# Student Outcomes and the Implementation of a Ninth Grade Academy in a Western North Carolina High School. 

Monet Calloway Samuelson<br>East Tennessee State University

Follow this and additional works at: https://dc.etsu.edu/etd
Part of the Educational Administration and Supervision Commons, and the Educational Assessment, Evaluation, and Research Commons

## Recommended Citation

Samuelson, Monet Calloway, "Student Outcomes and the Implementation of a Ninth Grade Academy in a Western North Carolina High School." (2011). Electronic Theses and Dissertations. Paper 1365. https://dc.etsu.edu/etd/1365

Student Outcomes and the Implementation of a Ninth Grade Academy in a Western North Carolina High School

A dissertation<br>presented to the faculty of the Department of Educational Leadership and Policy Analysis East Tennessee State University

In partial fulfillment of the requirements for the degree Doctor of Education in Educational Leadership
by
Monet Calloway Samuelson
December 2011

Dr. Virginia Foley, Chair
Dr. Cecil Blankenship
Dr. Donald Good
Dr. Pamela Scott

Keywords: Freshman Academy, Ninth Grade Academy, Transition Issues, High School Dropout, School Reform, Small Learning Communities

# ABSTRACT <br> Student Outcomes and the Implementation of a Ninth Grade Academy in a <br> <br> Western North Carolina High School 

 <br> <br> Western North Carolina High School}
by

## Monet Calloway Samuelson

One purpose of this study was to compare outcomes of students who were part of a $9^{\text {th }}$ grade academy during their freshman year with outcomes of students who were not part of a $9^{\text {th }}$ grade academy during their freshman year. Student outcomes are defined for this study to include attendance, promotion rate to $10^{\text {th }}$ grade on time, in-school suspension assignments, Algebra I End-of-Course exam scores, and English I End-of-Course exam scores. The second purpose of this study was to compare outcomes of $10^{\text {th }}$ grade students who were part of a $9^{\text {th }}$ grade academy during their freshman year with outcomes of $10^{\text {th }}$ grade students who were not part of a $9^{\text {th }}$ grade academy during their freshman year. $10^{\text {th }}$ grade student outcomes are defined for this study to include attendance, promotion rate to $11^{\text {th }}$ grade on time, and in-school suspension assignments. Data were collected from a high school located in Western North Carolina over a period of 4 years (2007-2011). Independent samples t-tests and one-way Chi Square analyses were used to make comparisons for each outcome of the study. Based on the findings of this study, the promotion rate of $9^{\text {th }}$ grade students to $10^{\text {th }}$ grade on time increased after the implementation of the $9^{\text {th }}$ grade academy. In-school suspension assignments for $10^{\text {th }}$ grade students who were part of a $9^{\text {th }}$ grade academy during their freshman year were also less when compared to those of $10^{\text {th }}$ grade students who were not part of a $9^{\text {th }}$ grade academy. Ninth and $10^{\text {th }}$ grade students who were part of a $9^{\text {th }}$ grade academy tended to have more absences than $9^{\text {th }}$ and $10^{\text {th }}$ grade students who were not part of a $9^{\text {th }}$ grade academy. Little difference was found in the other outcomes of the study.

## DEDICATION

This dissertation is dedicated to my husband Ken and my daughters Bella (4 years old) and Callie (18 months old). I am blessed to have such a kind and loving man with whom I am able to share all of life's wonderful experiences. Thank you for taking this educational journey with me. I have thoroughly enjoyed the time we have spent together earning all of our identical degrees! I am so very proud of you and your accomplishments! To my little girls - I love you with all of my heart! I once heard that when you have children you will know what it feels like to go through life with your heart living outside of your body. This statement cannot be more accurate! I live and breathe for you both! I know you are too little to understand the significance of these pages, but part of the reason I wrote this was for you! Never let the way you look, where you come from, your last name, or your relatives determine where you go in life! You have the ability to become anything you want to become! Never forget that! I will do everything in my power to support you in reaching your goals in life. Keep Jesus first and you will go far.

I also want to express my love and thanks to the rest of my family - Dad, Mary, Nick, Gina, Steven, Derrick, and Granny. Your encouragement and help these past few months have been greatly appreciated! I love you all!

And to the lady whom I was blessed to call "Mom" for 24 years on this earth. I love you so much and miss you dearly. I hope you are proud of me. You always encouraged me to dream big and to never underestimate my potential. I hope I have accomplished this in becoming the first doctor in our family. I will never forget you.

## ACKNOWLEDGEMENTS

I would like to express my gratitude to the many people who have offered support, advice, and encouragement to me in the completion of this dissertation.

Thank you Dr. Foley for serving as my committee chair, for answering my many many questions, and for being that calming voice when I started to panic. I would also like to express appreciation to my other committee members - Dr. Pamela Scott, Dr. Donald Good, and Dr. Cecil Blankenship. Thank you for everything!

Finally, a big thank you to all of my colleagues and partners in crime at the high school! What an experience we have been through! You began school last year with a brand new Principal - fresh out of the ELEMENTARY music classroom with no administrative experience. She came to you having just had a baby a couple of weeks prior and then she decides to start working on her dissertation later that same school year. I'm so thankful you all were willing to put up with me! I have enjoyed each and every day working with you. Two days are never alike and we have had our share of memorable experiences these past few months!

Kim - thanks for being such a "go getter". You inspire me to work harder when I look across the hall and can almost see the wheels turning in your mind as you think of what you can do to offer the best to your students.

Mark - thanks for helping me to learn how to break loose from my passive nature. Also, thanks for showing me that there is no sense in worrying. Tomorrow is another day. I look forward to our tag-team effort in teaching college level classes in the future!

Students - thank you for the inspiration you provide to me on daily basis. You make my job worth doing. I learn so much from you and am honored to call myself your Principal.

## CONTENTS

## Page

ABSTRACT ..... 2
DEDICATION ..... 3
ACKNOWLEDGEMENTS ..... 4
LIST OF TABLES ..... 8
Chapter

1. INTRODUCTION ..... 9
Statement of the Problem ..... 11
Study Site ..... 12
Research Questions ..... 13
Definitions of Terms ..... 13
Significance of the Study ..... 16
Limitations and Delimitations of the Study ..... 16
Overview of the Study ..... 17
2. LITERATURE REVIEW ..... 19
Introduction ..... 19
Progression of Secondary Education in the United States ..... 20
Transition from Eighth Grade to Ninth Grade ..... 26
The Dropout Factor ..... 30

## Chapter

Ninth Grade Experience as a Predictor of Dropout Risk ..... 30
Why do Students Drop Out? ..... 32
The Cost of Dropping Out ..... 33
School Reform ..... 34
Small Learning Communities ..... 39
Ninth Grade Academy Model ..... 41
Conclusion ..... 44
3. METHODOLOGY ..... 45
Research Design ..... 45
Population ..... 46
Data Collection ..... 48
Research Questions and Null Hypotheses ..... 49
Data Analyses ..... 51
Summary ..... 51
4. ANALYSIS OF THE DATA ..... 52
Analysis of Research Questions ..... 52
Summary ..... 59
5. SUMMARY OF FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS FOR FUTURE PRACTICE AND RESEARCH ..... 61
Summary of Findings ..... 61

## Chapter

Research Question \#1 ..... 62
Attendance ..... 62
Promotion Rate ..... 62
In-School Suspensions ..... 63
Algebra I EOC Scores ..... 63
English I EOC Scores ..... 63
Research Question \#2 ..... 64
Attendance ..... 64
Promotion Rate ..... 64
In-School Suspensions ..... 65
Conclusions ..... 66
Recommendations for Practice ..... 69
Recommendations for Future Research ..... 70
Summary ..... 71
REFERENCES ..... 73
VITA ..... 80

## LIST OF TABLES

Table

1. Means and Standard Deviations of Five Measures Between Students Enrolled in a Ninth Grade Academy During Their Freshman Year and Students Who Were Not Enrolled in a Ninth Grade Academy During Their Freshman Year.
2. Means and Standard Deviations of Three Measures Between Tenth Grade Students Who Were Enrolled in a Ninth Grade Academy During Their Freshman Year and Tenth Grade Students Who Were Not Enrolled in a Ninth Grade Academy During Their Freshman Year..........................................59

## CHAPTER 1

## INTRODUCTION

As society changes at an alarming rate, the United States is constantly seeking ways in which to remain a world leader and secure its role as a viable world presence in a global economy. Education is sometimes seen as the answer to the situation, while at other times, is seen to be the root of the problem. Regardless, an effective educational system is one that is open to the changes of society and willing to go beyond the status quo in order to meet the individual needs of the student.

According to Wagner (2008),
In today's highly competitive global "knowledge economy," all students need new skills for college, careers, and citizenship. The failure to give all students these new skills leaves today's youth - and our country - at an alarming competitive disadvantage. Schools haven't changed; the world has. And so our schools are not failing. Rather, they are obsolete - even the ones that score the best on standardized tests. This is a very different problem requiring an altogether different solution. (p. xxi)

The purpose of this study was to compare student data prior to and after the implementation of a $9^{\text {th }}$ grade academy in a western North Carolina high school. High school students must be challenged in order to be prepared for the reality of life in the $21^{\text {st }}$ century. Successful high school students learn skills that promote working collaboratively with people from diverse cultures, critical thinking, problem solving, and the use of technological skills (Sloan, 2009). High school students in the United States are challenged to compete for future jobs with students from China, India, Brazil, Singapore, and Israel (Friedman, 2006).

According to Hess (2004),
The United States boasts the world's highest per capita income and one of the bestfunded school systems, yet our children fall below international norms in graduation rates and test performance. Though born with significant advantages, U.S. students lose ground during their years in school. While our 9-year-olds score above international norms, our 13-year-olds slip below average, and our 17-year-olds avoid the
bottom only by eking past nations like South Africa, Cyprus, and Lithuania. (p. 1) Wagner (2008) estimated that one out of every two students who started college never completed any form of a postsecondary degree and that $65 \%$ of college professors reported that what was being taught in high school did not adequately prepare students for college level courses. Attention must be given to the high school years to ensure an appropriate and preparatory education. This education recognizes the importance of college in laying a firm foundation to provide a stable future and allow individual contribution to the collective common good of society in a global economy. This understanding emphasizes a successful high school career is needed in order to adequately prepare students for postsecondary education.

Research has found that the transition to high school can often "make or break" a student's educational success in grades 9-12. Students failed $9^{\text {th }}$ grade more than any other academic year and drop out rates were highest between $9^{\text {th }}$ and $10^{\text {th }}$ grade (Donegan, 2008). The often difficult transition from middle school to high school causes many $9^{\text {th }}$ grade students to fail to meet the academic requirements to advance on to $10^{\text {th }}$ grade on time. The $9^{\text {th }}$ grade year prompted more students to fail courses, be retained in the $9^{\text {th }}$ grade, and eventually drop out of school (Gewertz, 2009).

In recognizing the importance of a successful transition to high school, many schools are experimenting with ways to streamline the process and make it as "user friendly" to the student as possible. A new trend, the $9^{\text {th }}$ grade academy, began to make its way into the education arena at the beginning of the $21^{\text {st }}$ century. Ninth grade academies provide more individualized instruction, particularly for students who may easily be lost in the larger high school setting. Although academies may differ in design, the majority found share similar priorities - all $9^{\text {th }}$ grade students are grouped in one section of the building, teachers work in teams, emphasis is
placed on English and math, and students are taught study skills. This personalized educational experience could lead to a more successful year for the $9^{\text {th }}$ grade student (Black, 2004). Students involved in a $9^{\text {th }}$ grade academy, earning a required number of course credits, were 3.5 times more likely to graduate from high school on time than students who were not on track (Allenworth \& Easton, 2005).

## Statement of the Problem

As the United States continues to battle other countries for the role of world leader and dominance in world presence, more and more emphasis is being placed on the role of education in our nation. In particular, the Russian launch of the Sputnik satellite in 1957 created the motivation needed for the United States to take a more in-depth look at the educational opportunities provided to students. Postsecondary education provides individuals an abundance of opportunities when compared to the limited choices offered to those with simply a high school diploma. Those entering the global society, with or without postsecondary education, benefit tremendously from a successful high school experience in which curriculum is given top priority. A beneficial and productive high school career is often determined by a successful $9^{\text {th }}$ grade year and in particular a smooth transition from middle school to high school. Many high schools are now offering a $9^{\text {th }}$ grade academy to assist in this crucial transition to afford students the most individualized and meaningful instruction.

The purpose of this study is to analyze student outcomes in a western North Carolina High School prior to and after implementation of a $9^{\text {th }}$ grade academy. Student outcomes as defined by this study include attendance, promotion rate to $10^{\text {th }}$ grade on time, number of inschool suspensions, Algebra I End-of-Course exam scores, and English I End-of-Course exam scores. This study also compares outcomes for $10^{\text {th }}$ grade students as well. Attendance,
promotion rate to $11^{\text {th }}$ grade on time, and number of in-school suspensions were compared between $10^{\text {th }}$ grade students who were a part of a $9^{\text {th }}$ grade academy during their freshman year and $10^{\text {th }}$ grade students who were not in a $9^{\text {th }}$ grade academy during their freshman year.

## Study Site

The selected population for this study includes $9^{\text {th }}$ and $10^{\text {th }}$ grade students from a small high school located in the rural mountains of western North Carolina over the course of a 4-year time period. Total enrollment for the district during the 2010-2011 school year was approximately 2,200 students, with around $60 \%$ receiving free or reduced lunch.

The school opened in 1969 and first implemented the $9^{\text {th }}$ grade academy during the 20092010 academic school year. During the inaugural year of the academy, the school housed over 650 students, with approximately 170 in the $9^{\text {th }}$ grade academy alone. The physical layout of the structure divides the entire school into pods. The $9^{\text {th }}$ grade academy is housed exclusively in one pod that is also shared by a few classes in either of the school's other two academies. During the second year of implementation, the school moved from a traditional high school approach to that of a three academy innovative design structure.

Students in the $9^{\text {th }}$ grade academy take all academic core classes within the academy; however, elective courses are taken outside of the academy with students from the general population. The $9^{\text {th }}$ grade academy is composed of two teacher teams. Each team hosts a math teacher, science teacher, English teacher, and health/PE teacher. Freshmen students are equally divided among both teams. Each teacher team shares the same group of $9^{\text {th }}$ grade students for academic classes and has a common planning time that is often used to discuss student progress (on a weekly basis at minimum). One guidance counselor serves the entire freshman class.

The academic year is divided into two semesters, with each semester being composed of four 90-minute block classes. This schedule allows students to earn eight credits within one given school year. Students at this school also have the opportunity to earn college credit while taking high school classes through dual-enrollment courses. Students taking complete advantage of this opportunity may earn a high school diploma while at the same time graduating with an associate's degree from a local community college that provides the dual-enrollment courses.

