needs of transitioning elementary school students and evaluated best practices to create effective transition plans. They identified attendance, achievement, and retention as key elements of dedicated transition programs and created an in-depth review of various activities that schools could utilize to realize these elements. Researchers found that schools that implemented a "school within a school" system that focused resources and attention on the transitioning grade (be it 6th, 7th or 9th for high schools) experienced increased promotion rates, higher state achievement scores and a reduction in high school dropouts. This comprehensive program emphasizes developmental support and academic attention during the transition process to ensure that students do not fall behind in the early stages. Teachers instruct students that are enrolled solely in the transitioning grade and adhere to an independent bell schedule (Cauley & Jovanovich, 2006).

Research has found that creating mandated specialized classes that have a dedicated curriculum that focuses on identified areas of concern for transitioning students produces positive results. Students are instructed on study skills, time management, school procedures, social skills, and character development (Cauley & Jovanovich, 2006). The study found that summer programs can also be effective in easing student and parent transition anxiety while familiarizing participants with the school, locker usage, and middle school level assignments. The study concluded that comprehensive transition programs that incorporate various effective activities can lead to less stress and increased academic achievement during transition (Cauley & Jovanovich, 2006).

A study by Midgley and Urdan (1992) provided guidance in creating an effective transition program that focused on limiting the decline in student motivation and academic achievement that consistently occurs during middle school transition. Researchers recommend limiting the practice of ability grouping when scheduling students during the transition, while promoting cooperative learning, problem solving and deep understanding of concepts. It was found that students respond positively to progress grading in which students have an active role in determining their grades with an overall emphasis on learning for the sake of learning (Midgley & Urdan, 1992). Transition programs that place an emphasis on learning from mistakes, allowing academic "redos", and encouraging risk taking have been proven to improve student self-concept and overall moral. Replacing traditional instructional practices such as memorization and the overuse of textbooks and worksheets with challenging assignments that encourage problem solving and deep comprehension was proven to increase retention of information and academic performance (Midgley & Urdan, 1992).

The creation of small-group advisories that provides every student with a trusted adult to oversee the middle school transition has been found to ease the burdens of transition as students build relationships with their mentors that are both academic and developmental in nature. The study found that schools that dedicate time and resources to training teachers in basic counseling skills that coincide with the developmental needs of young adolescents have higher levels of student achievement and lower levels of anxiety and negative self-concept (Midgley & Urdan, 1992).

Conclusion

Past research has lead to many assumptions and ultimately conclusions about the difficulties of transitions in education. There are a myriad of research based reasons for the decrease in academic achievement that is the primary focus of this project. When one analyzes the data and results of years of research, several common themes come into focus. The vast majority of students will face academic, social, and developmental difficulties that will present challenges in their scholastic journeys. Research demonstrated persistent academic challenges in the form of departmentalized classes, ability-based goals, and student competition that are a shock to transitioning classes. Studies demonstrate that increased rigor, homework, and the introduction of ability grouping can all have negative effects on student achievement.

Consistent themes also exist in the form of developmental obstacles such as environmental fit, adjusting to new peer groups, dealing with lockers, showering, and the overall onset of the challenges associated with puberty. Multiple studies explored the effect of transition on students' motivation, self-concept, self-esteem, and overall value of their education. The outcome of this research found that the majority of students suffered a decrease in these crucial social domains, resulting in a negative impact on overall student achievement. The culmination of reviewing research has provided substantial information as to possibilities of why students are struggling with the transition from 6th to 7th grade in the Southeastern Greene school district.

Studies that focused on transition plans and dedicated transition programs provided insight into successful approaches for addressing the problem on both an academic and developmental level. Researchers that have developed unique theories

associated with transition such as stage-environment fit, goal-theory approach, and selfdetermination theory provide techniques that can be incorporated into the construction of an effective transition program.

Information disseminated in the review of literature will be incorporated into answering the overarching question at the core of the research project. By indentifying consistent, research-based obstacles for student success, it will be easier to uncover underlying difficulties experienced by students during the current study. Evaluating research that focuses on successful transition plans and programs will provide an impetus toward constructing an effective transition program at the conclusion of the project that will have a positive impact on students in this school district.

CHAPTER 3

METHODOLOGY

Introduction

Chapter two provided detailed insight from past research into the effects of transition on student achievement at an academic and developmental level. The researcher based this study on the results of the PSSA math and reading tests from the past five years (2015 through 2019) and by surveying sixth grade teachers at Bobtown Elementary and seventh grade teachers at Mapletown Jr./Sr. High School on topics associated with student's transition to Jr. high school. The intent of the survey was to gain an understanding of how teachers utilize instructional practices, compose grades, construct assessments, and assign homework. Data produced by the survey would then be employed to compare and analyze the academic changes that students experience during the transition process. An additional benefit resides in that responses will provide a deeper level of understanding than classroom observations. Survey responses also allow for teachers from both ends of the transition spectrum to opine about their concerns for students and to provide insight into interventions that could contribute to a solution.

The initial intent of the study focused on analyzing the results of the 2020 seventh grade PSSA (Pennsylvania System of School Assessment) math and reading tests and to compare them to the sixth grade scores from the previous year. The PSSA data would then be triangulated with classroom grades and the survey results to provide valid data on disconnects between the two schools and lead to the development of a dedicated transition program. However, the arrival of the COVID-19 Virus has forced the Pennsylvania Department of Education into the historical decision to close schools and

cancel all state testing. Therefore, this research project will now focus on a five year cohort beginning with the seventh grade class of 2015 and extending through 2019. The overall goal of improving the transition process for students from an academic and developmental perspective remains the same, research will be expanded to focus on a larger population of students over an extended period of time.

Research Purpose

The purpose of this study is to explore the consistent decline in PSSA math and reading scores as students transition from sixth grade at Bobtown Elementary to seventh grade at Mapletown Jr/Sr High School. This has been a troubling trend for the duration of my five year tenure as the principal at Mapletown and a problem that the middle school team and I have yet to solve. The issue led to the development of research questions that will be the driving focus of the project. This action research study will focus on various aspects of transition:

- Why are students experiencing decreasing PSSA test scores during the transition from sixth to seventh grade?
- What are the differences in classroom instruction and assessment implemented by sixth and seventh grade teachers?
- What remedies could be enacted by administration to improve upon or eliminate the problem?

The primary research methods that will be utilized include a survey of sixth and seventh grade teachers to determine differences in instructional practices, grading, and classroom culture found in the two buildings. Inquiry data will be obtained by utilizing a

mixed methods survey that will produce quantitative data through closed-ended questions that provide percentages and rankings of survey questions. The survey will provide both quantitative and qualitative data on various factors that are hypothesized to have an impact on student achievement. Research will also include analysis of five years of PSSA reading and math results for seventh grade students with a secondary emphasis on peripheral data such as classroom grades, attendance, and discipline referrals.

At the conclusion of the study, the researcher will have an in-depth understanding of the differences in the overall classroom structure and instructional practices between the two schools and how this variance impacts student achievement on the PSSA math and reading tests. The findings produced by this study will be utilized to create focused professional development for seventh grade teachers with the intent of remediating areas of academic and cultural disconnect. An enhanced understanding of the changes that students experience in the classroom will allow us to build a data-driven and focused student transition plan that will ease the shock of change and improve student achievement in the classroom and on the PSSA math and reading tests.

Setting and Participants

Southeastern Greene School District is located in a rural setting with a small student population. The school district is located in Greene County, Pennsylvania and is composed of three townships: Greene, Dunkard, and Monongahela that encompass 68.4 square miles. The total population of the region is approximately 4,400 people. The community has very little diversity with 98.9% of the population identifying as Caucasian and has relatively low socioeconomic indicators as the median household income is \$36,177.

Southeastern Greene School District consists of two schools: Mapletown Jr./Sr. High School and Bobtown Elementary School. Bobtown is a K-6 building with 299 students and 26 teachers resulting in a student teacher ratio of 12:1. The student population is not racially diverse as 97.7% identify as Caucasian. Student demographics illustrate the economic distress that the area has experienced as 59.5% of the student body is identified as socioeconomically disadvantaged and 23.8% are receiving some form of special education services. Overall, Bobtown Elementary has performed exceptionally well in regards to student achievement on the PSSA test. The school's SPP (School Performance Profile) score of 82.7 was the highest individual school score in Greene County and the third highest score in the Intermediate Unit (1).

Mapletown Jr./Sr. High School is a grade 7-12 building that serves students in both a junior high and senior high model. Currently, 256 students are enrolled in the school with 55.5% considered to be socioeconomically disadvantaged while 19.1% receive some form of special education services. We currently have a staff of 29 teachers with a student to teacher ratio of 9:1. Jr. high students are instructed predominately on the third floor with all core classes being instructed in this location. Jr. high students are mostly isolated from the older students, with the exception of elective classes that require them to venture off of the third floor and for lunch.

The focus of the study is on the seventh grade and how the transition process has impacted academic achievement on their PSSA math and reading test results. The average class size over this period of time is 42 students with the largest class consisting

of 49 students and the smallest with 32 students. All classes are predominately white with 98% of students identifying as Caucasian over the five-year span of the study. Socioeconomic indicators have remained steady with an average rate of 54% of students reported as economically disadvantaged while 24% received services through special education. The demographics and composition of this cohort is a consistent representation of the overall student population of the school district.

Inquiry data will be provided through survey items that were completed during the 2019-2020 school year by the sixth and seventh grade teachers that directly participate in the transition. All teachers have signed consent forms to participate in the study that was previously approved by the IRB at California University of Pennsylvania. The sixth grade team consists of two teachers that are departmentalized into two separate sections of reading and math, respectively. The sixth grade traditionally consists of two sections of students that attend classes together throughout the school day. The teachers that will participate in the study have multiple years of experience at the sixth grade level. The reading teacher has 12 years of experience while the math teacher has six years of experience in their respective fields.

Sixth grade students at Bobtown are scheduled with 90 minutes of reading instruction and 90 minutes of math instruction per day. The class is divided into two sections with the majority of high functioning special education students placed together for co-teaching purposes. This years cohort had 18 and 17 students in each section with five students receiving special education services in self-contained classrooms. Students that are in the self-contained class demonstrate significant cognitive deficits in core

content areas that require specialized instruction and typically require additional services (social work, speech etc.).

Seventh grade reading is taught by a teacher, who is in her first year in the position. She has two years of experience as a permanent substitute at the middle school level and taught high school English at Mapletown during the 2018-2019 school year. The seventh grade math teacher has been in the position for five years. Each of the seventh grade teachers has three sections of students that are scheduled, based on their sixth grade PSSA scores, classroom achievement, and teacher recommendation. Reading and math classes are instructed in 90 minute blocks with the exception of fifth period, in which students have 30 minutes of instruction, 30 minutes of lunch, and another 75 minutes of instruction. The amount of time allocated for instruction has been consistent at both buildings for the duration of the study.

The reading teacher has two classes that she is responsible for teaching, seventh grade reading and Advanced Placement Composition and Language. The math teacher has one class on his schedule with seventh grade math being his sole responsibility. He is scheduled for a daily remediation period while middle school students are in their rotational electives. During this class, he pulls students from their elective classes for instructional remediation and to complete make-up work for those that have incurred school absences. Seventh grade reading students are remediated by the eighth grade reading teacher, as the seventh grade teacher instructs her AP class at that time. The research plan being amended to encompass the past five years of PSSA data has lead to the inclusion of our eighth grade reading teacher in the study. She was primarily

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responsible for seventh grade data over the entirety of that time span and will add additional insight into the project by completing the teacher survey.

The seventh grade sections remain consistent during the school day, with cotaught students, emerging students, and advanced students going through their school day in cohorts. Co-taught students are supported in both math and reading classes by an assigned special education teacher that is scheduled to the class on a daily basis. The seventh grade teachers instruct every student in the grade as (with the exception of life skills); we have no self-contained special education classes. Teachers modify instruction and pacing to suit the styles and levels of the learners in their classes, but utilize the same textbook and assessment tools for all sections of students. The master schedule has been consistent throughout the five-year span of the study.

Development of the Research Plan

The question of why students struggle with transitions between different levels of education has been extensively researched for over the past 40 years. While reviewing relevant literature on the topic, the researcher felt more confident that the decline in student achievement that we are experiencing at Mapletown is a significant issue and found that we are hardly alone in our frustration. Past research has viewed the phenomenon of transition from vastly different perspectives, ranging from academically based research that focused on the structure, practices, and instructional aspects of schooling to more developmentally based theories that explore the physical, social, and psychological state of adolescents at the time they experience school transitions. Exploring past research enlightened me to different perspectives as to the causation of student difficulties during transition periods. It is my intention to compare (through teacher surveys) core classroom practices in our sixth and seventh grade classes to determine the key instructional differences that could be causing the drop in academic achievement. Researchers who have focused on comparing classroom practices between elementary and middle level schools have found several reoccurring aspects that have been attributed to declines in student achievement.

