

The Effect of the Self-Contained Ninth Grade Campus on Student Achievement  
Indicators

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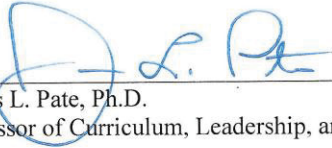
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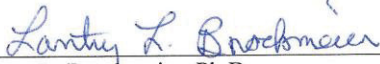
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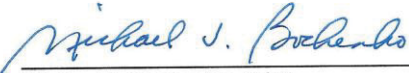
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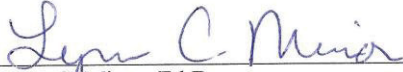
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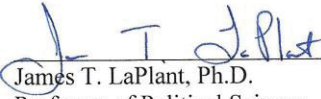
  
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## ABSTRACT

The research on smaller learning communities like freshmen academies is plentiful in the literature about its impact on the social and academic adjustments students must make when transitioning from middle school to high school. Past studies have shown where schools that set apart freshmen have seen positive results in student achievement. With accountability scoring the performance of ninth graders, schools are exploring setting apart freshmen in sections of the school building or on another campus in hopes of them achieving at higher levels. As a result, the purpose of this study was to examine student achievement of freshmen in three distinct school settings: high schools using a freshman wing, high schools using a freshman campus, and high schools using no facility to transition ninth graders.

A mixed methods design was employed to fully investigate the reasons schools were choosing to set apart students in their first year of high school. A sample of 125 schools from the three groups was purposefully selected from a population of 349 public high schools in Georgia. The quantitative portion examined 2014 Ninth Grade Literature End of Course performances, credit accrual for freshmen, scores on the College and Career Readiness Index, and graduation rates of schools. The qualitative aspect of this study examined responses from 15 principal interviews about the effectiveness of the freshman facility design employed in their high school. An analysis of variance (ANOVA) was used to determine if a significant difference existed among the three groups in the first research question. An analysis of themes in the responses to seven interview questions helped determine the results to the second and third research question.

Results indicated a significant difference in only one category of the quantitative section of this study: credits earned in the freshmen year by students with a disability. Students with disabilities in high schools using a freshman campus earned significantly more credit than their counterparts in high schools using neither a wing or campus to transition freshmen. There was no significant difference in Ninth Grade Literature performance, credit accrual for all students, CCRPI scores, or graduation rates. Further results from the interviews with principals indicated high schools with freshmen campuses often originated from the combination of overcrowding in the schools and a surplus of facilities that could be repurposed into a freshman campus. Other results showed transition strategies used to help students adjust to high school were employed by schools in all three groups.

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## DEDICATION

*This dissertation is dedicated to my wife, Kelli, and my four children: Kennedy, Jimbo, Carli, and Max.*

## Chapter I

### INTRODUCTION

Our nation's high schools are being held to higher and tougher standards of academic accountability, and no grade level poses a greater threat to public school accountability than the ninth grade. Based on adolescence alone, the transition from middle to high school can be difficult due to the physiological and emotional changes often associated with this age and grade level (Eccles, Midgely, & Lord, 1991; National Research Council Institute on Medicine, 2004). Hertzog and Morgan (1997) suggested the change from middle school to high school is perhaps the biggest and most difficult transition a student will make in his or her educational journey. Further evidence of this phenomenon suggests the ninth grade is the most repeated grade level of K-12 education. According to the National Center of Educational Statistics (2004), schools across the nation showed a 10% decline in 2004 tenth grade enrollment, suggesting the retention of ninth graders from the previous year's 2003 enrollment. This percentage represents the number of students retained at, and those who dropped out after, ninth grade. Haney et al. (2004) noted that, starting in the mid 1980s, ninth grade enrollment across the United States had more than tripled from 4% to 13% in a 30 year span. Considering high-stakes testing, student achievement and educational accountability, an unsuccessful transition into high school carries a high price for both the student and the school.

In order to meet the needs of students, as well as satisfying mandates of public school accountability, districts have begun focusing on facility arrangements to support

students during this change (Reents, 2002; Wheelock & Miao, 2005). In the years prior to the turn of the century, personalized learning environments such as smaller learning communities and separate campuses began appearing across the nation to meet the needs of high school-bound students (Kerr, 2002; Klonsky, 2002; Reents, 2002). The notion behind these facility concepts was that by separating ninth grade students from the larger population of more mature students, schools could carefully monitor and respond better to academic, emotional, and social needs (Hertzog & Morgan, 1997; Reents, 2002; Rudes, 2006; Sewell, 2009). Serving students in smaller settings meant less chance for students to get physically or emotionally lost while trying to meet greater academic requirements in a more complex social setting (Southern Regional Educational Board, 2002).

The conceptual framework for this study was based on the instability of public school accountability in the face of changing curricula and assessments. As a result, ninth grade performance and transitioning to high school both have direct impact on whether schools are making the grade in this era of public school accountability. Examining the performance of ninth graders housed in three distinct arrangements to determine which had a significant impact on the success of its freshmen students was the over-arching purpose of this study.

### Conceptual Framework

There is a distinct experience students endure when transitioning from middle to high school that poses a serious threat to a child's academic, emotional, and social welfare (Akos & Galassi, 2004). The amount of success a student can demonstrate in the ninth grade after transitioning from middle school can often predict whether he or she is

resilient to school workloads, exhibits positive behavior, and fits in socially (Felner et al., 1993; Gauchat, 2010; Langenkamp, 2010). Furthermore, positive experiences in the ninth grade can lead to students' progression to the upper grades, graduation from high school, and early success in college (Akos & Galassi, 2004, Fulco, 2009; Geiser & Santelices, 2007; Neild, 2009; Pharris-Ciurej, Hirschman, & Willhoft, 2012). The turn of the 21<sup>st</sup> century yielded a response to this dilemma from district and state-level policy makers. This response has mostly been evident through the implementation of middle to high school transition programs (Akos & Galassi, 2004), special grade configurations (Reyes, Gillock, Kobus, & Sanchez, 2000; Schwerdt & West, 2013), and the use of smaller learning communities such as ninth grade academies (Owens, 2010).

The transition of students from middle to high school was one of the underlying concepts of this study. Akos and Galassi (2004) discovered several variables known to affect this transition adversely: academic, procedural, and social. The ability to sustain academic achievement as students move from middle to high school is critical (Newman, Myers, Newman, Lohman, & Smith, 2000; Reyes et al., 2000; Smith, 2006; Styron & Peasant, 2010). Grossman and Cooney (2009) suggested an unsuccessful transition to high school can have negative implications for all students, particularly those of poverty. These negative outcomes include dropping out of school, having fewer post-secondary options, or earning lower wages as adults. Newman et al. (2000) echoed this sentiment for students of poverty transitioning to high school by stating their likelihood of graduating college is eight times less than other students who do not experience poverty. Smith (2006) reported the likelihood of a student in the lowest socio-economic status (SES) quartile to complete a college degree was 60% that of students in the highest SES

quartile. This figure included students who were considered to be high achievers in middle school. Even White and high SES students, two historically high performing subgroups, experience a difficult transition to high school (Bottoms, 2008; Smith, 2006). Achievement for students across numerous demographics declined in the ninth grade even when their previous eighth grade performance indicated it would not (Neild, 2009; Pharris-Ciurej et al., 2012). These findings suggested significant challenges as Georgia public schools prepare all of their students for curriculum mastery, graduation, and post-secondary options (Georgia Department of Education, 2012a).

Procedural aspects associated with the transition from middle to high school levels suggest a need for transition plans or smaller learning communities for their ninth graders (Akos & Gallasi, 2004; Mizelle, 1999; Smith, 1997; Weiss & Baker-Smith, 2010). Akos and Galassi (2004) proposed the use of procedural planning, including assistance with complex social adjustments such as meeting new teachers and friends as well as navigating a more complex facility and environment. The inability of students to adapt to the aforementioned procedural and emotional changes tends to exacerbate losses in academic achievement (Akos & Gallasi, 2004). Mizelle (1999) asserted the importance of parent involvement during this period of transition. The school's inclusion of parents when discussing procedural information about the difficult transition to high school also plays a role in increasing the likelihood of students achieving, adjusting, and completing high school (Hartos & Power, 1997; Linver & Silverberg, 1997; Mizelle, 1999). Smith (1997) found ninth grade transition plans which include components of greater parental involvement, the use of smaller learning communities, and ninth grade academies provide a more personalized high school experience (Newman et al., 2001;

Styron & Peasant, 2010). Based on this understanding of the literature, students' adaptability to the larger and more complex high school environment plays a fundamental role in determining the success they ultimately experience in both the curriculum and high-stakes testing.

The social adjustment to high school is yet another contributing factor to the success and achievement of students. Newman et al. (2000) determined interaction with new people in high school was one of the top concerns of both high and low performers. Akos and Galassi (2004) noted teachers, students, and parents alike named social adjustment to larger networks, fitting in to those networks, and making friends in a complex setting among the top three challenges students face during the transition to high school. In fact, Starkman, Scales, and Roberts (1999) concluded successful social adjustments superseded intellectual indicators as the chief measure of academic success in high school. Further accenting the importance of student adjustment, Reyes et al. (2000) suggested students, especially those of minority status, rarely recuperate academic losses that occur prior to the transition to high school. This means students who experience a full drop in a letter grade tend to continue this pattern of performance for the rest of their high school careers, which suggests low performers suffer greater odds of failure during the transition (Reyes et al., 2000).

The use of smaller learning communities such as ninth grade academies may be used to mitigate the difficult transition to high school. Cotton (1996a, 1996b) suggested large high schools were not as effective at promoting student success as previously thought, and opined that smaller schools may be more effective learning environments for students in transition. Ninth grade academies provide students with smaller learning



communities that feature more student-focused teams of teachers, which create a climate of easier transitions and can have positive effects upon students' academic and social pursuits (Akos & Galassi, 2004; Barbour 2009; Beavers, 2009; Bennett, 2012; Cotton, 1996a; Daniel, 2010; Felner et al., 1993; Fulco, 2009; Gauchat, 2010). Most ninth grade academies incorporate the use of freshman seminar classes designed to make first year adjustments easier by helping students cope with the academic rigors, procedural complexities, and social adjustments of the high school level (Daniel, 2010; Fulco, 2009).

Georgia schools implemented the Common Core Georgia Performance Standards in the areas of math, English, and literacy standards in science and vocational education during the 2012-2013 school year (Georgia Department of Education, 2012c). Georgia, along with 44 other states, strengthened its curriculum to include the Common Core in order to better prepare students with skills needed for optimum post-secondary options. State officials believe the adoption of the Common Core will increase the likelihood Georgia students attain the same level of mastery as students in other states across the nation (Georgia Department of Education, 2012c). The use of these standards, although not an indicator of guaranteed success, are expected to provide students with access to a common, multi-state set of goals and expectations through which educators will increase both academic achievement and accountability (Common Core State Standards Initiative, 2012). Ninth grade students are already vulnerable during the transition to high school. As a result, there is concern among educators that a move toward more rigorous standards might reinforce the problem, hence the need for careful attention to the transition period (Langenkamp, 2010).

Complicating the transition between the eighth and ninth grades is the 2012 change in the accountability framework of Georgia's public schools. The reauthorization of the Elementary and Secondary Education Act (ESEA) in 2001 brought sweeping changes to America's public schools as No Child Left Behind (NCLB) required public schools to reach targets of 100% on state assessments by 2014 for all students in the areas of English, math, and reading in order to meet Adequate Yearly Progress (AYP) (NCLB, 2001). At its outset, ESEA sought to level the playing field by providing an equitable education for economically disadvantaged students through increased funding, reduced class sizes, and expectations for teacher and paraprofessional qualifications (NCLB, 2001). Public schools in the K-12 sector found themselves disaggregating data to determine student subgroup performances in order to meet the strict guidelines of AYP. Simply stated, schools were forced to either make AYP or suffer the sanctions of reduced federal funding (No Child Left Behind Act, 2001).

#### Changing Assessments

Prior to the 2001 ESEA reauthorization, the 2000 A-Plus Education Reform Act was passed by Georgia lawmakers and designed to strengthen accountability in Georgia's public schools in terms of student achievement and teacher quality (A-Plus Education Reform Act, 2000). In effect, the A-Plus Education Reform Act eliminated K-12 teacher tenure and assigned letter grades to mark a school's performance as measured by student achievement. Additionally, there were sanctions for schools continuing to fail to meet standards on student standardized tests (A-Plus Education Reform Act, 2000). A portion of the law stipulated that Georgia schools abandon the Georgia High School Graduation Tests (GHS GT) in favor of the more rigorous End of Course Tests (EOCT) designed to

measure the curriculum of the Georgia Performance Standards (GPS) (A-Plus Education Reform Act, 2000). The transition from GHSGT to EOCT, however, was made more difficult by ESEA's 2001 reauthorization stipulating standardized testing of eleventh graders in English, reading, and math (Georgia Department of Education, 2012a; Georgia Department of Education, 2012d; NCLB, 2001). Due in part to the EOCT's yet-to-be-determined validity and reliability, the GHSGT was used to measure student mastery of standards in the core four content areas of English, mathematics, science, and social studies. End of Course Tests were designed to measure minimum competency in the eight subject areas with an accompanying EOCT: Ninth Grade Literature, American Literature, Coordinate Algebra, Analytic Geometry, U.S. History, Economics, Physical Science and Biology (Georgia Department of Education, 2012a). The duplicating efforts of the accountability movements at the national (NCLB) and state (A Plus Reform Act) levels caused instability in Georgia's accountability measures. The result of this flux effectively deemed the GHSGT as Georgia's valid and reliable instrument for measuring AYP thus stalling the transition to the EOCT (Georgia Department of Education, 2013).

A decade later, the landscape of public school accountability began to change. Individual states, including Georgia, applied to the federal Department of Education for waivers exempting them from provisions of NCLB (Georgia Department of Education, 2012a; U.S. Department of Education, 2012). The 2012 waiver process effectively ended Georgia's dual assessment program and soon afterward the EOCT replaced the GHSGT. In exchange for relief from the 100% NCLB mandates and its sanctions, states across America would develop a more rigorous framework of accountability (Georgia Department of Education, 2012a). Georgia led the change in 2012 by submitting a waiver

seeking relief from the mandates of ESEA, and the result of these efforts was a comprehensive accountability system called the College and Career Readiness Performance Index (CCRPI) (Georgia Department of Education, 2012a).

The volatility of change in curriculum, accountability, and assessment remains of great concern to Georgia educators struggling to best serve ninth grade students while meeting the expanded areas of the College and Career Readiness Performance Index. As a result, these conditions served as the chief reason for the urgency to conduct this study. With a new accountability framework, there was a renewed need to examine the extent to which freshman academies and campuses are meeting the needs of ninth grade students.

#### Statement of the Problem

Success in the ninth grade can often predict success in future grades and ultimately whether a student will graduate from high school (Akos & Galassi, 2004; Bennett, 2012; Edmunds et al., 2012; Edmunds, Bernstein, Unlu, Glennie, & Smith, 2013). Schools that configure grades to set apart their ninth grade students do this to increase grade promotion, graduation, and college success as defined by grade point average (Felner et al., 1993; Fulco, 2009; Geiser & Santelices, 2007). A reconfiguration of the high school model through the use of a separate facility may control for the distractions caused by the middle to high transition (Daniel, 2010; Mizelle & Irvin, 2005). Thus, schools that separate freshmen from upperclassmen, previously-retained ninth graders, and other distractions have begun doing so to lessen the effects of transitions in the hopes of increasing achievement and chances of graduating high school. In this study, the researcher sought to determine if schools setting apart freshmen on a

separate campus have higher ninth grade literature achievement, obtain more Carnegie core credit, have higher CCRPI scores, and graduate their students at higher rates.

#### Purpose of the Study

From 2003 to 2012, accountability in Georgia's public high schools rested largely on the scores of eleventh grade students on the English and math sections of the GHSGT. During this time, ninth grade EOCT performance meant very little to Georgia schools' accountability measures. As a result of the NCLB waiver, EOCT performances will be the measure of student achievement on the College and Career Readiness Performance Index (CCRPI). The eight EOCT subject areas are comprised of the following: Ninth Grade literature, American Literature, Coordinate Algebra, Analytic Geometry, U.S. History, Economics, Physical Science and Biology (Georgia Department of Education, 2012a).

As if this grade level were not challenging enough, ninth grade student achievement scores can significantly alter the accountability status of a school. Ninth grade EOCT performance can contribute to a school's CCRPI score in as many as three ninth grade level courses: Ninth Grade Literature, Coordinate Algebra, and either Physical Science or Biology. The success to which districts employ ninth grade transition strategies and the manner in which high schools set apart their freshmen can positively or negatively affect a school's accountability score. Schools that strategically configure the ninth grade to exist in separate facilities to ensure ninth grade success merit examination in the new age of public school accountability in Georgia.

As educators in Georgia consider changes in curriculum, assessment, and accountability, an examination of the variables that influence ninth grade achievement in

Georgia high schools is warranted. The purpose of this study is to determine if facility arrangements for first time ninth graders had an effect on student success. For this study, student success is defined as percentage of students who qualified at the “Meets” and “Exceeds” level on the Ninth Grade Literature EOCT, percent of first time ninth grade students earning four Carnegie unit credits, percent of first time ninth grade students with disabilities earning three Carnegie unit credits, the overall school’s graduation rate, and a school’s CCRPI grade. Analysis of data will determine if significant differences exist in Georgia schools employing freshman academies or freshman campuses. Schools using neither a freshman wing nor freshman campus will serve as the study’s control group.

This study was grounded in the theory that students typically struggle during the transition from middle school to ninth grade. The transition to high school can impact course completion and high stakes testing. Performance in the ninth grade, as it relates to a school’s accountability, now has far greater significance. The findings of this study will prove valuable to educators as they sequence curriculum across transitional grade levels, configure grade spans in district schools, and meet the needs of critical minority or economically disadvantaged subgroups. It is necessary to improve the educational outcomes at the ninth grade level if NCLB continues to demand higher student achievement and graduation rates (Peasant, 2006).

#### Research Questions

The following research questions guided the study:

1. Is there a significant difference among schools using a freshman campus, a freshman wing, or no freshmen facility arrangement on selected performance

measures (Ninth Grade Literature EOCT, Carnegie unit completion, CCRPI, and graduation rate)?

- a. Is there a significant difference among schools using a freshman campus, a freshman wing, or no freshmen facility arrangement on the mean scale scores of all students on the Ninth Grade Literature EOCT?
- b. Is there a significant difference among schools using a freshman campus, a freshman wing, or no freshmen facility arrangement on the percentage of Black students whose performance meets or exceeds on the Ninth Grade Literature EOCT?
- c. Is there a significant difference among schools using a freshman campus, a freshman wing, or no freshmen facility arrangement on the percentage of economically disadvantaged students whose performance meets or exceeds on the Ninth Grade Literature EOCT?
- d. Is there a significant difference among schools using a freshman campus, a freshman wing, or no freshmen facility arrangement on the percentage of students with disabilities whose performance meets or exceeds on the Ninth Grade Literature EOCT?
- e. Is there a significant difference among schools using a freshman campus, a freshman wing, or no freshmen facility arrangement on the percentage of ninth grade students earning four Carnegie units in the four core content areas?
- f. Is there a significant difference among schools using a freshman campus, a freshman wing, or no freshmen facility arrangement on the percentage of

ninth grade students with disabilities earning three Carnegie units in three core content areas?

- g. Is there a significant difference among schools using a freshman campus, a freshman wing, or no freshmen facility arrangement on the graduation rate?
- h. Is there a significant difference among schools using a freshman campus, a freshman wing, or no freshmen facility arrangement on the CCRPI score?

2. Does principal interview data provide an explanation for any quantitative differences in achievement for high schools using a separate campus, separate wing, or no freshmen facility arrangement for its transitioning freshmen?
3. To what extent do interviews with principals contribute to a more comprehensive understanding of the differences in credit accrual, standardized achievement, and graduation of students transitioning to high school through freshmen campuses and freshmen wings?

### Significance of the Study

Test performance, grade point average, and credit accrual are just some of the variables thought to have a negative impact on ninth grade academic success (Felner et al., 1993; Fulco, 2009). Researchers suggested school configurations whose facility arrangements set apart their ninth graders have yielded a myriad of effects on those same variables (Bennett, 2012; Dove, Hooper, Pearson, 2010; Felner et al., 1993; Fulco, 2009). Variables which affect ninth grade performance invariably affect the accountability status of a high school. Given the approval of Georgia's waiver to the NCLB and the creation of the CCRPI, the results of this study might prove valuable in understanding the effect of



ninth grade academies on student academic success (Georgia Department of Education, 2012a). The CCRPI more evenly distributes the burden of high-stakes testing to multiple grade levels and across all four content areas. This means accountability, formerly isolated in math and English content areas, will be distributed across all content areas and all grade levels. As a result, schools are expected to begin preparing all grade levels for mastery of the curriculum and college/career readiness starting in the ninth grade. Previous studies in Georgia on ninth grade academies (Daniel, 2010; Irvin, 2013) examined achievement on a smaller scale when ninth grade performance contributed nothing to a school's accountability measures. As a result of this study, Georgia educators can refocus their efforts on interventions designed not only to help students transition to high school but to also perform well enough on high-stakes testing, progress to higher grade levels, and ultimately graduate.

#### Methodology

The transition of adolescent students from middle school to the ninth grade is a phenomenon that has an extensive history of research and suggestions for best practices. The researcher was intrigued by his own experiences as a principal of a high school that employs a separate facility used to transition freshmen to high school. The quantitative portion of the study examined ninth grade achievement data of high schools using various facility arrangements. The qualitative portion of this study examined the perceptions of principals whose schools employ a particular freshmen arrangement. Understanding these perceptions helped to explain the student achievement data from the quantitative portion of this study.

Mixed methods research using a sequential explanatory design was employed. Significant differences between the independent and dependent variables in the quantitative portion were examined in the quantitative portion. Archival data were obtained from the Georgia Department of Education. An analysis of variance (ANOVA) was used to determine significant differences between schools assigned to three groups: schools using a ninth grade campus (n = 25), schools using a ninth grade wing (n = 100), and schools using neither a ninth grade wing nor campus (n = 224). The qualitative portion of the study consisted of principal interviews from all three groups whose responses helped understand the differences in freshmen transition practices.

#### Definition of Terms

Definitions of terms included below are provided so the reader has an understanding of the operational terms used in this study.

*End of Course Test (EOCT).* A State Board approved summative assessment designed to measure student mastery in eight courses: Ninth Grade Literature, American Literature, Coordinate Algebra (or Math I), Analytic Geometry (or Math II), Physical Science, Biology, U.S. History, Economics (Georgia Department of Education, 2012a).

*Ninth Grade Academy.* For the purposes of this study a ninth grade academy is a structure where ninth graders are set apart by a wing in a facility that also houses upperclassmen and repeat ninth graders (Peasant, 2006; Styron & Peasant, 2010).

*Ninth Grade Campus.* For the purposes of this study, a ninth grade campus is a structure where ninth graders are set apart and placed in a separate facility that stands alone. Ninth graders are considered to be self-contained in this type of facility arrangement. It is the most restrictive setting for freshmen (Peasant, 2006; Sewell, 2009; Styron & Peasant, 2010).

*No Freshmen Facility Arrangement.* For the purposes of this study, these are schools whose freshmen are present every day in the same facility with upperclassmen and are not set apart by a wing or separate campus.

*Transitions.* The change in grade level characterized by a change in facilities or environments, in this study, from the eighth to the ninth grade.

*Ninth Grade Carnegie Core Four Credit.* Core credit earned by ninth graders in the following content areas: English, math, science, and social studies (Georgia Department of Education, 2012a).

*Post High School Readiness.* For the purposes of this study, post high school readiness is defined to be students who are capable of graduating from college with skills necessary for labor or college (Georgia Department of Education, 2012a; Lee, 2011).