## Research Questions

This ex post facto quantitative research design study was guided by the following two research questions:

1. Is there a significant difference in student outcomes (attendance, promotion rate to $10^{\text {th }}$ grade on time, number of in-school suspensions, Algebra I End-of-Course exam scores, and English I End-of-Course exam scores) between students enrolled in a $9^{\text {th }}$ grade academy during their freshman year and the outcomes for those students who were not enrolled in a $9^{\text {th }}$ grade academy during their freshman year?
2. Is there a significant difference in student outcomes (attendance, promotion rate to $11^{\text {th }}$ grade on time, and number of in-school suspensions) between $10^{\text {th }}$ grade students who were enrolled in a $9^{\text {th }}$ grade academy during their freshman year and the outcomes for $10^{\text {th }}$ grade students who were not enrolled in a $9^{\text {th }}$ grade academy during their freshman year?

## Definitions of Terms

For the purpose of this study, the following key terms are defined:
Attendance -"In order to be considered in attendance, a student must be present in the school for the school day or at a place other than the school with the approval of the appropriate
school official for the purpose of attending an authorized school activity. Such activities may include field trips, athletic contests, student conventions, musical festivals, or any similar approved activity. A student must be present at least one-half of the school's instructional day in order to be recorded present for that day" (North Carolina Department of Public Instruction School Attendance and Student Accounting Manual, 2010, p. 4). The rate of attendance is a comparison of the number of days a student is present in school compared to the number of days the student is enrolled.

Dropout - "A dropout is an individual who was enrolled in school at some time during the reporting year, was not enrolled on day 20 of the current year, has not graduated from high school or completed a state or district approved educational program, and does not meet any of the following reporting exclusions:

1. transferred to another public school district, private school, home school or state/district approved educational program,
2. temporarily absent due to suspension or school approved illness, or
3. death" (North Carolina Department of Public Instruction, 2011a).

End-of-Course Exams - "The North Carolina End-of-Course Tests are used to sample a student's knowledge of subject-related concepts as specified in the North Carolina Standard Course of Study and to provide a global estimate of the student's mastery of the material in a particular content area. The North Carolina End-of-Course tests were initiated in response to legislation passed by the North Carolina General Assembly - the North Carolina Elementary and Secondary Reform Act of 1984" (North Carolina Department of Public Instruction, 2011b).

In-School Suspension - "short-term suspensions served in an in-school suspension classroom" (North Carolina Department of Public Instruction, 2011c).

Ninth Grade Academy -"a program for freshman (9th -grade) students that is designed to provide the strategies and the support that are needed in order to make a successful transition from middle school to high school" (Wilder et al. 2009, p. 11). This small learning community provides students with more individualized instruction given by a select team of teachers. The $9^{\text {th }}$ grade academy is often housed in a separate building or in one specific location within the school building.

No Child Left Behind (NCLB) - The No Child Left Behind Act, implemented by President George W. Bush during the 2002-2003 school year, requires that all schools have $100 \%$ proficiency in math and reading by 2014 . Schools are also required to meet graduation and attendance standards. The focus of this act is to provide school reform while focusing on the following areas: accountability, flexibility, research-based education, and parent options (Ginsburg \& de Kanter, 2002).

Promotion Rate - "North Carolina public school students are required to meet statewide standards for promotion from grades 3,5 , and 8 and high school graduation. The standards, also called gateways, will ensure that students are working at grade level in reading, writing and mathematics before being promoted to the next grade" (North Carolina Department of Public Instruction, 2011d). The rate of promotion refers to the percentage of students being promoted to the following grade level on time. The school district in this study requires that a $9^{\text {th }}$ grade student earn six credits, including a math, English, and health/P.E. credit, in order to be promoted to $10^{\text {th }}$ grade.

Small Learning Community - Oxley (2005) found that Small Learning Communities incorporated inclusive programming, continuous program improvement, rigorous and relevant curriculum, and instruction aimed at improving student achievement. This type of educational
setting personalizes the education process by bringing together a small group of students with a select group of teachers. A $9^{\text {th }}$ grade academy is an example of a small learning community.

## Significance of the Study

This research study is of significance during a time in which educational demands placed upon students, paired with greater accountability on the part of teachers, are met with continued limitations and financial constraints from the external environment. The purpose of this study was to research the implementation of a $9^{\text {th }}$ grade academy in a high school as a strategy to improve attendance, decrease disciplinary referrals, improve the promotion rate, and increase test scores. This particular study could be of great value to high schools or school systems interested in improving the transition from middle school to high school or possibly looking to create $a 9^{\text {th }}$ grade academy.

The $9^{\text {th }}$ grade experience for some students may be the determining factor in whether the student graduates from high school (Walsh, 2002). Not only can the implementation of a $9^{\text {th }}$ grade academy improve the transition from middle school to high school, but it can ultimately lay the foundation for high school success and graduation. The $9^{\text {th }}$ grade year plays a pivotal role in the education of a student. Gossage (2007) found that if a student could successfully make it through the $9^{\text {th }}$ grade year then the student's chances of ultimately earning a high school diploma improved dramatically.

## Limitations and Delimitations of the Study

A limitation of this study is that student data for students who transferred to the school at some point during the $9^{\text {th }}$ grade year may not accurately reflect in the student outcomes studied. Attendance, number of in-school suspensions, and End-of-Course exam scores could be influenced based upon the amount of time the transfer student spent in their previous school
setting. These students cannot be eliminated from the study. Another limitation can be found in examining $10^{\text {th }}$ grade data. Students included in the $10^{\text {th }}$ grade portion of this study who transferred to the school during $10^{\text {th }}$ grade cannot be eliminated from the study when examining student outcomes based upon the $9^{\text {th }}$ grade year within the same school. Another limitation can possibly occur when studying End-of-Course exam scores for Algebra I and English I. As curriculum becomes more rigorous, especially in the lower grade levels, more and more middle school students are given the opportunity to take Algebra I and/or English I while still in middle school. Ninth grade students who have already taken these courses and exams are not counted when researching test scores in the $9^{\text {th }}$ grade academy.

A delimitation of this study is that findings are restricted to a single school located in one school system. The population decreases the broadness of the study.

## Overview of the Study

This quantitative study is organized into five chapters. Chapter 1 includes an introduction, statement of the problem, information about the study site, research questions, definitions of key terms used in the study, significance of the study, limitations and delimitations of the study, and an overview of the study. Chapter 2 contains a review of literature including an introduction, information about the progression of secondary education in the United States, the transition from $8^{\text {th }}$ grade to $9^{\text {th }}$ grade, the dropout factor, school reform, small learning communities, the $9^{\text {th }}$ grade academy model, and a conclusion. Chapter 3 provides the methods used to conduct this study including the research design, selection of the population, data collection procedures, research questions with accompanying null hypotheses, and data analysis used in completing the study. Chapter 4 contains the presentation and analysis of data. Chapter

5 is composed of the summary of findings, conclusions, recommendations for practice, and recommendations for future research.

## CHAPTER 2

## LITERATURE REVIEW

## Introduction

The purpose of this study was to compare student outcomes prior to and after implementation of a $9^{\text {th }}$ grade academy in a high school located in western North Carolina. A review of the literature addressed six major topics. These research areas were chosen to (a) provide a brief history of the progression of secondary education in the United States, (b) examine the student impact resulting from the transition from middle school to high school, (c) study the effects of dropping out of school and the subsequent benefits of dropout prevention, (d) establish the need for reform in secondary education, (e) distinguish the impact of small learning communities or schools within a school, and (f) describe the structure and unique characteristics of a $9^{\text {th }}$ grade academy.

This literature review summarizes the major milestones of the history of secondary education in the United States from formation to the present. One major step in the education of a student is the transition from middle school to high school. Students who do not have a successful $9^{\text {th }}$ grade year are at risk of dropping out; therefore, factors that lead to dropping out, as well as dropout prevention, play a crucial role when examining freshman academies. The role of school reform provides a means to incorporate a variety of alternative strategies to assist in the transition from middle school to high school. One approach is the creation of small learning communities, or schools within a school. Ninth grade academies serve as a small learning community designed to meet the needs unique to those found in freshmen students.

## Progression of Secondary Education in the United States

Public secondary education began to expand throughout the United States during the midto late $19^{\text {th }}$ century (Holsinger, 2002). These educational institutions took the place of private tutors to prepare young men for college, leading ultimately to employment in ministry or other professions. Latin grammar schools were one of the first forms of secondary education (Pulliam \& Van Patten, 2007). Special training not offered within the Latin grammar schools was offered to students who attended an academy, another form of early secondary education. These academies required tuition and were distinguished apart from one another by regional and local needs. By the middle of the $19^{\text {th }}$ century there were more than 6,000 academies in the United States, with an estimated enrollment of 263,000 students (Orstein \& Levine, 2008).

Boston Latin Grammar School, founded in 1635, was an example of such an academy (Holsinger, 2002). Combining the Latin school curriculum with the academy model, this school offered college preparatory curriculum with emphasis on the incorporation of Greek and Latin. According to Pulliam and Van Patten (2007) curriculum offered in the academy model also included science, art, vocational training, and moral philosophy. Opened with public funding, Boston Latin provided an expensive education to young men from elite families, allowing them to attend college and later take their rightful place in society (Holsinger, 2002).

Private academies eventually began to cater to the educational needs of the middle class as the merchant and craftsman trade grew in popularity. The academy model was intended to help these young men succeed in commerce. These modified academy designs were called English academies and offered courses in modern languages, literature, math, natural science, history, and geography - there were no courses in Latin or Greek (Holsinger, 2002).

Academies were generally under the control of private boards of trustees or governing bodies. On occasion some accepted support from cities or states and carried a semipublic label. Some academies offered courses to both young boys and girls. Eventually some academies were formed for women alone. The Troy Female Seminary in New York, founded by Emma Willard in 1821, and the Mount Holyoke Female Seminary in Massachusetts, founded by Mary Lyon in 1837, were two of the more prominent all female academies (Orstein \& Levine, 2008). These gender specific facilities offered the conventional domestic science program in addition to classical and modern languages, science, math, art, and music. Many women chose to pursue a teacher preparatory course of study within the academy.

The birth of the American high school was unrelated to the elementary schools or higher education universities but rather served as a link to join the two together. Early high schools were formed with the primary purpose of training young men in commercial subjects. The American high school was created to offer many of the same opportunities found in the academies to train young men for commercial careers and daily living but at no cost to the families unlike the financially draining Latin schools or academies. The original American high schools were terminal in nature, preparing students for life rather than for college (Pulliam \& Van Patten, 2007).

The first public high school, the English Classical School of Boston, opened in 1821. It was renamed the English High School in 1824 (Pulliam \& Van Patten, 2007). This school, serving as an alternative to the private academy design, offered a college preparatory curriculum. Upon passing the entrance exam students took part in a 3-year English curriculum (Holsinger, 2002).

In 1827 Massachusetts required the establishment of a high school in all cities housing 500 or more families. These high schools were to offer a curriculum of history, bookkeeping, geometry, surveying, and algebra (Pulliam \& Van Patten, 2007). High schools began to form all over the country, with the biggest growth in urban areas. The high school approach did not appeal to farming families and the labor driven lower class, so the institutions continued to serve those considered middle class.

Many early high schools did not offer courses to females or minorities. Boston opened the High School for Girls in 1826 that closed within 2 years (Holsinger, 2002). In 1857 the Boston Girls High and Normal School opened to provide young women an opportunity to attend a public secondary school. This normal curriculum trained young women to become teachers in local elementary schools. The first coeducational secondary high school opened in 1856 (Pulliam \& Van Patten, 2007).

The high school quickly became the major provider of secondary education in the United States during the second half of the $19^{\text {th }}$ century, bypassing the dwindling enrollment found in the private sector. By 1890 the 2,526 public high schools in the United States were enrolling more than 200,000 students. In contrast, the 1,600 private secondary schools and academies at that time enrolled fewer than 95,000 students (Ornstein \& Levine, 2008).

The sudden growth of the public high school was attributed to the expansion of population as well as the increase in wealth among families throughout the country (Pulliam \& Van Patten, 2007). Support from local tax payers also contributed to the growth of secondary educational opportunities. In the 1870s a series of court cases gave authority to the people of the states to establish and support public high school education with tax funds if they desired to do so (Ornstein \& Levine, 2008).

For the most part the concept of high school education was accepted by the majority; however, there were still those who opposed the tax support of the organizations as an unnecessary burden to the public. This tax dilemma was resolved in 1872 by the Michigan Supreme Court in what is now known as the Kalamazoo Case (Holsinger, 2002). Three taxpayers filed a suit to stop the collection of taxes used to support the local high school based upon the grounds that it was not part of the common school system (Pulliam \& Van Patten, 2007). Arguments for and against the use of public tax dollars to support high school education were heard. The court ultimately decided that taxes were a justifiable way to fund public education and this process for funding spread quickly throughout the rest of the country.

Orstein and Levine (2008) stated, "As a school for students from varying social, economic, racial, religious, and ethnic backgrounds, the high school represented a new kind of secondary institution" (p. 181). As the high school took on the dominant role of secondary education within the United States, it provided students the opportunity to attend a publically supported and controlled institution that began with kindergarten, continued on to elementary school, extended to high school, and finished at the college or university level. "It was the high school that linked elementary and higher institutions of education and completed the American educational ladder" (p. 181).

Issues related to curriculum arose as the number of public high schools increased. Local school boards determined curricular requirements, and there was no way to monitor the consistency of content delivery between the numerous school districts. College entrance was determined by entrance exams and preparation for these exams was hard to determine based upon the inconsistency of communication between the high schools and colleges and universities (Holsinger, 2002).

The National Education Association sponsored the Committee of Ten in 1892 in order to provide more standardization in the high school curriculum and to further define the college admission process. Ten noted educators, led by Charles Eliot, president of Harvard University, met to debate the role of secondary schools in education and to decide what curricular expectations would constitute a good secondary education (Holsinger, 2002). The committee decided upon two major recommendations: earlier entry of several subjects and uniform treatment in the teaching of subjects for both college and terminal students (Ornstein \& Levine, 2008).

The committee recommended 8 years of elementary education and 4 years of secondary education. Curricula in four areas were recommended as appropriate for high school students: classical, Latin-scientific, modern language, and English. Each curriculum included foreign languages, mathematics, sciences, English, and history. The committee decided that the curriculum content would serve as the basis for a traditional college preparatory program (Holsinger, 2002).

After the formation of the standard college preparatory curriculum was established, attention shifted to the need to provide different courses of study for different students based upon interests and anticipated career paths. Curriculum differentiation was addressed in the National Education Association report, the Cardinal Principles of Education. Released in 1918, this report recommended that secondary education focus on health, the command of fundamental processes, worthy home membership, vocation, citizenship, worthy use of leisure time, and ethical character (Holsinger, 2002).