Developmental Theories

The literature review introduced two predominate developmental theories that will be evaluated for relevancy in regards to the current study. Self-determination theory emphasizes connections, responding to change, and having control of life decisions. Stage-Environment Fit Theory focuses on how changes in school environment will impact students academic and social self-perception (Eccles & Roeser, 2009). The research required teachers to answer survey questions that allowed them to rank possible causes for student difficulties during transition. The response items were based on academic concerns, but were also influenced by developmental theories.

Teachers provided insight into possible remedies for transition by ranking different means of interventions based on predictive effectiveness. Stage-environment fit theory influenced the selection of teacher and student mentors as possible steps to improving the transition process, as added supports from trusted adults and peers could ease the cultural and academic shock. Other interventions found in the survey include responses that were based on creating a Jr. high environment that is more closely modeled after the elementary model and has less of the characteristics of a high school.

The researcher placed an emphasis on evaluating areas where continuity is important and relatively easy to implement, items included sharing effective instructional practices, establishing similar homework loads between schools, and developing common assessments for both grade levels (Eccles & Roeser, 2009).

The review of literature illustrated that most studies on middle school transition were divided into two distinct categories of focus: academic and developmental. While evaluating research that analyzed and identified the academic aspect of transition, consistent themes began to emerge. Differences in the instructional practices of elementary and middle level teachers were found to be consistent across multiple studies conducted in various geographic areas and through different periods of time.

Academic Causations for Difficulties in Transition

Research conducted by Alspaugh (1998) confirmed that instruction at the elementary level is task-oriented while instructional practices at the middle school level are primarily associated with mastery learning and academic performance. The study also found that elementary teachers frequently employ small-group instruction and individualized instruction more consistently than middle level teachers who focus on lecture and note-taking. The findings from this study were taken into account during the development of teacher survey questions that explored the difference in instructional practices between the buildings. Survey responses required teachers to provide a percentage for commonly utilized instructional techniques in their classroom. The intent of this question was to determine the difference between the buildings and how this could affect student achievement.

A common theme found in existing research is that elementary teachers utilize task-oriented instruction with a strong emphasis on improvement, while middle level teachers tend to employ performance-based instruction that emphasizes individual achievement (Maehr & Anderman, 1993). A separate study by Bicknell & Hunter (2002) found that elementary students benefited from group work, positive teacher interactions that focused on building confidence, and improving skill sets. The researcher found these results to be intriguing and set out to explore if the sixth grade team is employing similar instructional techniques and to determine if my seventh grade team is following suit.

One of the overarching goals of the research project is to determine if the sixth grade team at Bobtown is employing the types of instructional practices that were identified in the literature review as being effective with elementary students and to evaluate the changes that are occurring at Mapletown Jr. High. The teacher survey required that both the sixth and seventh grade teams provide a percentage for how often they employ common instructional techniques on a weekly basis. Survey items are rooted in the findings from the literature review and include lecture, small-group instruction, independent practice, technology based instruction, and hands-on activities.

Survey items were selected based upon reviewed research that solicited information from teachers, students, and parents on how instructional practices changed during the transition. The researcher evaluated research conducted by Midgley, Anderson, and Hicks (1995) that emphasized the goal-theory approach. The theory hypothesizes that teachers at the middle level utilize performance goals over task oriented goals that dominate elementary instruction. The teacher survey included a question based on academic concerns from both the sixth and seventh grade perspectives with aspects of

goal-theory approach present, as the research is concerned about the amount of performance-based assessments/instruction at the Jr. high level compared to task-based assessment/instruction found at the elementary school.

Determining the types and frequency of instructional techniques that are being utilized at both ends of the transition process will be an important part of my overall research and may provide insight into our student's transition experience at a level of depth that we have not yet reached. Studies that provided insight into common discrepancies in instructional practices were of particular interest to me. On the survey, teachers were asked to rank academic concerns that they have for students from both the sixth grade and seventh grade perspective of the transition. The responses that the researcher chooses were based on information obtained from past research.

Reviewed studies consistently indicated that changes in instructional practices resulted in an increase in anxiety and frustration for transitioning students. The researcher developed one survey question dedicated to indentifying specific differences in instruction between sixth and seventh grade teachers and followed up by adding a response on the question about concerns that reads "changes in instructional practices" to gain insight into how teachers interpret this change. It is my hope that identifying instructional practices in both math and reading that are effective at the sixth grade level and transitioning these techniques to the seventh grade teachers will be an effective component to an overall improvement plan.

Another aspect of transition that will require ranking is based on content and how teachers perceive the differences in both the math and reading curriculum during transition. There are clear curricular differences in the Pennsylvania standards for both

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subjects with new concepts being introduced and an overall increase in complexity. While reviewing literature, the researcher evaluated several studies that analyzed how curricular changes impact academic achievement during transition. One predominant study found that curricular content and visual aesthetics had a negative impact on student achievement as elementary textbooks tend to have larger print and more visuals than middle level text books (Jansen, Schielack, Smith & Seeley, 2012).

The researcher wanted to survey the teaching teams on several connected issues when determining their concerns about the transition. Another common theme that appeared in past studies focused on differences in master scheduling between schools; primarily the students at the elementary level have less teachers and classes to be concerned about than middle level students. In our school district, sixth grade students have two teachers that share the responsibility of instructing core classes with 90 minutes of instruction for math and 90 minutes for reading. Students that transition to seventh grade are taught by four separate teachers with 90 minute blocks for math and reading instruction and 45 minutes for history and science.

The researcher dedicated multiple questions on the teacher survey to homework in order to determine the different philosophical outlooks between the two schools and to formally analyze the amount of both time and assignments that differ during the transition. Multiple studies indicate that a major source of anxiety for transitioning students is the anticipation of increased homework at the middle school level. The research included a question to determine the amount of homework hours assigned per week at both levels in order to gain a quantified understanding of the extent of the increase for both math and reading classes. The research also required teachers to rank

completing homework as one of the responses for their transition concerns to gain more insight into their perception of the homework question.

The basis of my research focuses on the decline of student achievement in regards to the PSSA math and reading tests. However, the researcher will also be analyzing the decline in student classroom grades, as classroom achievement directly correlates with success on the PSSA test. The teacher survey includes a question dedicated to evaluating how teachers at both ends of the transition determine student class grades. To take the depth of the study a step further, I included two further questions that required teachers to provide percentages for the types of questions that they employ in standard math and reading tests.

To analyze how teachers are determining overall letter grades, the researcher requested that they provide a percentage to four responses: tests, quizzes, class work, and homework. The two questions inquiring about test composition for math and reading classes ask teachers to provide a percentage for the types of questions that they utilize in typical tests; responses included: multiple choice, short answer, essay, fill in the blank, and true/false. This series of questions was based primarily on a study by Randall & Engelhard (2008) that determined the transient nature of middle school schedules; where students are graded by multiple teachers is a detriment to overall student achievement. A teacher survey employed in this study resulted in a statistically significant difference in grading tendencies with elementary teachers typically grading students higher than middle school teachers.

The survey includes a question that asks teacher participants to rate the frequency in which they teach students test taking skills during the school year. I included five test taking skills that are commonly taught in our school district, in order to determine if we have a disconnect between skills that are being utilized at the elementary school and the Jr high school.

The rated responses included: eliminating wrong answers, educated guessing, absolute words, context clues, and mistakes in bubbling answers. This question will provide insight into test preparation at both levels and will allow for improvement through focused professional development.

Teacher Input

The final survey item allowed for teachers to provide valuable input on proposed remedies to help students with the transition from elementary to Jr. high. Teachers ranked the following proposals: teacher mentors, student mentors, establish common assessments for both schools, create homework quotas that will transcend the transition, and provide continuity in instructional techniques and practices. Research by Akos (2002), provided insight into creating the remedies for the question as this study focused on building relationships with middle level teachers and older peers as a means for easing tension and anxiety. The researcher also utilized a study by MacIver & Epstein (1993) that surveyed middle school principals about future transition interventions that they would like to see implemented in their schools. The study's results suggested the adoption of teacher mentors that double as homeroom teachers and in providing for student mentors.

Description of Research Plan

The researcher will survey the sixth and seventh grade teaching teams with the intent of gathering accurate and valid data on student transition from the perspective of the teachers that instruct on both ends of the transition spectrum. The survey consists of questions based on past research on the elementary to middle level transition and how this change impacts student achievement. The researcher constructed the survey based on consistent themes from both the literature review and from my 10 years of experience as a high school administrator. Survey questions were designed to provide insight into the classrooms from a student and teacher perspective at both grade levels that cannot be obtained through standard observations or walk-throughs.

The survey was designed to gather reliable data and to allow for a detailed comparison between the teachers at both grade levels. The researcher has observed a consistent decline in student achievement in both traditional classroom grades and in PSSA math and reading scores during the transition to the Jr. high level. The survey is constructed to allow for teachers to educate me about detailed aspects of their classrooms. To determine why student classroom grades declined, I required teachers to provide a percentage as to how they constitute grades through tests, quizzes, in-class work, and homework. The researcher then requested that they quantify the amount of homework they assigned per week to identify if students are experiencing a significant increase during the transition. Student test preparation through the introduction and employment of test taking skills was also of interest and included as a survey question.

In order to better understand classroom grading practices while simultaneously gaining insight into PSSA test preparation, the research included two questions focused

on the composition of formal assessments in math and reading classes at both levels. Teachers provided a percentage of usage for each type of test item that they include for both classes. The questions will allow for a detailed analysis of our classroom assessments for both continuity between grade levels and to determine if they are aligned with the rigor and content of the PSSA tests.

The first series of survey questions was intended to determine how grading and assessment differ between grade levels; the next question will provide data on instructional practices employed in math and reading classes on a weekly basis. Teachers provide a percentage as to the frequency of utilization for five types of common instructional techniques. The results will be compared and analyzed to determine if the instructional practices of the elementary teachers are significantly different than the middle school. It will be important to determine if students participating in transition are experiencing a drastic change in instructional practices as it could be a factor in the decrease in student achievement.

The final two survey items require teachers to provide their opinions and concerns for students during transition and to provide insight into interventions that could be employed in a dedicated transition program. Both grade level teams ranked concerns based on their perceived negative impact on students during the transition process. The results will be evaluated for commonalities and differences between the different levels of instruction. The question on interventions is constructed similarly with teachers ranking responses based on perceived effectiveness. As with the previous question, teacher opinions will be utilized in analyzing possible reasons for the existing question and will also contribute to designing professional development to solve the problem. In addition to the teacher survey, the researcher will be analyzing student achievement data emanating from the past five years of PSSA math and reading testing in conjunction with classroom grades and other indicators of student success, such as attendance and discipline data. The discrepancies in achievement will be evaluated with data gathered from the teacher survey to determine if differences in classroom practices and instruction are making an impact on student academic success through the transition process.

Fiscal Implications of the Research Project

The Southeastern Greene School District will not incur any financial loss from this research project. All participants, surveys, and software utilized to complete the project were previously in place within the school district and were accounted for in the 2019 budget. At the conclusion of the research, the researcher anticipates a level of financial commitment from the school district in order to develop and implement professional development that is based on data gathered from this research and focused on providing interventions in a systemic program to improve student achievement during the Jr. high transition.

Research Design, Methods & Data Collection

This is a mixed-methods research approach that will utilize inquiry data generated by teacher-based surveys and various forms of student achievement data to investigate causes for academic decline during the transition from elementary to Jr. high school. The survey consists of eight closed-ended questions that will produce quantitative data through responses based on percentages, numerical scale rankings, and straight

quantification. Survey questions will be based on teacher knowledge and behavior regarding their classroom practices and the overall transition process. Teacher perceptions of transition obstacles, test preparation skills, and interventions are ranked through a 1-5 scale, while questions based on class assessments, letter grades, math and reading test composition, and instructional techniques are based on percentages.

Other sources of pertinent data are based on student achievement indicators that provide evidence of the academic decline that is the primary focus of this study. The researcher will analyze the seventh grade achievement results on the PSSA math and reading tests from 2015 through 2019 as well as their class grades. The seventh grade cohort data for each class will be compiled and compared to their sixth grade results for evidence of decline in both standardized tests scores and in their classroom achievement. Therefore, the study will be triangulated through the utilization of three sources of data: teacher survey results, math and reading scores from the PSSA test, and standard classroom grades.