#### Organization of the Study

This dissertation is comprised of five chapters. Chapter 1 presented a conceptual framework, the problem statement, the purpose and significance of the study, a brief plan of the methodology, and a list of definitions and terms. Chapter 2 presents a review of the literature on facility arrangements of ninth grade, the high school transition, smaller learning communities, freshman academies, and post high school readiness. Chapter 3 includes a description of the qualitative and quantitative measures employed, research design, and instrumentation. Chapter 4 is a report of the findings of the study. Finally, Chapter 5 provides discussion of the findings and implications for further research.

## Chapter II

### REVIEW OF RELATED LITERATURE

In this chapter will be an examination of the difficulties ninth grade students experience when entering high school. In the first section will be the difficulties ninth graders experience and in the second section will be the transitions to high school. In the third section is a review of the origins of smaller learning communities and their attempts to connect with students and improve the teacher-student relationship. The fourth section is about a specific type of smaller learning community—the freshman academy. Finally, the fifth section of this chapter has the literature on how schools are transitioning ninth graders for post-secondary success and developing post high school readiness in ninth grade.

The purpose of this study was to investigate the effect a separate freshman campus has upon specific school measures of success: Ninth Grade Literature EOCT scores, percentage of ninth graders earning core four credit, CCRPI index, and graduation rate. The goal of this study was to determine if particular facility arrangements for ninth graders can lead to higher Ninth Grade Literature EOCT scores, higher percentages of students earning ninth grade core credit, higher CCRPI scores, and increased graduation rates. To accomplish that, this chapter will provide a historical perspective on how well ninth grade facilities transition students and progress students towards graduation.

#### The Facility Arrangement of the Ninth Grade Experience

Different configurations of grade spans have impacted student achievement both positively (Schwerdt & West, 2013; Smith, 1997) and negatively (Alspaugh, 1998a;

Smith 2006). The path to transitioning to high school has not always been the same as grade spans have changed considerably since the early 1900s. Grade configurations have included grades kindergarten through eighth while other spans have interrupted this strategy by having the middle school concept capture sixth through the eighth grade. Still other configurations have included a junior high concept that has spanned grades seven through nine. Whatever the case, grade span configurations are often conducted to match the best environment to the development of the child all the while mitigating the effect of transitions regardless of what grade the transitions occur (Kmieciak, 2007). Simmons and Blyth (1987) discovered negative outcomes such as poor self-esteem and declining grades in transitions that occurred during dramatic adolescent changes. Simmons and Blyth further concluded pubertal changes were not the sole cause of negative outcomes and suggested design of school environments played a role in the decline of positive experiences for adolescents.

Kmieciak noted in a 2007 study that schools should examine how to offset the traditional effects of the ninth grade experience. Ninth grade students struggle to establish identities, solidify good academic standing, and develop positive peer networks (Kmieciak, 2007). Schools capable of addressing the complexities and confusion that exist in both adolescents and the traditional high school environment are best prepared to deal with the shock of ninth grade (Eccles, Midgley, & Lord, 1991; Pharris-Ciurej et al., 2012). School officials undoubtedly spanned grades in such a fashion to efficiently transition students, especially more vulnerable ones, to high school (Langenkamp, 2010).

A prevailing theme in the literature about the ninth grade experience was the effective use of facility and organization to meet the challenging demands of ninth grade

adolescence (Cotton, 2001; Eccles et al., 1991; Fields, 2005; Kerr, 2002; Kmiec, 2007; SREB, 2002). Kerr (2002) examined to what effect practices such as facility configurations and other associated high school transition reforms would best serve ninth grade adolescence and produce positive student outcomes. Kerr's (2002) findings revealed schools who chose multiple reforms and whose best practices resembled those found in communal organization were more likely to see a decline in student alienation and high school dropouts (Kerr, 2002).

Declines in sense of belonging, motivation, and achievement are typical hallmarks of the ninth grade experience. Eccles, Midgely, and Adler (1984) conducted a study on the effects the years of schooling have on student motivation and achievement. The findings were as students advanced through grade levels their perceptions of competence and efficacy weakened and attitudes toward school in general suffered. The poor outlook turned into poor performance which damaged esteem and confidence needed during significant transitions. Bottoms (2008) indicated much the same. Ninth graders were often reluctant to repeat ninth grade courses, choosing not to return the following year, causing declines in graduation rates. Furthermore, due to poor facility configuration, students found little reason to come to school, no relevance in learning or goals for post-secondary options. Bottoms poignantly stated such an environment can cause even the most able students to become disengaged in the process.

Naturally, some of this blame lies in the maturation changes associated with typical fourteen and fifteen year old ninth graders (Simmons & Byth, 1987), but, still, part of the reason may be the changes in environments (Asplough 1998b; Lee & Smith, 1995). Simmons and Blyth (1987) also asserted the ninth grade environment to be less

personal, more competitive, and ability-centered rather than student centered; teachers were considered managers of behavior first and instructors second. Furthermore, the findings suggested major transitions (like the one ninth grade adolescents typically experience) should occur in smaller environments that facilitate and focus more on the needs of the student (Eccles et al., 1984).

Facility designs that fail to meet the delicate needs of ninth grade adolescents can be attributed to the failure rates ninth graders experience (Roderick & Camburn, 1999). Roderick and Camburn (1999) found failures in the first semester of the ninth grade can be as high as 40%, part of which was due to schools' inability to match the academic and social needs of its ninth graders. The authors determined that, in order for ninth grade academic performance to improve, it would benefit district policy makers to provide "adolescents with the kind of learning environments and supports which promote positive engagement and academic success" (Roderick & Camburn, 1999, p. 336). New accountability measures in Georgia public schools depend much on ninth grade success and it is this achievement that contributes to meeting the indicators of the CCRPI (Georgia Department of Education, 2012a; Georgia Department of Education, 2012b; Georgia Department of Education 2013). In order to meet these higher demands, the research findings of Roderick and Camburn suggested high schools must invest in restructuring reforms known for producing improved student outcomes.

In addition to examining school effects on adolescents, Roderick and Camburn (1999) extensively examined the ninth grade experience and found early failure in the first semester led to higher dropout rates and students could rarely recover from these early missteps. Succeeding in the first semester increases ninth graders' chances of later

success in high school (Roderick and Camburn, 1999). Failing to achieve a positive start, the authors noted, caused one in four Chicago ninth graders to fail over half their subjects in the first semester, thus making them susceptible to dropping out. Finally, Roderick and Camburn suggested schools could not examine the ninth grade experience in a vacuum. Facility arrangements and transitions systemically affect ninth grade achievement and a match that best serves transitioning ninth graders warrants significant consideration.

### High School Transitions

School grade transitions exist throughout students' lives particularly at grades five, eight, and twelve. All transitions are considered important in the development of children, however, the move to high school has proven most critical (Eccles et al., 1984). In fact, entering high school is the most difficult time period a student will face, surpassing even difficult post-secondary transitions such as college and work (SREB, 2002). Transitioning to the ninth grade typically means moving into a larger, more complex setting, facing increased academic expectations, impersonal interactions with faculty and increased adverse teenage behavior (Kimec, 2007; Langenkamp, 2010; Neild, 2009; Reyes et al., 2000). Exacerbating this transition is adolescence with its social, emotional, intellectual, and physiological changes (Cook, Fowler, & Harris, 2008). Students are expected to navigate this change to high school during the time they are most vulnerable to external factors (Reyes et al., 2000; Smith, 2006; Weiss & Baker-Smith, 2010). Queen (2002) found students who are most susceptible to these external factors were more likely to experience achievement loss and exhibit adverse behaviors. The results of achievement loss and bad behavior are poor promotion rates for ninth



graders and a dropout rate three times the national average for those not employing transitional strategies (Cook et al., 2008).

Pharris-Ciurej et al. (2012) studied student vulnerability when transitioning to the ninth grade and characterized the experience as a shock. Understanding graduation is a function of grade promotion, Pharris-Ciurej et al. (2012) determined student vulnerability during transition led to lower self-esteem, lower grade point averages, and lower percentages of grade promotion. The ill effects of this transition meant lower graduation rates or swollen enrollment in the ninth grade, especially for minorities and students of poverty. The shocking experience of the first year of high school has a powerful and direct effect on high school graduation (Pharris-Ciurej et al, 2012).

Engaging parents during this time of vulnerability has been proven to be successful during the high school transition. Despite their growing independence, as students move from middle to high school the role of the parent should not diminish (Mizelle, 1999; Hertzog & Morgan, 1997; Hertzog & Morgan, 1998). Transition activities such as eighth grade parent meetings, open houses, and registration meetings help maintain dialogue between school officials and parents which helps spawn a level of trust necessary to aid in transitions (Hertzog & Morgan, 1997; Hertzog & Morgan, 1998; Kaplan & Owings, 2001; Mizelle, 1999; Morgan & Hertzog, 2001; White-Hood, 2001). Sustaining contact via phone calls and parent nights after the transition can help support student curricular and extra-curricular endeavors throughout the ninth grade year. This level of commitment by the school sends an important message to parents that their engagement is valued and necessary (Kaplan & Owings, 2001; Morgan & Hertzog, 2001; Umphery, 2001).

Akos and Gallassi (2004) recognized the importance of engaged parents and conducted a study that examined parent perceptions. Recognizing parents could often be the least informed, the researchers juxtaposed the perceptions of the parents with those of teachers and students. The purpose was to determine the necessary interventions to successfully navigate the middle to high school transition. Students identified three main categories for difficult transitions: academic (coping with increased homework and difficult courses), procedural (navigating the building and complex learning environment), and social (fitting in, getting along with peers, coping with bullying by older students). Parents were surveyed and identified transition difficulties as increased homework, rigorous academics, organization skills, and time management. Teachers identified academic concerns (choosing rigorous classes) and social concerns as the most difficult transition items. The authors suggested the perspective parents and teachers have on ninth grade transitions cannot be overlooked, considering their own experiences as ninth graders.

Suggestions for improvements to high school transition programs were more communication (Akos & Galassi, 2004), vertical teaming (Akos & Galassi, 2004; Langenkamp, 2010; Mizelle, 1999; Neild, 2009), and building tours (Mizelle, 1999). Ultimately, Akos and Galassi (2004) determined school officials should consider different types of programming needed for successful eighth to ninth grade transitions and that single grade configurations may be needed.

Transitioning is more than just a high school problem. How schools transition students to the ninth grade should be a vertical effort not lost in the middle school years (Grossman & Cooney, 2009). Dove et al. (2010) found non-significant results of

strategically configured students transitioning from fifth to seventh grade. However, Langenkamp (2010) studied risk factors of students during the middle school years and found significant, predictable patterns. Langenkamp investigated how district feeder patterns, teacher bonding, and middle grades peer relationships predicted student success in the first year of high school. Moving to high school presents new challenges, experiences, and opportunities. Those students best equipped to cope with stress and balance academic, social, and extra-curricular activities are shown to transition best (Grossman & Cooney, 2009; Langenkamp, 2010; Mizelle, 1999).

Students' ability to endure this change was found to be dependent on middle school feeder patterns, social networks, and interaction with middle school teachers (Langenkamp, 2010). Newman et al. (2000) echoed this sentiment stating transitions are most difficult because of the interaction with new people. Course failure in ninth grade can be predicted by middle school students' failure to establish positive teacher relationships and a supportive peer network (Langenkamp, 2010). Students capable of developing both a solid peer network and a positive student-teacher interaction in middle school are more likely to replicate this relationship at the high school level thus making them less vulnerable to course failure in the ninth grade (Langenkamp, 2010). To this end, transition programs are most successful when Kindergarten through eighth grade schools and the nine through twelve grade schools work together (Akos & Galassi, 2004) to promote positive student-teacher relationships in order to deter student disengagement in the ninth grade (Langenkamp, 2010).

## Smaller Learning Communities

Cotton (2001) reported restructuring large high schools into smaller and more manageable learning communities produced positive results. Examples of these positive results included sense of belonging, motivation, student behavior, personalized and student centered experience, grade promotion, and graduation from high school (Conrad, 2007; Cotton, 2001; Fields, 2005; Kmiec, 2007; SREB, 2002). Furthermore, Conrad (2007) found schools that reported achievement gains by ninth graders were those schools setting apart ninth graders from the upperclassmen.

Whatever the grade configuration, the mere act of transitioning to the grade level is critical. Lashway (2000) reported more and more districts responding to NCLB by examining practices in grade configurations and grouping students in smaller settings. Blurring grade levels by special configurations of students helps respond to social and emotional needs of students in delicate physiological development periods. According to Lashway (2000), school leaders are collaboratively building “social capital” with parents and other stakeholders by personalizing the transitional experience and responding to individual student needs to provide stronger support during fragile transition periods.

Reorganizing large high schools into smaller learning communities (SLCs) is a reform best used for adolescents at the appropriate age level of ninth grade (Cotton, 2001; Fields, 2005; Kmiec, 2007; SREB, 2002). The use of smaller learning communities can be traced to the 1970s (Cook et al., 2008) with the intent to individualize learning environments to the extent that student identity and autonomy as well as personalized, student centered instruction manifest themselves daily (Cotton, 2001; Fields, 2005; Kmiec, 2007, SREB, 2002). The U.S. Department of Education weighed in on the use of

SLCs in its 2001 report, *An Overview of Smaller Learning Communities in High School*.

This report stated the most significant reform of high schools existed as smaller structures inside of larger schools or districts. Examples of such smaller school structures include schools-within-schools, magnet schools, and, most notably, academies. There are a number of reasons why such a structure exists. According to this report, SLCs' chief reason is to transition students. In this case, the particular groups of students needing transition support are ninth graders who need personalized attention during a critical stage of adolescence. The mounting evidence showed results that supported nurturing students in a personalized educational setting with high expectations, one that is smaller and structured in such a fashion so that the high school experience can actually serve as a pathway to post-secondary options like college and careers (U.S. Department of Education, 2001). In addition to personalization, smaller environments allow educators a timelier response to student needs, flexibility from bureaucratic policy, and a culture supportive of achievement (U.S. Department of Education, 2001; Neild, 2009).

Substantiating these same findings, Neild (2009) reported schools configured in a way which supported flexibility, positive student/teacher relationships, and commitment to a common set of goals had significant achievement gains and promotion rates over schools that were bureaucratically structured. Smaller schools are more effective at maintaining student engagement in the curricula and extra-curricular activities. Furthermore, smaller schools reported lower dropout rates, lower incidences of misbehavior and increased student efficacy (U.S. Department of Education, 2001). As a result of this study, public and private monies were being used to fund reform efforts at downsizing secondary schools. The U.S. Department of Education made an

announcement of over 125 million dollars in federal grants as a way to motivate school districts to begin implementing smaller learning communities (U.S. Department of Education, 2001). Congress contributed 45 million dollars in its 2000 budget for smaller schools and the Bill and Melinda Gates foundation donated over 200 million dollars to schools seeking ways to make the school setting smaller (Fraker, 2006; Hill, 2001).

As both urban and rural schools began to implement the usage of SLCs, evidence in research began supporting their use in facilitating transition to high school. Weiss et al. (2010) discovered a gap in ninth grade transition research occurred at the variables of school size, grade configuration, and student composition. Weiss et al. asserted high schools concerned about the performance of its ninth graders should put small school structures in place to help students navigate facility complexities, respond to higher expectations from teachers, and cope with social, emotional, and academic changes often associated during this time of adolescence. The findings in this research suggested students attending an SLC during their ninth grade year were not as vulnerable as those attending a larger setting, even going as far as finding that attending an SLC could offset academic and social losses from middle school.

There are reasons for implementing smaller schools other than student achievement. In his 2002 research, Klonsky reported faculty members can benefit from the collegiality and collaboration most often found in smaller settings. Furthermore, there is greater autonomy in the direction of the professional learning in a small school's faculty (Klonsky, 2002). The relationships between administration and faculty are such that buy-in to current best practices is more likely to occur (Fraker, 2006; Klonsky, 2002). A faculty in a small school most often has professional development focused on

their needs and modeled in such a fashion that flexibility in the plans often means students' individual learning needs are met. Due to its environment, small schools can more effectively deliver the continuing education that teachers need in order to most accurately respond to intervention and increase the likelihood of positive academic outcomes (Klonsky, 2002).

Responding to students' individual needs in the instructional environment can be of great significance to accountability and making the grade on CCRPI (Cotton, 2001; Georgia Department of Education, 2012a; Georgia Department of Education, 2012b, Georgia Department of Education, 2012d). Cotton (1996a, 1996b) found small schools were able to meet achievement gains in subject areas, attendance, behavior, and student engagement. The most notable groups benefitting from small school settings were critical subgroups like minorities and students with disabilities. Later Cotton (2001) examined gap performances in minorities and students of poverty in small school settings and attributed the gap closure in subgroups to the small school setting. The performance in these subgroups cannot be dismissed as their impact on accountability is both significant and relevant to the current study.

Despite these findings on positive results on SLCs, there is research that does not support the use of this type of facility to improve student achievement, promotion, and graduation rates (Cotton, 2001; Cramer, 2006; Hendrix, 2007). Cotton's (2001) findings were not significant based on low staff buy-in, limited space, inflexibility in scheduling, and substandard professional learning. Cramer (2006) determined schools that implemented SLCs did not significantly outperform larger school environments in academic achievement, graduation rates, or post-secondary options. Hendrix's (2007)

study failed to show a significant difference between small and large learning environments using the number of units earned by freshmen and freshmen promotion rates as criteria.

Regardless of these findings, the most popular and systematic effort to implementing SLCs in the high school has come in the form of ninth grade academies (Kmiec, 2007). Kmiec (2007) noted implementing such change requires leadership that is willing to challenge the status quo, change the culture of the school and is dedicated to helping students transition to high school. Otherwise smaller learning communities are just that—smaller (Kmiec, 2007).

#### Freshman Academies

To help students transition to high school, schools have increasingly employed the use of SLCs specializing in transitional strategies like freshman academies as a means to improve student achievement and the likelihood of high school graduation (Akos & Gallasi, 2004; Cook et al., 2008; Felner et al., 1993; Mizelle, 1999; Pharris-Ciurej et al., 2012; Smith, 1997; Weiss & Baker-Smith, 2010). Isolating freshmen into these academies affords high schools opportunities in organizational restructuring that may have a positive effect on the difficult ninth grade transition (Neild, 2009). Effects of the smaller environments may range from interactions with teachers who are less impersonal to powerful networks of administrators, teachers, and parents who support trust, thus leading to greater levels of professional development impacting instruction (Levine, 2010).

The research on freshmen academies is showing transitional quality for ninth graders into high school (Kmiec, 2007). The developmental needs for these adolescents



are nurtured best in smaller environments that mitigate the flux of physiological and emotional needs often associated with needs of transitioning ninth graders (Cotton, 2001; Fields, 2005; Kmiec, 2007; SREB, 2002). Freshmen academies often mimic strategies found in middle schools: teaching in teams, proximity of classrooms, and grade levels separated by a hall or wing (Kmiec, 2007).

Freshmen academies have also shown to be especially effective for challenging minority subgroups (Barbour, 2009). This strategy is employed more in urban settings where transition to high school may need more emphasis and attention due to larger school settings and at-risk student populations (Barbour, 2009; Kmiec, 2007; Peasant, 2006; Styron & Peasant, 2010). MacMillan (2012) conducted a study of at-risk students in South Carolina schools. Although MacMillan's findings were not overall significant, he did determine African Americans in freshmen academies out-performed the same subgroup in schools without a freshman academy in areas of mathematics and grade promotion (2012).

Sewell examined a stand-alone freshman campus in his 2009 study. Sewell looked at two different cohorts of students matriculating in the same high school that used a freshman wing one year and a separate facility the next. The findings overwhelmingly favored the separate campus. Students across all subgroups performed better when transitioning through the stand-alone facility versus the freshman wing, but most notably for critical subgroups like African-Americans and the economically disadvantaged in the areas of Biology and English I (Sewall, 2009). Despite the lack generalizability in Sewell's work, the study's results revealed the impact stand-alone campuses can have upon minority subgroups that affect accountability.

Styron and Peasant (2010) studied academic achievement differences of 50 randomly selected ninth graders from a traditional setting versus 50 randomly selected ninth graders from freshman only facilities. Achievement in this study was defined by gains on the Algebra I and Biology End of Course Test (EOCT) scores and significant differences were found. Students attending ninth grade academies had mean scores significantly higher in both Algebra I and Biology (Styron & Peasant, 2010). Furthermore, the researchers discovered significant gains in both Algebra I and Biology for Black students who attended freshman academies versus traditional settings where ninth grade students are mixed within the upperclassmen population.

A quantitative study examining six schools in Mississippi was conducted by Peasant in 2006 to determine if separate facilities for ninth graders could impact student achievement in Algebra I and Biology EOCT scores. Three schools that used separate ninth grade facilities were compared against three traditional ninth through twelfth schools using a single facility. After randomly selecting the performance of 100 students from each of the six schools, Peasant (2006) found students attending separate ninth grade facilities scored significantly higher on the Algebra I and Biology EOCT than students attending a traditional ninth through twelfth high school. Peasant recommended expanding his research to include examining schools employing the school within a school academy for ninth graders, such as a ninth grade wing. Following this recommendation, the current study will compare ninth grade achievement in traditional high schools, ninth grade wings, and ninth grade campuses.

The findings of a 2008 quantitative study by Cook et al. revealed the use of ninth grade academies in North Carolina showed a decrease in non-promotion and dropout

rates. The researchers investigated 134 ninth grade academies in North Carolina to determine the effect these academies had on reading gains, promotion rates, and dropout rates. While their achievement gains in reading were not significant, schools with ninth grade academies promoted 85% of students to the tenth grade compared to the state average of 78%. Furthermore, the dropout rate in ninth grade academies was 6.6% compared to the state average of 12.5% (Cook et al., 2008). The findings in this study indicated ninth grade academies were successful because of specific designs that allowed for a culture of personalization, flexibility, and collaboration between students, teachers, and parents.

A mixed methods study by Bennett (2012) sought to analyze differences in attendance and behavior of ninth grade students in an academy versus ninth grade students in a traditional high school setting. Bennett also examined perceptions of tenth grade students' experiences in a ninth grade academy setting. The findings were significant only for behavior and attitudes toward school. Attendance of ninth graders was actually stronger in the traditional setting and there were no significant findings in the reflections of the tenth graders on their ninth grade academy experiences.

Kmiec (2007) conducted a qualitative study examining perceptions of students transitioning into high school through a ninth grade academy. Kmiec believed the academy initiative of SLCs established the best effort at transitioning students even going so far as to assert separated facilities represented a deeper level of commitment to the ninth grade struggle. Kmiec noted transition to high school happens during adolescence when students are socially and psychologically awkward. Such awkwardness occurs at a time in which many are placed in an environment that is in just as much flux as their

identity. Schools capable of mitigating that state of complexity and confusion in the facility can offset the same confusion the student may be experiencing academically and socially (Kmiec, 2007).

Kmiec (2007) aimed to determine if SLC reform such as freshmen academies helped students make the transition to high school in a developmentally appropriate manner. Recognizing all students struggle with transition, from the most at-risk to high performing students, the study noted traditional high school facility environments fail to meet individual student needs, many of whom are still-developing adolescents. The results of this study found smaller learning communities like freshman academies can have a significant impact on the transition of ninth graders when implemented with fidelity (Kmiec, 2007).

Other studies indicated freshman academies had no effect on positive student outcomes. Irvin (2013) examined attendance, EOCT scores, and graduation rates for select schools in Georgia and found statistical differences between traditional ninth through twelfth high schools and schools using a freshman academy. For one cohort of students, Irvin's results indicated high percentages in attendance, EOCT performance, and the school's overall graduation rate in the traditional comprehensive high schools, not the freshmen academies.

Daniel (2010) found the use of a ninth grade academy had no impact on the improvement of ninth grade science scores over their seventh grade performance. Generally, students showed no growth from seventh to the ninth grade in the exceeds, meets, and does-not-meet categories. However, Daniel noted in the research the academy did not truly set apart its ninth graders in a "freshman only" setting, citing the fact that

many repeat ninth graders as well as upperclassmen were present in courses and day to day activities.

#### Ninth Grade Achievement and Post High School Readiness

Post high school readiness is not as clearly defined in the literature, especially as it relates to freshmen academies and smaller learning communities. The framework of the CCRPI is based on how schools are preparing students for post-secondary options and this effort starts in the ninth grade. Lee (2011) stated it is difficult to measure college readiness and, furthermore, what is required for success in the workforce does not necessarily align with college readiness. Lee also found college readiness to be a combination of indicators such as grade point average, high school completion, and national standardized test scores. However, these indicators are inconsistent when considering the quality of education across the nation's high schools (Lee, 2011).