The committee stated that curriculum options should meet the needs of students coming from a diverse population and that options should be relevant to the lives of current students.

The high school model created as a result of the Cardinal Principles achieved two complementary functions: to provide diversified programs to meet the needs of a diverse student population and to foster common understandings within the general education (Wraga, 1998). The trend that began with the formation of the Cardinal Principles continues in high schools today as seen in a variety of elective course offerings such as substance abuse programs, family life education, and driver's education.

The cold war era brought about another change in the curricular demands of secondary education. Many people advocated for the strengthening of academic classes to replace the life adjustment classes encouraged by the Cardinal Principles. The National Defense Education Act, passed in 1958, provided funding to states for the improvement of the teaching of science, math, and foreign languages (Holsinger, 2002). The debate over high school curriculum shifted from that of being student centered to that of ensuring the survival of the United States as a whole by offering rigorous core academic classes at the secondary level.

In 1983 the National Commission on Excellence in Education published a report titled $A$ Nation at Risk. This study related the quality of education in the United States to the strength and position of the national economy in the global marketplace (Ornstein \& Levine, 2008). A Nation at Risk continued the push from the cold war era to create higher academic standards in secondary education and laid the foundation to mold our present day educational system. The report called for higher graduation requirements and rigorous academic study, even if a student had no intention to pursue college after graduation. Accountability among students, teachers, and schools was formed in the standards movement that resulted from the report (Holsinger, 2002).

The No Child Left Behind Act of 2001 (NCLB), the reauthorization of the Elementary and Secondary Education Act (ESEA), emphasized the push for accountability by requiring states to develop annual testing programs in reading and math for students in grades three through eight. Schools are required to show that all students are proficient in these areas or risk being subjected to corrective procedures. The NCLB Act placed emphasis on educational programs that were proven to be effective through rigorous scientific research. Federal funding was provided to these programs in the hope to improve student learning and achievement (Ginsburg \& de Kanter, 2002).

NCLB embraced four key principles: stronger accountability for greater results; increased flexibility for states, school districts, and schools in the use of federal funds; more choices for parents of students from disadvantaged backgrounds; and an emphasis on teaching methods that have been proven to work. Data were analyzed to ensure that no child was left behind regardless of background, poverty level, race, ethnicity, disability, or limited English proficiency (Ginsburg \& de Kanter, 2002).

The rise in American high school attendance provided a significant development in the national education system during the $20^{\text {th }}$ century. From 1900 to 1996 the percentage of teenagers who graduated from high school increased from $6 \%$ to $85 \%$ (Thattai, n.d.). The importance of earning a high school education became more evident as the century came to a close.

## Transition from Eighth Grade to Ninth Grade

Transitions occur throughout the educational careers of students found in the public school systems across the United States. A new level of schooling ultimately leads to a new transition: the beginning of elementary school, the move from elementary school to middle
school, the move from middle school to high school. "Transitions in schooling are moments of great promise for children, holding the potential for personal growth, new learning, and greater independence and responsibility" (Neild, 2009, p. 54).

The transition from $8^{\text {th }}$ grade to $9^{\text {th }}$ grade has been identified as a critical point in the lives of students and the entrance into a new high school environment is extremely significant. Butts and Cruzeiro (2005) stated, "Eighth grade is different from $9^{\text {th }}$ grade" (p. 1). The move from $8^{\text {th }}$ grade to $9^{\text {th }}$ grade serves as a critical junction in education and can often be represented by a literal move from one location to another. Eighty percent of $8^{\text {th }}$ graders in the United States switched from an elementary or middle school facility to a high school with a 9-12 grade structure (Neild, 2009).

Neild found that the entrance into $9^{\text {th }}$ grade also provided a new level of social independence for students. This social marker signaled to parents that the student was possibly ready to take on more responsibilities inside and outside of the home. The transition also served as an outlet for students to participate in more social activities with peers and to be included in more adolescent functions. "Entering $9^{\text {th }}$ grade, then, may be thought of as a transition to a new stage in the life course as much as a transition to a new school" (Neild, 2009, p. 54).

Weiss and Bearman (2007) reported that the first year of high school was extremely difficult for students. First-year high students faced numerous obstacles in the transition from middle school. Grades often declined, the likelihood of course failure rose dramatically, behavioral problems increased, and absences became much more prevalent. The problems a student experienced in $9^{\text {th }}$ grade often carried over into the remainder of the high school experience. Weiss and Bearman found that poor performance during the $9^{\text {th }}$ grade year led to a
pattern of failure, combining lower educational trajectories and poor outcomes throughout school while ultimately leading to a greater risk of dropping out of school.

The new high school environment could be portrayed as chaotic and unfriendly to incoming students leaving the familiarity of their old school. This new environment could stir up feelings of insecurity and alienation as students try to find ways to establish their own place and role within the student population. This first year post middle school could serve as time for students to develop their own self-confidence, or begin to depend on other students to direct them. Oakes and Waite (2009) found "Without the proper information and support, incoming $9^{\text {th }}$ graders can perceive high school as an impersonal and unsupportive place and turn to unconstructive behaviors to find fulfillment. During this time, support from adults is crucial" (p. 1).

Academic patterns developed in high school can be traced back to the transition from middle school and the impact of this defining moment on a student's portrayal of school. Students who eventually fail to graduate often fall through the cracks during this critical period. Horwitz and Snipes (2008) found that a student's ability to deal with the stress and challenges that accompanied the move to $9^{\text {th }}$ grade often determined the success found during the remainder of their academic career. This transitional period provides educators a chance to offer support and assistance to $9^{\text {th }}$ grade students during this trying time. Transitional support programs have become popular means of intervention to aid in the challenges that students face in moving to the high school setting.

The Southern Regional Education Board (2005) offered three key strategies to provide assistance to students in making the transition from middle school to high school:

Provide a system of extra help and time to help students meet high standards.

Align the middle grades curriculum to high school standards.
Provide special programs to help students catch up.
Cushman (2006) received the following responses from a group of $9^{\text {th }}$ grade students 2 weeks into their high school experience when asked what the school could do to assist in the transition from $8^{\text {th }}$ to $9^{\text {th }}$ grade in the future:
"Connect us regularly with high school students."
"Support us in developing skills and strategies for high school success."
"Provide bridge experiences in the summer after $8^{\text {th }}$ grade."
"Create smaller learning communities for us."
"Group $9^{\text {th }}$ graders together in one physical setting."
"Start our year with a $9^{\text {th }}$ grade orientation period."
"Match us up with student mentors."
"Build advisory groups into our schedule."
"Design classroom activities to connect with us personally."
"Lengthen class periods to give us more time to learn."
"Establish classroom norms and enforce them consistently."
"Give us extra help, both in and out of class."
"Provide extra activities to help us succeed at things we care about." (p.1)
Students who participated in some type of transitional program from $8^{\text {th }}$ grade going into $9^{\text {th }}$ grade were found to possess stronger academic achievement, improved attendance, a sense of scholastic competence, a good sense of time management, planning skills, strength in problem solving, useful study skills, healthy strategies for coping with problems, positive expectations for high school, knowledge of what was required to succeed in school, and effective strategies for achieving a balanced academic and social life (Grossman \& Cooney, 2007). The transition
period going into high school sets the foundation for the remainder of a student's academic career and ultimately can affect the opportunities the student may encounter later in life.

## The Dropout Factor

## Ninth Grade Experience as a Predictor of Dropout Risk

The drop out rate has grown at an alarming increase in the United States. In some large city school systems, more than $50 \%$ of students left high school without a diploma (Neild et al. 2008). Many of these same students neglected to earn enough credits to be promoted beyond $9^{\text {th }}$ grade. About one third of first time freshmen in Philadelphia public schools failed to enter $10^{\text {th }}$ grade on time due to lack of enough credits to warrant promotion. Over $40 \%$ of freshmen in Chicago failed a core content area within the first semester of $9^{\text {th }}$ grade (Neild et al. 2008). Close to $75 \%$ of high school dropouts reported that they first developed a disinterest in school as early as $9^{\text {th }}$ or $10^{\text {th }}$ grade (Azzam, 2007).

Student experiences in $9^{\text {th }}$ grade can determine high school success and potential beyond the high school years. "Transition years are critical gateways on the road to graduation, and many eventual dropouts first display warning signs during the year they enter middle or high school" (Jerald, 2007). The transitional experience from $8^{\text {th }}$ grade going into $9^{\text {th }}$ grade can have a profound effect on the $9^{\text {th }}$ grade experience, which in turn, is considered a predictor for determining if a student will graduate with a high school diploma or drop out.

The relationship of student progress (or the lack thereof) during $9^{\text {th }}$ grade can serve as an indicator for subsequent level of success during the high school years. Trends that begin in $9^{\text {th }}$ grade can carry over well past the freshman year. "Many students are held back in $9^{\text {th }}$ grade creating what is known as the $9^{\text {th }}$ grade bulge - and drop out by $10^{\text {th }}$ grade - contributing to the $10^{\text {th }}$ grade dip" (Williams \& Richman, 2007, p. 57).

The $9^{\text {th }}$ grade bulge was evident in looking at enrollment figures from the 2003-2004 school year. During this time 4.19 million students were enrolled in $9^{\text {th }}$ grade. During the following school year from 2004-2005 enrollment numbers for $10^{\text {th }}$ grade students dropped to 3.75 million. This $10.5 \%$ reduction was a reflection of students who were not promoted to the $10^{\text {th }}$ grade as well as students who dropped out during or upon completion of their $9^{\text {th }}$ grade year (NCES, 2005). The bulge of $9^{\text {th }}$ grade students tripled from $4 \%$ to $13 \%$ in the past 30 years (Haney et al. 2004).

Students in $9^{\text {th }}$ grade serve as the highest percentage of overall high school population due to the large number of students who fail to be promoted out of $9^{\text {th }}$ grade. The promotion rates between $9^{\text {th }}$ and $10^{\text {th }}$ grade were much lower than rates found between other grade levels (Wheelock \& Miao, 2005). Researchers at Johns Hopkins University found that 40\% of students in cities with the highest drop out rates were retained in $9^{\text {th }}$ grade and that only $10 \%-15 \%$ of those repeaters went on to earn their high school diploma (Balfanz \& Letgers, 2004).

The EPE Research Center (2006) found that 29 of 51 states, including the District of Columbia, saw their greatest weakness in the educational chain occurred during the $9^{\text {th }}$ grade year. Some states had up to a $20 \%$ decrease in enrollment between the $9^{\text {th }}$ and $10^{\text {th }}$ grade year (Wheelock \& Miao, 2005). Eight percent of high school graduates failed at least $25 \%$ of their freshman year courses, while at least $25 \%$ of high school dropouts shared the same experience (Letgers \& Kerr, 2001). Failing more than one core subject and earning less than five course credits by the end of the freshman year were two primary indicators that a student was not on track to graduate on time (Allensworth \& Easton, 2005). Attendance is also a prime indicator for high school success. Jerald (2006) found that a high number of absences during the first 30 days
of $9^{\text {th }}$ grade served as a better dropout indicator than any $8^{\text {th }}$ grade predictor - including test scores, academic achievement, and age.

In studying the transition to $9^{\text {th }}$ grade, Neild et al. (2008) found that "The experience of the $9^{\text {th }}$ grade year contributes substantially to the probability of dropping out, despite controls for demographic and family background characteristics, previous school performance, and pre-high school attitudes and ambitions" (p. 57).

## Why do Students Drop Out?

There is no single factor that can accurately predict a student's probability of dropping out of high school; however, there are many similar characteristics that dropouts have in common. Many demographic factors correlated with academic risk in general and included: being from a low income family, being a minority, being male, being from a single parent home, having limited English ability, having learning or emotional disabilities, moving frequently, and being overage for grade level (Hupfeld, 2010). Students who have to take on adult roles early in life are at greater risk for dropping out. These factors can include parenting or working a large number of hours each week. Students who struggle academically are at greater risk of dropping out. Students who are not visibly involved in school are also more likely to drop out. These students accumulated numerous absences, were less likely to be involved in extra curricular activities, often disrupted the classroom setting, and held ineffective relationships with teachers and fellow students (Hupfeld, 2010).

The Georgia Family Connection Partnership found that there were six predictive factors to indicate the level of dropout risk held by a student. These factors included grade retention, poor academic performance, moves during high school, a high number of absences, misbehavior, and the student's feeling that no adult in the school cared about his or her welfare. Bridgeland et
al. (2006) interviewed high school dropouts to inquire as to why they did not finish school. The most popular response, the primary reason $51 \%$ of the dropouts left school, was because the students simply "did not like school". Forty percent of students attributed the fact that they were failing school as one of the reasons they decided to drop out. Many felt that they could not get along with their teachers (35\%), that they could not keep up with their school work (31\%), and $31 \%$ of females quit because they were pregnant.

## The Cost of Dropping Out

Dropping out of high school was a primary factor in driving intergenerational cycles of poverty (Grossman \& Cooney, 2009). The importance of completing high school is seen as a stepping stone to other educational opportunities or simply as an end in itself to provide financial security for many individuals. Many of these same individuals come from poverty stricken homes that are a result of the lack of importance that had been placed on education within the home. Some first generation high school graduates even looked to postsecondary education as a sure means out of poverty.
"At the same time that high school completion rates have fallen, labor market prospects for dropouts are becoming increasingly dire" (Barton, 2006b, p. 16). The National Center for Education Statistics (2004) found that for male high school dropouts, ages $25-34$, working full time jobs earned an average annual salary of $\$ 35$, 087 in 1971compared to $\$ 22,903$ in 2002 - a decline of $35 \%$. Female dropouts in the same age category earned $\$ 19,888$ in 1971 compared to $\$ 17,114$ in 2002. The average annual earnings of a male high school dropout who worked full time was at the poverty level established for a five person family. The average annual salary for a female dropout kept her above the poverty level for a three person family but not for a four person family (Barton, 2005). In today's economy many households must rely on a second
earner to manage the financial responsibilities associated with having a family. Often children serve as multiple earners when they reach working age.

## School Reform

Daggett (2004) stated, "High school reform begins with a desire by some - and at least a willingness of others to be led - to change what currently exists" (p. 1). In a 2004 study of 30 model high schools, high school reform was found to be comprised of three distinct stages. The first stage involved convincing educators, parents, and community members as to why change needed to take place. The second stage involved the use of data to determine what needed to be changed. The data helped to determine decisions when considering the vision for the school, the curriculum, and the organization of instruction. The third stage involved the determination of how to change the school. This final stage examined the creation of a strategic and collaborative plan, as well as the basics for managing change (Daggett, 2004).