Timeline for Data Collection

Teachers were emailed their surveys on February 2^{nd,} 2020 and the researcher was very pleased to have all surveys completed and returned to me by February 18th. The addition of my 8th grade reading teacher did not impact timelines, as she was emailed the survey on March 24th and completed it on the 25th. With the relatively small sample size involved in the study, the researcher did not anticipate having difficulty in managing the study. The administrative team in our school district has a very positive relationship with the faculty, which is a benefit when soliciting aid on a project that requires teachers to take time and to place effort into answering survey questions on their own time. Results

were tabulated quickly with only four participants and 8 questions. The scope of the data seems small, but the results delivered the data that was needed.

The timeline for analyzing student achievement data has drastically changed with the cancellation of the 2020 PSSA tests. The PSSA math tests were initially scheduled to be administered on April 28th and 29th while the reading tests were scheduled for April 21st through the 23rd, with the anticipated release of the results in mid-June. Student classroom grades would have been finalized on June 10th. The situation is now less constraining, with all data being immediately available for evaluation and comparison, the researcher will be able to significantly advance the timeline for data analysis from June to late April.

Data collected through the teacher survey and by analyzing student classroom grades in conjunction with PSSA math and reading scores will directly address the three primary research questions that are the basis for the study. Student PSSA math and reading test scores are consistently declining as students transition from sixth to seventh grade. The teacher survey is designed to provide data that will allow me to thoroughly evaluate various factors that could be leading to the decline, through both an administrative viewpoint and through survey answers that provide insight into what the teachers are experiencing at the classroom level.

Survey responses will provide a means to determine if differences in classroom practices and assessment in the elementary and Jr. high classrooms are a factor contributing to the decline in student achievement at an in-depth level. Data gathered from this question will allow us to align and provide continuity regarding key aspects of instruction, grading, and assessment during the transition process. The final question

focuses on creating a dedicated program to effectively intervene and reverse the decline in student achievement. The data gathered through analyzing teacher surveys and comparing the results to student performance will provide valuable input into creating professional development and ultimately a dedicated transition program based on best practices and reliable data.

Baseline data will be provided by comparing PSSA math and reading scores from past classes as they transitioned from sixth to seventh grade. I will utilize our data warehouse software (provided by southeasterngreene.myedinsight.com) to provide a detailed baseline of PSSA data results from my inaugural year as principal (2014-2015) through the 2018-2019 school year. The sixth grade class of 2014 will constitute the initial cohort, as the researcher will compare this score to their seventh grade achievement results. This process will be repeated for five years, resulting in a solid baseline for PSSA results for five cohorts of transitioning students.

While developing the research plan for this project, the researcher considered several options for the data he wanted to analyze and what methods he would utilize to acquire the information that the researcher felt was pertinent to the study. My intent was to gain insight from the teachers as to what they experience at the classroom level and how they conduct their classes on a daily basis. The key to the study was to determine the differences that the students experience as they transition from one school to the next. The researcher felt that a close-ended survey would provide the data that he required and would promote more honesty from the teachers than a formal interview and would be more detailed and practical than conducting observations.

The decision to focus on PSSA testing data was obvious as it is the means in which our school is measured by the Pennsylvania Department of Education and the community, the amount of data drastically changed with the evolving circumstances experienced with the changes to the 2020 testing and the school calendar. The test is standardized and has not been significantly altered over the past five years; therefore data should remain valid and reliable. The researcher elected to include classroom grades into the project, as students have exhibited a precipitous drop in teacher produced assessments that is in direct correlation with the decline in test scores. The increase in data from a single cohort to five cohorts of seventh grade students will provide a more diverse understanding of classroom achievement. The research will support the primary data with peripheral statistics, such as attendance and student discipline referrals as secondary evidence of the impact on transition over a five year span.

Validity

Multiple types of validity were used to ensure that data produced during the course of this study is accurate and focused on answering the research questions that form the basis of the project. Content validity is vital to ensuring that data produced during the survey process is aligned to the overarching goal of the study. Survey responses produced data that directly measured key aspects of classroom instruction, assessment, and classroom grade composition. Teachers quantified content through identifying percentages and ranking closed-ended questions that were based on their classroom practices. The questions that were asked directly pertained to key aspects of the students' classroom experiences and the changes that were experienced during the transition process.

Survey data is further validated through its relations with multiple sources of student achievement data. PSSA math and reading test data predictably correlate with student classroom grades that in turn jointly corroborate the findings produced by the sixth and seventh grade teacher surveys in regards to the variables that are contributing to the overall decrease in student achievement. Validity is also provided by the positive consequences that will be produced by the study. Data produced by the teacher surveys and triangulated through student achievement results will be utilized to create a dedicated transition program that is based on accurate and reliable information. It is my overall aspiration to not just raise standardized test scores, but to improve the student experience of transitioning from the elementary to Jr. high level through an effective transition process.

The researcher utilized Lincoln and Guba's trustworthiness criteria (Hendricks, 2017) to provide a formal check of the trustworthiness of the study. He found data produced by the teacher surveys to be credible, as the researcher has no reason to believe that the results are not the honest answers of the individuals involved. The survey questions are rooted in the findings of the literature review and are based on fundamental aspects of the transition process and should be transferrable to other researchers exploring causations for academic decline during the elementary to middle level transition.

Based on my past experience as an administrator in schools that are demographically and geographically similar to Mapletown, the researcher feels that the results of this study would be similar and dependable if replicated at other schools that share our size and socioeconomic level. The results produced by the teacher survey and through analysis of student achievement data are confirmed to be a true representation of the findings and were not influenced or manipulated in any way (Hendricks, 2017).

Summary

Despite the unexpected changes to the research plan, the researcher feels confident that the research plan has produced reliable and valid data that will allow our school district to develop effective interventions in order to serve our students at both an academic and developmental level. The survey questions are focused on aspects of transition that have been researched and proven to have an impact on student achievement during transition at both the elementary to middle level and middle level to high school. The triangulation of the survey data coupled with the decline in PSSA math and reading scores and the precipitous drop in classroom achievement will provide insight into changes at the classroom level that are impacting students during the transition.

Chapter 4

Data Analysis and Results

Introduction

The basis for the study is rooted in the consistent academic decline in student performance on the PSSA math and reading tests as class cohorts transition from sixth grade at Bobtown Elementary to seventh grade at Mapletown Jr/Sr High School. The researcher will compare pre-transition sixth grade PSSA test scores with post-transition seventh grade PSSA test scores to quantify the extent of the decline. Student classroom grades for reading and math will also be analyzed and compared in the same manner to further validate the academic impact of transition on student achievement.

Research will focus on determining primary factors that are contributing to the decline in student performance. This data will be provided by surveying the 6th and 7th grade teachers that are directly involved in the transition process. The results of the survey will be tabulated and presented as a means of comparing the differences in classroom practices that impact student learning at an individual level. Teachers will provide input on what concerns them the most about transitioning students and by ranking interventions that would best help them through the transition process.

In this chapter, data will be analyzed and interpreted to determine the extent in which student achievement is declining during transition. The results of the teacher survey will be evaluated to expose gaps in instruction and overall continuity. Data will be interpreted with the intent of creating interventions that will form the basis of a dedicated support program that will support all students during the transition process.

Impact of Covid-19 on Data Analysis

The primary, original data source for this project was to be the PSSA math and ELA test results for the seventh grade class of 2020. The test results would then be compared to the seventh grade cohort's scores on the sixth grade tests of the same subjects. The researcher also planned on comparing the cohort's classroom grades as they transition from sixth to seventh grade. The Covid-19 outbreak forced a substantial change in data collection and analysis, as the state of Pennsylvania canceled all state testing (including the seventh grade PSSA test) on March 19th, 2020.

This monumental shift in testing policy forced the researcher to amend his original plan for data analysis. With this year's data no longer available, the decision was made to expand the scope of the project to include a five-year window of testing results that happened to encompass the entirety of the researcher's tenure of employment in the school district. In retrospect, the expansion of available data will provide more detail and will allow for the investigation of trends over a period of time, rather than a single year snapshot of one cohort. The Covid-19 epidemic also eliminated the possibility of utilizing classroom grades for the seventh grade, as students had only the first semester of traditional grading. The avalanche of students earning 100% grades as a result of hybrid instruction would not have provided any value to the overall goals of the researcher.

Comparing PSSA Test Results: English Language Arts

The comparison between sixth and seventh grade achievement on the PSSA ELA test demonstrates a wide disparity in scores with a precipitous drop in achievement from sixth to seventh grade. Over the five years that encompass this study, students would

have been instructed by the same sixth grade and seventh grade ELA teachers through the entirety of the time span. The PSSA ELA curriculum and test were aligned to the newly adopted Pennsylvania Core Standards in 2014. The curricular standards and the test anchors have remained predominately consistent since that time, thus providing a stable standardized testing model to gather reliable student achievement data.

Students will be evaluated as five individual cohorts as they transition from sixth to seventh grade, with their overall proficiency being a primary source of data and the numbers of advanced, proficient, basic, and below basic students being secondary indicators. It is important to note that schools are "assessed" by the number of students who are both advanced and proficient on the test. However, the amounts of advanced and below basic students are also statistically significant as they demonstrate the number of students who are at the ends of the academic spectrum, with schools striving for higher numbers of advanced students while producing as few below basic students as possible.

Student demographics and subgroups have maintained a level of consistency through the five cohorts with the average percentage of socioeconomically disadvantaged students being 58.1% and the average percentage of special education students being 20.8%. Subgroups based on race and ethnicities do not apply to our school district due to nearly 100% of our student population identifying as Caucasian. These factors will not impact the study or the performance of each cohort in regards to academic achievement. Southeastern Greene School District purchases text book series that serve both the elementary and jr high school. The school district purchased new math and ELA text books in 2015 with the intent of aligning curriculum to the Pennsylvania Core Standards. Table 1 compares sixth grade PSSA English Language Arts scores with the same cohorts score on the seventh grade test. The state average for the test will also be recorded, as it is important to reference how our students compare to the rest of the state and to illustrate differences in the level of difficulty between the two tests. The percentage of advanced and proficient students is combined to one number representing the amount of students who passed the test. The table will include the academic achievement of five separate cohorts over a five year period.

Table 1

Cohort Year	6 ^h GradeStore	7h Grade Store	Difference	State Average (6 ^h Grade)	State Average (7 ^h Grade)
2014-2015	54.3%	387%	-156%	NA	586%
2015-2016	60.5%	367%	-23.8%	60.7%	61.4%
2016-2017	727%	550%	-17.7%	61.6%	59.4%
2017-2018	84.6%	68.3%	-16.3%	636%	620%
2018-2019	681%	630%	-51%	625%	60.5%

PSSA ELA Test Scores (Student Proficiency)

The data displayed in Table 1 illustrates the consistent decline in ELA test scores that we have experience over the past five years. Each cohort has seen a significant drop in overall proficiency during the transition process. While this is a clear concern for the school district and one of the primary questions that this research project seeks to answer, it is also pertinent to note that the overall trajectory of achievement for both schools has moved in a positive direction, with Mapletown slowly closing the achievement gap over the past four cohorts. Evaluating the state averages provides further evidence of progress in the overall educational program, as Bobtown has eclipsed the state average in each of the past three years and Mapletown has surpassed the mark in each of the past two years despite the school district's high percentage of socioeconomically disadvantaged students.

Further analysis of the test results finds that the percentage of students that scored advanced in the sixth grade has significantly declined when tested at the seventh grade level. Over the five year span of the study, cohorts have averaged 19.4% advanced in sixth grade and 10.2% after the transition to seventh grade. The decline in advanced test scores demonstrates that the transition has a negative impact on the highest achieving students. Conversely, sixth grade students scored below basic at an average of 7.7% and improved to an average of 5.4% on the seventh grade exam.

Comparing Classroom Grades: English Language Arts

The data provided in Table 1 indicates that students are not successfully transitioning from the elementary to Jr high level in regards to student achievement on the PSSA ELA Test. Table 2 will compare classroom grades as cohort groups transition from sixth to seventh grade. Classroom data will provide insight into possible disconnects in regards to curricular structure and classroom grading practices, as student classroom achievement should have a strong correlation with the PSSA test results.