Developing students to be college and career ready begins at the high school level in the ninth grade (Cook et al., 2008). A U.S. Department of Education (2010) report called *A Blueprint for Reform: The Reauthorization of the Elementary and Secondary Education Act* emphasized the use of end of course assessments that would measure the degree to which students were college and career ready. As such, school districts are not only acclimating students to high school but are also developing students who can envision their future in colleges and careers. Ninth grade facilities are thought to help introduce and cultivate post high school vision with teachers-as-advisors programs that help develop four year graduation plans (Daniel, 2010; Fulco, 2009). Cook et al. (2008) reported the achievement of ninth graders can serve not only as an early indicator of high school graduation but also as to how well prepared students are for post-secondary options. Students who fail to earn three credits stand a 90% chance of not graduating high

school (Cook et al., 2008). Georgia's new instrument that measures a school's index of college and career readiness has an indicator for ninth grade students earning four core credits. Building on this notion of college and career readiness, ninth graders who fail to earn four credits in the core subject areas of English, math, science, and social studies are not considered on track for college readiness (Georgia Department of Education, 2012a).

Effective organizations that produce positive outcomes for ninth graders have increasingly become better at providing relevance to the coursework in high school (Bottoms, 2008; SREB 2002). In his work with the Southern Regional Educational Board, Bottoms (2008) asserts high school must have a focus on improving student achievement in the ninth grade. A major tenet of Georgia's accountability measures is the ability for schools to be able to successfully provide for their students in order for them to be college and career ready (Georgia Department of Education, 2012a). Bottoms indicated successful outcomes as a result of redesign in the ninth grade, can lead to improved graduation rates and thus increase the likelihood of readiness for college and careers.

High school graduates are viewed by higher education as ill prepared for college level studies or the labor force (National Center for Educational Statistics, 2004). According to data from the National Center for Education Statistics (2004), more than one third of high school graduates are not ready to go to college and 60% of employers rated graduated students' basic skills as "fair" or "poor" (American Diploma Project, 2004). In recent years, research conducted by Edmunds et al. (2012) has indicated the importance of ninth grade success as it relates to greater chances of positive post-secondary outcomes. The research by Edmunds et al. (2012) examined the national

movement from mere high school transition to preparing ninth graders for post-high school readiness. This movement goes far beyond worrying about high school transition and focuses on creating early college models that will aim higher in hopes of responding to the demands of accountability measures such as those found in Georgia's CCRPI. Not coincidentally, this work involves the use of communal high expectations in a nurturing and smaller redesigned high school setting (Edmunds et al., 2012). As it relates to the current study, the purpose of Edmunds' et al. (2012) research was to examine associations between high school reform in self-contained settings and preparation for post high school options. Like the design principles of the freshmen campus, the early college concept has changed expectations from high school survival to post high school readiness.

#### Summary

This review of literature provided the issues most often associated with the difficulties students encounter when moving to high school. There was an abundance of literature on high school transitions and the use of smaller learning communities such as freshman academies. There existed a few studies of the effectiveness of ninth grade academies as it related to student achievement data. The research centered on the ninth grade experience, transitions, small school setting, and the freshmen academy. Little has been explored about the effectiveness of specific designs and almost no literature exists that aims to discover principal perceptions of effective transitioning via freshmen academies. The researcher of this mixed methods study examined CCRPI scores, graduation rates, ninth grade core credit accumulation, and Ninth Grade Literature EOCT mean scale score data for all students, and percentage of meets and exceeds for Black,

economically disadvantaged students, and students with disabilities. There are specific items such as minority achievement and promotion rates cited in this review that are relevant to the potential findings of the current study. The goal of this research study is to determine which type of facility—freshmen wing or freshmen campus—will best provide for an increase in: ninth grade literature EOCT performances, percent of first time ninth graders earning credit in the four core content areas, overall school CCRPI scores, and the graduation rate. This study aims to add to the research base of freshmen academies by examining the different models of freshmen transition facilities—the self-contained campus versus the least restrictive wing. This study also examines ninth grade achievement on a much larger scale than previous work. After this study is completed, suggestions will be offered for further research into high school transitions and facility models for ninth graders.



## Chapter III

### METHODOLOGY

This chapter contains a description of the methodology used in the study. The first section describes the research design and the rationale for its use. The next section details the population, sample, and sampling procedure. The third section describes the instrument used in the study. The fourth section explains how the data were collected for the quantitative and qualitative portions of the study. The fifth section is the quantitative data analysis, followed by the statistical considerations and then, finally, the qualitative data analysis.

#### Research Design

Mixed methods was determined to be the most appropriate design based largely on the strategy to capture both ninth grade achievement data as well as the perceptions of principals on the transition to high school. There were several reasons one would choose a mixed methods design, chief among them is obtaining a more comprehensive and nuanced understanding of the phenomenon being studied (Creswell & Plano Clark, 2007). Creswell (2009) described mixed methods research as an inquiry that is more than just collecting and analyzing both quantitative and qualitative data. Creswell and Plano Clark (2007) explained further that by using a mixed methods approach, the researcher can use qualitative and quantitative approaches in tandem in order to strengthen the overall study. Furthermore, Fraenkel and Wallen (2009) asserted mixed methods research can help clarify and explain the relationships existing between variables.

The use of mixed methods was intended to produce answers using quantitative findings with qualitative explanations. As a result, pragmatism, a paradigm often found in mixed methods research, was purposefully employed in this study. Creswell (2009) defined pragmatism as a worldview more concerned with action and application than antecedent conditions. Research in the pragmatism paradigm has knowledge characteristics that are moderate, constructed, actionable, practical, and constantly evolving and adapting to what solves problems in studies (Johnson & Onwuegbuzie, 2004). The researcher considered the phenomenon of high school transition and thought it best to match strengths from both qualitative and quantitative findings. Onwuegbuzie and Leech (2004) further stated embracing both quantitative and qualitative methods posits one in the realm of phenomenological and experiential research where each portion can sufficiently inform the other by combining empirical and descriptive precision. Simply stated, the rationale for the pragmatic approach was to find a middle ground in order to discover the solutions to which facility arrangement was ideal when transitioning students to high school (Creswell, 2009; Johnson, Onwuegbuzie, & Turner, 2007).

This study used a sequential explanatory design to investigate the phenomenon of high school transition and sought to understand if one facility arrangement supports transition better than others. Sequential explanatory design was used because the data from the quantitative portion was expected to inform the qualitative (Creswell, 2009). According to Creswell (2009), this design is most often used when qualitative data is sought to help interpret the quantitative findings. The data points on the quantitative portion were performances on the Ninth Grade Literature EOCT, percentage of students with disabilities earning three core credits in the ninth grade, percentage of students

earning four core credits in the ninth grade, overall CCRPI score, and the graduation rate. The quantitative portion examined significant differences between schools using a particular facility arrangement for its ninth graders. The qualitative aspect of the study examined principals' perceptions of high school transition effectiveness of ninth grade facilities and these findings added perspective to the quantitative results.

#### Population, Sample, and Sampling Procedure

Sampling for the Quantitative Procedures. There was a potential for internal and external validity threats to exist in this study due to the lack of randomization in the selection process of the participating schools (Fraenkel & Wallen, 2009). In order to control for these threats, schools with similar descriptive statistics were chosen from the freshman wing ( $n = 50$ ) and the group of high schools with no freshman transition facility ( $n = 50$ ) to ensure homogeneous comparisons with the freshman campus ( $n = 25$ ) group (Fraenkel & Wallen, 2009). To consistently compare across the three groups of high schools, the variables of high school enrollment, ninth grade enrollment, and minority enrollment were used as indicators most often associated with the need for ninth grade transition facilities. Ninth grade performance data of all students, Black students, economically disadvantaged students, and students with disabilities was examined since these subgroups are most often associated as those students most critical to a school's accountability (Grossman & Cooney, 2009; Newman et al., 2000; Reyes et al., 2000; Smith, 2006; Southern Regional Education Board, 2002; Styron & Peasant, 2010).

The use of purposeful sampling helped carefully consider which schools were used for comparison during the quantitative and qualitative portions of the study. Overall, there were 349 Georgia public high schools from which samples could be drawn into

three groups: high schools using no freshman transition facility, high schools using a freshman wing, and high schools using a freshman campus. Through self-reporting data measures, it was determined that 224 Georgia public high schools chose not to transition freshman using a particular facility design. For the purposes of this study, this meant 224 Georgia public high schools did not use a freshman wing or freshman campus to transition its ninth graders to high school. Through the same self-reporting data, it was found that 100 Georgia public high schools used a freshman wing to help transition its ninth graders to high school. Twenty-five schools in Georgia reported using a separate campus to transition its freshman to high school.

Of the 224 Georgia public high schools not utilizing a freshman facility, it was determined 145 schools were considered a comparable match to the freshman campus group ( $n = 25$ ). These comparable schools were found using variables of high school enrollment, ninth grade enrollment, and minority enrollment. These variables were chosen because of their relevance to smaller learning communities (SLCs). Schools choosing to employ ninth grade SLCs often decide on this strategy based on two factors: large high school enrollment and high percentage of minority enrollment (Cotton, 1996a; Cotton 2001).

The high school enrollment, ninth grade enrollment, and percentage of minority variables were converted to z-scores to provide comparison across the three groups. In the freshman campus group, each of these variables was ranked and a lower and upper limit was obtained after cutting off the two top and two bottom z-scores. This meant thresholds for consideration were established around 84% of schools closest to the mean (21 of 25 schools). Using these limits for the other two groups helped filter out schools

that were least comparable along the enrollment variables. As a result, 68 schools provided a best match for those variables for the freshman wing group (out of 100). From these schools, 50 were randomly selected. In the group using no freshman transition facility, 145 of 224 schools provided the best match of schools along these three variables. Out of these 145 schools, 50 schools were randomly selected.

#### Qualitative Procedures

Five principals were randomly selected from each of the three groups of high schools. Proper consent was obtained from each individual and from the school district where they work. The interviews were semi-structured in order to obtain information not previously supported in the quantitative findings.

#### Instrumentation

**Quantitative Methods.** Established by legislation in 2000, the EOCT is a standards-based achievement test given to public school students in Georgia upon completion of the following courses: Ninth Grade Literature, American Literature, Coordinate Algebra, Analytic Geometry, Physical Science, Biology, U.S. History, and Economics. Students in Georgia's public schools began taking the EOCT in 2001 and performance on this final exam counted as the accountability assessment beginning in the 2011-2012 school year (Georgia Department of Education, 2013). Scale scores, grade conversions, and performance levels for all eight EOCTs are listed in Table 1.

Table 1

*Scale Scores, Grade Conversion, and Performance Levels for Georgia EOCTs*

Scale score	Grade conversion	Performance level
Below 400	70	Does not meet
400-449	70-89	Meets
450 and above	90-100	Exceeds

Besides using results from all assessments to certify students for graduation, performance on the EOCT informs indicators in the Content Mastery section of the Achievement portion of a high school’s CCRPI. This study will only examine performance on the Ninth Grade Literature EOCT. The Ninth Grade Literature EOCT was determined to be the clearest and most consistent indicator of achievement for all ninth graders in Georgia’s public schools, where biology, Coordinate Algebra, and physical science could, in some instances, be given in different grade levels.

Test validity is the extent to which the scores obtained are appropriate for interpretation of what the test was intended to measure (Georgia DOE, 2013). The evidence for construct validity is point-biserial and Rasch fit statistics and these tests require knowledge of the content area being measured for mastery. It is important to note, all EOCT development activities are conducted by the Georgia Department of Education (DOE), curricular specialists, an assessment contractor, psychometricians, and, most importantly, Georgia educators (Georgia DOE, 2013). This helps refine the instrument over several observations to ensure the instrument is measuring what it purports to measure. This re-evaluation phase allows for Georgia educators to develop the best

possible instrument to measure curricula criteria that will be assessed. (Georgia DOE, 2013).

For a test to be valid, it must also be reliable (Frankel & Wallen, 2009; Georgia DOE, 2013). Reliability is the process by which a test will produce similar results over multiple applications for the same sample from a population. The Georgia DOE uses a coefficient of internal consistency to determine the reliability of the EOCT. The two tests the DOE uses to determine reliability are the Cronbach's alpha reliability and the standard error of measurement (SEM). The SEM in its strictest sense allows one to generate a confidence interval where one would expect to find the individual's true score from a single testing occasion. In its most practical sense the SEM test is conducted to produce an index that will show the amount of difference that could occur in an individual taking the same test twice under different conditions. In a recent test of reliability for the 2013 spring EOCT administrations, Cronbach's alpha reliability coefficient scores ranged from .74 to .94. These scores along with their raw score SEMs were sufficient in determining reliability and intended purpose. These results generally indicate a high reliability exists across all EOCT (Georgia DOE, 2013).

Qualitative Methods. Credibility and trustworthiness must exist on the qualitative portion as well and, in order to ensure this, researchers are responsible for documenting procedures and steps of the process (Creswell, 2009). Other strategies for credibility and trustworthiness can be checking transcripts for mistakes, a continued solid understanding of coding themes, and cross checking themes for inter-coder agreement (Creswell, 2009). To ensure trustworthiness, both Creswell (2009) and Maxwell (2005) recommended taking the transcribed interview back to participants to check for accuracy as well as

using rich text to fully explain the findings. To further substantiate credibility and trustworthiness, the researcher disclosed the bias of being a principal of a high school using a separate campus. Creswell and Maxwell (2005) both agreed bias can threaten credibility of the qualitative findings and transparency in the matter helps acknowledge to readers the background and day to day existence of the researcher.

Principals had advanced notice of the questions and the interviews were structured in order to examine the differences between freshmen facility arrangements. Four professors of higher education were chosen to examine the questions and provide feedback through a provided form (Appendix A). All professors had previously earned a doctorate and had considerable experience in both post-graduate studies and K-12 education. One such professor was a cited researcher of this dissertation and another was an instructor for a dissertation conceptualization course taken by the author of this study. Furthermore, a pilot study of five principals randomly chosen from the researcher's local Regional Education Service Agency (RESA) and state chapter of the Georgia Association of Secondary School Principals (GASSP) yielded themes, phrases, and coded terms to anticipate in the principals' responses. Four of the five principals worked in multiple schools with a different freshman facility design. For example, two of the principals worked in a high school that did not separate its freshmen and then in schools that separated by wing. Two more principals worked in schools that used a wing followed by working in schools employing the separate campus concept. One principal had only worked in schools where all freshmen were transitioned to high school without a particular facility design. Four of the five principals had earned a doctorate.



Feedback from a panel of four experts was consistent on the speculative nature of the first draft of the questions. After the revision process, all of the questions were changed to ask more directly in order to achieve the intended purpose of the questions as well as to eliminate speculation, bias, or leading questions. All four panel members suggested asking questions that would apply to all three groups to ensure some of the questions were asked of all participants. Re-organizing Question 6 yielded a succinctly stated Question 5 in the revised version. A different ordering of the questions was suggested to eliminate bias towards any one of the three groups of high schools.

Following is the original draft of interview questions which was submitted for validation:

1. [Freshman campus] What were the driving forces that led to the use of a separate facility?  
[Freshman wing] What were the driving forces that led to the use of a separate wing for freshmen?  
[Use of neither campus nor wing] Has there been consideration towards using a facility to transition students from middle school?
2. [Freshman campus] What high school transition strategies can be employed using separate facilities that aren't as feasible using a freshman wing?  
[Freshman wing] What high school transition strategies can be employed using a separate wing that aren't as feasible using a freshman campus?  
[Use of neither campus nor wing] What high school transition strategies are employed to students in a school that doesn't use a wing or campus to transition freshmen?

3. [Freshman campus] How does the use of a separate campus for freshmen help transition students to high school in better ways than a freshman wing can?  
[Freshman wing] How does the use of a separate wing for freshmen help transition students to high school in better ways than a freshman campus can?  
[Use of neither campus nor wing] How can a school using no separate facility or wing for its freshmen transition students to high school in better ways than schools using either of these facility arrangements?
4. [Freshman campus] How would the use of a separate campus for freshmen prepare students for high-stakes testing?  
[Freshman wing] How would the use of a separate wing for freshmen prepare students for high stakes testing?  
[Use of neither campus nor wing] How would not using a separate wing or campus for freshmen prepare students for high stakes testing?
5. [Freshman campus] How would the use of a separate campus for freshmen ensure their being on track to graduate after the ninth grade year?  
[Freshman wing] How would the use of a separate wing for freshmen ensure their being on track to graduate after the ninth grade year?  
[Use of neither campus nor wing] How would not using a separate wing or campus for freshmen ensure their being on tract to graduate after the ninth grade year?
6. [Freshman campus] In what ways does the use of a separate campus for freshmen help transition
  - a. Black students to high school?

- b. Students with disabilities to high school?
- c. Economically disadvantaged students to high school?

[Freshman wing] In what ways does the use of a separate wing for freshmen help transition

- d. Black students to high school?
- e. Students with disabilities to high school?
- f. Economically disadvantaged students to high school?

[Use of neither campus nor wing] In what ways do schools not using a separate wing or campus for freshmen help transition

- g. Black students to high school?
- h. Students with disabilities to high school?
- i. Economically disadvantaged students to high school?

7. [Freshman campus] As it relates to transitioning to high school, how does the use of a separate campus for freshmen help faculty meet the instructional, social, and emotional needs of students?

[Freshman wing] How does a separate wing help faculty meet instructional, social, and emotional needs of students?

[Use of neither campus nor wing] How do schools using neither a separate campus or wing for freshmen help faculty meet the instructional, social, and emotional needs of students?

As a result of feedback from the expert panel of chosen individuals as well as the pilot study, the following questions were used to interview the principals of the three distinct groups of high schools:

1. [Freshman campus] What were the driving forces that led to the use of a separate facility?  
  
[Freshman wing] What were the driving forces that led to the use of a separate wing for freshmen?  
  
[Use of neither campus nor wing] Has there been consideration towards using a facility to transition students from middle school?
2. [For all groups] How does your school currently help transition students from middle school to high school? What transition strategies does your school use to help students transition from middle school to high school?
3. [Freshman campus] What are the advantages and disadvantages that you believe come along with using a freshman wing?  
  
[Freshman wing] What are the advantages and disadvantages that you believe come along with using a freshman campus?  
  
[Use of neither campus nor wing] What are the advantages and disadvantages that you believe come along with keeping ninth grade students within the same facility as upperclassmen?
4. [For all groups] How do you see the physical structure of your facility arrangement for ninth graders influencing behavior, culture, or academic performance of specific groups of students? Specifically, does the structure seem to impact Blacks differently than Whites? Students without disabilities differently than students with disabilities? Students of poverty?
5. [For all groups] What does your school do to prepare freshmen for high-stakes testing? How do you think that relates to your facility?

6. [Freshman campus] How does the use of a separate campus for freshmen ensure their being on track to graduate after the ninth grade year?  
[Freshman wing] How does the use of a separate wing for freshmen ensure their being on track to graduate after the ninth grade year?  
[Use of neither campus nor wing] How does not using a separate wing or campus for freshmen ensure their being on track to graduate after the ninth grade year?
7. If almost all questions revealed non-significant findings, why do schools employ the use of separate facilities or wings to transition their freshmen?

The anticipated themes and phrases were constructed into a chart for each question to ensure efficient and accurate coding. The pilot study was useful as it manifested the unique perspective of principals who had worked in high schools with multiple freshman transition designs. This allowed for anticipated themes to emerge that would be more comprehensive. Seeking out these professionals allowed the researcher to begin anticipating the responses of principals in the interviews.

The accuracy of these data was further ensured by the use of a voice recorded device and all responses were transcribed. A strict interview protocol was followed to validate the process. The date, place, interviewer, and interviewee were recorded and, after asking all interview questions, all participants were asked if there were any other ideas to be expanded upon.

#### Data Collection

Quantitative Methods. The data source for the quantitative portion was archived EOCT scores located on the state Department of Education (DOE) website as well as

using demographic data found the Governor's Office of Student Achievement website. Several indicators from the CCRPI were used and those data are also found on the state DOE website. The accuracy of these data was ensured by the student records matching procedure that each school district is required to follow to meet State Department of Education's industry standards. Considering a school's accountability could be potentially be jeopardized in the event of inaccurate data, it was assumed schools were forthright in this process.

Qualitative Methods. The data source from the qualitative portion was the principals' responses to interview questions. Interview questions were designed to help explain the quantitative findings and simultaneously sought to discover how one facility transitions students with greater effect over others. The interviews gathered rich and specific details of transitions to high school that were not as apparent through the quantitative process. Principals in the interviews were given the opportunity to expand upon the quantitative findings in order to more fully understand why one facility arrangement may better suit freshmen transition needs.

#### Data Analysis

Quantitative Analysis. The independent variable of this study had three levels: freshman campus, freshman wing, and no freshman facility. Transitioning eighth graders to high school is not a novel concept but the choice in how districts transition them is intriguing and completely different all at the same time (Akos & Gallasi, 2004; Cook et al., 2008; Felner et al., 1993; Mizelle, 1999; Pharris-Ciurej et al., 2012; Smith, 1997; Weiss & Baker-Smith, 2010). If achievement, space and budget were not factors, would all schools employing a freshman academy choose to employ a wing or separate campus

arrangement and why? Furthermore, knowing the delicate transition to high school, why are schools choosing not to facilitate a freshman transition strategy? Would the reasons be budget, facility space, or there is simply no need?

The dependent variables were: mean scale scores on the Ninth Grade Literature EOCT for all students, the percentage of Black students whose performance meets or exceeds the Ninth Grade Literature EOCT, the percentage of economically disadvantaged students whose performance meets or exceeds on the Ninth Grade Literature EOCT, the percentage of students with disabilities whose performance meets or exceeds on the Ninth Grade Literature EOCT, ninth grade core credit earned by students with and without disabilities, and the graduation rate. Transitioning to a complex high school environment can be unsettling to almost all adolescents (Mizelle, 1999; Pharris-Ciurej et al., 2012; Smith, 1997; Weiss & Baker-Smith, 2010). As such, it is important to review the performance of all subgroups on standardized tests like the EOCT because critical groups can help define how well cohorts of students make the adjustment to high school. Barbour (2009) found there was a significant difference in end of course assessments for minority students transitioning through a freshman campus versus those who did not. The ninth grade transition of at-risk groups like minorities, students with disabilities, and students of poverty can be more troubling (Barbour, 2009).

The three groups examined in this study had schools with students of various subgroups by ethnicity, economic status, and disability. The basic descriptive statistics for each of the three groups were: school enrollment, ninth grade enrollment, the percentage of White, Black, Hispanic or Asian students, percentage free and reduced lunch, and students with disabilities.

Research Question 1 was used in the study to determine statistical differences between each of the three groups. For each of the sub questions a-h, a one way ANOVA was used to determine if an *F* statistic was significant. The use of ANOVA was appropriate for these questions since there were three independent groups (measured at the nominal level) on a single dependent variable (measured at the interval level). Post-hoc comparison tests were used to determine which means were significantly different from each other. For effect size, omega squared was examined to report the percentage of shared variance and whether the findings revealed significance of any practical importance.

Before using ANOVA, several statistical assumptions must be satisfied. Missing data or outliers were examined to ensure the appropriate use of ANOVA. In this study the independent variable existed on three levels. Because the dependent variables were EOCT scores, percentages of meets and exceeds of various subgroups on EOCT, CCRPI scores, and graduation rates, the continuous data assumption was met. Skewness values, kurtosis values, histograms, Q-Q plots, and a Kolmogorov-Smirnov test statistic were employed to assure that a normal distribution of data existed. Levene's test was used to check homogeneity of variance.

