

WHAT IS THE IMPACT OF A NINTH GRADE ACADEMY TRANSITION PROGRAM  
IN BUILDING RESILIENCY IN FIRST YEAR FRESHMEN?

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## ABSTRACT

### ELIZABETH PAIGE KIMBALL: WHAT IS THE IMPACT OF A NINTH GRADE ACADEMY TRANSITION PROGRAM IN BUILDING RESILIENCY IN FIRST YEAR FRESHMEN?

(Under the direction of Dr. William Malloy)

Drawing from resiliency theory and literature regarding transition, the purpose of this study is to investigate the impact of a ninth grade transition program in building resiliency in students measured by the students' individual growth on a standardized test, as well as, the program's stated goals regarding attendance rates and promotion rates. This study focuses on a Ninth Grade Academy, a transition program that applies a pyramid of interventions for all freshmen in one high school in one school district as the experimental group. It measures the participants' educational resiliency in comparison to students attending a second high school in the same district, the control group.

The researcher applied Nan Henderson and Mike Milstein's (1996) profile of a resiliency-building school as a theoretical framework using three of six components of the resiliency wheel, two that address building resiliency in the environment: 1) *provide caring and support*, and 2) *set and communicate high expectations*. The third component of the resiliency wheel to be used, *to increase pro-social bonding*, mitigates risk factors in the environment. Specifically, this study utilizes the following data from each school's student

database for students who were freshman during the 2005-2006 school year: academic change scores on the N.C. English 9 End-of-Course, race, gender, attendance, and promotion status. The data were analyzed to determine any statistically significant differences in outcomes for each group of students.

Findings show that while all groups of students in the treatment group show academic resilience in that they exceeded growth scores they did not show a statistically significant difference than the control school. The treatment school's promotion rate was significantly higher than that of the control group. The attendance rate was high for both schools.

Results from this study provide educators insight into one program that had a significant impact on the promotion rate of its first year freshmen. In order for high schools to meet Adequate Yearly Progress for the No Child Left Behind Act, the Cohort Graduation Rate has been included in the model. Schools will be held accountable for the percentage of students who graduate in four years. Practitioners will be searching for options to address the high non promotion rate for the ninth grade. This study provides some evidence that the concept of the Ninth Grade Academy, as well as, its use of the Pyramid of Interventions can have a positive impact and successful results in increasing the promotion rate for freshmen.

## DEDICATION

To write a dissertation is a monumental undertaking requiring sacrifice and willpower. I would like to dedicate this dissertation to my loving family who encouraged me to complete this process. First of all, I thank my mother, Marsha Kimball, who imparted a servant's heart in me, and my father, Ron Kimball, who instilled a passion in me for learning. To my five sisters, Kelly Scott, Caron Parker, Amber Kimball, Anne Marie Camp, and Nancy Armstrong I thank for keeping me grounded. To my grandparents: Elizabeth "Marnie" Holler, and the late Dorothy "Mema" and Mickey "Da" Kimball who have always been so proud of me, have shown me an enormous amount of love: you are the epitome of resilience. To my friends, I thank for taking this journey with me. To the staff at Partnership Academy, your teamwork in my absence has made the completion of this dissertation possible. Finally, to Edward Marsh, with whom I plan to spend the rest of my days, I thank him for his daily love and support.

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## ABBREVIATIONS

AC	Academic Change
AYP	Adequate Yearly Progress
DNA	Do Not Admit
EOC	End of Course
EOG	End of Grade
LEA	Local Education Agency
LEP	Limited English Proficiency
M	Mean
MGSH	Mandatory Guided Study Hall
N	Number
NCES	National Center for Education Statistics
NCLB	No Child Left Behind
NED	Not Economically Disadvantaged
PLC	Professional Learning Community
SD	Standard Deviation
SES	Socio-Economic Status
SST	Student Support Team
STEP	School Transitional Environmental Project
USDE	U. S. Department of Education