Noguera (2004) examined the reform efforts of 10 high schools in the Boston Public School System. "The most significant and far-reaching reform being implemented when we carried out this research was standards based accountability" (p. 28). It was found that many schools were trying to raise test scores without improving instruction or aligning the curriculum with standards. Other schools in the study were experimenting with reform by providing a more personalized learning environment for students. Although the classroom composition was altered, the instruction was found to remain the same. The schools that were found to be successful in the study required their students to work harder and longer. These schools had their own unique school cultures, provided year-round professional development for teachers, provided college counseling for students beginning in $9^{\text {th }}$ grade, and required a high level of parental involvement.

The Association for Supervision and Curriculum Development (2007) found, "Clearly, secondary education in the United States is in a state of considerable disrepair, and high school redesign is long overdue" (p. 1). The ASCD provided five strategies for the implementation of high school reform at both the local and national level:

1. Multiple measures of assessment.
2. Personalized learning strategies.
3. Flexible use of time and structure.
4. New professional development models for teachers and school leadership.
5. Business and community engagement.

The ASCD found that in order to prepare all students for college or entrance into the workforce that "all high school students must be taught in a manner that values and nurtures their individuality" (ASCD, 2007, p. 1).

Quint (2008) examined three reform initiatives that focused on improving achievement in low performing high schools. These replicable strategies were Talent Development, First Things First, and career academies. Over 2,500 high schools in the United States implemented one of the three of these reform models (Quint, 2008, p. 64). Similarities were found between the three models and included (a) creating a sense of belonging within the school, (b) helping freshmen with weak academic skills, (c) preparing students for postsecondary success, (d) improving instruction, (e) simulating change and making it stick, and (f) providing takeaway lessons for students.
"An effective education system is one that is adaptable to change" (Daggett, 2005, p. 1). Weast (2010) defined five stages of organizational maturity through which a school district must travel in order to effectively equip students for the future. These stages involved reacting to
random acts, establishing meaningful expectations, identifying existing conditions, aligning systems, and innovating while monitoring. "Change has to be phased and sequenced in a way that doesn't overrun the capacity of people to implement it. Finding the balance is critical to success" (Weast, 2010, p. 26).

Kristin (2005) found that rigor, relevance, and relationships laid the foundation for successful school reform. "Research shows that comprehensive policies aimed at redesigning the high school experience have great potential to better meet the needs of students and improve high school performance" (Kristin, 2005, p. 57). Examples of research based models that emphasized these components and improved high school performance were High Schools That Work, Talent Development High School, America's Choice, and the Early College High School.

Roderick (2006) found that a good starting place for educators and policymakers to begin high school reform was to assist with the basic wish of the majority of high school students - to graduate and go to college. The National Association of Secondary School Principals (2004) provided three sets of recommendations to assist in the success of high school students on a mission to graduate and remain successful in their endeavors beyond high school. The first set of recommendations focused on the development of professional learning communities within the school, with leadership specifically focused on student success. The second set of recommendations stressed the need to provide every student with meaningful adult relationships. The third set of recommendations emphasized the development of personalized learning being meaningful, relevant, rigorous, and challenging.

The Public Schools of North Carolina, along with the State Board of Education and Department of Public Instruction, issued A Crisis of Relevance in 2010. This document addressed the increasing drop out rate among high school students in North Carolina as well as
the growing number of students graduating from high school unprepared to go into college or the workforce. Six policy goals were established to guide local, regional, and state leaders in the reform efforts.

1. Make Career and Technical Education (CTE) a valuable part of all students' overall high school experience and use it to help them prepare for postsecondary education and/or training and career success.
2. Drive innovation and creativity in the state's high schools by developing students' skills in entrepreneurialism to accelerate their career interests.
3. Transform the culture of education in North Carolina so every school produces lifelong learners who are both academically skilled and career ready.
4. Expand the assistance available to high school students to enable them to make both wise academic and career choices and achieve their goals for the future.
5. Connect business leaders with educators in a unified effort to help students understand the relevance of their education to their future goals and prepare them with the knowledge, talent, and skills valued and needed in today's workplace.
6. Build on existing governance structures to bring state, regional, and local leaders in education, workforce, and economic development together to support and grow North Carolina's economy.

In 2010 the Southern Regional Education Board (SREB) provided key concepts to guide the development of effective high school reform policies using the High Schools That Work program: (a) high schools need more ambitious targets for improving graduation rates, (b) every school should not be treated the same, (c) districts and states need to use many indicators of progress toward higher achievement, (d) recognize districts, schools, and teachers who make real
progress, (e) draw a distinction between lack of capacity and lack of will - and address both in designing policy strategies for improvement, (f) students need greater opportunities, and (g) insist on rigorous, relevant, and engaging instruction.

As a guest speaker at the Achieve Summit in Washington, D.C., in 2005, Bill Gates commented:

America's high schools are obsolete. By obsolete, I don't just mean that our high schools are broken, flawed, and under funded - though a case could be made for every one of those points. By obsolete, I mean that our high schools - even when they're working exactly as designed - cannot teach our kids what they need to know today. (Achieve Summit Prepared Remarks, 2005)

The Bill and Melinda Gates Foundation placed national focus on high school reform efforts in 2000 when it launched a 5-year high school initiative. The focus of the initiative placed emphasis on raising academic standards, connecting students' studies to their lives outside of school, and addressing the anonymity many students face in the larger school settings. The movement created a new version of the Three R's: rigor, relevance, and relationships (Toch et al. 2007). "Every kid can graduate ready for college. Every kid should have the chance.

Let's redesign our schools to make it happen" (Bill Gates, Achieve Summit Prepared Remarks, 2005).

In High Schools for the New Millennium (n.d.), the Bill and Melinda Gates Foundation stated:

A promising trend is emerging around the country. Educators and communities are redefining the American high school and creating dynamic learning environments designed to prepare all students for success in today's world. There is no denying the level of commitment required to transform our high schools. For the transformation to occur and remain sustainable, huge investments of resources, time, and expertise are needed. The challenge is great. But so are the possibilities. (p. 1)
"Redesigning the high school experience should mean teaching 21 st century skills"
(Mariotti, 2009, p. 1). These skills include independent thinking, problem solving, and decision
making. Emphasis is placed on what students can do with knowledge rather than on the components of knowledge gained. This new philosophy regarding education reflects the emphasis placed on the redesign of the high school, along with the redesign of instruction and delivery. "Effective redesign is not about the amount of time spent in school but rather how students are learning before, during, and after school. It is time for change" (Mariotti, 2009, p. 1). "High school reform is achievable. But if reformers are to be successful, they must leave very little to chance" (Toch et al. 2007, p. 57).

## Small Learning Communities

Oxley (2005) found that Small Learning Communities incorporated inclusive programming, continuous program improvement, rigorous and relevant curriculum, and instruction aimed at improving student achievement. Practices are developed using teaching and learning teams that include special education teachers and teachers of English language learners. An interdisciplinary team of teachers provide instruction for no more than a few hundred students across several years of their educational career. This group of educators exercises maximum flexibility in meeting the needs of students.

The size of the learning community affects the quality of the student's relationship with peers and teachers and ultimately has a profound effect on the student's educational outcomes. Smaller learning communities promoted relationships that bound students to the school and allowed teachers to better identify and respond to student needs (Oxley, 2005). "Small Learning Communities that have the most success with their students are the ones that serve as the building blocks of school organization and the center of school activities, not as add-ons to the existing school organization" (p. 46).

The majority of high schools in the United States housed over 1,500 students and most of these schools were located in large urban or suburban areas (Shakrani, 2008). High schools in urban areas often enrolled over 4,000 students on one campus. "Students in large high schools report having few significant interactions with teachers, mentors or counselors, in large part because professionals see so many students daily" (Shakrani, 2008, p. 1). Since the 2001-2002 school year, approximately 1,800 new small high schools have been created in the United States by converting larger schools into several smaller schools.

Research conducted by Jimerson (2006) found 10 research-based reasons to support the existence of small schools:

1. Greater participation in extracurricular activities, linked to academic success.
2. Small schools are safer.
3. Students feel like they belong.
4. Smaller class sizes allow for more individualized instruction.
5. Successful teaching methods are easier to implement.
6. Teachers feel better about their performance.
7. Mixed ability classes avoid condemning some students to lower expectations.
8. Multiage classes promote personalized learning and encourage positive social interactions.
9. Smaller districts lessen local bureaucracy.
10. More grade levels in one school lessen the number of transitional issues faced when moving to a new school.

Shakrani reported that students in small schools performed better academically, had improved attendance rates, felt safer, experienced fewer behavioral problems, and participated
more frequently in extracurricular activities (2008). Students have higher gains in reading, math, science, and social studies within the small school environment. Smaller Learning Communities can also yield certain drawbacks. Teachers are required to perform many different duties and are required to wear a variety of hats. There can be less variety in course selection and possibly in extracurricular activities. Students, if given the option to choose their placement, can selfsegregate themselves by ethnicity, social class, or ability level. The cost for creating and sustaining a smaller school could actually be greater than that required for a larger school (Jehlen \& Kopkowski, 2006).

In order for the Smaller Learning Community placement to become and remain effective, the larger school organization must change to accommodate the new practices. Continuous program improvement and evaluation were required (Oxley, 2006). Oxley (2005) provided specific domains linked to optimal Smaller Learning Community practice: (a) interdisciplinary teaching and learning teams, (b) rigorous, relevant curriculum and instruction, (c) inclusive programs and practices, (d) continuous program improvement, and (e) building/district level support for the structure of the community.

## Ninth Grade Academy Model

A report conducted by the Center for Comprehensive School Reform and Improvement (2009) found that one of the most difficult times in the course of a student's academic career was that of the transition from middle school to high school. As students transitioned to the high school setting and became accustomed to a variety of changes, parents tended to become less involved in their child's education (Chmelynski, 2004).
"Successful transition to high school is an ongoing process. It cannot be accomplished in a day, in a week, or through a single program. It requires a fundamental reshaping of the
culture in secondary schools and classrooms" (Donegan, 2008, p. 54). In the transition from middle school to high school, Black (2004) found that "Suddenly, many 9 th graders find themselves struggling to navigate large, impersonal, competitive environments - far different from their more comfortable middle schools. Many students make a smooth transition, but others get lost in a maze of corridors, fast-paced schedules, and rigorous course requirements" (p. 1).

The $9^{\text {th }}$ grade experience for some students may be the determining factor in whether they graduate from high school (Walsh, 2002). "Freshman year of high school is rarely a favorite for students or teachers. But new research shows that when it comes to getting a diploma, no year matters more" (Hammond, 2009, p. 1). "Ninth grade is a critical transition year for students; many stumble at this stage and never recover. Yet, if students successfully make it through $9^{\text {th }}$ grade - if they are there to be counted at the beginning of $10^{\text {th }}$ grade - their chances of graduating improve dramatically" (Gossage, 2007, p. 1).

The National High School Center (2007) found that students who were promoted to $10^{\text {th }}$ grade but were off track due to failing grades, absences, or lack of course credits from their $9^{\text {th }}$ grade gateway year may have already missed the opportunity to get on a graduation track. Over the last 30 years the national average for $9^{\text {th }}$ grade nonpromotion has more than tripled from approximately $4 \%$ to $13 \%$ (Cook et al. 2008).

Ninth grade is considered to be the most critical time to intervene and prevent students from losing motivation, failing, and ultimately dropping out of school. "To truly improve the freshman year, we must turn the conventional wisdom about staffing and culture on its head. If you want to reshape high school, start by changing $9^{\text {th }}$ grade" (Donegan, 2008, p. 54). Many
school districts across the country found that the best way to address this need was to create a $9^{\text {th }}$ grade academy, or a school within a school (Reents, 2002).

Several strategies to improve student performance and decrease the retention rate of $9^{\text {th }}$ grade students have emerged over the last 4 decades. "One strategy to decrease non-promotion and drop out rates is implementing $9^{\text {th }}$ grade academies. Freshman academies provide incoming $9^{\text {th }}$ grade students with additional resources and personalized support to overcome transitional obstacles" (Cook et al. 2008, p. 1).

Gossage (2007) found that a successful transition program for students entering the $9^{\text {th }}$ grade included the following activities: (a) visits from $9^{\text {th }}$ grade counselors and teachers to talk to $8^{\text {th }}$ grade students as well as visits by $8^{\text {th }}$ grade teachers to the high school to understand high school expectations, (b) high school tours for $8^{\text {th }}$ graders, (c) summer programs located at the high school to orient middle school students to their new school, and (d) self-contained $9^{\text {th }}$ grade academies that somewhat insulate $9^{\text {th }}$ graders from the rest of the high school.

According to Amato et al. (2005) a typical $9^{\text {th }}$ grade academy was composed of core subjects including math, English, science, and social studies. Faculties were divided into teams to collaborate on the development of various activities, to form policies and procedures, and to create effective teaching strategies. Cook et al. (2008) identified four themes as being key ingredients in order to sustain a learning environment that promoted $9^{\text {th }}$ grade academy success: (a) authentic learning communities, (b) personalization, (c) rigorous and relevant instruction, and (d) professional learning and collaboration.

The $9^{\text {th }}$ grade academy model resembles Schlechty's (1997) philosophy that students who were given quality work actually became engaged in that work because it was relevant and meaningful. "Around the country, restructuring 9 th grades into small learning communities
similar to interdisciplinary teacher teams that characterize many middle schools and downsizing high schools to 400 students or less are emerging as strategies for improving holding power" (Wheelock \& Miao, 2005, p. 4). Many $9^{\text {th }}$ grade academies follow John Dewey's progressive philosophy that if schoolwork is presented to students that is relevant fewer students will fail, discipline problems will decrease, students will retain more information, and students will develop an interest in subjects they once considered uninteresting (Dewey, 1938).

## Conclusion

Students in the $21^{\text {st }}$ century face very different challenges when compared to students from previous decades. The global economy and workforce continue to change at an overwhelming pace. High schools must adapt and change to meet the needs of students in order to best prepare them for a successful future. The formation of smaller learning communities such as $9^{\text {th }}$ grade academies provide one way to lay a solid foundation for students as they enter their high school career in preparation for postsecondary opportunities.

## CHAPTER 3

## METHODOLOGY

The transition from $8^{\text {th }}$ grade to $9^{\text {th }}$ grade is a pivotal point for many students. Success or failure during this time served as an early indicator in deciding whether or not a student would ultimately graduate from high school with a diploma (Walsh, 2002). This quantitative study was designed to explore various student outcomes related to the implementation of a freshman academy. Quantitative research tests objective theories by examining the relationships among variables (Creswell, 2009). Available data were collected before and after the implementation of the $9^{\text {th }}$ grade academy to determine if a significant difference existed with attendance, percent of students moving to $10^{\text {th }}$ grade on time, number of in-school suspensions, Algebra I End-ofCourse exam scores, and English I End-of-Course exam scores. Similar data were also analyzed to determine if these same student outcome relationships carried over into the $10^{\text {th }}$ grade year. This chapter provides the research design, identifies the participants in the study, describes the data collection procedures, states the research questions and null hypotheses, lists the data analysis procedures, and concludes with a summary of the chapter.