#### Qualitative Analysis

For the qualitative analysis portion, interviews were recorded, transcribed, and coded. Analysis of continual reflection about the data helped in organizing categories and similar themes. This process was conducted to determine if the principals' responses supported or refuted the quantitative findings. Both Maxwell (2005) and Patton (2002) agreed using a semi-structured interview protocol helps maintain the focus of the study



while allowing for open-ended questioning so any unanticipated themes could emerge. Nevertheless, some of the coding was anticipated; therefore, the results were categorized and double checked for congruent or discrepant findings (Maxwell, 2005). The transcribed interviews were sent back to the participants for clarification.

### Summary

This chapter outlined the methodology, research design, population and sampling procedures, data collection, and data analysis for both quantitative and qualitative sections of this study. A sequential explanatory design in pragmatic worldview was used to determine if schools using a certain freshmen facility arrangement have significantly higher achievement on the Ninth Grade Literature EOCT, higher credit accumulation at the ninth grade, higher CCRPI scores, and higher overall graduation rates.

## Chapter IV

### RESULTS

There were two purposes in this mixed methods study. The primary purpose was to determine if there were significantly different outcomes in freshman performance measures, CCRPI scores, and graduation rates of high schools using either a freshmen wing, freshmen campus, or no freshman facility. The secondary purpose was to gain an understanding of why districts chose to transition freshmen to high school using facilities or wings separated from upperclassmen.

The following questions were answered in this study.

1. Is there a significant difference among schools using a freshman campus, a freshman wing, or no freshman facility arrangement on selected performance measures (Ninth Grade Literature EOCT, Carnegie unit completion, CCRPI, and graduation rate)?
  - a. Is there a significant difference among schools using a freshman campus, a freshman wing, or no freshman facility arrangement on the mean scale scores of all students on the Ninth Grade Literature EOCT?
  - b. Is there a significant difference among schools using a freshman campus, a freshman wing, or no freshman facility arrangement on the percentage of Black students whose performance meets or exceeds on the Ninth Grade Literature EOCT?

- c. Is there a significant difference among schools using a freshman campus, a freshman wing, or no freshman facility arrangement on the percentage of economically disadvantaged students whose performance meets or exceeds on the Ninth Grade Literature EOCT?
- d. Is there a significant difference among schools using a freshman campus, a freshman wing, or no freshman facility arrangement on the percentage of students with disabilities whose performance meets or exceeds on the Ninth Grade Literature EOCT?
- e. Is there a significant difference among schools using a freshman campus, a freshman wing, or no freshman facility arrangement on the percentage of ninth grade students earning four Carnegie units in the four core content areas?
- f. Is there a significant difference among schools using a freshman campus, a freshman wing, or no freshman facility arrangement on the percentage of ninth grade students with disabilities earning three Carnegie units in three core content areas?
- g. Is there a significant difference among schools using a freshman campus, a freshman wing, or no freshman facility arrangement on the graduation rate?
- h. Is there a significant difference among schools using a freshman campus, a freshman wing, or no freshman facility arrangement on the CCRPI score?

2. Does principal interview data provide an explanation for any quantitative differences in achievement for high schools using a separate campus, separate wing, or no freshman facility arrangement for its transitioning freshmen?
3. To what extent do interviews with principals contribute to a more comprehensive understanding of the differences in credit accrual, standardized achievement, and graduation of students transitioning to high school through freshman campuses and freshmen wings?

This chapter presents the findings of this study. The first section of this chapter will describe the demographic characteristics of the schools in each sample. The second section will report the results of the ANOVA for Question 1. This study used a sequential explanatory design approach and, as such, the findings of the quantitative section will be followed by responses from principal interviews in the qualitative portion. Interview questions were developed based upon the quantitative findings. The third section will describe the demographic characteristics of the principals participating in the interviews. The final section will report the data gathered from responses in the principals' interviews.

#### Demographic Characteristics of the Schools

Schools were selected through purposeful sampling in order to provide the best match on demographics most often shown to suffer academically, socially, and emotionally through the transition to high school (Barbour, 2009; Kmiec, 2007; MacMillan, 2012; Peasant, 2006; Styron & Peasant, 2010). Demographic data for percentage of White, Black, economically disadvantaged, and students with disabilities were used to determine which schools in the larger populations (schools using no facility

or wing) provided the best match for comparison to the smaller group (freshman campus style high school).

The enrollment for the group of high schools using no freshman facility (n = 50) ranged from 349 to 1,916 students with a mean ninth grade enrollment of 310.94 students. Freshmen accounted for 30% of the overall high school enrollment in the group of high schools using no freshmen transition facility. The enrollment for the group of high schools using a freshman wing (n = 50) had a range of 516 to 1,967 students with a mean ninth grade enrollment of 401.34 students. Thirty-one percent of the high school enrollment in the group of high schools using a freshmen wing were freshmen. The enrollment for the group of high schools using a freshman campus (n = 25) ranged from 401 to 2,807 students with a mean ninth grade enrollment of 466.2 students, which represented 28% of the total enrollment (see Table 2).

Table 2

*Descriptive Statistics of High Schools by Freshman Facility Type*

Group	n	Enrollment		Percentage			
		Total <sup>a</sup>	Ninth Grade	White	Black	ED <sup>b</sup>	SWD <sup>c</sup>
No Freshman Facility	50	1050.36	310.94	53.4	34.7	53.8	10.6
Freshman Wing	50	1288.84	401.34	42.3	43.9	59.1	11.3
Freshman Campus	25	1638.84	466.20	55.3	31.2	55.1	11.9

*Note.* <sup>a</sup>High school enrollment for all grades nine through twelve; <sup>b</sup>ED = economically disadvantaged; <sup>c</sup>SWD = students with disabilities

## Results by Question

### Quantitative Results

1a. Is there a significant difference among schools using a freshman campus, a freshman wing, or no freshman facility arrangement on the mean scale scores of all students on the Ninth Grade Literature EOCT?

Descriptive statistics indicated the overall mean scale score for all 125 high schools on the Ninth Grade Literature EOCT was  $M = 434.95$  points ( $SD = 11.10$ ). High schools that had no transition facility for its freshmen ( $n = 50$ ) had a range of mean scale scores from 416.85 to 471.21 with an average mean scale score of 435.73 ( $SD = 10.68$ ). High schools using a freshman wing ( $n = 50$ ) had a range of mean scale scores from 401.18 to 465.18 with an average mean scale score of 433.01 ( $SD = 11.70$ ). High schools with a freshman campus ( $n = 25$ ) had range of mean scale scores of 416.87 to 462.24 with an average mean scale score of 437.27 ( $SD = 10.44$ ) (see Table 3).

Table 3

*Descriptive Statistics of Mean Scale Scores of Ninth Grade Literature EOCT by Facility*

<i>Type</i>					
Group	n	<i>M</i>	<i>SD</i>	Skewness	Kurtosis
No Freshman Facility	50	435.73	10.68	0.91	1.72
Freshman Wing	50	433.01	11.70	0.10	0.86
Freshman Campus	25	437.27	10.44	0.04	0.72

A one-way analysis of variance (ANOVA) was performed to determine the effect of the independent variable (high schools using a certain facility design) on the dependent

variable (mean scale scores on the Ninth Grade Literature EOCT). Before running the ANOVA, several statistical considerations and assumptions were checked. There were no missing data for this question. The data were converted to z-scores to examine outliers. It was determined there was only one outlier greater than 3.29 found high schools using no freshman facility (z-score = 3.34) and the decision was made to retain this value. No outliers were found in the freshman wing or freshman campus schools for Ninth Grade Literature EOCT mean scale scores. Levene's test indicated equal variances,  $F(2, 122) = 0.263, p = .77$ , meaning the assumption of equal variances was met. Although the group using no freshman facility had a higher than normal  $\pm 1$  kurtosis value (1.72), an examination of histograms and Q-Q plots indicated a similar distribution of scores existed in all three groups of high schools. Further analysis through the use of Kolmogorov-Smirnov (K-S) test indicated normal distributions for all three groups. The K-S test for schools using no freshman facility was  $D(50) = 0.11, p = .173$  and the K-S test for schools using a freshman wing was  $D(50) = 0.09, p = .20$ , indicating a normal distribution. The K-S test for schools using a freshman campus was  $D(25) = .12, p = .20$ , indicating a normal distribution as well. Additionally, the scale scores were on the interval/ratio level of measurement and the scale scores for schools were independent observations.

The analysis of variance indicated there was no significant difference between the freshman facility arrangement of a high school and the mean scale scores for all students on the Ninth Grade Literature EOCT,  $F(2, 122) = 1.45, p = .24, \omega^2 = .007$ . The omega squared value indicated a small effect size. Despite there being no statistical difference between the mean scale scores, further analysis using Cohen's  $d$  was conducted to

examine effect sizes between groups. There was a small effect size ( $d = .24$ ) when comparing both the schools using no freshman facility versus the freshman wing and when comparing schools using no freshman facility with the freshman campus schools ( $d = .15$ ). Finally, a small to medium effect size ( $d = .38$ ) resulted during the comparison of freshman wing schools to the freshman campus schools.

1b. Is there a significant difference among schools using a freshman campus, a freshman wing, or no freshman facility arrangement on the percentage of Black students whose performance meets or exceeds on the Ninth Grade Literature EOCT?

Due to missing data, this question had only 119 of 125 schools with scores for the Black subgroup. Descriptive statistics of these 119 high schools revealed the overall mean percentage of Black students meeting or exceeding on the Ninth Grade Literature EOCT was  $M = 82.35$  ( $SD = 8.04$ ). High schools that had no transition facility for its freshmen ( $n = 47$ ) had percentages which ranged from 53.3% to 100% with a mean of 81.78% ( $SD = 8.56$ ). High schools using a freshmen wing ( $n = 49$ ) had percentages that ranged from 68.5% to 100% with a mean of 82.99% ( $SD = 7.72$ ). High schools using a freshman campus ( $n = 23$ ) had percentages that ranged from 67.2% to 96.9% and with a mean of 82.18% ( $SD = 7.88$ ) (see Table 4).



Table 4

*Descriptive Statistics of Black Percentage of Meets and Exceeds on Ninth Grade**Literature EOCT*

Group	n	<i>M</i>	<i>SD</i>	Skewness	Kurtosis
No Freshman Facility	47	81.78	8.56	-0.58	1.48
Freshman Wing	49	82.99	7.72	0.25	-0.55
Freshman Campus	23	82.18	7.88	0.03	-0.14

A one-way ANOVA was performed to determine the effect of the independent variable (high schools using a certain facility design) on the dependent variable (percentage of meets and exceeds for Black students on the Ninth Grade Literature EOCT). Before running the ANOVA, several statistical considerations and assumptions were checked. There were six missing data. The data set was converted to z-scores to examine outliers. It was determined there was only one outlier greater than 3.29 found in high schools using no freshman facility ( $z\text{-score} = 3.34$ ) and the decision was made to retain this value. No outliers were found in the freshman wing or freshman campus schools for percentage of Black students meeting and exceeding on the Ninth Grade Literature EOCT. Levene's test indicated equal variances,  $F(2, 118) = 0.179, p = .84$ , meaning the assumption of equal variances was met. Although the group using no freshman facility had a higher than normal  $\pm 1$  Kurtosis value (1.48), an examination of the histograms and Q-Q plots indicated similar distributions of scores in all three groups. Further analysis through the use of Kolmogorov-Smirnov (K-S) test indicated normal

distributions for all three groups. The K-S test for schools using no freshman facility was  $D(47) = .10, p = .20$  and the K-S test for schools using a freshman wing was  $D(49) = .09, p = .20$ . The K-S test for schools using a freshman campus was  $D(23) = .16, p = .14$ , indicating a normal distribution as well. Additionally, the mean percentages of Black students who meet or exceed on the Ninth Grade Literature EOCT were on the interval/ratio level of measurement and the percentages for schools were independent observations.

The analysis of variance indicated there was no significant difference between the freshmen facility arrangement of a high school and the percentage of Black students meeting or exceeding on the Ninth Grade Literature EOCT,  $F(2, 116) = 0.27, p = .76, \omega^2 = .01$ . The omega squared value indicated a small effect size. Despite there being no statistical difference between the percentage of Black students meeting or exceeding on the Ninth Grade Literature EOCT, further analysis using Cohen's  $d$  was conducted to examine effect sizes between groups. There was a small effect size ( $d = .15$ ) when comparing the group of schools using no freshman facility versus the freshman wing and when comparing the group of high schools using no freshman facility versus the freshman campus ( $d = .05$ ). A small effect size ( $d = .10$ ) was also observed when comparing the freshman wing to the freshman campus.

1c. Is there a significant difference among schools using a freshman campus, a freshman wing, or no freshman facility arrangement on the percentage of economically disadvantaged students whose performance meets or exceeds on the Ninth Grade Literature EOCT?

Descriptive statistics indicated the overall mean percentage of economically disadvantaged students scoring meets or exceeds for all 125 schools on the Ninth Grade Literature EOCT was  $M = 83.71\%$  ( $SD = 6.27$ ). High schools that had no transition facility ( $n = 50$ ) for its freshmen had a mean of  $83.75\%$  ( $SD = 5.78$ ) and percentages that ranged from 65.1% to 94.0%. High schools using a freshman wing ( $n = 50$ ) had a mean of  $83.38\%$  ( $SD = 6.72$ ) and percentages ranging from 55.9% to 100.0%. High schools using a freshman campus ( $n = 25$ ) had a mean of  $84.30\%$  ( $SD = 6.49$ ) and percentages ranging from 71.6% to 95.3% (see Table 5).

Table 5

*Descriptive Statistics of Percentage of Meets and Exceeds of Economically*

*Disadvantaged on Ninth Grade Literature EOCT*

Group	n	<i>M</i>	<i>SD</i>	Skewness	Kurtosis
No Freshman Facility	50	83.75	5.78	-0.77	1.13
Freshman Wing	50	83.38	6.72	-1.35	5.10
Freshman Campus	25	84.30	6.49	-0.48	-0.37

A one-way ANOVA was performed to determine the effect of the independent variable (high schools using a certain facility design) on the dependent variable (percentage of economically disadvantaged students who met or exceeded on the Ninth Grade Literature EOCT). Before running the ANOVA, several statistical considerations and assumptions were checked. There were no missing data for this question. The data were converted to z-scores to examine outliers. It was determined there was only one

outlier greater than 3.29 found in high schools using a freshman wing ( $z$ -score = 4.05) and the decision was made to retain this value. No outliers were found in the high schools using no freshman facility or high schools using a freshman campus for the percentage of economically disadvantaged students meeting or exceeding on the Ninth Grade Literature EOCT. Levene's test indicated equal variances  $F(2, 122) = 0.143, p = .87$ , meaning the assumption of equal variances was met. Although the freshman wing group had higher than normal  $\pm 1$  kurtosis value of 5.10 and higher than normal skewness value of -1.35, an examination of histograms and Q-Q plots indicated a similar distribution of scores existed in all three groups of high schools. Further analysis through the use of Kolmogorov-Smirnov (K-S) test indicated normal distributions for all three groups. The K-S test for schools using no freshman facility was  $D(50) = 0.11, p = .20$  indicated a normal distribution. However, the K-S test for schools using a freshman wing was  $D(50) = 0.13, p = .05$  and the K-S test for schools using a freshman campus was  $D(25) = 0.17, p = .05$ , both of which indicated distributions bordering on the threshold of not being normal. Additionally, the mean percentages of economically disadvantage students who meet or exceed on the Ninth Grade Literature EOCT were on the interval/ratio level of measurement and the percentages for schools were independent observations.

The analysis of variance indicated there was no significant difference between the freshman facility arrangement of a high school and the percentage of economically disadvantaged students who met or exceeded on the Ninth Grade Literature EOCT,  $F(2, 122) = 0.18, p = .84, \omega^2 = .01$ . The omega squared value indicated a small effect size. Despite there being no significant difference between the percentage of meets and exceeds for economically disadvantaged students on the Ninth Grade Literature EOCT,

further analysis using Cohen's  $d$  was conducted to examine the effect size between groups. There was a small effect size ( $d = .06$ ) when comparing the high schools with no freshman facility to high schools using a freshman wing and also when comparing high schools with no freshman facility to high schools with a freshman campus ( $d = .09$ ). Finally, a small effect ( $d = .14$ ) was observed when comparing high schools with a freshman wing to high schools using a freshman campus.

1d. Is there a significant difference among schools using a freshman campus, a freshman wing, or no freshman facility arrangement on the percentage of students with disabilities whose performance meets or exceeds on the Ninth Grade Literature EOCT?

This question had only 120 of 125 schools with scores for the Students with Disabilities (SWD) subgroup. Descriptive statistics of these 120 high schools indicated the overall mean percentage of SWD students meeting or exceeding on the Ninth Grade Literature EOCT was  $M = 52.68\%$  ( $SD = 15.70$ ). High schools with no transition facility for its freshmen ( $n = 50$ ) had percentages that ranged from 45.07% to 54.45% and a mean percentage of 49.76% ( $SD = 16.49$ ). High schools using a freshman wing ( $n = 46$ ) had percentages which ranged from 49.37% to 58.26% and a mean percentage of 53.81% ( $SD = 14.96$ ). High schools with a freshman campus ( $n = 24$ ) had percentages which ranged from 50.31% to 62.84% and a mean percentage of 56.57% ( $SD = 14.84$ ) (see Table 6).

Table 6

*Descriptive Statistics of Percentage of Meets and Exceeds of Students With Disabilities on Ninth Grade Literature End of Course Test*

Group	n	<i>M</i>	<i>SD</i>	Skewness	Kurtosis
No Freshman Facility	50	49.76	16.49	0.36	0.53
Freshman Wing	46	53.81	14.96	0.65	0.72
Freshman Campus	24	56.57	14.84	0.31	0.05

A one-way ANOVA was performed to determine the effect of the independent variable (high schools using a certain facility design) on the dependent variable (percentage of students with disabilities who met or exceeded on the Ninth Grade Literature EOCT). Before running the ANOVA, several statistical considerations and assumptions were checked. There were missing data in the groups of high schools using a freshman wing and those using a freshman campus. The data were converted to z-scores to examine outliers and it was determined no outliers were observed in any of the three groups. Levene's test indicated equal variances,  $F(2, 117) = 0.102$ ,  $p = .90$ , meaning the assumption of equal variances was met. Normal skewness and kurtosis values were observed and the examinations of the histograms and Q-Q plots indicated similar distribution of scores. Further analysis through the use of Kolmogorov-Smirnov (K-S) tests indicated normal distributions for all three groups. The K-S test for schools using no freshman facility was  $D(50) = 0.08$ ,  $p = .20$  and the K-S test for schools using a freshman wing was  $D(46) = 0.10$ ,  $p = .20$ , indicating a normal distribution. The K-S test for schools

using a freshman campus was  $D(24) = 0.07, p = .20$ , indicating a normal distribution as well. Additionally, the mean percentage of students with disabilities who meet or exceed on the Ninth Grade Literature EOCT were on the interval or ratio level of measurement and the percentages for schools were independent observations.

The analysis of variance indicated there was no significant difference between the freshman facility arrangement of a high school and the percentage of students with disabilities meeting or exceeding on the Ninth Grade Literature EOCT,  $F(2, 119) = 1.74, p = .18, \omega^2 = .01$ . The omega squared value indicated a small effect size. Despite there being no statistical difference, further analysis using Cohen's  $d$  was conducted to examine the effect size between groups. There was between a small and medium effect size ( $d = .25$ ) when comparing high schools using no freshman facility to high schools using a freshman wing as well as a small to medium effect size ( $d = .43$ ) when comparing schools using no freshman facility to high schools using a freshman campus. There was a small effect size ( $d = .19$ ) when comparing high schools using a freshman wing to high schools using a freshman campus.

1e. Is there a significant difference among schools using a freshman campus, a freshman wing, or no freshman facility arrangement on the percentage of ninth grade students earning four Carnegie units in the four core content areas?

Descriptive statistics indicated the overall mean percentage of ninth grade students earning four Carnegie units for the 125 high schools was 29.55% ( $SD = 14.52$ ). High schools that had no transition facility for its freshmen ( $n = 50$ ) had a mean percentage of 27.80% ( $SD = 14.99$ ) and a range of 23.55% to 32.06%. High schools with a freshman wing ( $n = 50$ ) had a mean percentage of 29.11% ( $SD = 13.96$ ) and a range of 25.14% to

33.08%. High schools with a freshman campus (n = 50) had a mean percentage of 33.94% ( $SD = 14.33$ ) and a range of 28.03% to 39.86% (see Table 7).

Table 7

*Descriptive Statistics of Percentage of Students Earning Four Carnegie Units in the Four Content Areas*

Group	n	M	SD	Skewness	Kurtosis
No Freshman Facility	50	27.80	14.99	1.06	3.41
Freshman Wing	50	29.11	13.96	0.93	0.76
Freshman Campus	25	33.94	14.33	0.26	-0.05

A one-way ANOVA was performed to determine the effect of the independent variable (high schools using a certain facility design) on the dependent variable (percentage of students earning four Carnegie units in the four content areas of English, math, science, and social studies). Before running the ANOVA, several statistical considerations and assumptions were checked. There were no missing data for this question. The percentages were converted to z-scores to determine if any outliers existed. It was determined there was only one outlier greater than 3.29 found in the high schools using no freshman facility (z-score = 3.88) and the decision was made to retain this value. No outliers were found in the freshman wing or freshman campus groups for percentage students earning four credits in the four core areas. Levene's test indicated equal variances,  $F(2, 122) = .000, p = 1.00$ , meaning the assumption of equal variances was met. Although the group using no freshman facility had a higher than normal skewness



value (1.06) and higher than normal  $\pm 1$  kurtosis value (3.41), an examination of the histograms and Q-Q plots indicated a similar distribution of percentages existed in all three groups of high schools. Further analysis through the use of Kolmogorov-Smirnov (K-S) tests indicated a normal distribution of scores in all three groups. The K-S test for schools using no freshman facility was  $D(50) = 0.12, p = .08$  and the K-S test for schools using a freshman wing was  $D(50) = 0.11, p = .17$ , indicating a normal distribution. The K-S test for schools using a freshman campus was  $D(25) = 0.12, p = .20$ , indicating a normal distribution as well. Additionally, the percentages of students earning four units of Carnegie credit in the four content areas were on the interval or ratio level of measurement and the percentages for schools were independent observations.

The analysis of variance indicated there was no significant difference between the freshman facility arrangement of a high school and percentage of students earning four Carnegie units in the four content areas of English, math, science, and social studies,  $F(2, 122) = 1.54, p = .22, \omega^2 = .009$ . The omega squared value indicated a small effect size. Despite there being no statistical difference, further analysis using Cohen's  $d$  was conducted to examine the effect size between groups. There was a small effect size ( $d = .09$ ) when comparing high schools using no freshman transition facility with high schools using a freshman wing. There was a small to medium effect size ( $d = .42$ ) observed when comparing high schools using no freshman transition facility to high schools using a freshman campus as well as a small to medium effect size ( $d = .34$ ) when comparing high schools using a freshman wing to high schools using a freshman campus.

1f. Is there a significant difference among schools using a freshman campus, a freshman wing, or no freshman facility arrangement on the percentage of ninth grade students with disabilities earning three Carnegie units in three core content areas?

Due to missing data in two of the groups, descriptive statistics were obtained for only 123 high schools and results indicated the overall mean percentage of ninth grade students with disabilities earning three Carnegie units in all 123 high schools was  $M = 25.47\%$  ( $SD = 15.66$ ). High schools that had no transition facility for its freshmen had percentages ranging from 17.33% to 26.85% with a mean percentage of 22.09% ( $SD = 16.75$ ). High schools with a freshman wing had percentages ranging from 21.93% to 29.64% with a mean percentage of 25.78% ( $SD = 13.42$ ). High schools using a freshman campus had percentages ranging from 25.09% to 38.69% with a mean percentage of 31.89% ( $SD = 16.11$ ) (see Table 8).