## **CHAPTER I**

### **INTRODUCTION**

#### **The Study and Problem Statement**

Henderson and Milstein (1996) write “resilience can be defined as the capacity to spring back, rebound, successfully adapt in the face of adversity, and develop social, academic, and vocational competence despite exposure to severe stress or simply to the stress that is inherent in today’s world” (p. 7). Drawing from resiliency theory and literature regarding transition, the purpose of this study is to investigate the impact of a ninth grade transition program in building resiliency in students, measured by the students’ individual growth on a standardized test, as well as the program’s stated goals regarding attendance rates and promotion rates. This study focuses on a Ninth Grade Academy, a transition program that applies a pyramid of interventions for all freshmen in one high school in one school district as the experimental group. It measures the participants’ educational resiliency in comparison to students attending a second high school in the same district, the control group.

The researcher applied Nan Henderson and Mike Milstein’s (1996) profile of a resiliency-building school as a theoretical framework using three of six components of the resiliency wheel, two that address building resiliency in the environment: 1) *provide caring*

*and support*, and 2) *set and communicate high expectations*. The third component of the resiliency wheel to be used, *to increase prosocial bonding*, mitigates risk factors in the environment. Figure 1 represents the resiliency wheel. Specifically, this study utilizes the following data from each school's student database for students who were freshman during the 2005-2006 school year: N.C. English 9 End-of-Course academic change scores, race, gender, attendance, and promotion status. The data were analyzed to determine any statistically significant differences in outcomes for each group of students.

### **Background of the study**

The number of students who drop out of school continues to be an issue of concern at the federal, state, and local levels. The cost of high school dropouts to the individual as well as to society, changing accountability measures, and the ways in which dropouts are counted, are ongoing topics of research and public debate. Research that examines the reasons why students drop out of school and why students choose to stay in school have a tremendous impact on how educational systems address the problem.

Smink and Schargel (2004) make a poignant statement: "Every September, approximately 3.5 million young people in America enter the eighth grade. Over the succeeding four years, more than 505,000 of them drop out-an average of nearly more than 2805 per day of the school year. Picture it: Every single school day, more than 70 school buses drive out of America's school yard, filled with students who will not return" (p. 9). Reporting and calculating dropout data is problematic for many reasons. Many states do not even use the federal definition of a dropout adopted by the National Center for Education Statistics (NCES) "[A] dropout is an individual who:



- was enrolled in school at some time during the previous school year and was not enrolled on October 1 of the current school year, or
- was not enrolled on October 1 of the previous school year although expected to be (e.g., was not reported as a dropout the year before) and
- was not graduated from high school or completed state- or district-approved educational program and
- does not meet any of the following exclusionary conditions:
  1. transfer to another public school district, private school, or state- or district-approved educational program,
  2. Temporary school-recognized absence due to suspension, or illness, or death”
 (National Education Goals Panel, 2000).

In North Carolina the State Board policy (HSP-Q-001) defines a dropout as “any student who leaves school for any reason before graduation or completion of program of studies without transferring to another elementary or secondary school.” For the purpose of calculating the annual dropout rate, North Carolina uses the national definition with one minor difference. Rather than using October 1 as the deadline for enrollment in the current school year, it uses day 20 of the current school year.

Although NCES developed what seemed to be a sound process to report dropout data, some researchers suggest that the data are inaccurate. In *One-Third of a Nation: Rising Dropout Rates and Declining Opportunities Policy Information Report*, Barton (2005) suggests that due to high stakes accountability measures, practitioners may choose to classify students as something other than a dropout and that record keeping may not be proficient. An NCES panel formed to advise the U.S. Department of Education (USDE) on ways to track

graduates rates suggested that students be tracked by unique identifiers throughout their education; however, only a fraction of the states have identification systems (p.7). The Business Roundtable (2003) offered several additional reasons why dropout data is inaccurate. The following are a few:

- Many states do not use the same definitions of who is considered a dropout for calculating purposes.
- Dropout data does not include students who drop out before the ninth grade.
- Transient students are often not counted.
- States' dropout figures rarely include private school data.
- Student transfer data is often inaccurate.
- Students who become incarcerated are not counted.