Table 2:

Cchart Year	6 ^h Grade Score	7 ^h Grade Sucre	Difference	
2014-2015	886%	801%	-85%	
2015-2016	902%	782%	-120%	
2016-2017	892%	77.5%	-11.7%	
2017-2018	867%	756%	-11.1%	
2018-2019	882%	781%	-10.1%	

Comparison of Student ELA Classroom Grades

Student classroom percentages decreased at a rate that is nearly the equivalent to a letter grade as they transition from sixth to seventh grade. The decline in classroom grades corresponds with discrepancy in PSSA ELA scores found in Table 1. The data from both tables is conclusive in regards to a clear decline in overall student achievement on both the exam and in the classroom. The drop in classroom grades provides evidence that the seventh grade ELA teacher did not artificially inflate grades to keep pace with student grades from the previous year; this is a positive and will be revisited in the analysis of teacher surveys.

Comparing PSSA Test Results: Mathematics

The mathematics curriculum drastically changed in 2014 due to the adoption of the Pennsylvania Core Standards, with overall student achievement scores dropping precipitously across the state. It is important to note that both school experienced this seismic shift in assessment and curriculum. In order to adapt to the changing environment Southeastern Greene School District adopted the Go-Math Series in 2015 at both the elementary and Jr high levels. As with the ELA exam, students had the same teachers throughout the five year time span and there were no significant changes to the PSSA Test during this time.

Table 3 compares sixth grade PSSA Mathematics scores with the same cohorts score on the seventh grade test. The state average for the test will also be included in the table, as it is important to reference how our students compare to their brethren across the state and to detail differences in the level of achievement between the two tests. The percentage of advanced and proficient students is combined to one number representing the amount of students who passed the test. The table will include the academic achievement of five unique cohorts over the span of five school years.

Table 3

Cohort Year	6 ^h GradeStore	7hGradeStore	Difference	State Average (6 ^h Grade)	State Average (7h Grade)
2014-2015	57.3%	156%	-41.7%	NA	330%
2015-2016	31.3%	14.3%	-17.0%	39.7%	37.0%
2016-2017	54.5%	350%	-195%	41.0%	37.8%
2017-2018	667%	366%	-30.1%	40.2%	39.0%
2018-2019	54.2%	21.2%	-330%	39.5%	382%

PSSA Mathematics Test Scores (Student Proficiency)

Table 3 is a clear indictment on the academic decline experienced during the transition process. The steep drop in student performance has been consistently documented, with no indication of improvement or signs that the achievement gap is closing. It is important to note that Bobtown Elementary has surpassed the state average

for the PSSA math test in each of the past three years while Mapletown Jr/Sr High School has failed to reach this important benchmark.

As with the PSSA ELA test, the total number of students who scored at the advanced level significantly dropped from an average of 23.8% to 9.0% as they transitioned from sixth to seventh grade. At the inverse of the grading curve, the percentage of students that scored below basic grew at an alarming rate with 14.9% scoring at this level in sixth grade and 43.1% in seventh grade. The overall data trend was further strengthened by the precipitous drop in achievement from higher-level learners and the large numbers of students who fell from scoring at the proficient and the basic level to the below basic level.

Table 4

Cohort Year	6 ^h Grade Store	7 ⁿ Grade Sucre	Difference	
2014-2015	77.2%	823%	+51%	
2015-2016	87.3%	84.8%	-25%	
2016-2017	898%	823%	-7.5%	
2017-2018	87.2%	808%	-64%	
2018-2019	866%	833%	-33%	

Comparison of Student Classroom Grades for Mathematics

The steep decline in PSSA math scores should be a harbinger for a steep decline in student classroom achievement, as this is a strong indicator that students are not mastering content to the point of proficiency within the established curriculum. Table 4 illustrates that classroom grades did not decline at the rate of the ELA classroom grades and this is an obvious concern, as students clearly experienced some form of disconnect in curriculum and (or) instruction at the seventh grade level. Teacher grading practices will be further evaluated in the analysis of the teacher based surveys, it will of great interest to evaluate the math teacher's responses.

The data presented in Tables 1-4 provides evidence for why this study is needed and quantifies the extent to which the elementary to Jr high transition has negatively impacted student achievement in vital content areas. The researcher has analyzed and pontificated about why this phenomenon is occurring and designed the teacher-based survey questions to provide insight into what is happening regarding student education at the classroom level.

Analysis of Teacher Survey Responses

The teacher-based surveys will provide data that illuminates the primary factors that are directly impacting student achievement and will provide the basis for addressing research questions (1.) What are the primary factors influencing decreasing PSSA test scores during the transition from sixth to seventh grade? and (2.) What are the differences in classroom instruction and assessment implemented by sixth and seventh grade teachers? Survey responses will form the basis for solving the final research question (3.) What remedies could be enacted by teachers and administration to improve and ultimately eliminate the problem?

The first four questions on the survey pertain to grading practices, with the overall intent to determine how the teacher establishes what constitutes a student's letter grade in their class. This battery of questions will provide detail as to the factors influencing both

classroom achievement and PSSA testing scores. Question one asks teachers to provide a percentage for the utilization of different forms of assessment and grading practices that are combined to create an overall grade. The researcher will be evaluating the results for possible discrepancies that would contribute to declining academic achievement in both subject areas.

Table 5

Results of Survey Question 1: Provide a Percentage on How You Determine Student Letter Grades.

Assessment Type	6 ^h GradeMath	6 ^h GradeELA	7 th GradeMath	7 ^{ch} Grade⊞A	8 ^h GradeELA
Tests	50%	95%	50%	40%	35%
Quizzes	40%	5%	20%	40%	35%
ClassWork	5%	0%	20%	10%	20%
Homework	5%	0%	10%	10%	10%

It is important to note that the eighth grade ELA teacher is included in the survey due to the COVID-19 Crisis of 2020 that resulted in Governor Wolf canceling all state testing. The original design of the study intended focused solely on the PSSA 2020 test scores, this was amended to include a five year time period in which the eighth grade teacher was responsible for the PSSA ELA scores. ELA grading at the elementary level is dedicated almost solely to PSSA style unit tests that are modeled after the state exam. The Jr high teachers do not continue this practice, as they count student test scores at less than half of the rate. This is a significant difference that must be investigated, as students will not have the repetitions in test preparation that they experience at the elementary level. Grading practices in mathematics are more consistent, but the increased use of quizzes by the sixth grade teacher is significant as they make up 40% of the overall grade with a comparative rate of 20% in seventh grade. The use of smaller, more frequent assessments at the seventh grade level could be a key to increasing student understanding and as a means of reliable progress monitoring. Students would benefit from the constant feedback and their grades would be impacted less by classwork and homework than at the current rate. The data presented in table 5 presents several opportunities for further discussion and improvement, as it is now apparent that the most significant disconnects lie in the amount of formal assessments for mathematics classes.

Table 6

Results of Question 2: On Average, How Many Hours of Homework Do You Assign Per Week?

Teacher	Amount of Homework Assigned (Per Week)
6 ^h GadeELA	1.0to 1.5Hars
6 ^h Gradel Math	1.0to20Hours
7 ⁿ GradeELA	Less Than 1.0 Hour
7 ^h GradeMath	Lessthan 1.0Hour
8 ^h GradeELA	1.0to20Haurs

The researcher did not predict the results of question 2. The common assumption was that students experience an increase in homework as they transition from the elementary to Jr high level. For ELA and math classes, the amount of homework assigned each week decreased. The seventh grade teachers indicated that the block scheduling for their classes allows them to significantly reduce the amount of homework that they assign, as students complete independent practice assignments in the classroom. It is important to note that the eighth grade ELA teacher assigned a higher level of homework than the current teacher and was the teacher of record for the duration of the study. While this table only provides data for ELA and Math classes and does not include possible homework increases in science and World History classes, the researcher can reasonably assess that a significant increase in ELA and math homework is not a factor in decreasing student achievement during the transition process.

Table 7

Results of Question 3: Provide a Percentage of the Types of Questions That Are Utilized On A Typical ELA Test.

Assessment Type	6 ^h Grade ELA	7 ⁿ Grade ELA	8 ^h Grade ELA	
Multiple Choice	70%	70%	75%	
Short Answer	5%	20%	10%	
Essay	0%	10%	15%	
Fill In The Blank	5%	0%	0%	
True/False	0%	0%	0%	
Matching	20%	0%	0%	

The data presented in Table 7 demonstrates that students do experience a significant difference in unit-style assessments as they transition from sixth to seventh grade. The sixth grade teacher indicated that elementary students receive instruction on Text Dependent Analysis (long essay) type questions in a dedicated rotational class that functions as a writing lab. Students in seventh grade have a 90 minute block of ELA that

incorporates all aspects of instruction; the assessments reflect the difference with the addition of TDA focused questions in their assessments.

Students have to adjust to answering a long-essay as a part of a larger assessment; this is not an aspect of assessment in which they are accustomed. The composition of the exams also differs in the absence of matching questions and expulsion of fill in the blank questions that included a word bank. The difficulty level of the seventh grade test with the addition of the TDA and the removal of matching and fill in the blank questions appears to be more challenging than the sixth grade tests. It is important to note that the current seventh grade teacher has changed how students will be graded by placing an added emphasis on shorter essay questions and slightly less on multiple choice and TDA questions.

Table 8

Results of Question 4: Provide a Percentage of the Types of Questions That Are Utilized On A Typical Math Test.

Assessment Type	6 ^h GradeMath	7hGradeMath
Multiple Choice	80%	50%
Short Answer	20%	40%
Essay	0%	10%
Fill In The Blank	0%	0%
True/False	0%	0%
Matching	0%	0%

Table 8 illustrates a significant difference in test composition that will force students to adapt and utilize more reading and writing skills than was required in sixth

grade. Seventh grade students experience a decreased emphasis on multiple choice questions and a 30% increase in short and extended response questions. Students that have mastered test taking skills with an emphasis on multiple choice questions will be at an initial disadvantage and must adapt to more writing prompts in their math assessments. The overall increase in TDA style questions in both classes is notable, as students tend to have apprehension about answering long essay questions that are embedded in unit tests. The survey transitions from assessment and grading to classroom instructional techniques and the teaching of test taking skills for questions five and six.

Table 9

Results of Question 5: Provide a Percentage of Commonly Used Instructional Techniques for Core Classes in a Typical Week

Instructional Technique	6 ⁿ Grade Math	6 ⁿ GradeELA	7 ⁿ Grade Math	7hGadeELA	8 ⁿ Grade ELA
Leture	30%	30%	25%	30%	25%
Smill-Graup	30%	30%	20%	20%	20%
Independent Practice	25%	10%	20%	20%	20%
Technology Based	10%	20%	20%	10%	15%
KinestheticBased	5%	10%	15%	20%	20%

Instructional techniques in mathematics differ through a 20% increase in kinesthetic and technology based instruction at the Jr high level with a corresponding decrease in small-group activities (10%) and to lesser extent in lecture (5%) and independent practice (5%). The drop in small-group instruction is consistent with previous research that established that the trend to limit group work has a negative impact on overall student achievement during transition periods. ELA instruction is similar in that small-group work decreases by 10% with that investment in time being exchanged for more independent practice. Technology based instruction is also limited by 10% with an increased emphasis on kinesthetic learning. Overall, the trend away from small-group instruction is in accordance with previous research on the subject, while the increase in kinesthetic activities at the Jr high level was notable and not documented as prevalently in prior studies.

Table 10

Results of Question 6: Rate the Frequency in Which PSSA Test Taking Skills are Emphasized During the School Year (1-5 With 1 Being the Least Frequent)

Test Taking Skills	6 ^h Grade Math	6 ^h GradeELA	7 ⁿ Grade Math	7 ^h GadeELA	8 ^h Grade ELA
Rocess of Elimination	3	1	5	4	4
Educated Glessing	2	4	4	3	3
AbsoluteWords	5	5	2	2	2
Context Clues	4	3	3	5	5
Mstudding	1	2	1	1	1

As students transition they experience a lack of continuity in test preparation instruction. Sixth grade students were instructed with an emphasis on absolute words and context clues prior to transitioning to seventh grade where instruction changed to focus on eliminating incorrect answers and educated guessing. This is a significant shift in philosophy that puts the seventh and sixth grade teachers in direct contradiction. The ELA teachers also lack continuity, as sixth grade instruction emphasizes absolute words and educated guessing prominently, while seventh grade students are drilled on context clues and the process of elimination. Overall, students experience two very different philosophies in the instruction of test taking skills that illustrate a disconnect between instruction during the transition process.