## Research Design

A nonexperimental quantitative research design was chosen for this particular study. This type of design is descriptive in nature and examines relationships between variables without any direct manipulation of conditions by the researcher (McMillan \& Schumacher, 2006). The design is also considered ex post facto in nature. McMillan and Schumacher described an ex post facto study as one in which comparable groups are treated in different ways and the effects of each treatment are studied in detail.

The variables for this study consisted of existing numerical data collected over a period of 4 years. Data for this study were retrieved from NC Wise/Reporting Hub (student data management system), the school's data manager, and the school system's director of accountability. Student identity was not obtained during the course of the study and therefore was not indicated during the reporting of the results. Data were collected from a 2 -year period leading up to the implementation of the $9^{\text {th }}$ grade academy and were compared to data collected from the 2-year period after the implementation of the $9^{\text {th }}$ grade academy. Data were also gathered from $10^{\text {th }}$ grade students who were not part of the $9^{\text {th }}$ grade academy during their freshman year (last year preimplementation) and were compared to data gathered from the subsequent $10^{\text {th }}$ grade class who were enrolled in the $9^{\text {th }}$ grade academy during their freshman year (first year postimplementation). Means were calculated for each dependent variable and the researcher used descriptive and comparative designs while reporting the results in both narrative and table format.

## Population

The population involved in this study was identified as $9^{\text {th }}$ and $10^{\text {th }}$ grade students by the North Carolina Department of Public Instruction enrolled in a high school located in western North Carolina. The high school used in this study serves grades 9-12 and is located in a nonfarm, rural setting. The school had an approximate total of 660 students with the number of $9^{\text {th }}$ grade students ranging from 156 to 173 per year during the 4 -year period. Overall, the ethnicity of the students was 95\% White, 3\% Hispanic, $1 \%$ African-American, and $1 \%$ other ethnicities.

The high school began implementation of a $9^{\text {th }}$ grade academy during the 2009-2010 school year. Data were collected from each freshman class during the 2 years leading up to the
implementation of the $9^{\text {th }}$ grade academy (2007-2008 and 2008-2009 school years) and were compared to data collected from each freshman class during the first 2 years of implementation (2009-2010 and 2010-2011 school years). In order to study the subsequent effects of nonparticipation and participation in a $9^{\text {th }}$ grade academy, data were collected from the 2009$201010^{\text {th }}$ grade class (who were not in a $9^{\text {th }}$ grade academy during their freshman year) and were compared to data collected from the 2010-2011 $10^{\text {th }}$ grade class (who were enrolled in the $9^{\text {th }}$ grade academy during the inaugural year). Attendance, percentage of students promoted to $10^{\text {th }}$ grade on time, number of in-school suspensions, Algebra I End-of-Course exam scores, and English I End-of-Course exam scores of each $9^{\text {th }}$ grade class during the 4-year period were compared to determine if there was a significant difference before or after the implementation of the $9^{\text {th }}$ grade academy. Attendance, percentage of students promoted to $11^{\text {th }}$ grade on time, and number of in-school suspensions were compared between the 2009-2010 and 2010-2011 $10^{\text {th }}$ grade classes to determine if there was a significant difference between $10^{\text {th }}$ grade students who were not part of a $9^{\text {th }}$ grade academy and students who were a part of a $9^{\text {th }}$ grade academy. End-of-Course exam scores were not included in the $10^{\text {th }}$ grade data collection process because $10^{\text {th }}$ grade students have more course options and do not all necessarily take the same End-of-Course exams during the sophomore year.

The school housed the $9^{\text {th }}$ grade academy in one pod of the building. All $9^{\text {th }}$ grade core curriculum classes were located in this pod as well as a few academic classes for upperclassmen. Ninth grade elective courses were not only offered in the same pod but in other parts of the school as well.

## Data Collection

The superintendent of the school system, local board of education, and the Institutional Review Board of East Tennessee State University were contacted for permission to collect data and conduct the study. Attendance, percentage of students promoted to $10^{\text {th }}$ grade on time, number of in-school suspensions, Algebra I End-of-Course exam scores, and English I End-ofCourse exam scores for all $9^{\text {th }}$ grade students attending between 2007-2011 inclusive were studied. Attendance, percentage of students promoted to $11^{\text {th }}$ grade on time, and number of inschool suspensions for all $10^{\text {th }}$ grade students attending between 2009-2011 inclusive were studied as well. These data were accessed from NC Wise/Reporting Hub (student data management system), the school's data manager, and the school system's director of accountability.

Specifically, the following information was obtained from the previously mentioned sources:

1. The number of $9^{\text {th }}$ grade students who attended the school during each year of the $4-$ year study and the number of $10^{\text {th }}$ grade students who attended the school during each year of the 2-year study of $10^{\text {th }}$ grade data alone.
2. The attendance for each $9^{\text {th }}$ grade student during each year of the 4 -year study and the attendance for each $10^{\text {th }}$ grade student during each year of the 2-year study of $10^{\text {th }}$ grade alone.
3. The promotion rate of $9^{\text {th }}$ grade students to $10^{\text {th }}$ grade on time for each year of the 4year study, and the promotion rate of $10^{\text {th }}$ grade students to $11^{\text {th }}$ grade on time for each year of the 2-year study of $10^{\text {th }}$ grade alone.
4. The number of in-school suspensions for each $9^{\text {th }}$ grade student during each year of the 4 -year study, and the number of in-school suspensions for each $10^{\text {th }}$ grade student during each year of the 2-year study of $10^{\text {th }}$ grade alone.
5. Algebra I End-of-Course exam scores and English I End-of-Course exam scores for each $9^{\text {th }}$ grade student during each year of the 4-year study.

## Research Questions and Null Hypotheses

This quantitative research design study addressed the following two research questions and accompanying null hypotheses to determine the impact of the implementation of a $9^{\text {th }}$ grade academy on student outcomes:

1. Is there a significant difference in student outcomes between students enrolled in a $9^{\text {th }}$ grade academy during their freshman year and students who were not enrolled in a $9^{\text {th }}$ grade academy during their freshman year?
$\mathrm{H}_{0} 1_{1}$ : There is no significant difference in attendance for students enrolled in a $9^{\text {th }}$ grade academy during their freshman year and students who were not enrolled in a $9^{\text {th }}$ grade academy during their freshman year.
$\mathrm{H}_{0} 1_{2}$ : There is no significant difference in the promotion rate of $9^{\text {th }}$ grade students going into $10^{\text {th }}$ grade on time for students enrolled in a $9^{\text {th }}$ grade academy during their freshman year and students who were not enrolled in a $9^{\text {th }}$ grade academy during their freshman year.
$\mathrm{H}_{0} 1_{3}$ : There is no significant difference in the number of in-school suspensions for students enrolled in a $9^{\text {th }}$ grade academy during their freshman year and students who were not enrolled in a $9^{\text {th }}$ grade academy during their freshman year.
$\mathrm{H}_{0} 1_{4}$ : There is no significant difference in Algebra I End-of-Course exam scores for students enrolled in a $9^{\text {th }}$ grade academy during their freshman year and students who were not enrolled in a $9^{\text {th }}$ grade academy during their freshman year.
$\mathrm{H}_{0} 1_{5}$ : There is no significant difference in English I End-of-Course exam scores for students enrolled in a $9^{\text {th }}$ grade academy during their freshman year and students who were not enrolled in a $9^{\text {th }}$ grade academy during their freshman year.
2. Is there a significant difference in student outcomes between $10^{\text {th }}$ grade students who were enrolled in a $9^{\text {th }}$ grade academy during their freshman year and $10^{\text {th }}$ grade students who were not enrolled in a $9^{\text {th }}$ grade academy during their freshman year? $\mathrm{H}_{0} 2_{1}$ : There is no significant difference in attendance for $10^{\text {th }}$ grade students who were enrolled in a $9^{\text {th }}$ grade academy during their freshman year and $10^{\text {th }}$ grade students who were not enrolled in a $9^{\text {th }}$ grade academy during their freshman year. $\mathrm{H}_{0} 2_{2}$ : There is no significant difference in the promotion rate of $10^{\text {th }}$ grade students going into $11^{\text {th }}$ grade on time for $10^{\text {th }}$ grade students who were enrolled in a $9^{\text {th }}$ grade academy during their freshman year and $10^{\text {th }}$ grade students who were not enrolled in a $9^{\text {th }}$ grade academy during their freshman year.
$\mathrm{H}_{0} 2_{3}$ : There is no significant difference in the number of in-school suspensions for $10^{\text {th }}$ grade students who were enrolled in a $9^{\text {th }}$ grade academy during their freshman year and $10^{\text {th }}$ grade students who were not enrolled in a $9^{\text {th }}$ grade academy during their freshman year.

## Data Analyses

Data collected in this ex post facto study were analyzed through quantitative methods. SPSS for Windows and Microsoft Office Excel were used to conduct statistical calculations. The data sources that were analyzed were attendance, rate of promotion to the next grade level on time, and number of in-school suspensions for both $9^{\text {th }}$ and $10^{\text {th }}$ grade groups. In addition Algebra I End-of-Course exam scores and English I End-of-Course exam scores were analyzed for $9^{\text {th }}$ grade students alone. The first research question makes comparisons between two different groups of students on five different measures. The second research question makes comparisons between two different groups of students on three different measures. All research questions were analyzed using an independent samples t-test or one-way Chi Square analysis for each measure.

## Summary

Chapter 3 provides the methodology and procedures used to conduct this study. Included in this section were a brief introduction, a description of the research design, the selection of the population, data collection procedures, research questions with accompanying null hypotheses, and data analysis techniques.

## CHAPTER 4

## ANALYSIS OF THE DATA

The purpose of this study was to compare student data prior to and after implementation of a $9^{\text {th }}$ grade academy in a western North Carolina high school. The high school, serving grades $9-12$, was located in a rural part of the state.

In this chapter data were presented and analyzed to answer two research questions and eight null hypotheses. Data represented years prior to the implementation of a $9^{\text {th }}$ grade academy and years after the implementation of a $9^{\text {th }}$ grade academy. Five data measures for $9^{\text {th }}$ grade students were analyzed: attendance, promotion rate to $10^{\text {th }}$ grade on time, number of in-school suspensions, Algebra I End-of-Course exam scores, and English I End-of-Course exam scores. Three data measures for $10^{\text {th }}$ grade students were analyzed: attendance, promotion rate to $11^{\text {th }}$ grade on time, and number of in-school suspensions. Data were retrieved from NC Wise/Reporting Hub (student data management system), the school's data manager, and the school system's director of accountability.

## Analysis of Research Questions

Research Question \#1: Is there a significant difference in student outcomes between students enrolled in a $9^{\text {th }}$ grade academy during their freshman year and students who were not enrolled in a $9^{\text {th }}$ grade academy during their freshman year?
$\mathrm{H}_{0} 1_{1}$ : There is no significant difference in attendance for students enrolled in a $9^{\text {th }}$ grade academy during their freshman year and students who were not enrolled in a $9^{\text {th }}$ grade academy during their freshman year.

An independent-samples $t$ test was conducted to evaluate whether the mean number of class periods absent from school differ between $9^{\text {th }}$ grade students enrolled in a $9^{\text {th }}$ grade
academy during their freshman year and students who were not enrolled in a $9^{\text {th }}$ grade academy during their freshman year. The number of class periods absent was the test variable and the grouping variable was students enrolled in a $9^{\text {th }}$ grade academy and students not enrolled in a $9^{\text {th }}$ grade academy. The test was significant, $t(601)=6.43, p<.001$. Therefore, the null hypothesis was rejected. Students enrolled in a $9^{\text {th }}$ grade academy $(M=8.28, S D=6.33)$ tended to miss more class periods during the school day than students who were not enrolled in a $9^{\text {th }}$ grade academy ( $M=4.84, S D=6.78$ ). The $95 \%$ confidence interval for the difference in means was 4.48 to -2.38 . The $\eta^{2}$ index was .06 , which indicated a medium effect size. Students who were not enrolled in a $9^{\text {th }}$ grade academy during their freshman year tended to miss fewer class periods of school than students who were enrolled in a $9^{\text {th }}$ grade academy during their freshman year.
$\mathrm{H}_{0} 1_{2}$ : There is no significant difference in the promotion rate of $9^{\text {th }}$ grade students into $10^{\text {th }}$ grade on time for students enrolled in a $9^{\text {th }}$ grade academy during their freshman year and students who were not enrolled in a $9^{\text {th }}$ grade academy during their freshman year.

A one-way Chi Square analysis was conducted to evaluate whether there was a significant difference in promotion rates to $10^{\text {th }}$ grade on time between students enrolled in a $9^{\text {th }}$ grade academy during their freshman year and students who were not enrolled in a $9^{\text {th }}$ grade academy during their freshman year. The two variables were the number of students promoted to $10^{\text {th }}$ grade on time and $9^{\text {th }}$ grade academy implementation (students who were part of a $9^{\text {th }}$ grade academy during their freshman year and students who were not part of a $9^{\text {th }}$ grade academy during their freshman year). The number of students promoted to $10^{\text {th }}$ grade on time and $9^{\text {th }}$ grade academy implementation were found to be significantly related, Pearson $\mathrm{x}^{2}(1, N=603)=12.76, p<.001$. The null hypothesis was rejected at the .05 level of significance because the $\mathrm{x}^{2}$ value was less than .001 . The mean of students who were enrolled in
a $9^{\text {th }}$ grade academy was 140.5 with a standard deviation of 9.26. The mean of students who were not enrolled in a $9^{\text {th }}$ grade academy was 109.5 with a standard deviation of 8.44. Students enrolled in a $9^{\text {th }}$ grade academy during their freshman year tended to have higher promotion rates to $10^{\text {th }}$ grade on time than students who were not enrolled in a $9^{\text {th }}$ grade academy during their freshman year.
$\mathrm{H}_{0} 1_{3}$ : There is no significant difference in the number of in-school suspensions for students enrolled in a $9^{\text {th }}$ grade academy during their freshman year and students who were not enrolled in a $9^{\text {th }}$ grade academy during their freshman year.