Legitimacy issues in dropout reporting, coupled with new legislation regarding high stakes testing, have led to the development of a newly required method of reporting. The No Child Left Behind Act (NCLB) requires all schools to improve students' scores on standardized tests, raise the quality of instruction, and to work toward closing the achievement gap between subgroups of students. Each year schools must make Adequate Yearly Progress (AYP) on students' test scores. Graduation rates "...defined as the percentage of students who graduate from secondary school with a regular diploma in the standard number of years" [Sec 1111(b) (2) (c) (VI)], are an additional measure in order for high schools to make AYP. The rationale behind adding this component, according to Swanson and Chaplin (2004), is to prevent educators from encouraging low-performing students to choose options besides high school in order to enhance their achievement scores

(p. 39). On July 17, 2007, Deputy Secretary of Education, Ray Simon, released the following statement at the National Governors Association meeting:

There is no doubt that this nation needs a better way to get a handle on how many students graduate from high school. Right now, each state calculates and reports graduation rates differently, which prevents us from seeing the big picture of the country's education level.

For this reason, the U.S. Department of Education will continue to collect and report graduation rates from the states and use that data to calculate the Averaged Freshman Graduation Rate, which will be reported alongside the rates reported by each state. This new figure is a more comprehensive and accurate assessment of the percentage of students who graduate from high school on time, four years after they enter.

This change in reporting graduation rates ultimately helps not just educators, but students as well. Improving the accuracy of our graduation statistics allows us to better target resources and tailor instruction for children who might otherwise fall through the cracks and eventually drop out. The Department will now be able to see national trends better and to identify which states need to improve their individual reporting the most (Simon, 2005).

As a result of the NCLB graduation requirement, the North Carolina Department of Public Instruction developed a Cohort Graduation Rate. The cohort rate represents what percentage of ninth graders graduate from high school in four years. See Appendix A for an explanation of how the cohort graduation rate is calculated for individual schools, Local Education Agencies (LEA's), and for the state. See Table 1.1 for the 2006 Cohort Graduation Rates. The Table includes information for the state of North Carolina including subgroups used to measure AYP. Results for the school district, treatment school, and control school in which the study takes place are included as well.

Table 1.1 2006 Cohort Graduation Rates

Group*	Percent
North Carolina	
All Students	68.1
Male	63.9
Female	72.4
Native American	51.1
Asian	74.1
Black	60.0
Hispanic	51.8
Multi-Racial	65.2
White	73.6
Economically Disadvantaged	55.3
Limited English Proficient	54.6
Students with Disabilities	49.9
District	82.6
Treatment School	84.5
Control School	89.3

\*Demographic information is collected when students enter a North Carolina school cohort for the first time. Over the past four years improvements have been made in the collection of demographic data. This data reflects the best available information as collected beginning in the 2002-03 school year (NCDPI, February 28, 2007).

To demonstrate the contrast between the dropout rate and the Cohort Graduation Rate see Table 1.2 for dropout data for North Carolina Public Schools found in the *Report to the Joint Legislative Education Oversight Committee: Annual Report on Dropout Events and Rates G.S. 115C-12(27)*. For example, the dropout rate for 2005-2006 is reported at 5.04%; however the freshmen class of 2002-2003 who should have graduated in 2005-2006 only graduated 68.1% of their students. This does not necessarily indicate that 31.9% of those students dropped out. It only indicates that they did not graduate within four years; however, it does indicate with more accuracy, evidence that students are not graduating on time, and that in all probability more than 5.04% are not graduating at all.