Table 11

Results of Question 7: Rate the Following Academic Concerns that You Have For Students Transitioning to the Jr/Sr High School (1 to 5 with 1 Being the Least Impactful)

AcademicConcerns	6 ^h Grade Math	6 ^h Grade ELA	7 ⁿ Grade Math	7 ⁿ Grade ELA	8 ^h Grade ELA
Difficulty of Content	1	3	4	4	3
Charges in Instructional Practice	5	5	2	2	5
HavingMultipleTeachers	4	1	3	1	1
Harrework Completion	3	2	1	5	2
Difficulty of Classroom Assessment	2	4	5	3	4

Data analysis of Table 11 illustrates that the elementary teachers concerns are both different from the Jr high teachers and from each other while a similar pattern is observed at the seventh grade level. The variety of answers to this question is apparent, with elementary teachers agreeing that changes in instructional practices are a primary concern, while the seventh grade teachers ranked this answer substantially lower. It is notable that the eighth grade teacher shared the elementary staffs concern, perhaps in retrospect? The math teacher's responses were nearly at an inverse with the seventh grade teacher's concern about the level of curricular and assessment difficulty, with sixth grade focusing on changes in instruction and having multiple teachers.

ELA teachers differed over their level of concern for homework and the change in instructional practices. This demonstrates a lack of communication, as the amount of homework was found to not be a significant factor as noted in question two, but the perception remains. The lack of experience pertaining to the seventh grade ELA teacher could be a source of their apprehension about homework completion over all other participants.

Table 12

Results of Question 8: Rate the Following Proposed Interventions that can be Implemented to Aid Students During the Transition Process (1 to 5 with 1 Being the Least Impactful)

Interventions	6 ^h Grade Math	6 ⁿ Grade ELA	7 ⁿ Grade Math	7 nGrade ELA	8 nGrade ELA
Assign Teacher Mentors	1	2	2	3	2
Assign Student Mentors	2	1	1	4	1
Establish Common Assessments	4	3	4	2	4
Establish Homework Quotas	3	4	3	1	3
Provide for Continuity of Instruction	5	5	5	5	5

Teachers were unanimous in selecting continuity of instruction as the most effective intervention to our transition problem. This is notable in that the seventh grade teachers did not indicate differences in instructional practices to be a concern in Table 11. Consistency was also observed in ranking the need for common assessments and

homework quotas higher on the spectrum than student and (or) teacher mentors. The common outlier in their opinion toward mentoring was the seventh grade teacher that is new to her position, as she ranked those interventions over homework quotas and common assessments. Overall, the data indicates that there are commonalities in the interventions that teachers feel will be effective.

Discussion

Analysis of the past five years of PSSA data has provided an accurate account of the extent that test scores have declined during the sixth to seventh grade transition. The researcher triangulated findings by combining three sources of available data: (1.) the past five years of PSSA mathematics and ELA Test scores (2.) Student classroom grades in ELA 7 and Math 7 and (3.) Survey responses from the sixth and seventh grade ELA and math teachers. ELA PSSA scores have declined at a net average of 15.5% per year, while PSSA math scores have dropped by a net average of 28.2%. The data quantifies the primary problem that is the focus of the research project. Further analysis of student classroom grades found that (on average) student ELA grades fell by 10.7% and math grades fell by 2.9%. This is an interesting finding, as PSSA test grades for math declined at a nearly twice the rate of the ELA scores, but classroom grades did not follow the trend.

The third aspect in the triangulation of data sources is found in the responses produced by the sixth and seventh grade teaching teams. Teacher responses demonstrated some levels of continuity, but do present several areas of disconnect that can be improved upon and will form the basis for overall school improvement with a focus on bridging the transition gap from the elementary to the Jr/Sr high school. Teacher surveys provided

sufficient data to begin the process of effectively addressing initial research questions. Notable discrepancies found in teacher instructional, assessment, and grading practices are each a possible contributing factor to the decline in student achievement.

When evaluated as a process, the transition from elementary to Jr high school lacks cohesiveness and coordination. Now that the extent of the academic decline has been documented and the teacher-based data has been analyzed, the researcher can develop conclusions that will be utilized to create researched based interventions as a result of these findings. Effective interventions will be combined to form a cohesive transition plan that will address the final research question: How to improve upon and ultimately eliminate academic decline during the transition process?

Chapter 5

Conclusions and Interventions

Introduction

The data analysis performed in Chapter 4 provides a basis for making informed conclusions about the impact of classroom practices on the academic performance of seventh grade students as they transition from the sixth grade. The results of the teacher survey when triangulated with student performance pertaining to classroom grades and PSSA ELA and math scores provide the means to answer the three the primary research questions that initiated this study. The identification of the primary factors that are negatively impacting post-transition achievement will be provided by the teachers through their responses on the survey. The disconnects and subtle discrepancies in classroom practices found therein have been identified and can be remedied through databased interventions.

The conclusions found in Chapter 5 will provide the foundation for a researchbased, system of interventions that will allow for a more seamless transition from the elementary to junior high school. It is the goal of the researcher to develop this system with the support of fellow administrators, the sixth and seventh grade teaching teams, parents and transitioning students. The data produced by the research project will be utilized to provide consistency in instructional practices, grading, and test preparation techniques. The goal of increasing continuity and communication between the two schools has been discussed for some time; we now have a research-based focus that will serve as a guide to building these much needed bridges.

Conclusions: Data Analysis of Student Achievement

Data analysis of student achievement results from the PSSA ELA and math test quantified the significance of the decline in student test scores during the transition from sixth to seventh grade. The researcher has been aware of the situation, but had evaluated test scores on a yearly basis without a looking at the trend over an extended period of time. This detailed analysis that encompassed the entirety of the researcher's tenure (five years), gives much perspective to the scope of the problem and illustrates both positive and negative trends that can be capitalized upon for improvement.

Research revealed progress in regards to the ELA scores that is most promising with the post-transition, achievement gap being reduced from -23.8% in 2016 to -5.1% for the 2019 cohort. This followed a four year trend of consistent improvement that was not taken into account by the researcher before the study, as results were typically analyzed as individual years with the comparison being focused on the performance of other local schools, the state averages, and not on our own trends. The extent of the improvement is exciting and provides evidence that efforts made to focus on improving student writing skills in order to effectively answer TDA style questions that are a large part of the overall score were having a positive impact.

In retrospect, the researcher regrets that he did not evaluate available data at the scope that was undertaken during this project, as the decision was made to make significant changes to seventh and eighth grade class schedules and curriculum prior to the 2019-2020 school year. The resignation of the seventh and eighth grade reading teacher presented an opportunity to reduce staffing; therefore reading classes were removed from the schedule and absorbed into the ELA classes to create 90-minute

blocks. The seventh grade teacher was moved to eighth grade with the reasoning being that she had higher eighth grade PSSA scores than seventh grade scores and a second year teacher was moved from the high school to seventh grade.

The curriculum was amended for the seventh grade ELA teacher to incorporate the standards and skills that were taught in Reading 7 into her ELA 7 curriculum, as she would have 90 minutes of instruction per day. The first conclusion taken from data produced by the research is that the decision to drastically alter the composition of the Jr. high ELA program could have a detrimental effect on the trend of improvement that has been occurring over the past four school years. Had the data been evaluated as it was presented in this report, the decision making process would have been significantly impacted. The classroom grades for ELA students illustrated a clear drop in achievement as each cohort experienced an average decline of 10.6%, which translates roughly to one letter-grade. This data correlates with the decline in test scores to demonstrate the academic difficulties that students consistently experienced in seventh grade.

Analysis of student data of mathematics achievement found that student scoring trends were progressing in a negative direction with the post-transition achievement gap steadily increasing from -17.0% (2016) to -33.0% (2019). The researcher noted that (as like the ELA scores) the overall trend went largely unnoticed as the focus was on how the scores compared to similar schools and the state average. The extremely low scores produced by neighboring districts and the overall state scoring average being at 37% effectively masked the growing discrepancy in achievement between the two schools. In retrospect, the researcher did not realize the extent of the problem as he was consoling himself with how poorly the neighboring school districts were performing.

Another powerful conclusion brought forth through this aspect of the research was the correlation between the precipitous drop in test scores (a five-year average of 28.2%) and relatively low decline in student classroom grades over the same time span (2.9%). This is an anomaly that will be evaluated through the data produced by the teacher survey and is an important aspect in answering the studies core research questions. The researcher anticipated a more significant drop in classroom grades that would correspond with the declining test scores, the actual results were concerning in that student classroom achievement did not adjust with the test scores.

A thorough analysis of student achievement data was needed to fully evaluate the scope of the problem and to recognize trends over the five-year span of the study. General conclusions made from this aspect of the research are based on the recognition that the Southeastern Greene School District has a significant problem with student achievement as students transition from the sixth to seventh grade. The validation of the data confirms the need for this project and provides the basis from which the researcher developed the key questions that the study seeks to answer. Ancillary conclusions that will be relevant to overall school improvement focus on evaluating aspects of the ELA instruction that has had a positive impact on student performance and continued investigation into the causations for the widening achievement gap in mathematics and the discrepancy between the sharp decline in PSSA math scores and the classroom grades.

Conclusions: Data Analysis of the Teacher Survey Results

Of the three primary research questions at the core of this study, two are directly addressed by the responses produced by surveying the teachers directly involved with the elementary to Jr. high school transition. The first question that the researcher set out to answer focuses on identifying the primary factors that are influencing the decrease in PSSA ELA and math scores during the transition from sixth to seventh grade; this is a macro assessment of the differences experienced by students when transitioning between the two schools. The micro aspect of the assessment is provided by the second research question that emphasizes a more nuanced evaluation of the differences in classroom instruction and assessment.

The primary factors that have been identified from the teacher surveys will be grouped into three categories: (1.) Classroom Instruction, (2.) Grading Practices, and (3) Teacher concerns for transitioning students.

Classroom Instruction

The researcher set out to determine the differences in the classroom experience for students in the subject areas of ELA and math as they transition from sixth to seventh grade. The discrepancies in instructional techniques for mathematics were found in reductions of lecture (5%), small group instruction (10%) and independent practice (5%), coinciding with an increase of technology based instruction (10%) and kinesthetic learning (10%) for an overall change of 20%. The differences may seem subtle, but illustrate that students are experiencing a 20% reduction in instructional practices that are more traditional in nature, while being replaced with an increase on I-pad centered learning applications and non-traditional activities that are designed to provide opportunities for student movement. This is a significant shift in instruction that is likely a contributing factor to classroom grade inflation, as previously noted student classroom

grades dropped at only 2.9% compared to a 37.2% decline in test scores while also having a negative impact in overall student comprehension and achievement.

Test-taking skills employed by both teachers are also included under the classroom instruction category. An overall lack of continuity was uncovered, as the sixth grade math teacher emphasized absolute words and context clues while the seventh grade teacher shifted the focus to producing educated guesses and utilization of the process of elimination. It is a reasonable conclusion that the use of more concrete test-taking skills that focus on interacting with text at the sixth grade level produced increasingly effective test takers while eliminating answers and producing educated guesses was less effective at the seventh grade level. Based upon the data, the researcher can conclude that the discrepancies in instructional practices and in the teaching of test-taking skills are contributing to the significant decline in student achievement on the PSSA math test and in the more subtle reduction in overall classroom grades. The results of the survey have exposed different philosophies and classroom practices that can be corrected to improve continuity and provide a more seamless transition for students.

Drawing conclusions from the data produced from the ELA teacher survey will require analysis through a different perspective as the survey includes three teachers, one of which (due to the current Covid-19 situation) has not instructed a tested cohort. The fact that both the seventh and eighth grade teachers responses for instructional practices were 95% the same and that they were completely identical in their employment of test taking skills will provide a level of continuity that allows for the seventh grade teachers input to be used without fear of skewing the data. Notable differences in post-transition classroom instruction include a 10% reduction in small-group activities with a

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corresponding 10% increase in independent practice. Seventh grade students experienced a 5% decrease in both lectures and technology based education while kinesthetic learning activities increased by 10%.

Overall, students experienced a 20% difference in classroom instruction that is the same total as the contrast found in the math classes. When assessing the data, it is notable that small-group instruction decreased by 10% which is identical to the instructional discrepancy in the post transition math class while the researcher also observed an identical increase in the role of kinesthetic learning (10%). These similarities reveal a level of continuity of instruction at the Jr. high level, but a disconnect with instruction at the elementary school. Seventh grade students experienced an increase of 10% in independent practice which is the antithesis of small group activities and traditionally yields lower classroom grades; this would coincide with the overall decline of ELA class grades (-10.6%) experienced during the transition.