An independent-samples $t$ test was conducted to evaluate whether the number of inschool suspensions differ between students enrolled in a $9^{\text {th }}$ grade academy during their freshman year and students who were not enrolled in a $9^{\text {th }}$ grade academy during their freshman year. The number of in-school suspension assignments per student was the test variable and the grouping variable was students enrolled in a $9^{\text {th }}$ grade academy and students not enrolled in a $9^{\text {th }}$ grade academy. The test was not significant, $t(601)=.66, p=.51$. Therefore, the null hypothesis was retained. The $\eta^{2}$ index was less than .01 , which indicated an extremely small effect size. Students enrolled in a $9^{\text {th }}$ grade academy during their freshman year $(M=.40, S D=.97)$ tended to accumulate about the same number of in-school suspension assignments as students who were not enrolled in a $9^{\text {th }}$ grade academy during their freshman year $(M=.45, S D=.98)$. The $95 \%$ confidence interval for the difference in means was -.10 to .21 .
$\mathrm{H}_{0} 1_{4}$ : There is no significant difference in Algebra I End-of-Course exam scores for students enrolled in a $9^{\text {th }}$ grade academy during their freshman year and students who were not enrolled in a $9^{\text {th }}$ grade academy during their freshman year.

An independent-samples $t$ test was conducted to evaluate whether the Algebra I End-ofCourse exam scores differ between students enrolled in a $9^{\text {th }}$ grade academy during their freshman year and students who were not enrolled in a $9^{\text {th }}$ grade academy during their freshman year. The Algebra I End-of-Course exam scores was the test variable and the grouping variable was students enrolled in a $9^{\text {th }}$ grade academy and students not enrolled in a $9^{\text {th }}$ grade academy. The test was not significant, $t(463)=.51, p=.62$. Therefore, the null hypothesis was retained. The $\eta^{2}$ index was less than .01 , which indicated an extremely small effect size. Students enrolled in a $9^{\text {th }}$ grade academy during their freshman year $(M=57.19, S D=22.06)$ tended to score about the same on the Algebra I End-of-Course exam as students who were not enrolled in a $9^{\text {th }}$ grade academy during their freshman year $(M=58.21, S D=21.08)$. The $95 \%$ confidence interval for the difference in means was -2.96 to 4.99 .
$\mathrm{H}_{0} 1_{5}$ : There is no significant difference in English I End-of-Course exam scores for students enrolled in a $9^{\text {th }}$ grade academy during their freshman year and students who were not enrolled in a $9^{\text {th }}$ grade academy during their freshman year.

An independent-samples $t$ test was conducted to evaluate whether the English I End-ofCourse exam scores differ between students enrolled in a $9^{\text {th }}$ grade academy during their freshman year and students who were not enrolled in a $9^{\text {th }}$ grade academy during their freshman year. The English I End-of-Course exam scores was the test variable and the grouping variable was students enrolled in a $9^{\text {th }}$ grade academy and students not enrolled in a $9^{\text {th }}$ grade academy The test was not significant, $t(692)=1.50, p=.13$. Therefore, the null hypothesis was retained. The $\eta^{2}$ index was less than .01 , which indicated an extremely small effect size. Students enrolled in a $9^{\text {th }}$ grade academy during their freshman year $(M=57.33, S D=24.84)$ tended to score about the same on the English I End-of-Course exam as students who were not enrolled in a $9^{\text {th }}$ grade
academy during their freshman year $(M=54.40, S D=26.22)$. The $95 \%$ confidence interval for the difference in means was -6.77 to .91 . The means and standard deviations of the five variables (class periods absent, promotion rate, number of in-school suspensions, Algebra I EOC scores, and English I EOC scores) prior to implementation (2007 - 2009) and after implementation (2009-2011) of the 9th grade academy are shown in Table 1.

Table 1
Means and Standard Deviations of Five Measures Between Students Enrolled in a Ninth Grade Academy During Their Freshman Year and Students who were not enrolled in a Ninth Grade Academy During Their Freshman Year

Students Enrolled in a Ninth Grade Academy 2009-2011
(Students Not Enrolled in a Ninth Grade Academy 2007-2009)

| Variable | $N$ | $M$ | $S D$ | $p$ |
| :--- | :--- | :--- | :--- | :--- |
| Class Periods Absent | 307 | 8.28 | 6.33 | $<.001$ |
|  | $(296)$ | $(4.84)$ | $(6.78)$ |  |
| Promotion Rate | 307 | 140.5 | 9.26 | $<.001$ |
|  | $(296)$ | $(109.5)$ | $(8.44)$ |  |
| In-School Suspensions | 307 | .40 | .97 | .51 |
|  | $(296)$ | $(.45)$ | $(.98)$ |  |
| Algebra I EOC Scores | 193 | 57.19 | 22.06 | .62 |
|  | $(272)$ | $(58.21)$ | $(21.08)$ |  |
| English I EOC Scores | 311 | 57.33 | 24.84 | .13 |

Research Question \#2: Is there a significant difference in student outcomes between $10^{\text {th }}$ grade students who were enrolled in a $9^{\text {th }}$ grade academy during their freshman year and $10^{\text {th }}$ grade students who were not enrolled in a $9^{\text {th }}$ grade academy during their freshman year?
$\mathrm{H}_{0} 2_{1}$ : There is no significant difference in attendance for $10^{\text {th }}$ grade students who were enrolled in a $9^{\text {th }}$ grade academy during their freshman year and $10^{\text {th }}$ grade students who were not enrolled in a $9^{\text {th }}$ grade academy during their freshman year.

An independent-samples $t$ test was conducted to evaluate whether the mean number of class periods absent from school differ between $10^{\text {th }}$ grade students who were enrolled in a $9^{\text {th }}$ grade academy during their freshman year and $10^{\text {th }}$ grade students who were not enrolled in a $9^{\text {th }}$ grade academy during their freshman year. The number of class periods absent was the test variable and the grouping variable was $10^{\text {th }}$ grade students who were enrolled in a $9^{\text {th }}$ grade academy during their freshman year and $10^{\text {th }}$ grade students who were not enrolled in a $9^{\text {th }}$ grade academy during their freshman year. The test was significant, $t(294)=2.20, p=.03$. Therefore, the null hypothesis was rejected. Tenth grade students who were enrolled in a $9^{\text {th }}$ grade academy during their freshman year $(M=9.22, S D=7.21)$ tended to miss more class periods during the school day than $10^{\text {th }}$ grade students who were not enrolled in a $9^{\text {th }}$ grade academy during their freshman year $(M=7.58, S D=5.54)$. The $95 \%$ confidence interval for the difference in means was -3.10 to -.17 . The $\eta^{2}$ index was .02 , which indicated a small effect size. Tenth grade students who were not enrolled in a $9^{\text {th }}$ grade academy during their freshman year tended to miss fewer class periods of school than $10^{\text {th }}$ grade students who were enrolled in a $9^{\text {th }}$ grade academy during their freshman year.
$\mathrm{H}_{0} 2_{2}$ : There is no significant difference in the promotion rate of $10^{\text {th }}$ grade students going into $11^{\text {th }}$ grade on time for $10^{\text {th }}$ grade students who were enrolled in a $9^{\text {th }}$ grade academy during their freshman year and $10^{\text {th }}$ grade students who were not enrolled in a $9^{\text {th }}$ grade academy during their freshman year.

A one-way Chi Square analysis was conducted to evaluate whether there was a significant difference in promotion rates to $11^{\text {th }}$ grade on time between $10^{\text {th }}$ grade students who were enrolled in a $9^{\text {th }}$ grade academy during their freshman year and $10^{\text {th }}$ grade students who were not enrolled in a $9^{\text {th }}$ grade academy during their freshman year. The two variables were the
number of $10^{\text {th }}$ grade students promoted to $11^{\text {th }}$ grade on time and $9^{\text {th }}$ grade academy implementation during their freshman year (students who were part of a $9^{\text {th }}$ grade academy during their freshman year and students who were not part of a $9^{\text {th }}$ grade academy during their freshman year). The number of $10^{\text {th }}$ grade students promoted to $11^{\text {th }}$ grade on time and $9^{\text {th }}$ grade academy implementation were not found to be significantly related,

Pearson $\mathrm{x}^{2}(1, N=296)=2.01, p>.05$. The null hypothesis was retained at the .05 level of significance because the $\mathrm{x}^{2}$ value was greater than .05 . Tenth grade students who were enrolled in a $9^{\text {th }}$ grade academy during their freshman year tended to have similar promotion rates to $11^{\text {th }}$ grade on time compared to $10^{\text {th }}$ grade students who were not enrolled in a $9^{\text {th }}$ grade academy during their freshman year.
$\mathrm{H}_{0} 2_{3}$ : There is no significant difference in the number of in-school suspensions for $10^{\text {th }}$ grade students who were enrolled in a $9^{\text {th }}$ grade academy during their freshman year and $10^{\text {th }}$ grade students who were not enrolled in a $9^{\text {th }}$ grade academy during their freshman year.

An independent-samples $t$ test was conducted to evaluate whether the mean number of inschool suspension assignments per student differ between $10^{\text {th }}$ grade students who were enrolled in a $9^{\text {th }}$ grade academy during their freshman year and $10^{\text {th }}$ grade students who were not enrolled in a $9^{\text {th }}$ grade academy during their freshman year. The number of in-school suspension assignments per student was the test variable and the grouping variable was $10^{\text {th }}$ grade students who were enrolled in a $9^{\text {th }}$ grade academy during their freshman year and $10^{\text {th }}$ grade students who were not enrolled in a $9^{\text {th }}$ grade academy during their freshman year. The test was significant, $t(294)=2.32, p=.02$. Therefore, the null hypothesis was rejected. Tenth grade students who were enrolled in a $9^{\text {th }}$ grade academy during their freshman year $(M=.21$,
$S D=.60$ ) tended to accumulate fewer in-school suspension assignments than $10^{\text {th }}$ grade students who were not enrolled in a $9^{\text {th }}$ grade academy during their freshman year $(M=.44, S D=.99)$. The $95 \%$ confidence interval for the difference in means was .03 to .42 . The $\eta^{2}$ index was .02 , which indicated a small effect size. Tenth grade students who were not enrolled in a $9^{\text {th }}$ grade academy during their freshman year tended to accumulate more in-school suspension assignments than $10^{\text {th }}$ grade students who were enrolled in a $9^{\text {th }}$ grade academy during their freshman year. The means and standard deviations of the three variables (class periods absent, promotion rate, and number of in-school suspensions) for $10^{\text {th }}$ grade students prior to implementation (2009-2010) and after implementation (2010-2011) of the $9^{\text {th }}$ grade academy are shown in Table 2.

Table 2
Means and Standard Deviations of Three Measures Between Tenth Grade Students Who Were Enrolled in a Ninth Grade Academy During Their Freshman Year and Tenth Grade Students Who Were Not Enrolled in a Ninth Grade Academy During Their Freshman Year

Tenth Grade Students Who Were Enrolled in a Ninth Grade Academy 2010-2011 (Tenth Grade Students Who Were Not Enrolled in a Ninth Grade Academy 2009-2010)

| Variable | $N$ | $M$ | $S D$ | $p_{\text {l }}$ |
| :--- | :--- | :--- | :--- | :--- |
| Class Periods Absent | 138 | 9.22 | 7.21 | .03 |
|  | $(158)$ | $(7.58)$ | $(5.54)$ |  |
| Promotion Rate | 138 | 124 | NA | $>.05$ |
|  | $(158)$ | $(125)$ |  |  |
| In-School Suspensions | 138 | .21 | .60 | .02 |
|  | $(158)$ | $(.44)$ | $(.99)$ |  |

## Summary

In this chapter data obtained over 4 years were presented and analyzed. There were two research questions and eight null hypotheses. All data were collected from NC Wise/Reporting

Hub (student data management system), the school's data manager, and the school system's director of accountability.

## CHAPTER 5

## SUMMARY OF FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS FOR FUTURE PRACTICE AND RESEARCH

This chapter contains a summary of the findings, conclusions, and recommendations for practice and future research for readers interested in learning more about the $9^{\text {th }}$ grade academy model and the impact on various student outcomes. The purpose of this study was to compare student data prior to and after implementation of a $9^{\text {th }}$ grade academy in a western North Carolina high school. The school serving grades 9-12 was located in a rural area of the state. Existing student data collected over a period of 4 years were used to conduct this study. The retrieved data for $9^{\text {th }}$ grade students in this study were attendance, promotion rate to $10^{\text {th }}$ grade on time, number of in-school suspensions, Algebra I End-of-Course exam scores, and English I End-of-Course exam scores. The retrieved data for $10^{\text {th }}$ grade students in this study were attendance, promotion rate to $11^{\text {th }}$ grade on time, and number of in-school suspensions. All data were collected from NC Wise/Reporting Hub (student data management system), the school's data manager, and the school system's director of accountability.

## Summary of Findings

The statistical analysis reported in this study was based on two research questions presented in Chapters 1 and 3, both tested at the .05 level of significance. The first research question had five null hypotheses that related to the dependent variables of attendance, promotion rate to $10^{\text {th }}$ grade on time, number of in-school suspensions, Algebra I End-of-Course exam scores, and English I End-of-Course exam scores. The second research question had three null hypotheses that related to the dependent variables of attendance, promotion rate to $11^{\text {th }}$ grade on time, and number of in-school suspensions. Data were retrieved from a 4-year period, 20072011. The number of student participants in the study was 899 . Ninth grade participants were
divided into 296 preimplementation of a $9^{\text {th }}$ grade academy and 307 postimplementation of a $9^{\text {th }}$ grade academy. Tenth grade participants were divided 158 with no participation in a $9^{\text {th }}$ grade academy and 138 with participation in a $9^{\text {th }}$ grade academy. An independent samples t -test was used to reject or retain six null hypotheses, and a one-way Chi Square analysis was used to reject or retain two null hypotheses.

## Research Question \#1

Is there a significant difference in student outcomes between students enrolled in a $9^{\text {th }}$ grade academy during their freshman year and students who were not enrolled in a $9^{\text {th }}$ grade academy during their freshman year?

Attendance. An independent samples t-test was used to determine if a significant difference exists in attendance between students enrolled in a $9^{\text {th }}$ grade academy during their freshman year and students who were not enrolled in a $9^{\text {th }}$ grade academy during their freshman year. There was a significant difference found between the study groups in the number of class periods students were counted absent. Students who were part of a $9^{\text {th }}$ grade academy during their freshman year missed more classes than students who were not part of a $9^{\text {th }}$ grade academy during their freshman year.

Promotion Rate. A one-way Chi Square analysis was used to determine if a significant difference exists in the promotion rate to $10^{\text {th }}$ grade on time between students enrolled in a $9^{\text {th }}$ grade academy during their freshman year and students who were not enrolled in a $9^{\text {th }}$ grade academy during their freshman year. There was a significant difference found between the study groups in the number of $9^{\text {th }}$ grade students who were promoted to $10^{\text {th }}$ grade on time. Students who were part of a $9^{\text {th }}$ grade academy during their freshman year tended to have a higher promotion rate to $10^{\text {th }}$ grade on time than students who were not part of a $9^{\text {th }}$ grade academy
during their freshman year. These results support research by Gossage (2007) that found that students who successfully make it through $9^{\text {th }}$ grade and are present for the beginning of $10^{\text {th }}$ grade have a greater chance of graduating with their cohort.