Table 8

*Descriptive Statistics of Percentage of Students With Disabilities Earning Three Carnegie Units in the Four Content Areas*

Group	n	<i>M</i>	<i>SD</i>	Skewness	Kurtosis
No Freshman Facility	50	22.09	16.75	0.92	0.41
Freshman Wing	49	25.78	13.42	0.74	-0.05
Freshman Campus	24	31.89	16.11	0.23	-0.83

A one-way analysis of variance (ANOVA) was performed to determine the effect of the independent variable (high schools using a certain facility design) on the dependent variable (percentage of students with disabilities earning three Carnegie units in the four

content areas of English, math, science, and social studies). Before running the ANOVA, several statistical considerations and assumptions were checked. There were missing data in the groups of high schools using a freshman wing as well as high schools using a freshman campus. The data were converted to z-scores to check for outliers and no outliers were observed in any of the three groups of high schools. Levene's test indicated equal variances,  $F(2, 120) = 0.998, p = .37$ , meaning the assumption of equal variances was met. Normal skewness and Kurtosis values were observed and the examinations of the histograms and Q-Q plots indicated similar distribution of scores. Further analysis of Kolmogorov-Smirnov (K-S) tests was conducted. The K-S test for schools using no freshman facility was  $D(50) = 0.11, p = .20$  indicated a normal distribution, however the K-S test for schools using a freshman wing was  $D(49) = 0.14, p = .03$  did not indicate normal distribution. The K-S test for schools using a freshman campus  $D(24) = 0.11, p = .20$  indicated a normal distribution. Additionally, the percentages of students with disabilities earning three Carnegie units of credit in the four content areas were on the interval or ratio level of measurement and the percentages for schools were independent observations.

The analysis of variance indicated there was significant difference between the freshman facility arrangement of a high school and the percentage of ninth grade students with disabilities earning three Carnegie units in the four content areas,  $F(2, 122) = 3.31, p = .04, \omega^2 = .04$ . The omega squared value indicated a small to medium effect size.

A post hoc test was conducted using Tukey's HSD. Results indicated the mean percentage of students with disabilities earning three Carnegie core credits in high schools using a freshman campus ( $M = 31.89, SD = 16.11$ ) differed significantly ( $p = .03$ )

than those students in the high schools using no freshman facility ( $M = 22.09$ ,  $SD = 16.75$ ). Further analysis using Cohen's  $d$  was conducted to examine effect sizes and a pairwise comparison of high schools using no freshman facility and high schools using a freshman campus indicated a medium to large effect ( $d = .60$ ).

Further analysis through Tukey's HSD indicated there was no significant difference ( $p = .25$ ) between high schools using a freshman campus ( $M = 31.89$ ,  $SD = 16.11$ ) versus high schools using a freshman wing ( $M = 29.11$ ,  $SD = 13.42$ ). Analysis of effect size using Cohen's  $d$  indicated a small to medium effect ( $d = .41$ ). Tukey's HSD also indicated there was no significant difference ( $p = .46$ ) in high schools using no freshman transition facility over high schools using a freshman wing of the percentage of students with disabilities who earned three Carnegie units in the four content areas. Using Cohen's  $d$ , a small effect size ( $d = .24$ ) was observed.

1g. Is there a significant difference among schools using a freshman campus, a freshman wing, or no freshman facility arrangement on the graduation rate?

Descriptive statistics of the 125 high schools indicated the overall mean graduation rate was  $M = 77.14\%$  ( $SD = 9.10$ ). High schools with no freshman facility had a mean graduation rate of  $78.27\%$  ( $SD = 9.38$ ) and a range of  $75.6\%$  to  $80.94\%$ . High schools with a freshman wing had a mean graduation rate of  $75.01\%$  ( $SD = 8.77$ ) and a range of  $72.52\%$  to  $77.50\%$ . High schools with a freshman campus had a mean graduation rate of  $79.14\%$  ( $SD = 8.66$ ) and a range of  $75.57\%$  to  $82.72\%$  (see Table 9).

Table 9

*Descriptive Statistics of Graduation Rate for High Schools with No Freshman Facility, Freshman Wing, and Freshman Campus Groups*

Group	n	<i>M</i>	<i>SD</i>	Skewness	Kurtosis
No Freshman Facility	50	78.27	9.38	-0.60	0.55
Freshman Wing	50	72.52	9.38	0.00	-0.14
Freshman Campus	25	79.14	8.66	-0.35	0.66

A one-way analysis (ANOVA) was performed to determine the effect of the independent variable (high schools using a certain facility design) on the dependent variable (graduation rates). Before running the ANOVA, several statistical considerations and assumptions were checked. There were no missing data for this question. The data were converted to z-scores to examine outliers and there were no outliers in any of the three groups for graduation rate. Levene's test indicated equal variances,  $F(2, 122) = 0.047, p = .95$ , meaning the assumption of equal variances was met. Normal skewness and kurtosis values were observed and the examinations of the histograms and Q-Q plots indicated similar distribution of scores. Further analysis using Kolmogorov-Smirnov (K-S) tests of normality indicated normal distribution of graduation rates in all three groups. The K-S test for schools using no freshman facility was  $D(50) = 0.10, p = .20$  and the K-S test for schools using a freshman wing was  $D(50) = 0.07, p = .20$ , indicating a normal distribution. The K-S test for high schools using a freshman campus was  $D(25) = 0.11, p = .20$ , indicating a normal distribution as well. Additionally, the graduation rates were on

the interval or ratio level of measurement and the graduation rates for schools were independent observations.

The analysis of variance indicated there was no significant difference between the freshmen facility arrangement of a high school and the graduation rate,  $F(2, 122) = 2.41$ ,  $p = 0.09$ ,  $\omega^2 = 0.02$ . The omega squared value indicated a small effect size. Despite there being no statistical difference between the graduation rates, further analysis using Cohen's  $d$  was conducted to examine effect sizes between groups. There was a small to medium effect size ( $d = .36$ ) when comparing high schools using no freshman transition facility to high schools using a freshman wing. There was a small effect size ( $d = .09$ ) when comparing high schools using no freshman transition facility to high schools using a freshman campus. Finally, a small to medium effect size ( $d = .47$ ) was observed when comparing high schools using a freshman wing to high schools using a freshman campus.

1h. Is there a significant difference among schools using a freshman campus, a freshman wing, or no freshman facility arrangement on the CCRPI score?

Descriptive statistics indicated the overall mean CCRPI score for all 125 high schools was  $M = 68.61$  ( $SD = 7.81$ ). High schools with no freshman facility had CCRPI scores that ranged from 56 to 93.4 with a mean CCRPI score of 69.36 ( $SD = 7.78$ ). High schools with a freshman wing had CCRPI scores ranging from 53.5 to 91.6 and a mean CCRPI of 67.34 ( $SD = 7.41$ ). High schools using a freshman campus had scores ranging from 66.1 to 73.21 and a mean CCRPI score of 69.66 ( $SD = 8.60$ ) (see Table 10).

Table 10

*Descriptive Statistics of College and Career Readiness Performance Index for High Schools with No Freshman Facility, Freshman Wing, and Freshman Campus Groups*

Group	n	<i>M</i>	<i>SD</i>	Skewness	Kurtosis
No Freshman Facility	50	69.36	7.78	0.55	1.03
Freshman Wing	50	67.34	7.41	0.62	1.34
Freshman Campus	25	69.66	8.60	0.26	0.59

A one-way analysis of variance (ANOVA) was performed to determine the effect of the independent variable (high schools using a certain facility design) on the dependent variable (CCRPI scores). Before running the ANOVA, several statistical considerations and assumptions were checked. There were no missing data for this question. The data were converted to z-scores to examine outliers. There were no outliers observed for this question. Levene's test indicated equal variances,  $F(2, 122) = 0.135, p = .87$ , meaning the assumption of equal variances was met. Although the group of high schools using no freshman transition facility as well as high schools using a freshman wing had higher than normal  $\pm 1$  kurtosis values, examinations of histograms and Q-Q plots indicated a similar distribution of scores existed in all three groups. Further analysis through the use of Kolmogorov-Smirnov (K-S) tests indicated normal distribution of scores in all groups. The K-S test for schools using no freshman transition facility was  $D(50) = 0.14, p = .01$  indicated a distribution that was not normal. The K-S test for high schools using a freshman wing was  $D(50) = 0.09, p = .20$  and the K-S test for high schools using a

freshman wing was  $D(25) = 0.12, p = .20$ , indicating normal distribution in these two groups. Additionally, the CCRPI scores were on the interval or ratio level of measurement and the CCRPI scores for schools were independent observations.

The analysis of variance indicated there was no significant difference between the freshmen facility arrangement of a high school and the CCRPI scores,  $F(2, 122) = 1.11, p = .33, \omega^2 = .002$ . The omega squared value indicated a small effect size. Despite there being no statistical difference between the CCRPI scores, further analysis using Cohen's  $d$  was conducted to examine effect sizes between groups. There was a small to medium effect size ( $d = .27$ ) when comparing high schools using no freshmen transition facility to high schools with a freshman wing. There was a small effect size ( $d = 0.04$ ) when comparing high schools using no freshman transition facility to high schools using a freshman campus as well as a small effect size ( $d = .05$ ) when comparing high schools using freshman wing to high schools using a freshman campus.

### Qualitative Results

The second part of this study sought the perceptions of principals of schools using one of the three freshman facility designs. It is important to note, the sequential explanatory design employed in this study was used to validate or dispel the quantitative findings. Linking the data from the quantitative and qualitative portion was crucial in order to fully understand a school's facility choice for its freshmen. This part addressed Research Questions 2 and 3.

### Participants

Principals were randomly selected to participate in interviews involving several questions designed to provide a comprehensive understanding to the quantitative findings. The questions were also intended to understand why schools would choose to



use a particular facility design over another to transition students to high school. Before the selection of the participants, a validation study of the interview questions was conducted. Maxwell (2005) suggests this type of validation helps control for some of the threats to qualitative research, namely, bias and reactivity where prior belief systems or leading questions can sometimes threaten the interpretations of the answers from the respondents. To mitigate this possibility, the validation study was conducted on the front end of the interviews and respondent validation was conducted on the back end (Maxwell, 2005).

#### Demographics of the Interviewees

Data collection for the principal interviews took place immediately after the academic school year for many schools ended. This timing provided for rich and honest interaction between the researcher and participants, as the distraction of school operations was almost non-existent. Participants received a copy of the interview questions beforehand.

Fifteen interviews, with five principals from each group of schools, were conducted. All of the demographic data reported in the next three tables were reported by the principal prior to conducting the interview.

The five principals in schools using no freshman transition facility had an average of 24.2 years total of educational experience and an average of 11.8 years as a principal. Four of the five principals had earned a doctorate and one had earned a specialist degree. Four principals were White and one was Black. The principals represented schools that were 50% White, 46% Black, 69% economically disadvantaged, and 11% special education (see Table 11).

Table 11

*Descriptive Statistics of Principals Interviewed from High Schools with No Freshman Facility*

	Interview 1	Interview 2	Interview 3	Interview 4	Interview 5
Pseudonym	Daniel	Edward	Adam	Stephen	Stacey
Gender	Male	Male	Male	Male	Female
Race	White	Black	White	White	White
Experience <sup>a</sup>	29	21	30	19	22
Tenure <sup>b</sup>	15	8	19	4	13
Setting	Rural	Urban	Rural	Rural	Rural
Area <sup>c</sup>	Middle	Middle	South	Middle	North
Degree <sup>d</sup>	Doctorate	Specialist	Doctorate	Doctorate	Doctorate

*Note.* <sup>a</sup>Total years of educational experience; <sup>b</sup>Years as a principal; <sup>c</sup>Portion of the state of Georgia; <sup>d</sup>Highest degree earned

The five principals in schools using a freshman wing had an average of 20.4 years total of educational experience and an average of 6.4 years as a principal. Four of the five principals had earned a specialist degree with one having earned a doctorate. Three of the five principals were Black and the other two were White. The principals represented schools that were 44% White, 48% Black, 71% economically disadvantaged, and 15% special education (see Table 12).

Table 12

*Descriptive Statistics of Principals Interviewed from High Schools using a Freshman**Wing*

	Interview 1	Interview 2	Interview 3	Interview 4	Interview 5
Pseudonym	Beau	Tony	David	William	James
Gender	Male	Male	Male	Male	Male
Race	Black	White	Black	White	Black
Experience <sup>a</sup>	17	20	18	20	27
Tenure <sup>b</sup>	5	7	8	4	8
Setting	Suburban	Rural	Suburban	Rural	Urban
Area <sup>c</sup>	North	Middle	South	Middle	North
Degree <sup>d</sup>	Specialist	Specialist	Specialist	Specialist	Doctorate

*Note.* <sup>a</sup>Total years of educational experience; <sup>b</sup>Years as a principal; <sup>c</sup>Portion of the state of Georgia; <sup>d</sup>Highest degree earned

The five principals in schools using a freshman campus had an average of 21.8 years total of educational experience and an average of 6.8 years as a principal. All five principals' highest degree earned was a specialist. Three of the five principals were White and the other two principals were Black. The principals represented schools that were 59% White, 37% Black, 59% economically disadvantaged, and 10% special education (see Table 13).

Table 13

*Descriptive Statistics of Principals Interviewed from High Schools using a Freshman**Campus*

	Interview 1	Interview 2	Interview 3	Interview 4	Interview 5
Pseudonym	Bobby	Derek	Tate	Jacob	Tim
Gender	Male	Male	Male	Male	Male
Race	Black	Black	White	White	White
Experience <sup>a</sup>	23	16	23	17	30
Tenure <sup>b</sup>	7	3	9	3	12
Setting	Rural	Rural	Rural	Suburban	Rural
Area <sup>c</sup>	Middle	South	South	North	North
Degree <sup>d</sup>	Specialist	Specialist	Specialist	Specialist	Specialist

*Note.* <sup>a</sup>Total years of educational experience; <sup>b</sup>Years as a principal; <sup>c</sup>Portion of the state of Georgia; <sup>d</sup>Highest degree earned

Data from the principal interviews are arranged by facility type. To ensure the appropriateness and clarity of the presentation of the data, the results are reported by each of the questions used in the principal interviews. The overarching Research Questions, 2 and 3, will be reported at the end of the interview question presentation, referencing data from the interviews when necessary.

Interview questions and their responses were reported by themes found in the literature indicated the use of smaller learning communities to transition freshmen. The themes were: driving forces that dictate freshman facility type, current transition strategies for incoming freshmen, advantages and disadvantages of freshman facility design, influence of freshman facility design on academic performances in subgroups,

high-stakes test preparation for ninth graders, effect of freshman facility on grade promotion, and being on track to graduate. The final question of the interview gathered responses from principals after they were shown the quantitative findings of this study.

1. What were the driving forces that led to the use of a separate facility? What were the driving forces that led to the use of a separate wing for freshmen? Has there been consideration towards using a facility to transition students from middle school?

All five principals of the schools using a freshman campus indicated overcrowding as a primary reason for instituting a separate campus. Four principals, Bobby, Derek, Tate, and Tim mentioned the availability of vacant or underused existing facilities as secondary reasons for using a separate campus. To be sure, two principals, Bobby and Jacob, also said graduation rate was another reason while Tim said freshmen academy research and the “fad...movement across the southeast” was another driving force. Bobby and Tate said their schools repurposed vacant elementary schools and Tim’s district repurposed a middle school facility to house freshmen. Jacob’s school district built an entirely new freshman campus to alleviate overcrowding. Finally, Derek said consolidation of two high schools occurred in his district, mostly because of overcrowding but also to avoid building another school to house increasing enrollment. Derek said, “Based on the numbers we had at the time, we did not have enough room to house all four grades. That is when the concept of the (separate) freshman academy came to mind.” Derek mentioned consolidation placed all of the district’s students in grades ten through twelve in one school while using the other school building to serve as its freshman campus.

Three of the five principals (Beau, David, and James) in high schools using a freshman wing indicated ninth grade promotion and overall graduation rates as the main driving forces for setting apart their freshmen. In fact, two of these principals, Beau and James, said their schools applied for and received grant funding for smaller learning communities and school improvement was based on the strength of historically poor academic performance by ninth graders. The funding received from these grants helped launch their academies. A grant did not begin David's use of a wing but he did say architects designed a freshman wing in his recently constructed high school. David indicated students have been in the new school for 2 years after having the wing concept in the previous building. Beau and Tony also mentioned a need to focus on the social and academic needs of freshmen to ensure a smooth transition to high school. The remaining principal, William, said his district had always wanted a ninth grade academy "for several years but the actual physical setting would not allow" it to happen until local funding was finally secured to build a wing on the existing structure.

Four of the five principals (Daniel, Edward, Stephen, and Stacey) of high schools using no freshman facility said there had been some consideration to use a freshman transition facility, especially on the heels of research of smaller learning communities and freshmen academies. Daniel acknowledged he was slow to chase the latest educational fad or research but he also said "we didn't have a separate wing" because the "physical plant" wouldn't allow it, indicating space as a major obstacle in creating a facility to set apart freshmen. One such principal, Adam, said although his district investigated building a facility to house grades 6 through 12, there had never been consideration to use a wing or separate campus to transition students to high school.

2. How does your school currently help transition students from middle school to high school? What transition strategies does your school use to help students transition from middle school to high school?

All five principals in schools using a freshman campus said their schools began the transition process in the second semester of their students' eighth grade year. Four of the high schools had one feeder middle school while one school had multiple feeder middle schools. This was noteworthy considering Newman et al. (2000) and Langerkamp (2010) indicated difficult transitions to high school when multiple feeder schools were involved. Eighth grade transition activities included a tour of the high school and registration meetings with the students and parents. Summer activities designed to get the most at-risk students acclimated was reported in one school. Before the first day of school, all five principals reported orientations and open houses are held when students receive their schedule and find the location of their classes. All five principals indicated elective courses like technical classes and fine arts market their curricula to the students in the eighth grade when they tour the high school all the way through the time when open house meetings occur, mostly in hopes of connecting students to special interest areas. Derek said "we require all freshmen to join a club or group with hopes of deterring" them from dropping out. Derek also indicated advisors are assigned to the freshmen based on the selection students make for clubs, meaning ninth graders had a connection to an adult for reasons other than academic. Four of the principals (Bobby, Derek, Tate, and Tim) indicated a flexible learning time in their schedule where ninth graders received academic, social, or remediation support to aid in the transition after the school year begins. While Derek's flexible learning period was geared towards

advisement, one such program called PRIDE helped freshmen in Tate's school "focus on lessons on transitioning to high school." The curriculum begins at the beginning of the school year with procedural items specific to high school and then as the school year progresses topics like study skills, time management, and test taking strategies are taught. Tate said towards the end of the freshmen year, teachers in this PRIDE period cover material related to social issues and post-secondary options to fully integrate the ninth grader to the high school experience. Both Bobby and Tim indicated their flexible learning periods helped freshmen transition in the critical area of academic remediation for freshmen who had fallen behind.

All five principals from schools using freshman wings indicated the transition process starts in the second semester of the eighth grade year. Parent meetings and tours for the eighth graders were indicated in three of the five interviews. Two of the five principals, William and Tony, reported a summer transition program designed to mitigate the high school transition for students anticipated to struggle. William said his summer transition program was designed to "have some activities to get (freshmen) acclimated." Depending on funding, William said his program is for all ninth graders and lasts 2 to 3 days. Tony said his school has a Freshman Jumpstart program where they partner with local civic organizations to fund a week's worth of orientation activities that culminates in community wide picnic for students, parents, and teachers.

Beau, David, and Tony made mention of vertical teaming efforts with their feeder middle schools as transition strategies. Beau said his freshmen teachers "develop relationships with our middle schools" to begin understanding strengths and weaknesses of the incoming freshmen. David said he and his staff "try to keep an open line of



communication with our feeder schools” to aid in the transition. Tony even mentioned the close proximity of all grade levels in his district allowed for “some pretty good vertical teaming opportunities between our freshman teachers and our eighth grade teachers.” The dialogue and collaboration between these two different schools was seen as beneficial to student transitioning to high school.

It was interesting to note the similar transition procedures to high schools using a freshman campus such as orientations, tours, and parent meetings. However, only one principal, Beau, made mention of ongoing transitional activities like the use a flexible learning period during the school day where freshmen are taught curriculum that helps them adjust to the academic, social, and emotional rigors of high school. Beau said his teachers instruct a transition course, like High School 101, where “students are taught soft skills, time management, social, and personal skills.”

All five principals from the schools using no freshman transition facility said their transition efforts begin in the second semester of the eighth grade year. Tours, parent meetings, and orientations were reported in all five interviews. Advisement was mentioned in four of the principal interviews. Daniel, Stephen, Adam, and Stacey said weekly or monthly advisement sessions helped sustain transitional activities and address academic or social needs throughout the year. Two principals, Adam and Stacey, said advisors stay with the same group of students through their entire high school career, indicating there would be a caring adult in the building who would help students throughout high school in areas that were majority non-academic. There was only one principal, Stephen, who mentioned high school teachers collaborating with the middle school teachers about identifying students who were predicted to struggle during the

transition. However, there was specific mentioning by Stacey, Adam and Edward of the use of counselors, advisors, graduation specialists, and even eighth grade teachers to aid in high school registration. Stacey commented eighth grade teachers accompany students on tours to the high school so, when the time comes, eighth grade teachers can answer questions about high school course registration. Elective courses and career or technical courses were reported to be marketed to eighth grade students in all five of the interviews. Stephen said his career and technical teachers make a slide presentation of the benefits of choosing their elective course while Daniel said his “elective classes are represented in different areas of the eighth grade tour.” It was interesting to note Stacey’s school allowed for eighth grade students to participate in activities on the tour designed to market their elective courses. For example, students could participate in a cooking exercise in their culinary arts course. Summer transition activities geared either towards struggling or all students were reported by two of the principals, Adam and Stacey. Adam’s summer transition activity simulated bus routes and mock class schedules that culminated in freshman cookout. Stacey’s first day of school occurs in September allowing for a transition camp of activities such as finding classrooms, eating in the cafeteria, and acclimating to facility surroundings in her 280,000 square foot building.

3. What are the advantages and disadvantages that you believe come along with using a freshman wing? What are the advantages and disadvantages that you believe come along with using a freshman campus? What are the advantages and disadvantages that you believe come along with keeping ninth grade students within the same facility as upperclassmen?

All five of the principals in schools using a separate campus said the number one advantage was the ability to self-contain the ninth graders. In Tate's school, having exclusive use of the media center, cafeteria, and computer labs added to the advantages of a separate campus. Tate also said the use of one building allowed for a greater focus on their needs and the response to those needs. Tate mentioned the absence of multi-age groupings meant freshmen did not have to navigate complex buildings with older students. Derek echoed this in part by saying freshmen are not intimidated by upperclassmen when set apart on another campus. Derek and Tim specifically mentioned acclimation to facilities, processes, and social issues as an advantage. Three of the five principals, Tate, Jacob, and Tim also listed self-containment as the number one disadvantage to having a separate campus. Adding to this theme were Derek, Tate, Jacob, and Tim who mentioned the delayed maturation of the ninth graders. Jacob said one of the biggest disadvantages to having a separate campus for ninth graders was that schools were "delaying ninth grade behavior and ninth grade issues to the tenth grade."

Interestingly, two of the principals, Bobby, and Derek, reported a feeling of disconnect by students and faculty. Another disadvantage was reported by Bobby, Derek, and Tate that students did not feel like a part of the high school when separated on another campus. Tate reported he often hears parents say "I have a freshman and he's going to the high school next year" as if to indicate a freshman is not already in high school. The lack of faculty collegiality was reported as a disadvantage in three of the five interviews. Three of the principals (Bobby, Derek, and Tate) reported limited course offerings, specifically electives, when freshmen were separated on another campus. Tate said fine arts suffer since freshmen have limited availability to take those courses since

ninth graders are located on another campus. Those same three principals indicated travel logistics between the campuses when shuttling students for elective courses as a disadvantage. Bobby said students will frequently miss class time due to shuttling students back and forth between upperclassman and freshman campuses.

Three of the five principals (Beau, Tony, and William) indicated a greater focus on ninth grade needs when students are set apart by a freshman wing. Four of the five principals (Beau, Tony, David, and James) reported a team-based, middle school concept approach as being an advantage. Three of five interviews reported better faculty collaboration and teachers of ninth graders had more dialogue about student weaknesses. Tony and William reported no disadvantages while Beau and James indicated a delayed maturation of ninth graders set apart by a wing. One principal, David, reported repeat ninth graders were a disadvantage as his school continued to serve second year high school students on the freshman wing. Beau reported not having upperclassmen to serve as role models for his freshman as a disadvantage.