Classroom Instruction: Test-Taking Skills

A lack of continuity in the utilization of test-taking skills is once again a factor to consider while analyzing disparities experienced during the transition process. The sixth grade ELA teacher emphasized the use of absolute words as her most frequently used test-taking skill; a lack of coordination was uncovered, as this skill was found to be the second least utilized at the Jr. high level. The Jr. high teachers indicated that the most frequently employed strategies that they employ are context clues and the process of elimination, while the sixth grade teacher rarely employ the process of elimination and ranked context clues significantly lower than her peers.

Overall, the data points to multiple discrepancies in both classroom instruction and test-taking skills that are contributing factors in the decline of student achievement after the Jr. high transition. The shift in emphasis from small-group activities to independent work in ELA classes and to technology and kinesthetic based activities in math classes are pertinent and will be points of emphasis when discussing continuity of education with the sixth and seventh grade teachers. The lack of cohesion in teaching test-taking skills is another factor that impacts how students approach the PSSA tests. The change in philosophy between the two buildings is concerning and is another aspect of classroom instruction that is in need of shared practices.

The researcher can conclude that the discrepancies found in the survey data are contributing to the problem at hand and that improving continuity of instructional practices and instilling a shared philosophy in test-taking skills will be imperative to the development of a focused transition improvement program. While the data does not provide evidence that one factor is the primary reason for the decline in student achievement, it is prudent to state that classroom instruction is an area in need of continued scrutiny and improved continuity. Data driven professional development (held during district-wide ACT 80 days) that promotes improved communication and collaboration between the sixth and seventh grade teachers will be implemented as part of a comprehensive transition plan. Instructional practices (including test-taking skills) will be target areas for increased continuity, with the goal of building open communication and promoting common usage of effective practices from the elementary to Jr. high level.

Grading Practices: Composition of Classroom Grades

Grading practices are a key aspect of the transition process that can be detrimental to student achievement if significant upheaval is experienced during the move between schools. Four teacher survey questions were dedicated to this topic with the goal of determining the overall composition of a letter grade, the types of questions utilized on student assessments, and the amount of homework assigned by each teacher. The most significant discrepancy in grading for math classes was found to be a 20% reduction in quiz grades for seventh grade students with a corresponding increase of 15% for in-class grades and 5% for homework. Both teachers were consistent in that 50% of their assigned grades were based on tests.

One could conclude that the increase of 15% in "effort" grades is contributing to the modest decrease in seventh grade classroom achievement (-4.9%) relative to the significant drop of -37.2% in PSSA testing. Another relevant finding is the reduction in quiz grades, as this type of assessment provides the teacher with consistent feedback on student progress and allows for effective remediation and increased repetitions for skills that have not yet been mastered. The researcher did not anticipate that the amount of homework assigned to students would be reduced at the seventh grade level. He had assumed that an increase in homework assignments was a contributing factor to the academic struggles experienced by transitioning seventh grade students. In actuality, the amount of homework decreased from one to two hours per week for sixth grade students to less than one hour for seventh graders. It is important to note that while the amount of homework decreased, the impact on student grading increased from 5% to 10%. The discrepancy between grading practices in ELA classes demonstrate a distinctive lack of continuity, as sixth grade students are graded primarily by their performance on tests (95%) and to a much lesser extend quizzes (5%), where as seventh grade students have 30% of their grade determined by in-class assignments and homework while 40% is evenly distributed between tests and quizzes. One would speculate that these practices would inflate student grades, as the common consensus is that "effort" type assignments lead to higher grades. In this case, the data does not support the theory as student grades decline by 10.6% following the Jr. high transition.

The researcher determined that student classroom achievement is adversely affected by the failure to complete class work and homework assignments, thus lowering overall class grades in the process. The current seventh grade teacher significantly decreased the amount of assigned homework from one to two hours per week to less than an hour due to the new 90-minute ELA classes and in hopes of increasing the amount of grading for in-class work. Her intent was to reduce the 10.6% decline in student classroom grades by providing more of an opportunity for teacher feedback and prompting through in-class assignments. Therefore, students will once again experience a significant decline in the amount of homework assigned at seventh grade level from one to one half hour at sixth grade to less than one hour in seventh grade.

Grading Practices: Summative Assessments

Variations in the composition of summative assessments are another factor that could be a negative influence on student achievement on both the PSSA achievement and at the classroom level. The results of the teacher survey found significant differences in how students are assessed in ELA class at the seventh grade level. Sixth grade

assessments are composed of 70% multiple choice questions, 20% matching, 5% fill in the blank and 5% short answer, while in comparison, seventh grade tests are 50% multiple choice, 40% short answer and 10% extended response. The 45% increased emphasis of writing skills on seventh grade assessments is notable and has to be taken into consideration as a factor that is contributing to the decrease in overall student grades. The PSSA test composition is consistent from the sixth to seventh grade level with Text Dependent Analysis (long essay) based questions accounting for 18% of the exam. With test items not changing during the transition, the drastic shift in the composition of the summative assessments at the seventh grade level appears to be unnecessary and ineffective for both test preparation and in regards to classroom achievement.

A lack of consistency is also apparent when analyzing summative assessments in the math classes. At the sixth grade level, a typical exam consists of 80% multiple choice questions and 20% short answer responses, while a seventh grade test has a substantial reduction of multiple choice (50%) couple with an increased presence of short answer (40%) and the introduction of open-ended questions (10%). Students are again experiencing a change in assessment composition with a significant increase in writing, with a corresponding de-emphasis on multiple choice questions. As was the case with ELA testing, the composition of the PSSA math test does not change from sixth to seventh grade; there is no impetus in the exam for an increased emphasis on short response and open-ended questions. One can conclude that little continuity exists between the two schools in regards to creating common or coordinated summative assessments. This type of testing is a major component of the students' overall classroom

grade and is a crucial tool for monitoring the present education levels of the class and for overall preparation for success on the PSSA test.

When considering aspects of a dedicated and research-based improvement plan, the researcher will apply conclusions made from analyzing the research data. The administrative teams of both buildings will provide shared planning time with a focus on data-based agenda items during district-wide ACT 80 days. Defined areas of improvement will include joint-development of shared summative assessments that will transcend the transition process. Teachers will utilize released PSSA test items, state standards and test anchors to construct assessments that are both aligned to the PSSA test and classroom instruction. The establishment of coordinated instructional practices will coincide with the development of the common assessments to form a more seamless transition for students.

Teacher Concerns for Transitioning Students

The teachers at both schools will prove to be a valuable resource by providing insight into improving the transition process. A response on the survey prompted teachers to express their concerns through ranking common themes of difficulty from both the middle school and elementary perspective. The results illustrated different outlooks on the process, as the elementary teachers (and eighth grade ELA teacher) stated that changes in instructional practices were their biggest concern while they also ranked difficulty of content as a common problem area. The Jr. high teachers provided much more varied answers stating that the level of difficulty of student assessments and difficulty of content were noted areas of concern. The lack of cohesion in the Jr. high responses provides evidence that the teachers do not have a common ethos as to why

students are struggling with the transition. The elementary teachers were united in ranking the most concerning aspect (changes in instructional practice), but also provided varied answers for four out of the five responses.

The administrative team will employ this data to begin conversation with the teaching teams while building cohesion between the buildings. The fact that the responses were extremely varied proves that the teaching staff is not sure as to the reasons for the academic decline found during the transition. The data provided by this question will be evaluated at the onset of the transition improvement initiative as a baseline that illustrates the differences in the thought processes of the teachers. We will then revisit this question at the conclusion of the initial year of the improvement process in order to assess the effectiveness of the professional development in regards to improving coordination and cohesion between both the schools and within the teaching teams. We would expect the variance in responses to significantly narrow as the teachers work together through multiple workshops that focus on the targeted areas of concern.

Proposed Interventions for Transition Improvement

The sixth and seventh grade teaching teams ranked five common interventions based on their potential impact for improving the transition process. Teachers unanimously agreed that developing a system of coordination that would produce a high level of continuity in instruction would be the most effective means of improving student achievement. The creation of common assessments through focused professional development was also consistently highly ranked. Faculty members rated the assignment of teacher and (or) student mentors as the least effective possible interventions. These shared perspectives on the situation will provide an excellent starting point for the

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development of goals and expectations for the transition improvement initiative. Having a preconceived notion that a lack of continuity exists in their instructional practices and that it is having a negative impact on student achievement is a foundational aspect that the entire program can be built upon.

Development of Data-Driven Improvement Plan for Student Transition

Based on the conclusions made from analyzing student achievement data produced by five years of classroom grades and PSSA math and ELA results, it is clear that students in the Southeastern Greene School district are experiencing an academic decline as they transition from Bobtown Elementary to Mapletown Jr/Sr High School. The results of the teacher survey provided the researcher with substantial evidence of discrepancies in instructional philosophies, a lack of overall continuity in classroom practices and varying outlooks on classroom grading and assessment. The data provided by the teacher survey will allow for the creation of an action plan based on improvement goals that emanated from student achievement data and from the teachers own perspectives and classroom practices.

Transition Action Plan Goal 1: Establish Continuity of Instructional Techniques

The common recommendation (and the most consistent concern) for improving student achievement from both teaching teams was to establish continuity in teaching techniques from sixth to seventh grade. This will be a focus of professional development, as the administrative team will collaborate with the teachers on establishing what is effective at each level through an open forum based upon student PSSA test scores on individual testing anchors. It will be imperative to establish an atmosphere of collaboration and shared responsibility, as the administration will not want the Jr. high teachers to feel like they are being lectured based solely on the student achievement data. We will strive to weed out ineffective practices and to promote what we know is working for our students at each level and to avoid unnecessary culture shock during the transition period.

Transition Action Plan Goal 2: Development of Common, Summative Assessments

The differences in math and ELA assessments were found to be significant and will need to be addressed in order to establish continuity. The staff indicated that they see value in developing common assessments by the high rating that they assigned to this intervention on the survey's final question. The administrative team will provide professional development time for the development of summative assessments that are similar in both format and in structure. The goal will be for tests to be aesthetically similar in regards to font and spacing and to be structurally similar in regards to the type of questions and the number of items assigned. The increased emphasis on writing prompts for both classes at the Jr. high level will be a topic of discussion, as the introduction of these types of questions is inevitable. Finding a means in which to gradually introduce students to essay style questions as a form of summative assessment will be vital to our success as they transition to high school classes.

Transition Action Plan Goal 3: Establish Shared Standards for Classroom Grading

Building consensus for classroom grading practices will decrease uncertainty while providing consistency for students as they transition. This could be a contentious goal, as teachers are typically territorial about how they account for classroom grades. It will be a balancing act for the administrative team to discuss the discrepancies between the two buildings and to build consensus on the value of having similar expectations for students at each level. The disparity in classroom grading was not as significant as other aspects of the transition process; it will be important to ensure the alignment of grading philosophies as we progress through the development of shared interventions.

Transition Action Plan Goal 4: Create and Provide Developmentally Based Supports

This is an aspect of the transition process that was not directly addressed through the survey or by analyzing student achievement data, as the researcher focused his efforts primarily on the teachers and their classroom practices. While reviewing past research on student transitions, the researcher gained an appreciation for developmental and environmental theories that investigated the transition process by evaluating how the change impacted students on a social and psychological level. The transition action plan will include developmental and environmental theories that explore the impact that transition has on student motivation, self-concept, and their overall attitude toward educational values and beliefs. The transition team will also investigate student perception of their relationships with peers and teachers as they progress through their seventh grade year. It will be important to incorporate the guidance counselor, social worker and school psychologist into the transition team to allow their expertise to be utilized to achieve this goal.

Fiscal Implications of Professional Development

The cost of professional development will be the primary expenditure for implementing the program. The researcher does not anticipate the need to purchase instructional materials, software or the need for additional staffing at this time, as the textbook series for both math and ELA encompass both elementary and Jr. high classes. The administrative team will utilize previously scheduled ACT 80 days for transition improvement training workshops. The budget for this initiative will be based on the cost of scheduling professionals from outside agencies and the frequency in which they will be used. For example, Intermediate Unit 1 (the local IU) charges \$400 a day for a trainer to provide professional development at a member school district.

National Agencies such as the Association for Middle Level Schools (AMLE) charge a school membership fee of \$250.00 for basic services that include access to multiple periodicals published by the organization, admission to live webinars and a discount for conferences and on-site professional development. If the school district decides to allow team members to attend conferences and off-site workshops, the cost is \$450.00 per staff member (with a school membership). Scheduling the AMLE to provide on-site consultation can range from \$2,500 to \$3,000 depending on the individual and the type of training requested (www.amle.org, 2020).