In-School Suspensions. An independent samples t-test was used to determine if a significant difference exists in the number of individual in-school suspension assignments between students enrolled in a $9^{\text {th }}$ grade academy during their freshman year and students who were not enrolled in a $9^{\text {th }}$ grade academy during their freshman year. There was not a significant difference found between the study groups in the number of individual in-school suspension assignments. Students who were part of a $9^{\text {th }}$ grade academy during their freshman year had about the same number of in-school suspension assignments compared to students who were not part of a $9^{\text {th }}$ grade academy during their freshman year.

Algebra I EOC Scores. An independent samples t-test was used to determine if a significant difference exists in the Algebra I End-of-Course exam score between students enrolled in a $9^{\text {th }}$ grade academy during their freshman year and students who were not enrolled in a $9^{\text {th }}$ grade academy during their freshman year. There was not a significant difference found between the study groups in the Algebra I End-of-Course exam scores. Students who were part of a $9^{\text {th }}$ grade academy during their freshman year scored about the same as students who were not part of a $9^{\text {th }}$ grade academy during their freshman year.

English I EOC Scores. An independent samples t-test was used to determine if a significant difference exists in the English I End-of-Course exam score between students enrolled in a $9^{\text {th }}$ grade academy during their freshman year and students who were not enrolled in a $9^{\text {th }}$ grade academy during their freshman year. There was not a significant difference found between the study groups in the English I End-of-Course exam scores. Students who were part
of a $9^{\text {th }}$ grade academy during their freshman year scored about the same as students who were not part of a $9^{\text {th }}$ grade academy during their freshman year. Although no significant difference was found, the value of the difference was close enough to warrant future attention to this particular variable.

## Research Question \#2

Is there a significant difference in student outcomes between $10^{\text {th }}$ grade students who were enrolled in a $9^{\text {th }}$ grade academy during their freshman year and $10^{\text {th }}$ grade students who were not enrolled in a $9^{\text {th }}$ grade academy during their freshman year?

Attendance. An independent samples $t$-test was used to determine if a significant difference exists in attendance between $10^{\text {th }}$ grade students who were enrolled in a $9^{\text {th }}$ grade academy during their freshman year and $10^{\text {th }}$ grade students who were not enrolled in a $9^{\text {th }}$ grade academy during their freshman year. There was a significant difference found between the study groups in the total number of class periods students were counted absent. Tenth grade students who were part of a $9^{\text {th }}$ grade academy during their freshman year missed more classes than $10^{\text {th }}$ grade students who were not part of a $9^{\text {th }}$ grade academy during their freshman year.

Promotion Rate. A one-way Chi Square analysis was used to determine if a significant difference exists in the promotion rate to $11^{\text {th }}$ grade on time between $10^{\text {th }}$ grade students who were enrolled in a $9^{\text {th }}$ grade academy during their freshman year and $10^{\text {th }}$ grade students who were not enrolled in a $9^{\text {th }}$ grade academy during their freshman year. There was not a significant difference found between the study groups in the number of $10^{\text {th }}$ grade students who were promoted to $11^{\text {th }}$ grade on time. Tenth grade students who were part of a $9^{\text {th }}$ grade academy during their freshman year tended to have about the same promotion rate to $11^{\text {th }}$ grade on time
compared to $10^{\text {th }}$ grade students who were not part of a $9^{\text {th }}$ grade academy during their freshman year.

In-School Suspensions. An independent samples t-test was used to determine if a significant difference exists in the number of individual in-school suspension assignments between $10^{\text {th }}$ grade students who were enrolled in a $9^{\text {th }}$ grade academy during their freshman year and $10^{\text {th }}$ grade students who were not enrolled in a $9^{\text {th }}$ grade academy during their freshman year. There was a significant difference found between the study groups in the number of individual in-school suspension assignments. Tenth grade students who were part of a $9^{\text {th }}$ grade academy during their freshman year had fewer in-school suspension assignments than $10^{\text {th }}$ grade students who were not part of a $9^{\text {th }}$ grade academy during their freshman year. This is similar to what Weiss and Bearman (2007) found when looking at the transition from middle school to high school. Behavioral problems tended to increase in students who were not offered some sort of assistance during the transition process.

The results of this study reinforce findings by Walsh (2002) stating that the $9^{\text {th }}$ grade year is a critical transition year for students and may be the determining factor in whether they graduate from high school. If students can make it through $9^{\text {th }}$ grade, their overall success in high school greatly improves. The rationale behind continuing the $9^{\text {th }}$ grade academy design is to personalize the learning process, engage the student, provide a contained learning environment, and to assist in the transition from middle school to high school. While academic outcomes may not necessarily improve, the academy model may provide the individualized attention some students require to gain extra confidence and motivation to succeed in their academic endeavors. This boost to their self-esteem may assist $9^{\text {th }}$ grade students to enter $10^{\text {th }}$ grade on time; however, it may simply delay the transition process providing a rude awakening for some students when
they enter $10^{\text {th }}$ grade and leave the nurturing confines of the $9^{\text {th }}$ grade academy. The $9^{\text {th }}$ grade academy design is not one that can be created and implemented in a short amount of time. The findings of this study of a $9^{\text {th }}$ grade academy model in existence for only 2 years support research by Donegan (2008); a successful high school transition in an ongoing process that cannot be accomplished in a short amount of time through a single program. A successful transition requires the fundamental reshaping of school culture.

## Conclusions

One purpose of this study was to compare student outcomes for students who were part of a $9^{\text {th }}$ grade academy during their freshman year with outcomes for students who were not part of a $9^{\text {th }}$ grade academy during their freshman year. The study also compared student outcomes for $10^{\text {th }}$ grade students who were part of a $9^{\text {th }}$ grade academy during their freshman year to outcomes for $10^{\text {th }}$ grade students who were not part of a $9^{\text {th }}$ grade academy during their freshman year. The following conclusions are based on the findings of this study.

A significant difference was found in the number of class periods students missed (attendance). Students who were part of a $9^{\text {th }}$ grade academy during their freshman year missed on average four more class periods per year than students who were not part of a $9^{\text {th }}$ grade academy during their freshman year. Implementation of the $9^{\text {th }}$ grade academy within the school provided students with time each week to work on missing assignments, raise low grades on assignments, redo tests, and work with a tutor. Knowing that this opportunity would be provided if a student were to miss class, some students may have felt more confident in being absent from school because an outlet would be provided to make up any work missed.

A significant difference was found in the number of $9^{\text {th }}$ grade students who were promoted to $10^{\text {th }}$ grade on time. Students who were part of a $9^{\text {th }}$ grade academy during their
freshman year tended to have a higher promotion rate to $10^{\text {th }}$ grade on time than students who were not part of a $9^{\text {th }}$ grade academy during their freshman year. The school promoted over 30 more students to $10^{\text {th }}$ grade on time from 2009-2011 (postimplementation) than during the 2 years leading up to implementation, 2007 - 2009. The difference in total student population between both groups was only 11 students. Fifty-one students were retained in 2007 - 2008, while only seven were retained in 2010-2011.

No significant difference was found in the number of individual in-school suspension assignments between students who were part of a $9^{\text {th }}$ grade academy during their freshman year and students who were not part of a $9^{\text {th }}$ grade academy during their freshman year. During the first year of implementation of the $9^{\text {th }}$ grade academy one of the two assistant principals of the school took on the role of overseeing the academy. During the $2^{\text {nd }}$ year of implementation the school took on an innovative design by adding two additional upperclassmen academies. A principal was assigned to each of the three academies located within the school. Changes in administration upon implementation of the $9^{\text {th }}$ grade academy within the first 2 years could have created greater attention to be placed on discipline in the latter part of the study. The lack of specific attention to $9^{\text {th }}$ grade discipline in the years preceding implementation could very well have left some questionable acts unaddressed and some disciplinary referrals unrecorded in the system.

No significant difference was found in the Algebra I End-of-Course exam scores between students who were part of a $9^{\text {th }}$ grade academy during their freshman year and students who were not part of a $9^{\text {th }}$ grade academy during their freshman year. The mean score for each group, preimplementation and postimplementation, varied by one point. The $9^{\text {th }}$ grade academy within the school features two math teachers. One of these teachers was out on maternity leave for an
entire semester during the last year of the study. Three substitute teachers worked in her place during this time. Inconsistency in math instruction during 2010-2011 could play a part in the results found in this portion of the study.

No significant difference was found in the English I End-of-Course exam scores between students who were part of a $9^{\text {th }}$ grade academy during their freshman year and students who were not part of a $9^{\text {th }}$ grade academy during their freshman year. The mean score for each group, preimplementation and postimplementation, varied by three points. During the last year of the study English I was offered to select students in $8^{\text {th }}$ grade in the school system. Many of these students were chosen to take English I in $8^{\text {th }}$ grade due to prior performance in language arts at the middle school level. These advanced level students went on to English II in $9^{\text {th }}$ grade and were not included in this study because they did not take the English I End-of-Course exam. Lack of data for this select group of students may have created a lower anticipated exam score mean for the postimplementation group of students.

A significant difference was found in the number of class periods $10^{\text {th }}$ grade students missed (attendance). Tenth grade students who were part of a $9^{\text {th }}$ grade academy during their freshman year missed on average two more class periods per year than $10^{\text {th }}$ grade students who were not part of a $9^{\text {th }}$ grade academy during their freshman year. One goal of the academy was to provide academic support to students. Students who would have had a greater chance of being retained preimplementation were provided extra support postimplementation in order to be promoted to $10^{\text {th }}$ grade on time. Many students who struggle academically also struggle with attendance. I question the emphasis placed on attendance in the $9^{\text {th }}$ grade academy. Although it is monitored and addressed, some students may be promoted to $10^{\text {th }}$ grade without having had the extra intervention needed to improve attendance. In the years preimplementation of the $9^{\text {th }}$
grade academy these same types of students would more than likely have been retained in $9^{\text {th }}$ grade due to academic failure because the academic support could in no way compare to that which is offered in the academy model.

No significant difference was found in the promotion rate to $11^{\text {th }}$ grade on time between $10^{\text {th }}$ grade students who were part of a $9^{\text {th }}$ grade academy during their freshman year and $10^{\text {th }}$ grade students who were not part of a $9^{\text {th }}$ grade academy during their freshman year. This does raise a question as to the long term benefits of being included in a $9^{\text {th }}$ grade academy model and the transitional effects as students are up for promotion in the upper grade levels.

A significant difference was found in the number of individual in-school suspension assignments between $10^{\text {th }}$ grade students who were part of a $9^{\text {th }}$ grade academy during their freshman year and $10^{\text {th }}$ grade students who were not part of a $9^{\text {th }}$ grade academy during their freshman year. Tenth grade students who were part of a $9^{\text {th }}$ grade academy during their freshman year tended to have about half as many individual in-school suspension assignments as $10^{\text {th }}$ grade students who were not part of a $9^{\text {th }}$ grade academy during their freshman year. As mentioned before, the extra attention provided by administrators over the $9^{\text {th }}$ grade academy in the postimplementation years could have set the precedence for disciplinary expectations of students as they moved on to $10^{\text {th }}$ grade.

## Recommendations for Practice

The findings and conclusions of this study have enabled the researcher to identify the following recommendations for practice for high schools aiming to improve the $9^{\text {th }}$ grade transition process by the implementation of a $9^{\text {th }}$ grade academy:

1. Emphasis on consistency should be placed on student discipline and attention to attendance. Strategies to improve both should be in place before the academy begins to serve students.
2. The small learning community concept should be extended into the upper grade levels to continue the extra support students are initially provided in the $9^{\text {th }}$ grade academy model.
3. Ninth grade academy teachers should have common planning time and meet on a regular basis (weekly) to discuss individual student achievements and concerns as well as to collaborate with one another and share instructional strategies and resources.
4. Ninth grade academy staff representatives should begin working with $8^{\text {th }}$ grade students in the fall of the year before the students enter high school. This will ease the nervousness felt by students associated with the move to another school and can provide a means to answer questions from parents regarding the $9^{\text {th }}$ grade academy design.

## Recommendations for Future Research

The Literature Review along with the findings and conclusions of this study has enabled the researcher to identify the following recommendations for future research:

1. Create a qualitative design study to examine the critical perceptions of the $9^{\text {th }}$ grade academy model among various stakeholders including teachers, parents, students, and community members.
2. Examine academic requirements of $9^{\text {th }}$ grade students. Which course offerings produce more successful student outcomes? How do $8^{\text {th }}$ grade course offerings impact $9^{\text {th }}$ grade course offerings?
3. Look at transitional strategies in place to assist students with the move from $9^{\text {th }}$ grade to $10^{\text {th }}$ grade. Do some work better than others?
4. Examine the dropout rate and graduation rate of students who were part of a $9^{\text {th }}$ grade academy compared to students who were not a part of a $9^{\text {th }}$ grade academy as they enter into the upper grade levels.
5. Conduct research on additional variables not found in this study such as number of core credits earned, number of elective credits earned, and percent of students who go on to pursue a 4-year degree.
6. Study the teacher selection process for the $9^{\text {th }}$ grade academy design. Is there a difference in outcomes of students who are taught by a teacher who volunteered to be a part of the academy compared to outcomes of students who are taught by a teacher who did not volunteer to be a part of the academy?
7. Study various professional development opportunities specifically designed for teachers of $9^{\text {th }}$ grade students. Do students of teachers who participate in this type of professional development yield better outcomes when compared to students of teachers who do not participate in this type of professional development?

## Summary

In this chapter a summary of findings was provided for each of the two research questions. Conclusions were drawn and recommendations were made for practice and future research. This study examined a $9^{\text {th }}$ grade academy model from one high school located in
western North Carolina using data collected over a period of 4 years. The following variables were studied to determine the impact of the $9^{\text {th }}$ grade academy on student outcomes: attendance, promotion rate, number of in-school suspensions, Algebra I End-of-Course exam scores, and English I End-of-Course exam scores.

## REFERENCES

Allensworth, E. M. \& Easton, J. Q. (2005). The on-track indicator as a predictor of high school graduation, Chicago: Consortium on Chicago school research. Retrieved April 11, 2011, from http://ccsr.uchicago.edu/publications/p78.pdf

Amato, A., Goldhaber, D., Francis, D., Carnine, D., Harris-Burke, F., Valentine, J., ...Wong, K. (2005). Works in progress: A report on middle and high school improvement programs. Washington, DC: The Comprehensive School Reform Quality Center.