Table 1.2 Dropout Rates for NC and District 2001-2006\*  
 Five Years: Dropout Rates in Grades 9 through 12, Excluding Expulsions

Year	North Carolina	District
2001-2002	5.25	3.51
2002-2003	4.78	2.59
2003-2004	4.86	3.45
2004-2005	4.74	3.66
2005-2006	5.04	3.88

\*Adapted from North Carolina Department of Public Instruction's *Report to the Joint Legislative Education Oversight Committee: Annual Report on Dropout Events and Rates G.S 115-C-12(27)*.

Research is filled with data regarding why students drop out of high school. Smink and Schargel (2004) stated that, "Poor academic performance linked to retention in one grade is the single strongest school-related predictor of dropping out. One report indicated that out of every ten dropouts, nine had been retained at least one year" (p. 33). Hess (1987) found poor academic performance the strongest predictor of dropping out. Poor academic

performance often results in retention, especially in high school. Slavin and Madden (1989) report that achievement does not improve after retention and refer to what the Youth in Transition study found: one grade retention increases the risk of dropping out by 40-50 percent, and more than one by 90 percent” (pp. 104-105). Table 1.3 shows the nonpromotion rate (%) by grade for North Carolina public schools. From 2001-2005, ninth grade consistently has the highest percentage of non-promotions, almost twice the amount of the second highest grade level. Table 1.4 shows the distribution of dropouts by high school grade level. Again, ninth grade is the highest.

Table 1.3. Nonpromotion Rate (%) by Grade\*

Excludes Charter Schools

Year	K	1	2	3	4	5	6	7	8	9	10	11	12
2000-2001	6.4	7.2	4.0	3.4	1.9	2.0	3.5	3.4	2.3	14.6	8.4	6.0	2.1
2001-2002	6.7	6.7	3.7	5.3	2.3	3.1	3.2	3.2	3.6	14.7	8.4	5.7	2.2
2002-2003	6.6	6.6	3.3	3.7	1.5	1.9	2.7	2.7	3.0	14.3	8.6	6.0	2.5
2003-2004	6.1	5.9	3.0	3.2	1.2	1.5	2.4	2.7	2.7	14.3	8.1	5.9	2.8
2004-2005	6.1	5.6	3.1	2.8	1.2	1.4	2.5	2.6	2.2	14.0	8.4	6.4	2.8

\*from North Carolina Department of Public Instruction’s *North Carolina public schools: Statistical profile: 2006*.

Table 1.4. Grade Distribution of Dropouts in North Carolina Public Schools\*

Grade	Percentage
9th	32.70
10th	25.70
11th	22.40
12th	15.00

Frequency distribution of 2005-2006 dropout events by grade.

\* Adapted from North Carolina Department of Public Instruction's *Report to the Joint Legislative Education Oversight Committee: Annual Report on Dropout Events and Rates* G.S 115-C-12(27).

In addition to a higher number of dropouts and more retentions, ninth grade is a difficult transition year for many students as evidenced by: lower overall grade point averages, higher rates of absenteeism, greater rates of discipline referrals, and a lower number of credits earned when compared to students in the upper grades. Chute (1999) reported that in Pittsburgh public schools almost one-fourth of ninth-graders, didn't pass enough courses to be promoted to the 10th grade at the end of the 1997-98 school year. The following are statistics for the end of the 1997-1998 school year:

- The lowest attendance in any grade level was in ninth grade. The average attendance was 78 percent, compared with 92.5 percent in first grade and 80.9 percent in 12th grade. This is also a drop from the 86.3 percent attendance recorded for eighth grade.
- The largest percentage of failing grades, 25.5 percent, was in ninth grade, but only 5.7 percent of the grades in eighth grade were failing grades.

- The highest percentage of "over-age" students is in the ninth grade. Nearly 14 percent of ninth-graders were at least 16.5 years old at the end of the school year.
- About one in three or 33.8 percent of all ninth-graders were suspended out-of-school. (Chute, 1999).