The budget for the transition initiative will be set at \$2,000 with the sum being deducted from the Jr./Sr high school principal's overall budget for professional development (\$5,000). It is expected that the administration will purchase a school membership through AMLE and will employ outside trainers through the Intermediate Unit 1 on two occasions. Further expenditures will be dictated by the process and the

progress that is made during the three Act 80 days and subsequent faculty meeting time that can be dedicated to the project. Budget flexibility to pay for substitute teachers is included in the \$2,000 sum, as the administrative team may want to assign teachers to attend professional development at a local Intermediate Unit or at the Pattan facility in Pittsburgh.

The cost of these trainings is typically around \$200 per person with the additional fee of \$120 for a substitute. The researcher may use the entirety of the budget on this topic if need be and could request additional funding from the general fund, as he has been well under budget throughout the duration of his tenure. Total expenditures will be estimated due to the administrative team wanting the majority of the training performed "in-house" with administrators collaborating with teachers on developing meeting agendas and goals. The use of outside agencies will be dictated by the amount of progress made during the meetings and the quality of the results. The program will benefit from the district adopting the Google Classroom system during the summer of 2020, as the ability to share documents and communicate between buildings will be greatly enhanced.

Future Direction for Additional Research

The question of why students tend to struggle with academic transitions has been a topic of research since the inception of constructing separate school buildings for children of different ages. The creation of the Middle (or Jr. high) school established what is considered the most difficult academic transition that a student endures and will continue to be the subject of academic, developmental, and environmental research to determine why this struggle is so prevalent and what educators can do to remedy the

ELEMENTARY TO MIDDLE LEVEL TRANSITION

situation. The program that will be developed from the results of this study will focus on the four specific goals mentioned in this chapter with its success being determined not just by continued increase in students test scores on the PSSA math and ELA test, but also by an overall improvement in the student's transition experience.

The researcher will continue to evaluate strategies that will improve the students' environmental fit and to ensure that the culture of the Jr. high school is developmentally appropriate for twelve-year old students. It is a reasonable assumption that the Jr. high culture is pushing seventh grade students to perform and act like the high school students that are so dominant in the building. Having teachers instruct both high school and Jr. high classes is also a challenge from both an instructional and developmental perspective. Future efforts will focus more on the socio-emotional aspect of the transition process with the goal of providing supports through establishing positive relationships and the building of a more appropriate Jr. high culture.

While reflecting on the original research questions and the results of the study, the researcher is pleased with the overall outcome. However, the basis for another sequence of research questions has emerged as a result of the findings. The question of whether we are providing an appropriate school culture for the developmental level of our seventh grade students requires further investigation in order to be addressed. The researcher is also concerned about the stability of student relationships, with both peer and teacher interactions needing to be explored and evaluated for consistency and effectiveness. While the findings provided detailed data and insight into the transition process for ELA and math classes, the original study did not explore the impact of transition on student achievement in world history, life science and elective classes.

Future research that expands the investigation to include the perspective of transitioning students, parents, and additional staff members will be beneficial to gain a deeper understanding of the intricacies of the process. Surveying students on their self-perception, motivation and overall outlook on their education on a pre and post transition schedule would provide valuable data from a different and important source. Interviewing (or surveying) parents on their expectations and concerns both before and after the transition would be another key source of data that could be used in conjunction with data generated by both the teachers and students. Expanding the scope of the research to include special education teachers, social workers, counselors and other support staff would provide further insight that focuses on the developmental and socio-emotional aspect of the student's transition experience.

A follow up study that included all seventh grade classes and teachers would be beneficial to further our understanding of the process. The researcher had originally considered including peripheral data focused on school attendance, discipline, and student support services (i.e., social work and counseling visits) into the original project, but wanted to limit the scope of the investigation. This data is easily accessible and can be cross referenced with sixth grade information to evaluate trends in key areas. Additional questions based on student behaviors, values and motivations would be pertinent to expanding our understanding of the student experience and could provide insight into other factors (besides academics) that are impacting achievement during seventh grade transition.

Concluding Statement

The results of this study are very exciting and will provide the school district with the ability to produce data-driven goals that both the teachers and administration can utilize to develop and implement a focused transition improvement program. The researcher can now pinpoint specific areas of improvement that are in need of coordinated continuity and to limit (and ultimately eliminate) unnecessary changes to classroom practices as students transition from sixth to seventh grade. The old saying "We don't know, what we don't know" was extremely relevant to this project, as both the teachers and administration were well aware that a problem existed, but lacked the investigative capacity to determine why the academic decline was consistently occurring each year.

The researcher feels as though he now has vital information that has finally answered the "why?" that has eluded him. The reasons for this "why?" are varied and will require an amount of teambuilding to occur before they can be conquered as he did not discover one prominent reason for the existence of the problem. Rather, the results show that there are a lot of smaller issues that are all contributing to the overall deficit that is to be closed. The improvement process will have to be extremely organized and detailed to target and eradicate problem areas while building consensus and cohesion among two schools that have never had this level of collaboration attempted before. Knowing what we know now, I feel confident that we have the knowledge to (as our school district slogan says) be true difference makers for our transitioning students.

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APPENDICES

Appendix A

Teacher Survey

08/09/19

Institutional Review Board California University of Pennsylvania 250 University Avenue, California, PA 15419

To Whom It May Concern,

I am submitting the following research proposal for surveying 6th and 7th grade teachers about their instructional techniques, grading policies, and overall classroom practices. Data generated by this survey will provide insight into decreasing PSSA scores in math and ELA observed during the transition from elementary to junior high school. Participation by the four teachers that will be surveyed will be completely voluntary. Participation in this survey can be discontinued at any time and the existing data will be discarded by the researcher. To the best of our ability, all data will be confidential and the participant's identities will remain anonymous. No level of physical or mental risk will be required to complete the survey items. Participants will demonstrate consent by completing and returning the survey to the researcher. We will minimize any risks by maintaining all data on password protected computer drives and destroying raw data within two weeks of the completion of the research project. This survey will be under the supervision of faculty advisor Dr. Kevin Lordon (lordon@calu.edu) and California University of Pennsylvania. The final version of this survey and the overarching research project will be approved by the California University of Pennsylvania Institutional Review Board.

Respectfully,

Bartholomew Donley

Phone: 724-710-0486

E-mail: DON9547@calu.edu

Elementary Teacher Survey

08/09/19

Name:

- 1. Provide a percentage on how do you determine student letter grades?
- A.) Tests
- B.) Quizzes
- C.) Class work
- D.) Homework

2. On average, how many hours of homework do you assigned per week?

- 3. Provide a percentage of the types of questions that are utilized on a typical ELA test.
- A.) Multiple choice _____
- B.) Short answer _____
- C.) Essay
- D.) Fill in the blank

E.) True/false

- 4. Provide a percentage of the types of questions that are utilized on a typical math test.
- A.) Multiple choice
- B.) Short answer _____
- C.) Essay _____
- D.) Fill in the blank
- E.) True/False _____

5. Provide a percentage of commonly used instructional techniques for core classes in a typical week.

- A.) Lecture ____
- B.) Small-Group
- C.) Independent practice
- D.) Technology based _____
- E.) Hands-on

6. Rate the frequency in which PSSA test taking skills that are emphasized during the school year from 1-5, one being the least frequent.

- 1. Eliminating wrong answers
- 2. Educated guessing _____
- 3. Absolute words _____

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- 4. Context clues
- 5. Misbubbling ____

7. Rate the following academic concerns that you have for students transitioning to the jr/sr high school from 1-5, one being the least frequent.

- 1. Difficulty of content
- 2. Changes in instructional practice
- 3. Having multiple teachers
- 4. Completing homework
- 5. Difficulty of classroom assessment

8. Rate the following proposed remedies that can be implemented to help student transition from 1-5, one being the least?

1. Teacher mentors	
2. Student mentors	
3. Common assessments (both schools)	
4. Homework quotas (both schools)	
5. Continuity of instruction	

Appendix B

Institutional Review Board Approval

Institutional Review Board

California University of Pennsylvania

Morgan Hall, 310

250 University Avenue

California, PA 15419

instreviewboard@calu.edu

Melissa Sovak, Ph.D.

Dear Bartholomew,

Please consider this email as official notification that your proposal titled "An action research study on the academic effects of transitioning from 6th to 7th grade in regards to student achievement on the PSSA math and ELA exams in the Southeastern Greene School District." (Proposal #18-088) has been approved by the California University of Pennsylvania Institutional Review Board as amended.

The effective date of approval is 9/4/19 and the expiration date is 9/3/20. These dates must appear on the consent form.

Please note that Federal Policy requires that you notify the IRB promptly regarding any of the following:

(1) Any additions or changes in procedures you might wish for your study (additions or changes must be approved by the IRB before they are implemented)

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(2) Any events that affect the safety or well-being of subjects

(3) Any modifications of your study or other responses that are necessitated by any events reported in (2).

(4) To continue your research beyond the approval expiration date of 9/3/20 you must file additional information to be considered for continuing review. Please contact instreviewboard@calu.edu

Please notify the Board when data collection is complete.

Regards,

Melissa Sovak, PhD.

Chair, Institutional Review Board

Appendix C

Independent Review Board Proposal

Institutional Review Board (IRB) approval is required before beginning any research and/or data

collection involving human subjects

Submit this form to *instreviewboard@calu.edu* or Campus Box #109

				transitioning from 6 th to 7 th ELA exams in the Southeastern
<u>Greene School</u>	<u>District.</u>			
Researcher/Projec	t Director <u>Bart</u>	holomew I. Donley	<u>v</u>	
Phone # <u>724-710-</u>	<u>0486</u>	E-	mail Address <u>DON954</u>	7@calu.edu
Faculty Sponsor (if researcher is a	student) <u>Dr. Kevin</u>	<u>Lordon</u>	
Department Secondary Education and Administrative Leadership				
Anticipated Project Dates <u>09/09/2019</u> to <u>08/15/2020</u>				
Sponsoring Agent	(if applicable)			
Project to be Cond	lucted at <u>Southea</u>	istern Greene Scho	ool District	
Project Purpose:	Thesis	X Research	Class Project	Other
	Ke	ep a copy of this	s form for your record	ls.
			IRB Training	

Protocol. If you have completed the training within the past 3 years and have already provided documentation to the IRB, please provide the following:

Previous Project Title _____

Date of Previous Project IRB Approval____

<u>Please attach a typed, detailed summary of your project AND complete items 2</u> <u>through 6.</u>

- 1. Provide an overview of your project-proposal describing what you plan to do and how you will go about doing it. Include any hypothesis(ses)or research questions that might be involved and explain how the information you gather will be analyzed. All items in the Review Request Checklist, (see below) must be addressed.
- 2. Section 46.11 of the Federal Regulations state that research proposals involving human subjects must satisfy certain requirements before the IRB can grant approval. You should describe in detail how the following requirements will be satisfied. Be sure to address each area separately.

(text boxes will expand to fit responses)

a. How will you insure that any risks to subjects are minimized? If there are potential risks, describe what will be done to minimize these risks. If there are risks, describe why the risks to participants are reasonable in relation to the anticipated benefits.

Research subjects will be exposed to minimal risk as they will be observed in a typical classroom environment. All data gathered during research is standard to typical student achievement data that is secured within the school district in a given school year.

b. How will you insure that the selection of subjects is equitable? Take into account your purpose(s). Be sure you address research problems involving vulnerable populations such as children, prisoners, pregnant women, mentally disabled persons, and economically or educationally disadvantaged persons. If this is an in-class project describe how you will minimize the possibility that students will feel coerced.

The sample population is based on the (2019-2020) 7th grade class including all subgroups and special education students. Student data will emanate from mandated state achievement tests.

c. How will you obtain informed consent from each participant or the subject's legally authorized representative and ensure that all consent forms are appropriately documented? Be sure to attach a copy of your consent form to the project summary.

Yes, the teachers surveyed in the study will be provided with a consent form describing the basis for research, confidentiality, and consent.

d. Show that the research plan makes provisions to monitor the data collected to insure the safety of all subjects. This includes the privacy of subjects' responses and provisions for maintaining the security and confidentiality of the data.

Individual test scores are stored in the school districts data warehouse provided by Edinsight. Student data is password protected with access available to school district personnel only. Survey results will be stored the researchers personal, password protected laptop.