Association for Supervision and Curriculum Development. (2007). The building blocks of high school redesign. Retrieved March 31, 2011, from http://www.ascd.org

Azzam, A.M. (2007). Why students drop out. Educational Leadership, 64(7), 91-93. Retrieved March 14, 2011, from ERIC, Article No. EJ766421.

Balfanz, R., \& Letgers, N. (2004). Locating the drop out crisis: Which high schools produce the nation's dropouts, where are they located, who attends them? Baltimore, MD: Center for Research on the Education of Students Placed AtRisk, Johns Hopkins University. Retrieved April 11, 2011, from http://web.jhu.edu/CSOS/graduation-gap/edweek/Crisis_Commentary.pdf

Barton, P. E. (2005). One-third of a nation: Rising drop out rates and declining opportunities. Retrieved March 31, 2011, from http://www.ets.org/research

Barton, P. (2006b). The drop out problem: Losing ground. Educational Leadership. 63(5), 14-18.

Black, S. (2004). The pivotal year. American School Board Journal, 191(2), 42-44.
Bridgeland, J., DiIulio, J., \& Morrison, K. (2006). Why students drop out. National Drop out Prevention Center/Network. Retrieved March 14, 2011, from http://www.dropout prevention.org/stats/quick facts/why_students_dropout .htm

Butts, M. J., \& Cruzeiro, P. A. (2005). Student perceptions of factors leading to an effective transition from eighth to 9th grade. American Secondary Education, 34(1), 70-80.

Center for Comprehensive School Reform and Improvement. (2006). Are high schools failing their students? Strengthening academic rigor in the high school curriculum. Retrieved April 21, 2011, from http://www.centerforcsri.org/files/TheCenter_NL_Oct06.pdf

Chmelynski, C. (2004). 9th -grade academies: Keep kids in school. Education Digest: Essential Readings Condensed for Quick Review, 69(5), 48-50. Retrieved March 14, 2011, from Wilson Web.

Cook, C., Fowler, H., \& Harris, T. (2008). 9th grade academies: Easing the transition to high school. Retrieved March 14, 2011, from http://www.ncpublicschools.org/docs/intern-research/reports/9thgradeacademies.pdf

Creswell, J.W. (2009). Research design: Qualitative, quantitative, and mixed methods approaches. Thousand Oaks, CA: SAGE.

Cushman, K. (2006). Help us make the 9th grade transition. Educational Leadership. 63(7), 47-52.

Daggett, W. (2004). Reforming American high schools-why, what, and how. Retrieved March 14, 2011, from http://www.LeaderEd.com

Daggett, W. (2005). Preparing students for their future and successful schools from action research plans. Presented at 2005 Model Schools Conference, Nashville, TN.

Dewey, J. (1938). Experience and education. New York: MacMillan.
Donegan, B. (2008). The linchpin year. Educational Leadership, 65(8), 54-56.
EPE Research Center. (2006). Diplomas count: An essential guide to graduation rates and policies. EdWeek. Retrieved April 11, 2011, from http://www.edweek.org/ew/toc/2006/06/22/index.html

Friedman, T. (2006). The world is flat: A brief history of the twenty-first century. New York: Farrar, Straus, and Giroux.

Gates, B. (2005). Prepared remarks. Symposium conducted at the meeting of the National Governors Association/Achieve Summit, Washington, D.C.

Gewertz, C. (2009). 9th grade, by the numbers. Education Week, 28(24), 26-29.
Ginsburg, A., \& de Kanter, A. (2002). No child left behind: A desktop reference 2002. Jessup, MA: Education Publication Center.

Good, H.G., \& Teller, J.D. (1973). A history of American education. New York, NY: MacMillan.

Green, G. B., \& Salkind, N. J. (2005). Using SPSS for Windows and Macintosh: Analyzing and understanding data (4th ed.). Upper Saddle River, NJ: Pearson.

Gossage, C. (2007). Navigating the shoals of 9th grade. Civitas Institute Legislative Policy Briefing. Retrieved March 14, 2011, from http://www.nccivitas.org/2007/navigating-shoals-9th -grade/

Grossman, J.B., \& Cooney, S.M. (2009). Paving the way for success in high school and beyond: The importance of preparing middle school students for the transition to 9th grade. Groundwork Public/Private Ventures. Retrieved March 14, 2011, from ERIC, Article No. ED507367.

Hammond, B. (2009). Freshman year: Make or break. Retrieved April 21, 2011, from http://www.oregonlive.com/education/index.ssf/2009/05/freshman year_make_or_break.html

Haney, W., Madaus, G., Abrams, L., Wheelock, A., Miao, J., \& Gruia, I. (2004). The education. pipeline in the United States 1970-2000 Chestnut Hill, MA: The National Board on Educational Testing and Public Policy. Retrieved April 11, 2011, from http://www.bc.edu/research/nbetpp/statements/nbr3.pdf

Herlihy, C. (2007). Toward ensuring a smooth transition into high school. Retrieved March 14, 2011, from http://www.betterhighschools.org

Hess, F.M. (2004). Common sense school reform. New York, NY: Palgrave MacMillan.
High schools for the new millennium: Imagine the possibilities. (n.d.). Bill \& Melinda Gates Foundation. Retrieved March 31, 2011, from http://www.gatesfoundation.org/united-states/Documents/EdWhitePaper.pdf

Holsinger, D.B. (2002). History of secondary education. Encyclopedia of Education. Retrieved March 14, 2011, from http://www.answers.com/topic/history-of-secondary-education

Horwitz, A., \& Snipes, J. (2008). Supporting successful transitions to high school. research brief. Council of the Great City Schools. Retrieved March 31, 2011, from ERIC, Article No. ED505339.

Hupfeld, K. (2007). Key facts: At risk students and high school dropouts in USA: Why students drop out of school. Success Highways. Retrieved March 31, 2011, from http://www.scholarcentric.com/research/SC_Resiliency Dropout \%20Prevention_WP_FNL.pdf

Jehlen, A., \& Kopkowski, C. (2006). Is smaller better? Retrieved March 14, 2011, from http://www.nea.org/home/12214.htm

Jerald, C. (2006). Identifying potential dropouts: Key lessons for building an early warning data system-A dual agenda of high standards and high graduation rates. Washington, DC: Achieve. Retrieved April 11, 2011, from http://www.achieve.org/files/FINAL-dropouts_0.pdf

Jerald, C. (2007). Keeping kids in school: What research says about preventing dropouts. The Center for Public Education. Retrieved March 31, 2011, from http://www.centerforpubliceducation.org

Jimerson, D, L. (2006). The hobbit effect: Why small works in public schools. Retrieved March 31, 2011, from http://www.ruraledu.org

Kristen, S. (2005). Effective high school reform: Research and policy that works. Retrieved March 14, 2011, from http://www.ncsl.org/default.aspx?tabid=12948

Letgers, N., \& Kerr, K. (2001). Easing the transition to high school: An investigation of reform practices to promote 9th grade success. Baltimore, MD: Center for Social Organization of Schools, Johns Hopkins University. Retrieved April 11, 2011, from http://civilrightsproject.ucla.edu/research/k-12-education/school-dropouts/easing-the-transition-to-high-school-an-investigation-of-reform-practices-to-promote-9th -grade-success

Mariotti, L. (2009). Education update: It's past time for high school design. Association for Supervision and Curriculum Development, 51(11), 1.

McMillan, J.H., \& Schumacher, S. (2006). Research in education: Evidence-based inquiry ( $6^{\text {th }}$ ed.). Boston: Pearson Education.

National Association of Secondary School Principals (NASSP) and The Education Alliance. (2004). Breaking ranks II: Strategies for leading high school reform. Reston, VA: NASSP.

National Center for Educational Statistics. (2004). The condition of education 2004. Washington, DC: Education Publications Center.

National Center for Educational Statistics. (2005). Digest of education statistics tables and figures 2004. Washington, DC. Retrieved April 11, 2011, from http://nces.ed.gov/programs/digest/d05/tables/dt05_097.asp

Neild, R.C. (2009). Falling off track during the transition to high school: What we know and what can be done. Future of Children, 19(1), 53-76. Retrieved March 14, 2011, from ERIC, Article No. EJ842047.

Neild, R.C., Stoner-Eby, S., \& Furstenberg, F. (2008). Connecting entrance and departure: The transition to 9 th grade and high school drop out . Education and Urban Society, 40, 543-569. Retrieved March 14, 2011, from ERIC, Article No. EJ798244.

Noguera, P.A. (2004). Transforming high schools. Educational Leadership, 61(8), 2631.

North Carolina Department of Public Instruction. (2011a). Drop out prevention and intervention. Retrieved June 17, 2011, from http://www.ncpublicschools.org/dropout /

North Carolina Department of Public Instruction. (2011b). North Carolina end-of-course tests. Retrieved June 17, 2011, from http://www.ncpublicschools.org/accountability /testing/eoc/

North Carolina Department of Public Instruction. (2011c). School suspension in North Carolina. Retrieved June 17, 2011, from http://www.childandfamilypolicy.duke.edu/pdfs/ familyimpact/2010/Suspension_Data_Summary.pdf

North Carolina Department of Public Instruction. (2011d). Student accountability standards. Retrieved June 17, 2011, from http://www.ncpublicschools.org/promotionstandards/

Oakes, A., \& Waite, W. (2009). Middle-to-high-school transition practical strategies to consider newsletter. Center for Comprehensive School Reform and Improvement. Retrieved March 14, 2011, from ERIC, Article No. ED506363.

Ornstein, A.C., \& Levine, D.U. (2008). Foundations of education. Boston, MA: Houghton Mifflin.

Oxley, D. (2005). Small learning communities: Extending and improving practice. Principal Leadership, 6(3), 44-48. Retrieved March 14, 2011, from ERIC, Article No. EJ766985.

Oxley, D. (2006). Creating small learning communities. Retrieved March 31, 2011, from http://www.nwrel.org

Public Schools of North Carolina State Board of Education and Department of Public Instruction. (2010). A crisis of relevance: How NC must innovate to graduate all students career and college ready. Raleigh, NC: NCDPI.

Public Schools of North Carolina State Board of Education and Department of Public Instruction. (2010). Attendance and student accounting manual. Raleigh, NC: NCDPI.

Pulliam, J.D., \& Van Patten, J.J. (2007). History of education in America. Upper Saddle River, NJ: Pearson, Merrill, Prentice-Hall.

Quint, Janet. (2008). Reshaping high schools: Lessons from leading models. Educational Leadership, 65(8), 64-68.

Reents, J.N. (2002). Isolating 9th graders. School Administrator, 59(3), 14-19. Retrieved March 14, 2011, from ERIC, Article No. EJ640943.

Roderick, M. (2006). Closing the aspirations-attainment gap: Implications for high school reform. Retrieved March 14, 2011, from http://www.mdrc.org/publications/ 427/overview.html

Schlechty, P. (1997). Inventing better schools: An action plan for educational reform. San Francisco: Josey-Bass.

Shakrani, S. (2008). A big idea: Smaller high schools. ERIC Digest. (ERIC Document Reproduction Service No. ED502129).

Sloan, W.M. (2009). Education update: Creating global classrooms. Educational Leadership, 51(1), 1-7.

Southern Regional Education Board (2005). Best practices for implementing HSTW and MMGW: Keeping students moving forward on the journey from middle grades to high school. Retrieved March 31, 2011, from http://www.sreb.org

Southern Regional Education Board (2010). The next generation of school accountability: A blueprint for raising high school achievement and graduation rates in SREB states. Retrieved March 31, 2011, from http://www.sreb.org

Thattai, D. (n.d.). A history of public education in the United States. Retrieved March 14, 2011, from http://www.servintfree.net/~aidmn-ejournal/publications/200111/PublicEducatio9th eUnitedStates.html

The first year of high school: A quick stats fact sheet. (2007). National High School Center. Retrieved March 31, 2011, from http://www.betterhighschools.org

Toch, T., Jerald, C.D., \& Dillon, E. (2007). Surprise-high school reform is working. Phi Delta Kappa, 88, 433-437.

Underlying causes of high school drop out . Retrieved March 31, 2011, from http://www.gafcp.org/sys_gafcp/publications/BestPractices/causeshsdropout .doc

Wagner, T. (2008). The global achievement gap. New York, NY: Basic.

Walsh, M. M. (2002). Delivering the promise to 9th graders. The School Administrator, 59(3), 20-22.

Weast, J.D. (2010). Deliberate excellence: Five stages to school system maturity leading to college-ready graduates. The School Administrator, 67(6), 25-29.

Weiss, C.C., \& Bearman, P.S. (2007). Fresh starts: Reinvestigating the effects of the transition to high school on student outcomes. American Journal of Education, 113, 395-422. Retrieved March 14, 2011, from ERIC, Article No. EJ757582.

Wheelock, A., \& Miao, J. (2005). The 9th -grade bottleneck. The School Administrator. Retrieved March 31, 2011, from http://www.aasa.org/ SchoolAdministratorArticle.aspx?id=8728

Wilder, D., Murphree, P., \& Dutton, G. (2009). The effectiveness of the Freshman (9th Grade) Academy. Tennessee Educational Leadership, 36(2), 11-15.

Williams, E., \& Richman, S. (2007). The first year of high school: A quick stats fact sheet. Easing the transition to high school: Research and best practices to support high school learning. pp. 1-4. Washington, D.C.: National High School Center, American Institutes for Research. Retrieved March 14, 2011, from http://www.betterhighschools.org/docs/NHSC_FirstYearofHighSchool_032807.pdf

Wraga, W.G. (1998). The comprehensive high school and educational reform in the United States: Retrospect and prospect. The High School Journal, 81, 121134.

VITA

## MONET CALLOWAY SAMUELSON

| Personal Data: | Date of Birth: May 29, 1979 <br> Place of Birth: Boone, NC <br> Marital Status: Married |
| :---: | :---: |
| Education: | Lee University; Cleveland, TN Music Education, B.M.E. 2001 |
|  | Western Carolina University; Cullowhee, NC School Administration, M.S.A. 2007 |
|  | East Tennessee State University; Johnson City, TN School System Leadership, Ed.S. $2009$ |
|  | East Tennessee State University; Johnson City, TN Educational Leadership, Ed.D. $2011$ |
| Professional | General Music/Chorus Teacher |
| Experience: | Lexington Middle School/Lexington High School; Lexington, NC 2003 |
|  | General Music Teacher |
|  | Crossnore Elementary School/Banner Elk Elementary School/ <br> Freedom Trail Elementary School; Avery County Schools <br> Newland, NC $2003-2010$ |
|  | Principal - Viking Academy and Challenge Academy Avery High School; Newland, NC 2010 - present |