All five principals of schools not using a freshman transition facility reported the number one advantage for not setting apart freshmen was the use of upperclassmen as role models and mentors. Two of the five principals, David and Adam, also reported students complete the transition phase quicker when thrust into the entire student body. As for disadvantages, all five principals indicated ninth graders can “get lost” when integrated into the entire student population and reported difficulty in focusing on ninth grade needs. Another disadvantage reported from three of the five principals was poor upperclassmen behavior. This tended to have a negative influence on ninth graders in high schools not using a wing or campus.

4. How do you see the physical structure of your facility arrangement for ninth graders influencing behavior, culture, or academic performance of specific groups of students? Specifically, does the structure seem to impact Blacks differently than Whites? Students without disabilities differently than students with disabilities? Students of poverty?

Three of the five principals (Tate, Jacob, and Tim) in high schools using a freshman campus reported the separate facility having no effect on any subgroup for behavior, culture, or academic performance. Three principals, Derek, Tate, and Jacob, reported their separate facility as having an effect on behavior for all students rather than for one specific subgroup. One principal, Beau, reported using a repurposed elementary school had a negative effect on the schools culture as the students viewed their transition to high school as a step backward in time rather than forward.

All five principals of schools using a freshman wing reported the separation did not influence the success of one subgroup over another. Four of the five principals (Beau, David, William, and James) indicated the facility influenced the behavior of all students and not just one subgroup. One of the principals, Tony, did report students of poverty receive more attention from faculty and staff and that was afforded by the use of a separate wing.

All five principals of the schools not setting apart their freshmen did not feel like their arrangement influenced the behavior, culture, or academic performance of a specific subgroup. Two principals, David and Edward, mentioned that students of poverty and students with disabilities needed greater amounts of attention or intervention from faculty and staff and felt the fact they were integrated made this difficult. David and Edward also

indicated having a facility where upperclassmen can serve as role models helped positively influence at-risk subgroups more susceptible to the pitfalls of high school transition.

5. What does your school do to prepare freshmen for high-stakes testing? How do you think that relates to your facility?

Three of the five principals (Derek, Jacob, and Tim) in schools using a freshman campus indicated higher levels of rigor in the classroom as the most effective test preparation. This focus on teaching students to the highest level of instruction was critical towards preparing freshmen for the types of questions they would experience on standardized testing. These same three principals said this focus, and not the fact ninth graders were separated by campus, was their chief strategy in getting students ready for an end of course test (EOCT). Nevertheless, four principals (Bobby, Derek, Tate, and Jacob) did indicate having one grade level in the facility did allow for a greater focus on which tests to prepare students and the flexible learning period where the High School 101 curriculum was taught was often the period where remediation and test preparation occurred. One of the principals, Tim, said no emphasis is put on high stakes test preparation at any grade level. Standards based instruction and higher order thinking skills are the focus of the faculty and students in his school.

Three of the five principals (Beau, David, and James) in high schools using a separate wing said a focus on student growth and higher levels of instruction intended to bring about deeper levels of student knowledge was the focus. While Beau, David, William, and James said the separation by wing helped facilitate the process of high stakes test preparation, they all agreed merely separating freshmen did not ensure greater

student achievement. The focus on one grade level allowed for greater faculty collaboration in relation to benchmark or common assessments. Consequently, ninth grade teachers could provide more effective response to students not mastering the curriculum. One of the principals, Tim, indicated the benefit of having a separate wing meant ninth grade test preparation was not disruptive to other grade levels.

Principals in high schools not setting apart their freshmen echoed similar remarks about their preparation for freshmen high stakes testing. Three of the five principals (David, Adam, and Stacey) said a focus on getting teachers to increase expectations for student performance was the key ingredient for ninth grade test preparation. A deeper level of knowledge brought about by teaching methods designed to require higher levels of student thinking was the response of these three principals. One principal, Edward, indicated faculty and staff needed a greater sense of anticipation of those students expected to perform marginally on end of course testing and be ready to provide the intervention necessary before testing began. One other principal, Stephen, deferred to his schools hybrid schedule that allowed for a flexible learning period where ninth graders could receive test preparation and remediation.

6. How does the use of a separate campus for freshmen ensure their being on track to graduate after the ninth grade year? How does the use of a separate wing for freshmen ensure their being on track to graduate after the ninth grade year? How does not using a separate wing or campus for freshmen ensure their being on tract to graduate after the ninth grade year?

Four of the five principals (Bobby, Derek, Tate, and Jacob) in high schools using a separate campus indicated having one grade level allowed for an easier process of

tracking ninth grade success and failure. Having a separate campus often meant a greater support group with more personnel (i.e., administrators, counselors, and graduation specialists) that could monitor students closely and intervene when performance in their classwork begin to slip. One such principal, Jacob, indicated because there was one grade level on campus, personnel were more likely to know the students by name which often meant staff knew specific weaknesses and strengths of each student.

In schools using a freshman wing, three of the principals (Beau, Tony, and David) said having students separated allowed for greater attention to transitional needs which led to higher promotion rates. These three principals said having a freshman wing tended to get students started out on the right foot. William said the extra space meant more resource rooms to pull students that needed intensive remediation. One other principal, James, said he began using upperclassmen mentors who would frequently come to the freshman wing to provide social, emotional or academic support to ninth graders. He indicated this mentorship was accomplished easier by having the students set apart by the wing.

Three of the five principals (David, Edward, and Stephen) in schools using no freshman facility said efforts in monitoring for freshmen staying on track to graduate must be proactive and intentional. Adam and Stacey pointed to their advisement programs as successful ways to monitor students passing their coursework. The advisement program allowed for freshmen to have a caring adult in the building who supervised their coursework completion but not one who necessarily served as an academic instructor during the school day. Advisement allowed for a unique relationship of student and teacher that was devoid of the problems often associated with academics.



Adam gave an interesting response in that having freshmen integrated into the full student body allowed for authentic transitional struggles to manifest that would not otherwise occur in a self-contained setting. He mentioned having freshmen set apart may actually mask issues that could be identified better by having ninth graders and upperclassmen together.

7. If almost all questions revealed nonsignificant findings, why do schools employ the use of separate facilities or wings to transition their freshmen?

Question 7 was asked after revealing the quantitative findings of the study. Participants were able to review the data to see only one of the quantitative questions revealed a significant difference in the performance of ninth graders set apart by different methods of transitioning to high school. Below are the responses from each of the three groups.

In schools using a freshman campus, three of the principals (Bobby, Derek, and Tim) conceded using a separate facility was perceived to help more than perhaps the data indicated. Bobby and Derek added setting apart freshmen helped get ninth graders started out on the right foot. Tate, Jacob, and Tim all said overcrowding and avoiding building another costlier high school is the reason most schools are choosing to use separate campuses. Tim said “If you have the resources and the space, it certainly helps alleviate overcrowding.” Tate and Jacob indicated the advantages far outweigh the disadvantages and if overcrowding and vacant buildings exist then choosing this transitional strategy was a no-brainer. Additionally, two principals, Tate and Jacob, said the research on academies and smaller learning communities led them to use a campus and that was what drove district personnel to consider using a facility to set apart ninth graders.

When principals of schools using a wing were asked why they thought schools set apart freshmen, three of the five principals (Beau, Tony, and David) said community perception is why some districts continue to employ the practice. All three principals acknowledged putting freshmen on a wing seemed to ease both parents' and students' anxieties about entering high school and getting started on the right foot could only lead to better student outcomes. Two other principals, William and James, said behavior is a chief reason schools continue to set apart freshmen despite not having authentic student achievement data to indicate its use. Both principals indicated ninth grade behavior is noticeably different and easier to manage when freshmen are set apart and this could be one of the reasons schools are choosing to use a freshmen transitional facility.

When Question 7 was asked of principals using no freshman facility, principals gave reasons that were not primarily related to improved student outcomes. Two principals (Adam and Stephen) said schools use freshman wings or campuses to give a perception they are helping students transition to high school and two other principals (David and Stacey) indicated schools will employ this strategy when their existing structure runs out of room to house all of its students. Stacey went further to say schools often move towards this concept without reading the research, instead choosing to follow the lead of nearby districts or schools. Still one principal, Edward, said the effect of setting apart freshmen is missed by student achievement data. He indicated having a separate facility allows for an environment that is focused on getting students to the tenth grade. Edward further indicated the same outcomes for freshmen can be accomplished without a wing or campus but proactive measures must be in place to meet their social, academic, and emotional needs.

The next two sections present the results of the overarching Research Questions 2 and 3 of this study. When appropriate, there will be references made to important details of the interviews to support the findings.

2. Does principal interview data provide an explanation for any quantitative differences in achievement for high schools using a separate campus, separate wing, or no freshman facility arrangement for its transitioning freshmen?

When studying the results from Research Question 1 and all of its subparts, several interesting results provide for an explanation to Research Question 2. First and foremost, the report of this question will center on more about the lack of quantitative differences found in sub questions a-h of Question 1. However, it is important to note several principals pointed out the fact high schools using a separate campus led in all but one category. Although there existed only one statistically significant finding, one cannot discount the fact that high schools using a freshman campus led in seven of eight categories with the only area this group did not lead was the percentage of Black students meeting or exceeding on the Ninth Grade Literature EOCT. And, despite a small to medium effect sizes indicating importance, the responses principals gave during the interviews favored the use of a freshman campus. These responses served as evidence students are remaining in high school through the ninth grade and graduating from high school.

Principals in schools not using a freshman transition facility were quick to point out the fact that 7 of the 8 sub questions failed to produce significant difference. This fact sufficiently served as proof schools can effectively transition ninth graders to high school. However, principals in high schools using a freshman campus took these results

for what they were. In other words, if using a separate campus meant better freshmen performance in whatever area of performance, then why not use a separate campus (or any separation strategy for that matter) even when not supported by significant findings? At any rate, several topics were found to explain the differences found in the quantitative portion of this study and it is these topics that will be presented to answer Question 2. The topics are: high school transition strategies, high stakes test preparation, and impact that setting apart freshmen had on several performance indicators for various subgroups.

There was an overwhelming response from the principals about transitioning students to high school. Regardless of facility design, principals in all three types of schools indicated their staff took great care into making sure the processes were in place to ease the anxiety of transitioning to high school. The course registration process, parent meetings, and tours of the buildings all begin to take place in the second semester of the eighth grade year. Add in summer programs, orientations, and more tours before the first day of school and it is easy to see all three of the groups of high schools went to great lengths to transition students. The responses from the principals in this question alone (Interview Question 2) would seem to indicate why only subquestion f revealed significant differences. Based on these responses, schools going the extra mile to transition ninth graders to high school would mitigate the normal circumstances surrounding the high school transition and overcome any barriers that would negatively affect student achievement.

Another factor that seemed to explain the lack of quantitative differences between the groups was the topic of high stakes testing and overall test preparation (Interview Question 5). When asked if having a facility to transition freshmen would impact high-

stakes testing, the response from the majority of principals was high-stakes test preparation was not a focus. Instead, principals said a focus on increasing the quality of teaching and teaching to a greater depth of knowledge was the focus and this could be accomplished regardless whether freshmen were set apart or not. Daniel, Adam, and Stacey, all principals in high schools with no transition facility, said their focus was to increase the quality of teaching in the classroom. The two other principals from this group, Edward and Stephen, said there was no clear strategy for preparing freshmen for the high-stakes tests like the EOCT; at least not any different than what was done for the other grade levels.

Principals from the freshmen wing group of high schools echoed similar remarks. David and James said the focus was on increasing depth of knowledge in the classroom, not prepping students to take the EOCT. Beau said his teachers in their ninth grade wing focused on the growth of the student, therefore examining each student's eighth grade performance, benchmark performances throughout the year and then finally the EOCT performances. William remarked in a similar way in that he felt his wing helped the faculty working in that setting to focus better on the data analysis of benchmarking, common assessments, and predictor testing that is often associated with preparing students for an EOCT. Finally, Tony said the freshman wing's impact on high-stakes testing was nothing more than being able to eliminate the distractions students may have when focusing on EOCT performances.

Principals in the freshman campus group of high schools remarked having a separate facility helped focus the students and the teachers on the necessary processes like benchmarking and predictor testing that are used to get students ready to take an

EOCT. Teachers on a separate campus often teach courses that serve only ninth graders. According to Derek, Jacob, and Tate, this allowed the faculty to understand the strengths and weaknesses of students better than if teaching in a high school where teachers' caseloads could include freshmen and upperclassmen. They also indicated faculty took more of a nurturing perspective towards ninth graders and that had an effect past that of preparing them for high stakes testing. Furthermore, Derek and Tate, said a greater focus on the quality of teaching impacted test preparation and EOCT performance. Tim said no test preparation or mention of such occurred in his high school that had a separate campus. Instead, his teachers' focus was on the standards of the curriculum and if teachers had a solid understanding of where their students level of mastery was then high-stakes testing would take care of itself.

As a result, the manner in which a school chose to transition freshmen had little impact on test preparation and high stakes testing. These responses indicated schools have similar approaches to preparing students for high-stakes testing and that little to no impact was because of the transition facility. It is for these reasons there was little to no difference in the EOCT performances of all students, Black students, economically disadvantaged students, and students with disabilities.

The final topic explaining the lack of quantitative difference between the three groups of high schools was found when the principals reported the physical structure of the facility arrangement had little to no impact on the behavior, culture, or academic performance of specific groups of students (Interview Question 4). In the fifteen interviews, thirteen principals were clear one subgroup did not benefit greater by being set apart or integrated with the upperclassmen. It is worth mentioning there were two

principals, one principal from the freshman wing group and another principal from the high schools using no transition facility who further commented freshman facilities that set apart ninth graders can help economically disadvantaged students, despite there being no significant difference in their performances in this study. Tony, a principal in a high school using a freshman wing, said his wing helped students of poverty receive academic, social, and emotional nurturing they'd otherwise not receive if integrated with the upperclassmen. He said his students of poverty receive the better attention from counselors and teachers. Surprisingly, Edward, a principal from a school that uses no freshman transition facility, said economically disadvantaged students lack structure in his building that he presumed would exist in school that used a wing or campus for its ninth graders. "Oftentimes, [economically disadvantaged] students have structure missing from the home environment....we don't have that physical structure arrangement where we can keep them separated and deal with their issues. We have to provide the missing element to help [economically disadvantaged] students be successful," said Edward. All in all, this consensus response about the facility benefiting one subgroup over another helped substantiate the nonsignificant findings in the quantitative portion of this study.

3. To what extent do interviews with principals contribute to a more comprehensive understanding of the differences in credit accrual, standardized achievement, and graduation of students transitioning to high school through freshmen campuses and freshman wings?

The interviews indicated a notion principals would take any advantage that could be obtained. If that meant using a separation strategy then so be it, despite the overwhelming evidence from the quantitative findings. That notion surfaced when

examining credit accrual in the ninth grade. Tate, a principal of a high school using a separate campus, indicated his approval of the freshman campus or freshman wing strategy based on the percentage of ninth graders (both special education students and non-special education) earning Carnegie core credit. “When you can have 34 percent of your freshmen earning four or more credits versus 28 percent...I think every little bit helps.” Additionally, Jacob, principal of a high school using a freshman campus, said he thought most schools chose to separate freshmen because it was a “safe move” and people bought into the idea since it could only lead to a high graduation rate. “It’s really been good for us, it really has,” said Jacob, when considering his school’s graduation rate before the implementation and afterwards. He said he doesn’t necessarily know how his school compares to the quantitative findings of this study but “looking at the numbers on the page” indicated moving to a freshman campus concept “was probably worth it.” Even Edward, a principal in a high school using no freshman transition facility, indicated the effect of setting apart freshmen is “missed by the data....I think while students can experience success no matter the structure, having a separate facility or wing can mitigate some of the issues freshmen face.”

In the area of standardized achievement, an interesting finding was revealed throughout all the data indicators, those directly impacted by high-stakes testing and those indirectly impacted. For example, data indicators directly impacted by students’ standardized achievement were obviously the Ninth Grade Literature EOCT scores and percentages were reported earlier in this chapter (sub questions a-d). Credit accrual, graduation rates, and CCRPI scores were data indicators that were indirectly impacted by the ninth grade EOCT performances in sub questions e-h.



Examining which group of high schools led the categories is interesting to note but even more revealing is which group lagged in the last spot. High schools using no facility and high schools using a wing shared the last spot four times apiece in all eight data categories. This would indicate that separating by wing not only failed to produce significant differences superior to that of schools not using a facility but also that this group would finish in last position in four of them (i.e., mean scale scores, percentage of economically disadvantaged meeting or exceeding on Ninth Grade Literature EOCT, graduation rate, and CCRPI). In fact, the last two data points, graduation rate and CCRPI, would be where one would hope the greatest dividends of using a separate facility would manifest. However, to be fair, the group of high schools using a separate wing did have the highest percentage of economically disadvantaged students as well as the highest minority enrollment. Evidently, the use of a separate wing could not overcome what the literature (Bottoms, 2008; SREB, 2002) had indicated as some of the most challenging subgroups of students to transition to high school.

The final category to report in Question 3 is the findings from the principal interviews on the graduation rates among the three groups. Question 6 from the principal interviews revealed the findings to how schools are helping ninth graders remain on track to graduate in four years. Principals from the group of high schools using no freshmen transition facility said the use of advisors, counselors, and graduation coaches was critical in tracking ninth grade performance and credit accrual. Principals mentioned concerted efforts were made by these staff members to identify struggling students at various times during the grading periods. Communication with the teachers was critical. Stacey, a principal of a high school not using a freshman transition facility, said weekly advisement

meetings with teachers helped her faculty and staff remain updated on ninth grade students struggling to keep pace. “[T]here is advisement and each freshman has an advisor that stays with them until they are a senior and graduate. We tell our teachers if there are any struggling students please let the counselors know. I think communication with the teachers is very important.” Stephen, another principal of a high school that does not use a freshman transition facility, said his graduation rates “may be better if we had an academy or separate facility” but “[we] have to be a little more intentional about tracking them when you have them in the same facility.” Stephen said this heightened focus was actually stronger because the students were in the same setting. This extra effort showed in the quantitative findings as the mean graduation rate in schools using no freshman transition facility ( $M = 78.27$ ) was less than 0.87 percentage points behind the schools using a freshman campus ( $M = 79.14$ ).

However, the mean graduation rate for schools using a freshman wing ( $M = 72.52$ ) lagged considerably behind. This finding from the quantitative portion was surprising. It was also surprising to hear the consensus from these principals was that having students on a separate wing allowed for a greater focus on their needs when struggling to maintain passing grades in their courses. Getting ninth graders started out on the right foot was a response that was recorded several times. Tony said he believed “having them in one area of the building” allows for counselors to “focus on their needs a little bit better. Also, having that separate wing just gets them started out on the right track.....than if they were spread out all over the building.” James said the data on promotion to the tenth grade before his school used a separate wing improved by 60%. The use of a check-in, check-out procedure where teachers served as mentors and

advisors helped in this increase. James thought having the wing helped facilitate this process. Another principal from the group of high schools using a freshman wing, William, conceded his faculty could accomplish the same advisor and student support program without a wing but having the wing “does help that space is available to try to remediate students if needed.” William went on to say it is more convenient “when we have teachers who are able to pull them from class to provide more support in a nonthreatening environment without taking them to a whole other part of the building.” The support is accomplished in their portion of the high school. Whatever the difference in the mean graduation rate, principals in this group believed the wing helped in accomplishing the task of moving ninth graders to the tenth grade.

Finally, ninth grade students served in high schools using a freshman campus were, according to the principal interviews, attended to better and received more individual attention in the separate campus. The chances for more personnel in the campus setting allowed for a greater focus on graduation and promotion. A team based approach of teacher teams, advisors, counselors, and administration was seen as evidence for this group leading the graduation rate. Tate said his separate campus “does focus them on passing more courses. They want to become sophomores. The [students] have a counselor to help [them] and a pretty good support and non-instructional group” that helps them stay on track. Tate thought the campus strategy worked better because the counselors and teachers were all focused on ninth grade success instead of ninth through twelfth grade if all students were combined in one facility.

## Summary

The results reported in this chapter were presented in a manner consistent with the sequential explanatory design (i.e., the quantitative results were reported followed by the qualitative results). The major findings of this study revealed ninth graders will perform about the same on the Ninth Grade Literature EOCT regardless of the manner in which a school chooses to set apart their freshmen. In fact, there were no significant differences found in the graduation rate or CCRPI scores of schools using any of the three facility designs examined in this study. Furthermore, no significant difference existed in the percentage of ninth graders earning four Carnegie core units after the first year in high school. The only significant difference was found in the percentage of students with disabilities earning at least three Carnegie core units and that difference was found to exist between schools using a freshman campus and those schools not using a freshman transition facility.

There were major findings from the qualitative aspect of this study as well. Some of those were the fact all schools typically transition freshmen to high school in the same manner. Overcrowding and under-utilized facility space and not the desire to see increased achievement seemed to provide the chief reason for using a separate campus. Principals in high schools using a freshman wing found the best balance of freshmen transition, meaning the arrangement proved not too restrictive while also providing space and devoting specific faculty to nurture the transition to high school. The major finding from principals using no freshman facility was the use of upperclassmen to serve as role models or mentors to freshmen.

## Chapter V

### DISCUSSION

The purpose of this study was twofold. One purpose was to determine if significant differences existed in student performance measures in high schools that had distinctive arrangements for transitioning freshmen from middle school to high school. Another purpose was to examine principals' perceptions of how their schools transition freshmen, how their transition strategies and arrangements work for their particular school and, ultimately, why schools employ a particular facility design to help freshmen adjust to high school.

This study began with a population of 349 public high schools in Georgia. Through self-reporting measures, it was determined that 224 high schools did not transition freshmen to high school through any design. One hundred high schools used a portion of the school to set apart ninth graders on a freshman wing. Twenty five high schools used a separate freshman campus. Through a purposeful sampling procedure, 125 schools participated in this study as one of three types of high schools: high schools with no freshmen transition facility ( $n = 50$ ), high schools using a freshman wing ( $n = 50$ ), and high schools using a freshman campus ( $n = 25$ ). The results were reported through both percentage and raw data. All school achievement data used in this study were gathered from the 2013-2014 school year. The analyses of the statistics were both parametric and descriptive. An analysis of variance (ANOVA) was conducted and a confidence interval of 0.95 was set to determine if quantitative findings were not likely to have occurred by

chance. Responses to the principals' interviews were reported by question to provide clarity, meaning, and accuracy of the data.

### Literature Review

Grade span configurations in schools are designed to match the development of the child to an appropriate educational environment (Kmiec, 2007). These spans are strategically captured at intervals in the life of the child to minimize the effect of transitions to another grade level so as not to adversely affect the academic progress of the child. Schwerdt and West (2013) determined different configurations of grade spans impacted student achievement in positive ways while Alspaugh (1998a) and Smith (2006) reported that multiple transitions impacted students negatively. Grade spans of schools have changed considerably since the early 1900s. Some elementary schools spanned grades kindergarten through eighth while other districts completed elementary school after fifth grade. The concept of middle school separated elementary and secondary education. Simmons and Blyth (1987) discovered negative outcomes such as poor self-esteem and declining grades in transitions which occurred simultaneously with adolescent changes. Life changes were not the sole cause of negative outcomes. Grade spans and design of school environments factored into negative experiences by students during adolescent stages (Simmons & Blyth, 1987).

To this end, students in eighth and ninth grade struggled through adolescent changes and thus struggled to establish identities, achievement, and helpful peer networks (Kmiec, 2007). Schools whose design lessened facility complexities and whose faculty and staff understood the natural confusion in students of this age were shown to be schools prepared to deal with the shock of ninth grade (Eccles, Midgley, & Lord, 1991;

Pharris-Ciurej et al., 2012). As a result, schools began to be spanned in grades that would efficiently transition students, especially more vulnerable ones, to high school (Langenkamp, 2010).