Г

3. Check the appropriate box(es) that describe the subjects you plan to target.

X Adult volunteers	Mentally Disabled People
CAL University Students	Economically Disadvantaged People
Other Students	<i>Educationally Disadvantaged People</i>
Prisoners	Etuses or fetal material
Pregnant Women	Children Under 18
Physically Handicapped People	Neonates

4. Is remuneration involved in your project? \Box Yes or X No. If yes, Explain here.

5.	Is this project part of a grant? \Box Yes or X No If yes, provide the following information:
	Title of the Grant Proposal
	Name of the Funding Agency
	Dates of the Project Period
6.	Does your project involve the debriefing of those who participated? \Box Yes or X No
	If Yes, explain the debriefing process here.

7. If your project involves a questionnaire or interview, ensure that it meets the requirements indicated in the Survey/Interview/Questionnaire checklist.

California University of Pennsylvania Institutional Review Board Survey/Interview/Questionnaire Consent Checklist (v021209)

This form MUST accompany all IRB review requests

Does your research involve ONLY a survey, interview or questionnaire?

YES—Complete this form

NO—You MUST complete the "Informed Consent Checklist"—skip the remainder of this form

Does your survey/interview/questionnaire cover letter or explanatory statement include:

[X] (1) Statement about the general nature of the survey and how the data will be used?

[X] (2) Statement as to who the primary researcher is, including name, phone, and email address?

[X] (3) FOR ALL STUDENTS: Is the faculty advisor's name and contact information provided?

[X] (4) Statement that participation is voluntary?

[X] (5) Statement that participation may be discontinued at any time without penalty and all data discarded?

[X] (6) Statement that the results are confidential?

[X] (7) Statement that results are anonymous?

[X] (8) Statement as to level of risk anticipated or that minimal risk is anticipated? (NOTE: If more than minimal risk is anticipated, a full consent form is required—and the Informed Consent Checklist must be completed)

[X] (9) Statement that returning the survey is an indication of consent to use the data?

[X] (10) Who to contact regarding the project and how to contact this person?

[X] (11) Statement as to where the results will be housed and how maintained? (unless otherwise approved by the IRB, must be a secure location on University premises)

[X] (12) Is there text equivalent to: "Approved by the California University of Pennsylvania Institutional Review Board. This approval is effective nn/nn/nn and expires mm/mm/mm"? (the actual dates will be specified in the approval notice from the IRB)?

[X] (13) FOR ELECTRONIC/WEBSITE SURVEYS: Does the text of the cover letter or

explanatory statement appear before any data is requested from the participant?

[X] (14) FOR ELECTONIC/WEBSITE SURVEYS: Can the participant discontinue participation at any point in the process and all data is immediately discarded?

California University of Pennsylvania Institutional Review Board Informed Consent Checklist (v021209)

This form MUST accompany all IRB review requests

Does your research involve ONLY a survey, interview, or questionnaire?

YES—DO NOT complete this form. You MUST complete the "Survey/Interview/Questionnaire Consent Checklist" instead.

NO—Complete the remainder of this form.

1. Introduction (check each)

[X] (1.1) Is there a statement that the study involves research?

[X] (1.2) Is there an explanation of the purpose of the research?

2. Is the participant. (check each)

[X] (2.1) Given an invitation to participate?

[X] (2.2) Told why he/she was selected.

[X] (2.3) Told the expected duration of the participation.

[X] (2.4) Informed that participation is voluntary?

[X] (2.5) Informed that all records are confidential?

[X] (2.6) Told that he/she may withdraw from the research at any time without penalty or loss of benefits?

[X] (2.7) 18 years of age or older? (if not, see Section #9, Special Considerations below)

3. Procedures (check each).

[X] (3.1) Are the procedures identified and explained?

[X] (3.2) Are the procedures that are being investigated clearly identified?

[X] (3.3) Are treatment conditions identified?

4. Risks and discomforts. (check each)

[X] (4.1) Are foreseeable risks or discomforts identified?

[X] (4.2) Is the likelihood of any risks or discomforts identified?

[X] (4.3) Is there a description of the steps that will be taken to minimize any risks or discomforts?

[X] (4.4) Is there an acknowledgement of potentially unforeseeable risks?

[X] (4.5) Is the participant informed about what treatment or follow up courses of action are available should there be some physical, emotional, or psychological harm?

[X] (4.6) Is there a description of the benefits, if any, to the participant or to others that may be reasonably expected from the research and an estimate of the likelihood of these benefits?

[X] (4.7) Is there a disclosure of any appropriate alternative procedures or courses of treatment that might be advantageous to the participant?

5. Records and documentation. (check each)

[X] (5.1) Is there a statement describing how records will be kept confidential?

[X] (5.2) Is there a statement as to where the records will be kept and that this is a secure location?

[X] (5.3) Is there a statement as to who will have access to the records?

6. For research involving more than minimal risk (check each),

[NA] (6.1) Is there an explanation and description of any compensation and other medical or counseling treatments that are available if the participants are injured through participation?

[NA] (6.2) Is there a statement where further information can be obtained regarding the treatments?

[NA] (6.3) Is there information regarding who to contact in the event of research-related injury?

7. Contacts.(check each)

[X] (7.1) Is the participant given a list of contacts for answers to questions about the research and the participant's rights?

[X] (7.2) Is the principal researcher identified with name and phone number and email address?

[X] (7.3) FOR ALL STUDENTS: Is the faculty advisor's name and contact information provided?

8. General Considerations (check each)

[X] (8.1) Is there a statement indicating that the participant is making a decision whether or not to participate, and that his/her signature indicates that he/she has decided to participate having read and discussed the information in the informed consent?

[X] (8.2) Are all technical terms fully explained to the participant?

[X] (8.3) Is the informed consent written at a level that the participant can understand?

[X] (8.4) Is there text equivalent to: "Approved by the California University of Pennsylvania Institutional Review Board. This approval is effective nn/nn/nn and expires mm/mm/mm"? (the actual dates will be specified in the approval notice from the IRB)

9. Specific Considerations (check as appropriate)

[NA] (9.1) If the participant is or may become pregnant is there a statement that the particular treatment or procedure may involve risks, foreseeable or currently unforeseeable, to the participant or to the embryo or fetus?

[X] (9.2) Is there a statement specifying the circumstances in which the participation may be terminated by the investigator without the participant's consent?

[X] (9.3) Are any costs to the participant clearly spelled out?

[X] (9.4) If the participant desires to withdraw from the research, are procedures for orderly termination spelled out?

[X] (9.5) Is there a statement that the Principal Investigator will inform the participant or any significant new findings developed during the research that may affect them and influence their willingness to continue participation?

[NA] (9.6) Is the participant is less than 18 years of age? If so, a parent or guardian must sign the consent form and assent must be obtained from the child

[NA] Is the consent form written in such a manner that it is clear that the parent/guardian is giving permission for their child to participate?

[NA] Is a child assent form being used?

[NA] Does the assent form (if used) clearly indicate that the child can freely refuse to participate or discontinue participation at any time without penalty or coercion?

[X] (9.7) Are all consent and assent forms written at a level that the intended participant can understand? (generally, 8th grade level for adults, age-appropriate for children)

California University of Pennsylvania Institutional Review Board

Review Request Checklist (v021209)

This form MUST accompany all IRB review requests.

Unless otherwise specified, ALL items must be present in your review request.

Have you:

[X] (1.0) FOR ALL STUDIES: Completed ALL items on the Review Request Form? Pay particular attention to:

[X] (1.1) Names and email addresses of all investigators

[X] (1.1.1) FOR ALL STUDENTS: use only your CalU email address)

[X] (1.1.2) FOR ALL STUDENTS: Name and email address of your faculty research advisor

[X] (1.2) Project dates (must be in the future—no studies will be approved which have already begun or scheduled to begin before final IRB approval—NO EXCEPTIONS)

[X] (1.3) Answered completely and in detail, the questions in items 2a through 2d?

[X] 2a: NOTE: No studies can have zero risk, the lowest risk is "minimal risk". If more than minimal risk is involved you MUST:

[NA] i. Delineate all anticipated risks in detail;

[NA] ii. Explain in detail how these risks will be minimized;

[NA] iii. Detail the procedures for dealing with adverse outcomes due to these risks.

[NA] iv. Cite peer reviewed references in support of your explanation.

[X] 2b. Complete all items.

[X] 2c. Describe informed consent procedures in detail.

[X] 2d. NOTE: to maintain security and confidentiality of data, all study records must be housed in a secure (locked) location ON UNIVERSITY

PREMISES. The actual location (department, office, etc.) must be specified in your explanation and be listed on any consent forms or cover letters.

[X] (1.4) Checked all appropriate boxes in Section 3? If participants under the age of 18 years are to be included (regardless of what the study involves) you MUST:

[NA] (1.4.1) Obtain informed consent from the parent or guardian consent forms must be written so that it is clear that the parent/guardian is giving permission for their child to participate.

[NA] (1.4.2) Document how you will obtain assent from the child—This must be done in an age-appropriate manner. Regardless of whether the parent/guardian has given permission, a child is completely free to refuse to participate, so the investigator must document how the child indicated agreement to participate ("assent").

[NA] (1.5) Included all grant information in section 5?

[X] (1.6) Included ALL signatures?

[X] (2.0) FOR STUDIES INVOLVING MORE THAN JUST SURVEYS, INTERVIEWS, OR QUESTIONNAIRES:

[X] (2.1) Attached a copy of all consent form(s)?

[NA] (2.2) FOR STUDIES INVOLVING INDIVIDUALS LESS THAN 18 YEARS OF AGE: attached a copy of all assent forms (if such a form is used)?

[X] (2.3) Completed and attached a copy of the Consent Form Checklist? (as appropriate—see that checklist for instructions)

[X] (3.0) FOR STUDIES INVOLVING ONLY SURVEYS, INTERVIEWS, OR QUESTIONNAIRES:

[X] (3.1) Attached a copy of the cover letter/information sheet?

[X] (3.2) Completed and attached a copy of the Survey/Interview/Questionnaire Consent Checklist? (see that checklist for instructions)

[X] (3.3) Attached a copy of the actual survey, interview, or questionnaire questions in their final form?

[X] (4.0) FOR ALL STUDENTS: Has your faculty research advisor:

- [X] (4.1) Thoroughly reviewed and approved your study?
- [X] (4.2) Thoroughly reviewed and approved your IRB paperwork? including:

[X] (4.2.1) Review request form,

[X] (4.2.2) All consent forms, (if used)

[NA] (4.2.3) All assent forms (if used)

[X] (4.2.4) All Survey/Interview/Questionnaire cover letters (if used)

[X] (4.2.5) All checklists

[X] (4.3) IMPORTANT NOTE: Your advisor's signature on the review request form indicates that they have thoroughly reviewed your proposal and verified that it meets all IRB and University requirements.

[X] (5.0) Have you retained a copy of all submitted documentation for your records?

Project Director's Certification

Program Involving HUMAN SUBJECTS

The proposed investigation involves the use of human subjects and I am submitting the complete application form and project description to the Institutional Review Board for Research Involving Human Subjects.

I understand that Institutional Review Board (IRB) approval is required before beginning any

research and/or data collection involving human subjects. If the Board grants approval of

this application, I agree to:

- 1. Abide by any conditions or changes in the project required by the Board.
- 2. Report to the Board any change in the research plan that affects the method of using human subjects before such change is instituted.
- 3. Report to the Board any problems that arise in connection with the use of human subjects.
- 4. Seek advice of the Board whenever I believe such advice is necessary or would be helpful.
- 5. Secure the informed, written consent of all human subjects participating in the project.
- 6. Cooperate with the Board in its effort to provide a continuing review after investigations have been initiated.

I have reviewed the Federal and State regulations concerning the use of human subjects in research and training programs and the guidelines. I agree to abide by the regulations and guidelines aforementioned and will adhere to policies and procedures described in my application. I understand that changes to the research must be approved by the IRB before they are implemented.

Professional (Faculty/Staff) Research

Project Director's Signature

Student or Class Research

Bartholomew I. Donley (ES) Student Researcher's Signature Dr. Kevin Lordon (ES) Supervising Faculty Member's Signature

ACTION OF REVIEW BOARD (IRB use only)

The Institutional Review Board for Research Involving Human Subjects has reviewed this application to ascertain whether or not the proposed project:

- 1. provides adequate safeguards of the rights and welfare of human subjects involved in the investigations;
- 2. uses appropriate methods to obtain informed, written consent;
- 3. indicates that the potential benefits of the investigation substantially outweigh the risk involved.
- 4. provides adequate debriefing of human participants.
- 5. provides adequate follow-up services to participants who may have incurred physical, mental, or emotional harm.

Approved[_____]

Disapproved

Chairperson, Institutional Review Board

Date