The *Christian Science Monitor* published an article noting that, according to a new study by Boston College, the ninth grade students' rate of retention has tripled in the past thirty years nationwide (Jonsson, 2004). It also noted that in North Carolina about 15% of ninth graders are retained. According to an article published in the *Charlotte Observer*, "Nearly one in five students in North Carolina drops out between the ninth and tenth grade, giving the state one of the worst attrition rates in the country" ("Educators trying", 2004).

In a position statement on student grade retention and social promotion, the National Association of School Psychologists reported that, "retained students have increased risks of health-compromising behaviors such as emotional distress, cigarette use, alcohol use, drug abuse, driving while drinking, use of alcohol during sexual activity, early onset of sexual activity, suicidal intentions, and violent behaviors" (2003).

Varieties of programs have been implemented to assist freshmen in their transition to high school. The review of research on transition programs finds that students are less likely to drop out of high school if they participate in programs that help them transition from middle school (Mizelle, 1999). The literature on transition in schools is replete with recommendations that school administrators, counselors, and teachers coordinate activities among all school levels to make school transitions more effective for students and their parents. Students who make school transitions without help or adjustment are more likely to: drop out, fail one or more subjects, suffer great anxiety and depression, lose self esteem, lose



interest in school and extracurricular activities, develop behavior problems, be suspended and retained more, and enter sexual relationships earlier (Ferguson & Bullach, 1997; Crocket et al., 1989; Hirsch & Rapkin, 1987; Blyth, Simmons, & Carlton-Ford, 1983). According to a study of high schools in Maryland, many have instituted schools-within-schools, ninth grade academies, smaller learning communities, and other strategies aimed at improving the transition from middle to high school (Legters and Kerr, 2001).

### **Significance of the Study**

Felner and his colleagues (1993) studied a high school transition program, an approach to dropout prevention for its freshmen, which served to restructure the ecology of the school. The initial implementation of the School Transitional Environment Project (STEP) was targeted at a large urban high school where students were mostly from low socio-economic status and/or minority backgrounds. The initial findings revealed that those who participated in the program demonstrated better academic and social adjustment, academic growth, consistent levels of attendance, and self-confidence. Students in the control group experienced decreases in: grades, self- concept, and attendance (Felner et al., 1981 & Felner et al., 1982). Felner and Adan conducted a five-year follow up in 1988. They found that those students who had been in the STEP program had a dropout rate half the rate of the control group. This present study supports the findings of Felner and his colleagues by demonstrating that a Ninth Grade Academy program, through its implementation of a pyramid of interventions, is able to improve the promotion rate of its students. This study differs from Felner in that the population was largely rural rather than urban.

The body of research on freshman transition most often evaluates programs that target students identified as at-risk prior to starting high school rather than programs that target an entire freshmen class. Catterall's research (1998) indicated that such measurements of risk serve to stereotype students and to show that traditional risk factors are not necessarily an accurate predictor of school failure. The study showed that, within groups, African-American and Hispanic students showed stronger academic resilience. Academic resilience was not linked to socio-economic status for these two groups. The results of the study also suggested that there is a benefit in conceptualizing risk through student performance rather than through group characterization. The data suggested that educators and policy makers should maintain higher expectations for students who would typically be identified as at-risk. This research extends the existing body of knowledge on risk and resilience by examining a program that focused its prevention efforts toward all freshman and its intervention efforts toward all students showing potential academic risk rather than exclusively targeting pre-identified risk groups from the population.

Finally, this research provides educators valuable information that may contribute to improved 4-year cohort graduation rates. Specifically, it provides feedback on how the transition program, the Ninth Grade Academy, and its implementation of a pyramid of interventions, impacts students' academic resiliency, measured by their academic success. Other high schools, who are experiencing high numbers of freshmen failure, retention, and drop-out, may consider the results of this study in planning their own transition efforts.

## **Research Questions**

Research Question 1: Is there a relationship between the independent variable, the Ninth Grade Academy; and the dependent variable, the students' academic change scores on the English 9 End-of-Course test, holding race and gender constant?