Effective practices such as grade span configurations and other associated high school transition reforms were determined by Kerr (2002) to best serve ninth grade adolescence and produce positive student outcomes. Kerr's (2002) found schools that chose multiple reforms and whose environment was warm and inviting saw a decline in student alienation and high school dropouts. This concept emerged as a prevailing theme in the literature. The experience most ninth graders endured was often the result of poor use of facility space and organizational methods that failed to meet the challenging demands of ninth grade adolescence (Cotton, 2001; Eccles et al., 1991; Fields, 2005; Kerr, 2002, Kmiec, 2007; SREB, 2002).

Eccles, Midgely, and Adler (1984) conducted a study on the effects the years of schooling have on student motivation and achievement. A student's perception of competence declined as they grew older and their outlook toward school suffered and, as a result, poor performance followed. Bottoms (2008) indicated a student's damaged esteem and confidence suffered during significant transitions like the one to high school. Bottoms found students saw little to no relevance in learning and that complex environments cause students to become disengaged in the process.

Simmons and Blyth (1987) found high schools to be less personal, more competitive, and ability-centered rather than student centered. Their findings suggested transition to high school should occur in smaller environments so as to focus more on the needs of ninth grade students (Eccles et al., 1984). High school designs that failed to

support ninth grade adolescents were attributed to the failure rates ninth graders experience (Roderick & Camburn, 1999). Roderick and Camburn (1999) found high ninth grade failure rate to be due to a schools' inability to serve the academic and social needs of its ninth graders. In order to meet these higher demands, the findings of Roderick and Camburn (1999) suggested high schools consider high school transitions and reforms like smaller learning communities to produce improved academic outcomes for ninth graders.

Transitions to grade levels in different school buildings often occur at the first, sixth, and ninth grade. Each is important to child development and academic achievement. Eccles et al., (1984) found the transition to high school to be one of the most difficult transitions a student will face, even more difficult than the transition to college (SREB, 2002). Transitioning to the ninth grade means navigating social, emotional, and academic situations not experienced at any other grade level (Cook, Fowler, & Harris, 2008; Kimec, 2007; Langenkamp, 2010; Neild, 2009; Reyes et al., 2000). Queen (2002) found that students unable to accomplish this were more likely to have poor academic outcomes and display poor behavior. Consequently, promotion rates to tenth grade plummeted and a dropout rates in the ninth grade were three times the national average for schools failing to employ effective transitional strategies (Cook et al., 2008).

Schools that effectively transitioned students to high school often did so by leveraging parent involvement (Mizelle, 1999; Hertzog & Morgan, 1997; Hertzog & Morgan, 1998). Transition activities such as eighth grade parent meetings, open houses, and registration meetings help bridge the gap between schools and parents. As a result,



trust was built that schools would take care of students who were moving from middle school to high school (Hertzog & Morgan, 1997; Hertzog & Morgan, 1998; Kaplan & Owings, 2001; Mizelle, 1999; Morgan & Hertzog, 2001; White-Hood, 2001). This level of commitment by the school sends an important message to parents that their engagement is valued and necessary (Kaplan & Owings, 2001; Morgan & Hertzog, 2001; Umphery, 2001).

Vertical teaming by high schools and middle schools were important during the transition to high school (Langenkamp, 2010). Course failure in ninth grade can be predicted by middle school students' failure to establish positive teacher relationships and a supportive peer network (Langenkamp, 2010). Students capable of developing both a solid peer network and a positive student-teacher interaction in middle school were more likely to replicate this relationship at the high school level thus making them less vulnerable to course failure in the ninth grade (Langenkamp, 2010). To this end, transition programs are most successful when kindergarten through eighth grade bands and the ninth through twelfth grades work together (Akos & Galassi, 2004) to promote positive student-teacher relationships in order to deter student disengagement in the ninth grade and promote better student outcomes (Langenkamp, 2010).

The use of smaller learning communities can be traced back into the 1970s (Cook et al., 2008). Lashway (2000) found districts responded to NCLB accountability by arranging students into smaller settings. Schools built trust with parents by personalizing the transitional experience and responding to individual student needs to provide stronger support during fragile transition periods (Lashway, 2000). Cotton (2001) found restructuring large high schools into smaller and more manageable learning communities

meant a greater sense of belonging, higher levels of motivation, and improved student behavior. When schools implemented a personalized and student-centered experience, promotion and graduation from high school increased (Conrad, 2007; Cotton, 2001; Fields, 2005; Kmiec, 2007; SREB, 2002). Evidence found by Conrad (2007) supported academic success by ninth graders was improved when the freshmen were set apart from the upper classmen.

Neild (2009) reported schools using smaller learning communities had significant achievement gains and promotion rates over complex school settings that were bureaucratically structured. Smaller schools were more efficient in operations and engaged students in and out of the classroom. A 2001 U.S. Department of Education study reported smaller schools had lower dropout rates, lower incidences of misbehavior, and increased student efficacy. As a result, federal grants were offered to motivate school districts to begin implementing smaller learning communities (U.S. Department of Education, 2001). Congressional funding of 45 million dollars in addition to funding by the Bill and Melinda Gates foundation challenged schools to seek reformation to make the high school setting smaller (Fraker, 2006; Hill, 2001).

Regardless of the financial incentives for smaller learning communities, there was research that did not support its use. Cotton (2001) found low staff buy-in, limited space, inflexibility in scheduling, and substandard professional learning in smaller learning communities. Cramer (2006) determined schools who implemented SLCs did not significantly outperform larger school environments in academic achievement, graduation rates, or post-secondary options. Hendrix (2007) found there to be no

significant difference between small and large learning environments when using criteria of units earned by freshmen and freshmen promotion rates.

The most popular and systematic effort to implementing smaller learning communities in the high school has come in the form of ninth grade academies (Kmiec, 2007). Schools began to set apart freshmen in academies away from upperclassmen with the intent to improve student achievement and high school graduation rates (Akos & Gallasi, 2004; Cook et al., 2008; Felner et al., 1993; Mizelle, 1999; Pharris-Ciurej et al., 2012; Smith, 1997; Weiss & Baker-Smith, 2010). This restructuring was thought to have a positive effect on the difficult ninth grade transition (Neild, 2009). Student interactions with teachers were more personal and parents developed greater trust (Levine, 2010).

Freshman academies were used in urban settings where schools were more likely to have large enrollments and were shown to be effective for at-risk and minority subgroups (Barbour, 2009; Kmiec, 2007; Peasant, 2006; Styron & Peasant, 2010). MacMillan (2012) found African Americans in freshman academies out-performed the same subgroup in schools without a freshman academy in areas of mathematics and grade promotion.

Several studies on freshman academies produced results that indicated freshmen significantly outperformed peers who were in a traditional high school setting. Sewell (2009) examined a high school that used a freshman wing one year and a separate facility for their freshmen the following year and the findings overwhelmingly favored the separate campus. Critical subgroups like Black students and economically disadvantaged students outperformed students from the previous year in a freshman wing Biology and English I achievement scores (Sewall, 2009). In another study, Styron and Peasant (2004)

studied academic achievement differences of 50 randomly selected ninth graders from a traditional setting versus 50 randomly selected ninth graders from freshman-only facilities. Students who attended ninth grade academies had mean scores that were significantly higher in Algebra I and Biology (Styron & Peasant, 2008). There were also significant differences in the mean scores in Algebra I and Biology for Black students who attended freshman academies versus those students integrated in a setting with upperclassmen. Peasant (2006) found students attending separate ninth grade facilities scored significantly higher on the Algebra I and Biology EOCT than students attending a traditional ninth through twelfth high school. A study by Bennett (2012) examined attendance and behavior of ninth grade students in an academy versus ninth grade students in a traditional high school setting. Bennett found behavior and attitudes toward school to be significantly higher in freshmen academies. However, he also found ninth grade attendance to be significantly higher in the traditional setting.

Other studies indicated freshman academies had no effect on positive student outcomes. Irvin (2013) examined attendance, EOCT scores, and graduation rates for select schools in Georgia. Results indicated significantly higher percentages in attendance, EOCT performance, and graduation rate in the traditional high school setting versus the freshmen academies. Also, Daniel (2010) found the use of a ninth grade academy showed no growth in student performances from the seventh grade to the ninth grade when comparing exceeds, meets, and does-not-meet categories.

The current movement within public schools is not only graduating students but preparing them for college, technical schools, and careers. High schools are being held more accountable and accountability is captured by indicators within the framework of

the College and Career Readiness Performance Index (CCRPI). Lee (2011) found much difficulty in measuring college readiness and what is required for success in the workforce does not necessarily align with college readiness (Lee, 2011). Lee also stated the college readiness to be a combination of indicators such as grade point average, high school completion, and national standardized test scores. However, these indicators are inconsistent when considering the quality of education across the nation's high schools (Lee, 2011).

Cook et al. (2008) stated developing students to be college and career ready begins at the high school level in the ninth grade. A U.S. Department of Education (2010) report emphasized the use of end of course assessments that would measure the degree to which students were college and career ready. To this end, freshmen academies help facilitate a vision for life after high school with elaborate graduation plans (Daniel, 2010; Fulco, 2009). Cook et al. (2008) reported the achievement of ninth graders can serve not only as an early indicator of high school graduation but also as to how well prepared students are for post-secondary options. Ninth grade students who fail to earn three credits stand a 90% chance of not graduating high school (Cook et al., 2008). The CCRPI measures a school's capability of preparing students to be college and career readiness. That indicator is ninth grade students earning core four credits. Ninth graders who fail to earn four credits in the core four subject areas are not considered on track for college readiness (Georgia Department of Education, 2012a).

This study was built upon the research on ninth grade transition, smaller learning communities and the impact freshmen performance has on school accountability measures. In Georgia, school accountability, in increasing ways, measures the ability of

schools to effectively transition ninth graders so they can perform sufficiently. The intent of the Elementary and Secondary Education Act (ESEA) was to provide an equitable education for economically disadvantaged students through increased funding, reduced class sizes, and expectations for teacher and paraprofessional qualifications (No Child Left Behind Act, 2001). Before the NCLB waiver in 2011, ninth grade performance had little impact on whether schools were performing to ESEA standards. Now more than ever, Georgia public schools must account for ninth grade achievement to avoid negative community perception and loss in funding. The framework of this study is represented by ninth grade performance and overall school indicators in three distinct groups of high schools: high schools using a freshman wing, high schools using a freshman campus, and high schools using no facility to set apart their freshmen.

### Methodology

A mixed-methods approach was used to capture the school achievement data and interview responses from the principals. A sequential explanatory research design utilizing a pragmatic, worldview framework allowed the development of interview questions for the principals after having examined and analyzed the quantitative findings. This strategy allowed an understanding of the problem to be gained through analysis of the quantitative data, and the use of interview responses in the qualitative portion to gain a deeper understanding of why school districts chose certain facility arrangements to transition students to high school.

For the quantitative methods of data collection, archival data from the Georgia Department of Education website were used in this study for questions. The specific archival data used were Ninth Grade Literature EOCT, Carnegie core credit earned by

ninth graders, CCRPI scores, and graduation rates. The qualitative methods of data collection in this study used interviews of 15 randomly selected principals. Creswell (2005) noted qualitative data collection can occur using questionnaires and surveys or by conducting observations or interviews. Open-ended questions were used to more fully understand the use of a particular facility design to transition students to high school. This qualitative data were used to support quantitative findings or explain inconsistencies.

The demographic data from the three groups of high schools revealed that campus style high schools had, on average, 350 more students than high schools using a separate wing, and averaged over 588 more students than high schools using no transition facility. For ninth grade enrollment, high schools using a separate campus averaged more than 64 students than high schools using a wing and more than 155 students than high schools using no transition facility. These enrollment figures alone indicated high schools with larger overall enrollments typically used a campus or wing to help transition freshmen into smaller learning communities. Another observation from the enrollment data suggested that ninth graders in high schools using no freshmen transition facility represented a larger percentage (31%) of the overall high school enrollment than freshmen in either the campus style (28%) or wing style (30%). Assuming the percentage of ninth grade students in any 9-12 high school should be 25 percent, all of these percentages indicated difficulty keeping students on track to graduate.

#### Quantitative Findings

Ninth Grade Literature EOCT. There were eight data points in the quantitative portion of this study. The first four data points in Question 1 were student achievement

performances on the Ninth Grade Literature EOCT. None of the analyses led to significant differences beginning with the Ninth Grade Literature mean scale scores. It is interesting to note high schools using a separate campus led this category with an average mean scale score of 437.27 over high schools using no facility ( $M = 435.73$ ) and high schools using a separate wing ( $M = 433.01$ ). However, a significance of  $p = 0.24$  indicated only 76% of the variance in mean scale scores was explained by the independent variable. Setting apart freshmen by wing or campus only attributed to .76 of the variance in Ninth Grade Literature EOCT mean scale scores. For the purposes of this study, this was interpreted that a ninth grader in any of the three types of high schools examined in this study had a mean scale score between 433.01 and 437.27 on the Ninth Grade Literature EOCT. Considering the scale score range on the Ninth Grade Literature EOCT reports is between 200 and 600, the difference in score performances for ninth graders in the three different types of high schools is more than non-significant; it's practically negligible. These results are consistent with those found by Barbour (2009), Cramer (2007), and Hendrix (2007). However, this finding is inconsistent with the conclusions of Styron and Peasant (2010), who found students who were set apart by a freshmen academy significantly outperformed students in high schools not using a freshman transition facility on Algebra and biology mean scale scores.

The last three data points using Ninth Grade Literature EOCT results were from subgroups found in the literature to more likely suffer academically during the transition to high school: Black students, economically disadvantaged students, and students with disabilities (Barbour, 2009; Kmiec, 2007; MacMillan, 2012; Peasant, 2006; Styron & Peasant, 2010). Only 24% of the variance in the percentage of Black students meeting or



exceeding on the Ninth Grade Literature EOCT can be explained by the independent variable while an even smaller percent (16%) can explain the variance found in percentage of economically disadvantaged students. Only the percentage of students with disabilities meeting or exceeding on the Ninth Grade Literature EOCT came close to the 0.05 significance level ( $p = 0.18$ ), indicating 82% of the variance in performance for this category was explained by the independent variable. This finding was consistent with what the principals said about facilities having an impact on certain subgroups. An overwhelming majority of principals (12 of 15) across all three groups of high schools indicated that using a certain facility arrangement for ninth graders was of no academic benefit to these at-risk subgroups. Additionally, only five of 15 principals felt setting apart freshmen helped prepare them for high stakes testing. The responses of these principals seem to agree that setting apart freshmen for the sake of improved academic achievement does not ensure a significant difference in the performance of ninth graders.

Although no significant difference existed in any of the three at-risk subgroups, it is interesting to note 56.7% of students with disabilities in high schools using a separate campus met or exceeded the Ninth Grade Literature EOCT compared to 49.76% in high schools using no transition facility. This finding was interesting for two reasons. For one, high schools using a separate campus had higher percentages of students with disabilities in their schools. This meant the difference in performance in this category, although not significant, was nonetheless accomplished by a larger number of students with disabilities. This finding would suggest setting apart freshmen does have an impact, at least in part, on performance of students with disabilities. Lee and Smith (1995) would agree with this difference in performance as their study concluded that students,

especially those disadvantaged or with different cultural backgrounds, learn and achieve more when set apart in smaller learning communities like freshmen wings or campuses. Secondly, this finding is attributed to other data points discussed later in this chapter, namely the percentage of students with disabilities earning three core Carnegie credits and the high school graduation rate.

Carnegie Credit Earned by Freshmen. The fifth and sixth data points in the quantitative portion of this study were used to examine student promotion rates to the tenth grade. Schools with higher percentages of students earning core credit (English, math, science, and social studies) in the ninth grade are more likely to be promoted to the tenth grade and ultimately graduate. The mean percentage of ninth graders earning four core Carnegie units ranged from 27.8 in high schools using no transition facility to 29.11 in high schools using a freshman wing to 33.94 in high schools using a freshman campus. A significance of  $p = .22$  indicated only 78% of the variance in the mean percentage of ninth graders earning four core Carnegie units can be explained by the independent variable. However, one of the principals, Tate, indicated this statistic alone was enough for him to justify using a separate campus to transition freshmen. Tate said, despite there being no statistical significance, “when you can have 34% of your freshmen earn four or more credits versus 28% in a class of 500, you have just added 25 kids who can probably graduate in four years.”

The mean percentage of students with disabilities earning three core Carnegie units ranged from 22.09% in high schools using no freshman transition facility to 25.78% in high schools using a separate wing to 31.89% in high schools using a separate campus. The significant difference existed in the comparison of high schools using a freshman

campus and high schools using no facility. Considering a larger percentage of students with disabilities was found in high schools using a separate campus, the data indicated a much larger likelihood of the number of students with disabilities promoting to the tenth grade. Moreover, this finding would seem to indicate transition needs of students with disabilities, at least those pertaining to academics, are better met in high schools using a freshman campus over those high schools not using a freshman transition facility. Because students with disabilities have lower rates of graduation from high school, this finding is of utmost importance.

Graduation Rate. The final two data points in the quantitative section of the study examined the graduation rates and the College and Career Readiness Performance Index (CCRPI) of the schools. Graduation rates are the gold standard by which high schools in Georgia are measured, and the CCRPI score encapsulates this performance with 4-year and 5-year graduation rate performances for schools. High schools in Georgia are held accountable for the rate at which students graduate on time, not just by federal law but also by the court of public opinion where graduation is considered a major achievement of the education system (Pharris-Ciurej et al., 2012). The chances of that occurring often hinges on student performance in the ninth grade (Cook et al., 2008). For graduation rate, no significant difference ( $p = .09$ ) existed between the two groups, as only 91% of the variance between the three groups can be explained by the independent variable. Schools using a separate campus had an average graduation rate of 79.14% while schools using no freshman transition facility had an average graduation rate of 78.27%. Schools using a freshman wing had an average graduation rate of 72.52%.

Although schools with a separate campus significantly outperformed schools with no transition facility in the percentage of ninth grade students with disabilities earning three core Carnegie units, their overall graduation rates were separated by a mere 0.87 percentage points. This suggested ninth grade students with disabilities in high schools using no transition facility made significant progress after the ninth grade year for these graduation rates to be almost equal. Stated differently, students with disabilities in high schools that use a separate campus do not perform as well as their counterparts in high schools using no facility. This finding suggested while students with disabilities earn significantly more Carnegie credit in the ninth grade in the two different settings, virtually no difference was observed in their overall graduation rates. It is important to note this finding may become significant in 2017 when the graduation rates of the ninth graders examined in this study are expected to graduate. Nevertheless, this finding contradicted Cole (2006) who predicted accountability and NCLB would negatively impact schools attempting to keep students with disabilities on track for graduation. If schools were to be held accountable for at-risk subgroups, Cole predicted graduation rates to drop as students with disabilities were observed to get off track at higher rates than their regular education counterparts.

Setting apart freshmen could actually hinder students with disabilities. Providing too much support could enable their disabilities to persist causing delays in the student overcoming the disability and, thus, the transition to high school as well. This finding seemed to agree with the responses of some of the principals, namely Adam and Daniel, who both stated setting apart freshmen, especially those with disabilities, prolonged the transition to high school. According to Adam, freshmen need to learn how to handle the

challenges of high school and “the earlier they make the transition...the more successful they are going to be as [upperclassmen].” Daniel observed his freshmen with disabilities benefitted more by being in the same facility as upperclassmen and not on a wing or separate facility. Daniel said his students with disabilities can see upperclassmen in order to “know how to act and know how to study.”

College and Career Readiness Performance Index. The difference between the three groups for CCRPI scores was not statistically different ( $p = 0.33$ ) as only 67% of the variance between the index scores was explained by the independent variable. The mean CCRPI scores ranged from 67.34 in high schools using a freshman wing to 69.36 in high schools using no freshman transition facility to 69.66 in high schools using a freshman campus. Despite the fact schools using a freshman campus led this category, this finding indicated virtually no difference in CCRPI scores existed in schools using any of this study’s three transition designs. Considering CCRPI encompasses data results from end of course tests, post-high school readiness indicators such as writing test scores, and graduation rates, it is reasonable that non-significant findings in the previous data points would be found in the CCRPI comparison. A similar large-scale study of Florida schools conducted by Rudes (2006) concluded the same finding. There was no significant difference for ninth graders in smaller learning communities versus non-SLC schools on standardized testing that contributed to accountability scores in Florida. Rudes (2006) said this was cause for concern for school reformers who were looking for ways to accomplish school-wide gains in the era of high stakes accountability. This is important because, until the Elementary and Secondary Education Act (ESEA) is reauthorized to

include other accountability measures, district leaders may remain unconvinced to employ any such freshman facility to improve their CCRPI performance.

### Qualitative Findings

The interviews captured responses from principals from the three different types of high school examined in this study: high schools using a freshman wing, a freshman campus, or no freshman facility. The questions targeted driving forces for setting apart freshmen, transition strategies, advantages and disadvantages in the three distinct settings, influence each facility had on specific subgroups, students' ability to remain on track, and the effect of using (or not using) a separation strategy had on preparation for high stakes testing. The final question asked respondents to opine why schools would use a facility to transition freshmen if data in this study failed to support its use. Themes that emerged from each question will be discussed in the next sections.

Responses in the interviews revealed several themes describing why each school used a wing, campus, or no transition facility. Interestingly, growth in enrollment, outgrowing space in the school building, and underutilized facilities were most often mentioned from the principals overseeing high schools using a freshman campus. This response was expected because larger schools were often associated with the movement to smaller learning communities and freshmen academies (Conrad, 2007; Cotton, 2001; Fields, 2005; Kmiec, 2007; Lashway, 2000; SREB, 2002). Only two of the freshman campus interviews mentioned academic performance as a main driving force for setting apart freshmen. In one of the interviews, Tate said "honestly, it came down to overcrowding." A vacant middle school building helped Tate's district open a freshman campus. Another principal, Derek, said his district's two high schools consolidated and

neither building could house all of the students in the newly integrated school. One school could house the upperclassmen and the extra space from the other school helped start their freshman campus. Tim said the high school was “just not big enough” to move the ninth graders comfortably into the building. An old vacant middle school was repurposed and the freshmen were placed there. Bobby’s school started using a freshman wing in 2005 when funding for a smaller learning community grant was awarded to his school, mostly to improve academic performance of the ninth graders. However, once his district built a new elementary school, the vacant building was turned into a freshman campus and the ninth graders were placed there. Jacob’s high school was overcrowded as well but funding was secured in his district to build a brand new freshman campus facility, the only school to indicate new construction for their freshmen facility. These responses seemed to indicate matters of convenience and surplus in facility as the major impetuses for use of a separate campus. But it is important to note Peasant (2006) stated there is no perfect scenario for starting a freshman academy and that factors such as school enrollment, space, funding, and practicality are the major reasons for using a freshman campus or wing.

Overcrowding was not mentioned in responses from the principals in high schools using a separate wing. Neither did the theme of conveniently underutilized space surface during these interviews. Instead, the reasons for setting apart freshmen by wing were mostly to improve the academic performance and behavior of their ninth graders. A focus on the social adjustment, keeping students on track, and, interestingly enough, grant funding were all mentioned as driving forces. David said his school was “losing a lot of kids early in the ninth grade” and that concentrating his students into one portion of the

building helped teachers establish critical relationships with students that seemed to keep more of them in school. Tony and Beau both said their schools wanted to focus on the academic performance, promotion, and social behaviors of ninth graders. Finally, it was expected that funding would dominate the responses from high schools using a wing or campus. However, only Beau and James mentioned funding as a driving force to use a separate wing. As pointed out in the literature, 370 million dollars were awarded in grant monies to high schools whose reform efforts included the use of a smaller learning community like a freshman wing or campus (Fraker, 2006; Hill, 2001; U.S. Department of Education, 2001). Yet no one mentioned money being a driving force other than the desire to see improved student academic outcomes and educational experiences.

The principals in high schools that had no transition facility mentioned that research and educational fads like smaller learning communities were considered by their district but ultimately the lack of overcrowding and extra space meant no efforts were made to set apart freshmen. Four principals, Daniel, Edward, Stacey, and Stephen acknowledged some discussion had occurred but district leaders remained unconvinced to commit to the ideology of setting apart freshmen. Daniel indicated he “didn’t jump on the ninth grade academy bandwagon” and a lack of facility space for a separate school or wing were two main obstacles for consideration in setting apart ninth graders. All five principals staunchly stood by their schools’ arrangement of having freshmen integrated with the upperclassmen and while they admitted to scant consideration, all firmly believed they were effectively serving and transitioning students to high school. Adam said “there has never been consideration here to set apart our freshmen.”



The literature was rich on the transitioning of students to high schools and it was expected all high schools would express a sincere effort of ensuring freshmen could adjust in any of the three settings. None of the principals interviewed felt as though their school fell short in supporting high school transition. Transition activities began in the second semester of the eighth grade year and continued all the way through the first day of school. Advisement meetings, registration for high school courses, parent meetings, building tours, summer jumpstart programs, and orientations were mentioned by all principals as strategies used to facilitate the move to high school. The reason for this is principals seemed more convinced programs or processes for transitioning students to high school were more important than setting the students apart as freshmen. In fact, the principals in high schools using no separate facility seemed to take great interest in the transition of their freshmen. These principals all seemed keenly aware since their freshmen were integrated with upperclassmen, their transition strategies needed to be efficient and effective to overcome their lack of transition facility.

Schools that understand the difficulties in the transition to high school know that this transition is about connecting to campus life. Extra-curricular activities like athletics, clubs, fine arts, and JROTC were marketed to the students in the eighth grade to capture their attention in hopes that participation would bring meaning and purpose to their staying in school. One of the principals, Derek, said that his school required “all freshmen to join a club or group with hopes of deterring any form of [dropping out].” Students are then placed in an advisement class with a teacher who sponsors the club or activity in which an individual student has signed up. Findings from the National Research Council (2004) convey the same message on effective transitions to high

school. Having smaller learning communities is not enough; a sense of belonging to the school was a critical finding of this research and served as an indicator of a student's motivation to learn. The transition to high school transcended merely moving from the eighth to the ninth grade. This transition is about induction and that induction was seen as a key component to not only introduce the students to high school but to also provide opportunity and membership to high school activities in hopes of increasing the academic motivation and thus, the likelihood of graduation. The main idea from the interview data was that it was plainly evident that each principal wanted to ease the transition to high school despite the facility arrangement for their freshmen.

The principals were opinionated on the advantages and disadvantages of their transition arrangement for their freshmen. This was expected mostly because principals have a vantage point to measure such phenomena from a macro level. The principals in high schools using a freshmen wing mentioned that having a wing was the best of both worlds, meaning that isolation could occur when needed and the opportunity for integration with the upperclassmen meant a fuller transition experience too. Other advantages were collaboration of faculty, the cohort concept of togetherness, and a hybrid of the middle school concept where students were placed on teams to improve faculty awareness of individual strengths and weaknesses. Principals in these high schools felt confident their arrangement was best since they could determine the amount support and transition needed, more in the beginning of the year and less as the academic year progressed. In fact, two of the principals, Tony and William, were so confident in this strategy they said there were no disadvantages to the freshman wing concept.

Principals of high schools using a freshman campus echoed the focus on a single cohort of students and having them in one building helped the faculty focus on teaching and learning and improved transition strategies like the use of advisement periods. Advisement periods such as High School 101 were strategically used to help the adjustment to high school, provide remediation, and increase enrichment to power students. However, the number one advantage of the campus arrangement was that the students were self-contained which meant less anxiety, lower incidents of misbehavior, and the increased likelihood that students could navigate the building. However, the principals' confidence in the campus strategy did not exceed caution for the disadvantages. The major disadvantage was also a major advantage: students were self-contained and this separation tended to, in the words of Tim, made the students "stay freshmen too long." The other major disadvantage was faculty and students alike viewed themselves as freshmen campus students or faculty, thus not identifying themselves as high school students. Being viewed as students not really in high school made for an interesting finding, a sentiment which was certainly opposite of what district leaders had intended for the campus arrangement to accomplish.

All five principals of the high schools using no freshman facility said the major advantage to having ninth graders with the upperclassmen was the use of student exemplars and mentors. Mizelle (1999) noted this was an important transition strategy of social adjustment in high schools and it was interesting to note principals of these high schools were quick to point that out. Principals indicated freshmen tended to "grow up" faster which was similar to Tim's point about the disadvantages of a separate campus in the previous paragraph. Daniel said "we don't give these freshmen enough credit" to

make the full transition to high school and he openly questioned during the interview why students, who had just spent three years with each other in middle school, would even want to be self-contained with that same cohort for an additional year. Consequently, any strategy short of full integration into the entire student body delays maturation of the students and creates additional transitions when the students move to the tenth grade. However, these principals were quick to point out students did tend to “get lost in the shuffle” and there are certainly models of poor behavior as well. It is these problems that served as catalysts for high schools entertaining the idea of segregating ninth graders.

Other than corralling ninth grade misbehavior and providing social support or nurturing of economically disadvantaged students, the specific facility types did not seem to matter. This is an important finding and one that was substantiated in the quantitative findings of the Ninth Grade Literature performances. In short, a student who was Black, economically disadvantaged, or with disability was expected to perform the same on the Ninth Grade Literature regardless of whether they were transitioned in a campus or wing or nothing at all. This finding corroborated what was said about the high stakes testing preparation. Principals who set apart their freshmen by campus acknowledged having flex learning time and separation meant a heightened focus on student weaknesses and strengths. However, this finding was not supported by the Ninth Grade Literature EOCT performances. Principals in high schools using a wing or no facility believed what is accomplished for test preparation for ninth graders could be accomplished in any setting. The focus, according to eight of the ten principals in these two groups, should be an expectation to increase the level of instruction provided for ninth graders, a calling that

supersedes high stakes test preparation and certainly a strategy that can be accomplished with or without a freshman transition facility.

The final question of the principal interviews was an important one and was designed to capture responses once principals were made aware of the quantitative findings of this study. This question went to the heart of the matter as the quantitative findings surprised many of the participants, seemingly catching some off guard (principals of high schools using a wing or campus) while vindicating others (principals using no facility). Principals like Daniel said schools (at least two in his district) moved towards the freshman academy concept to capitalize on a surplus of empty buildings. Reflecting back on schools in his district, Daniel said “I don’t think there was an academic reason for using a separate campus.” Two schools in his district “had the luxury of having defunct middle school facilities...and when the schools got up to around 2000 kids...they just couldn’t handle” the issue of overcrowding. Tate, a principal in one of the freshman campus high schools, said “the overcrowding was huge for us and I wonder how many schools were just like us” when deciding to use a separate campus, noting schools in this study who used a separate campus had higher enrollment. Tate said he believes many schools didn’t read the research on smaller learning communities or freshman academies but rather took advantage of vacant buildings to pursue the idea of transitioning students to high school.

Cost effectiveness factored into districts’ decisions to set apart freshmen, yet another notion that academic improvements were not at the forefront of transition students to the ninth grade. Jacob and Stacey both said their districts moved to a wing or campus concept to avoid having to build another high school. Being good stewards of

taxpayer money is paramount in eyes of community members. Growth in school districts preceded many moves towards a freshman wing or campus as Tim noted in his high school using a freshman campus. Tim said “we experienced only moderate growth” in his community but the growth was still more than his grades 9-12 facility could withstand and with a vacant middle school that needed a new purpose, taxpayer money was seemingly put to good use while accomplishing what some research reported about the high school transition.

Another response to this question surfaced in the interviews. Several principals said perception was a key factor in setting apart freshmen. Adam, a principal in a high school that did not use a freshman facility, said “parents of freshmen children are scared to death. I think sometimes for community relations, we can say we have a separate wing and students are going to be with their [peers] and this is going to be more helpful for them. And I think that comfort level is good for parents.” Tim, a principal of a high school using a freshman campus, echoed Adam’s sentiment. “I think [using a separate campus] is talking points for boards of education” such as “we’re doing something different than most schools.” When Tony, a principal in a high school using a separate wing, was asked the final question he had a one-word response: “perception.” When asked to expand on that answer he said the perception was shared by many. “Parents, community members, even our perception as administrators. It’s a comfort zone and makes you think you’re doing something.” The idea of using a smaller learning community to transition students to high school as a means of greater perception was surprising to the researcher and solidified the understanding of why so few differences of any statistical significance existed in this study.

## Limitations and Assumptions

Despite the researcher having worked in all three of the types of high schools examined in this study, he has most recently been a principal in a high school that uses a separate campus. The researcher acknowledges a certain amount of bias could exist especially during the qualitative portion of this study.

The researcher acknowledges schools in this study may use various types of formats for the school day –block style, hybrid block, and the traditional six or seven period day. Attendance and behavior were not factored into the findings of this study. Additionally, teacher quality and experience are not examined in this study. Rural and urban schools were not considered when comparing schools, only when identifying the participants in the interviews.

Freshman campuses and academies were examined for the characteristics of their full or limited self-containment and it was assumed their configuration was accurately stated through self-reporting measures. Some of the self-contained freshmen campuses had a separate administrator overseeing its operations. These schools had a separate facility code registered with the Georgia Department of Education. This study used archival data from the 2014 EOCT spring administration, the last official administration of the EOCT in Georgia. Public high schools in Georgia now use a newer assessment called the Georgia Milestones. Data results from the Georgia Milestones are not expected to be revealed until the fall of 2015. One final limitation to the study was the timing of the data collection. EOCT results used in this study were collected from the spring 2014 administration and the qualitative interviews were collected in the spring of 2015.

Although this sequencing is common in a sequential explanatory design, the gap in the amount of time between the two could be shortened.

#### Suggestions for Future Research

Since maturity of ninth graders was mentioned in the interviews, future research efforts could examine ninth grade attendance and ninth grade discipline. One participant in the interviews, Stacey, mentioned teacher quality was the single most important factor in student achievement in the ninth grade—not the fact that a facility separated them from upperclassmen. Therefore, it is suggested this study could be replicated using teacher quality as an indicator for statistical difference. Another principal, James, mentioned he would like to see a breakdown of urban versus rural schools. Future research could replicate this study to examine if there is a statistically significant difference in the performance of urban and rural high schools. Finally, this study examined the responses of principals in high schools that used one of the three distinct facility settings for ninth graders. Building on this study, another suggestion for future research would involve gathering the responses of teachers, parents, and students through the use of a survey. The results of the survey could be used alongside the quantitative findings of ninth grade achievement data.

#### Conclusions

This study represents some of the most comprehensive research on the different types of facilities used to transition students into the freshman year of high school. Eight dependent variables were used to measure significant differences in ninth grade achievement and overall school accountability indicators. Additionally, fifteen interviews were conducted to help make sense of the quantitative findings. Three hundred and forty



nine schools were examined at the outset of this study and through purposeful sampling, 125 schools were participants. Question 2 sought explanation for the quantitative differences while Question 3 provided an understanding as to whether certain freshmen facility arrangements in high schools could lead to increased likelihood of earned credit in the ninth grade, higher student achievement in the ninth grade, and a higher graduation rate.

As noted in the research, the transition to high school proved to be one of the most difficult transitions to navigate (Bottoms, 2008; Mizelle, 1999; SREB, 2002). The findings of this study have tremendous implications for districts, especially those whose demographic data suggest a boom in population growth. On the topic of the construction of new high school, should consideration be given to building a wing or campus to house ninth graders? Or better yet, should there even be consideration for building another a new high school when building a new middle school (or elementary school for that matter) and repurposing the old one is cheaper?

Whatever the case, it seems as though local decisions drive what best meets the needs of that school and its community. Through the interviews it was obvious how many came to their current facility arrangement. High schools that had no facility really had no need to set apart their freshmen as none of the interviews indicated their schools suffered from overcrowding. Some pointed out there was no space to even consider using a separate campus but the use of wing, which is easier to accomplish, was not viewed as a strategic option either. There was a sense of vindication for their schools not having been viewed as sensitive to the plight of ninth graders. The quantitative findings supported their decision to remain a high school that integrated the upperclassmen and freshmen.

There were reasons for setting apart freshmen that were missed by the quantitative conclusions. High schools using a separate wing reported that behavior of ninth graders improved when they were set apart by the wing. Beau noted that ninth grade was a time when puberty's changes complicated the transition and achievement or social adjustments suffered. Maturity was a main factor in his district's decision to set apart freshmen. Both William and James noted about half of their discipline issues came from ninth graders before the move to the wing concept. Since implementing the wing, both said the ninth graders either no longer led the school in discipline referrals or had significantly reduced their incidences. Fewer days suspended means fewer days of missed classes which will in turn provide opportunities for increased student achievement. Achievement gains aside, the behavior component was reason enough for these three principals to see the advantages of using a separate wing.

In high schools using a separate campus, the reasons for setting apart were obvious. Overcrowding and the luxury of underutilized space helped provide the impetus for using a separate campus. These fortunate conditions seemed to benefit their schools in many ways. The high schools could serve ninth graders during a challenging time in their educational journey. But district leaders could also accomplish reducing the tensions of overcrowding, presenting the perception of supporting freshmen, and also being good stewards of taxpayer's money. Even Tim, a principal of a high school using a separate campus but one who also seemed unsold on its benefits, admitted to the advantage of having them separate. "I really don't see how we could fit them" in the facility with tenth through twelfth grades.

However, despite there being no statistically significant difference in the performance of ninth graders in any style facility, Jacob and Tate stand firmly by the separate campus concept. Any statistical difference, significant or not, was quantifiably good enough for them. The concept of increasing the likelihood of graduation or promotion of students with disabilities was appealing. In the ever changing landscape of accountability and the current uncertain status of NCLB, principals are looking for any advantage to keep their school from receiving a failing label.

Changes in public school accountability have charged high schools with more than just graduating students on time. A transition strategy to help students get started out on the right track is to offer the opportunity for high school credit in middle school. High schools are now being measured by how well students are prepared for life after high school—college, technical school, military, or career. To this end, high schools have even attempted to ease the transition to college through dual enrollment. Transitioning freshmen is important since their performance factors more into the school's accountability grade. However, schools focusing efforts solely on high school transition are missing the point, especially with current trends found in the post high school accountability. Students are expected to enter and exit the ninth grade with plans for post-secondary options.

Although this study failed to show setting apart ninth graders by wing or campus could lead to greater gains in accountability measures like Ninth Grade Literature EOCT achievement, graduation rate, and earned Carnegie core credit, it did accomplish why school leaders carefully transition students to high school. The delicate and deliberate manner in which all of the schools handled the transition to high school should serve as

testament that district leaders consider ninth grade achievement paramount to meeting the needs of adolescents while still managing to make the grade in accountability. As schools continue to attempt to blur the lines of transition from middle to high school, decisions to set apart or not set apart freshmen will continue to be researched. The findings of this study can certainly help schools' future decisions. But most importantly, schools must have a solid understanding of the specific needs and climate of their school and community. Change in how to transition freshmen is more than just educational gains and meeting accountability measures. Educational fads, prior research, funding, and perception will continue to factor into the decisions of district leaders and elected boards of education. Yet knowing what will best serve their local high school and, most importantly its students, should continue to be the number one driving force in using or not using a separate facility for freshmen.

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APPENDIX A:

Expert Panel Review Interview Questions for Principals of High Schools  
Using Certain Freshman Facility Designs

Dear Expert Panel Reviewer:

I need your help! Your knowledge and expertise will provide verification of items on the Interview Questions for Principals of High Schools Using Certain Freshman Facility Designs or allow the improvement of the instrument by rewording items, removing items, or including additional items. Your help is essential and I appreciate the time that you are taking to examine the instrument for me.

The purpose of the Interview Questions for Principals of High Schools Using Certain Freshman Facility Designs is to determine if perspectives of principals of high schools affirm or refute the findings of school-wide and ninth grade student achievement data. The Interview Questions for Principals of High Schools Using Certain Freshman Facility Designs is a 7-question interview where responses will be recorded, transcribed and coded for emergent themes.

Sincerely,

Jim Finch

Expert Panel Review  
Interview Questions for Principals of High Schools  
Using Certain Freshman Facility Designs

Directions: Please bubble in the circle that best represents your response. If you answer “No” to items 1 - 6, please supply an explanation in the space provided. However, if you answer “Yes” to item 7, please provide an explanation.

1. Do the questions match the stated purpose of the instrument?  
 Yes  
 No

If your answer to number 1 is “No”, please indicate which item or items do not match the purpose of the instrument.

2. Are the questions clear?  
 Yes  
 No

If your answer to number 2 is “No”, please indicate how you would make the directions clear.

3. Do the questions match the task that the participants are being asked to consider?  
 Yes  
 No

If your answer to number 3 is “No”, please indicate how you would improve the directions.

Expert Panel Review  
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4. Is each question understandable?

Yes

No

If your answer to number 4 is “No”, please indicate the item or items that are not understandable. How would you make this item or these items more understandable?

5. Is each question unambiguous (i.e., asking one question only)?

Yes

No

If your answer to number 5 is “No”, please indicate the item or items that are ambiguous. How would you modify this item or these items?

6. Is each question grammatically correct?

Yes

No

If your answer to number 6 is “No”, please indicate the item or items that are not grammatically correct. How would you modify this item or these items?

7. Is there any subsection that requires additional question or questions to improve the interview?

Yes

No

If your answer to number 7 is “Yes”, please indicate the subsection that requires an additional item or items along with the possible item or items.

Thank you for your time and effort!

APPENDIX B:

Sample Correspondence to Superintendent

Dear Superintendent,

One of your high school principals has been randomly selected to participate in a research project entitled *The Effect of the Self-contained Ninth Grade Campus on Student Achievement Indicators*. This research project is being conducted by Jim Finch in the Educational Leadership department at Valdosta State University. A basic explanation of the research is given below. Please read this carefully and discuss with the researcher any questions you may have. The University asks that you give your signed agreement if you allow your principals to participate in this research project.

This study involves research. The purpose of the study is to determine if there are significant differences in student achievement indicators on the College and Career Readiness Performance Index between Georgia public high schools using a particular facility design to transition its freshmen.

Data collection procedures are simple. The responses from principals will be recorded and transcribed to add detail to the quantitative responses from the achievement indicators. There are no alternatives to the interview procedures in this study. The only alternative is to choose not to participate at all.

Although there are no known risks associated with these research procedures, it is not always possible to identify all potential risks of participating in a research study. However, the University has taken reasonable safeguards to minimize potential but unknown risks.

By agreeing to allow principal participation in this research project, you are not waiving any rights that you may have against Valdosta State University for injury resulting from negligence of the University or its researchers.

Allowing participation will help the researcher gain additional understanding of facility arrangements for high school transition and the knowledge gained may contribute to addressing future construction of Georgia public high schools. There are no costs to you and there is no compensation (no money, gifts, or services) for your participation in this research project.

Your decision to allow participation in this research project is entirely voluntary. Questions regarding the purpose or procedures of the research should be directed to Jim Finch at 478-955-9441 or [jmfinch@valdosta.edu](mailto:jmfinch@valdosta.edu). This study has been approved by the Valdosta State University Institutional Review Board (IRB) for the Protection of Human Research Participants. The IRB, a university committee established by Federal law, is responsible for protecting the rights and welfare of research participants. If you have concerns or questions about your rights as a research participant, you may contact the IRB Administrator at 229-333-7837 or [irb@valdosta.edu](mailto:irb@valdosta.edu).

Sincerely,



Jim Finch  
Valdosta State University  
Doctoral Candidate

APPENDIX C:

Sample Correspondence to Interview Participants

Dear Sir or Madam,

You are being asked to participate in a research project entitled The Effect of the Self-contained Ninth Grade Campus on Student Achievement Indicators. This research project is being conducted by Jim Finch in the Educational Leadership department at Valdosta State University. The researcher has explained to you in detail the purpose of the project, the procedures to be used, and the potential benefits and possible risks of participation. You may ask the researcher any questions you have to help you understand this project and your possible participation in it. A basic explanation of the research is given below. Please read this carefully and discuss with the researcher any questions you may have. The University asks that you give your signed agreement if you wish to participate in this research project.

This study involves research. The purpose of the study is to determine if there are significant differences in student achievement indicators on the College and Career Readiness Performance Index between Georgia public high schools using a particular facility design to transition its freshmen.

Data collection procedures are simple. Your responses to a set of interview questions will be recorded and transcribed to add detail to the quantitative responses from the achievement indicators. There are no alternatives to the interview procedures in this study. The only alternative is to choose not to participate at all. The duration of your involvement will be to preview the questions beforehand, provide responses to the questions in a scheduled interview, and review your transcribed responses for accuracy.

Although there are no known risks associated with these research procedures, it is not always possible to identify all potential risks of participating in a research study. However, the University has taken reasonable safeguards to minimize potential but unknown risks.

By agreeing to participate in this research project, you are not waiving any rights that you may have against Valdosta State University for injury resulting from negligence of the University or its researchers.

Although you may not benefit directly from this research, your participation will help the researcher gain additional understanding of facility arrangements for high school transition and the knowledge gained may contribute to addressing future construction of Georgia public high schools.

There are no costs to you and there is no compensation (no money, gifts, or services) for your participation in this research project.

Valdosta State University and the researcher will keep your information confidential to the extent allowed by law. Members of the Institutional Review Board (IRB), a university committee charged with reviewing research to ensure the rights and welfare of research participants, may be given access to your confidential information. Your responses will remain confidential and at no point in the study will your identity be revealed. Pseudonyms will be used where appropriate to protect identity.

Your decision to participate in this research project is entirely voluntary. If you agree now to participate and change your mind later, you are free to leave the study. Your decision not to participate at all or to stop participating at any time in the future will not have any effect on any rights you have or any services you are otherwise entitled to from Valdosta State University. During the interview, you may skip any questions that you do not want to answer.

Questions regarding the purpose or procedures of the research should be directed to Jim Finch at 478-955-9441 or [jmfinch@valdosta.edu](mailto:jmfinch@valdosta.edu). This study has been approved by the Valdosta State University Institutional Review Board (IRB) for the Protection of Human Research Participants. The IRB, a university committee established by Federal law, is responsible for protecting the rights and welfare of research participants. If you have concerns or questions about your rights as a research participant, you may contact the IRB Administrator at 229-333-7837 or [irb@valdosta.edu](mailto:irb@valdosta.edu).

Sincerely,

Jim Finch

Valdosta State University

Doctoral Candidate

Consent to participate: The research project and my role in it have been explained to me, and my questions have been answered to my satisfaction. I agree to participate in this study. By signing this form, I am indicating that I am 18 years of age or older. I have received a copy of this consent form.

I would like to receive a copy of the results of this study: \_\_\_\_\_ Yes \_\_\_\_\_ No

Mailing Address:

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E-mail Address: \_\_\_\_\_

---

Printed Name of Participant

---

Signature of Participant

Date

---

Signature of Person Obtaining Consent

Date

APPENDIX D:

Interview Questions for Principals

1. [Freshman campus] What were the driving forces that led to the use of a separate facility?  
  
[Freshman Wing] What were the driving forces that led to the use of a separate wing for freshmen?  
  
[Use of neither campus nor wing] Has there been consideration towards using a facility to transition students from middle school?
2. [For all groups] How does your school currently help transition students from middle school to high school? What transition strategies does your school use to help students transition from middle school to high school?
3. [Freshman campus] What are the advantages and disadvantages that you believe come along with using a freshman wing?  
  
[Freshman Wing] What are the advantages and disadvantages that you believe come along with using a freshman campus?  
  
[Use of neither campus nor wing] What are the advantages and disadvantages that you believe come along with keeping ninth grade students within the same facility as upperclassmen?
4. [For all groups] How do you see the physical structure of your facility arrangement for ninth graders influencing behavior, culture, or academic performance of specific groups of students? Specifically, does the structure seem to impact Blacks differently than Whites? Students without disabilities differently than students with disabilities? Students of poverty?
5. [For all groups] What does your school do to prepare freshman for high stakes testing? How do you think that relates to your facility?

6. [Freshman campus] How does the use of a separate campus for freshman ensure their being on track to graduate after the ninth grade year?  
  
[Freshman Wing] How does the use of a separate wing for freshmen ensure their being on track to graduate after the ninth grade year?  
  
[Use of neither campus nor wing] How does not using a separate wing or campus for freshmen ensure their being on track to graduate after the ninth grade year?
7. If almost all questions revealed non-significant findings, why do schools employ the use of separate facilities or wings to transition their freshmen?



APPENDIX E:

Institutional Review Board Protocol Exemption Report