Hypothesis 1: Participation in the Ninth Grade Academy will positively influence students' Academic Change Scores on the English 9 End-of-Course test, holding race and gender constant.

Research Question 2: Is there a relationship between the independent variable, the Ninth Grade Academy; and the dependent variable, students' promotion to tenth grade, holding race and gender constant?

Hypothesis 2: Participation in the Ninth Grade Academy will positively influence students' promotion to the tenth grade, holding race and gender constant.

Research Question 3: Is there a relationship between the independent variable, the Ninth Grade Academy; and the dependent variable students' daily attendance rate, holding race and gender constant?

Hypothesis 3: Participation in the Ninth Grade Academy will positively influence students' daily attendance rate, holding race and gender constant.

## **Theoretical Perspective**

Masten (1994) categorized resilience research into three categories of phenomena. The first type of research studied individuals identified in high risk groups who experienced greater than expected success. The second category of resilience phenomena “refers to good adaptation despite stressful experiences. Studies examine the general effects of stressors on child behavior, the moderators that seem to enhance or reduce the effects of adversity (vulnerability and protective factors)” (1994, p. 7). No decline in student performance could be interpreted as good adaptation. The third group of phenomena includes studies on the different ways in which individuals recover from traumatic situations and circumstances. This study falls into the second category. The researcher investigated how well a freshman class adapts to high school and investigated whether or not a Ninth Grade Academy could serve as a moderator to the stressor of transition by using Henderson and Milstein’s resiliency model (1996). The researcher limited the study’s focus to three of the six components of the resiliency wheel: provide caring and support, set and communicate high expectations, and increase pro-social bonding. In limiting the components of the resiliency wheel as a theoretical framework, the researcher considered the stated goals of the Ninth Grade Academy as well as the ability to measure them. Table 1.5. links this study’s research questions with selected goals of the Ninth Grade Academy, including sample components of the program. Not included in this study are the following three components of the resiliency wheel: set clear and consistent boundaries, teach life skills, and provide opportunities for meaningful participation. Henderson and Milstein (1996) state that setting clear and consistent boundaries “...involves the development and consistent implementation of school policies and procedures and speaks to the importance of clarifying expectations of

behavior” (p. 12). This was not a direct goal of the ninth grade academy. Neither was teaching life skills. Provide opportunities for meaningful participation is described by Henderson and Milstein (1996) as “...giving students, their families, and staff a lot of responsibility for what goes on in school, providing opportunities for problem solving, decision making, planning, goal setting, and helping others” (p. 14). Again, this is not a stated goal of the program. However, the program’s goals and the program’s description do appear to be closely related to providing care and support, setting and communicating high expectations, and increasing bonding.

<b>Research Question</b>	RQ 1: 9 <sup>th</sup> grade English EOC Scores	RQ 2:Promotion to 10 <sup>th</sup> grade	RQ 3: Daily Attendance
<b>Data Source</b>	School Records	School Records	School Records
<b>Program Goal</b>	Implied, see RQ 2	Stated: 95% of students will be promoted to the tenth grade	Stated: 85% of students will be absent less than 10 days per semester
<b>Intervention/Prevention Strategies</b>	<ul style="list-style-type: none"> <li>• 9<sup>th</sup> grade Center</li> <li>• Recognition/rewards</li> <li>• High expectations- “perfect 10”, “7 Steps to Success”</li> <li>• Emphasis on Study Skills within content</li> <li>• Regular staff meetings to share strategies and concerns</li> </ul>	<ul style="list-style-type: none"> <li>• Students failing one or more classes will have scheduled conference</li> <li>• Success plans written for each failing subject</li> <li>• Staff follows up on student progress</li> <li>• Immediate and continual parent contacts made</li> </ul>	<ul style="list-style-type: none"> <li>• Discuss consequences with students early (69FF)</li> <li>• Communicate absences with parents ASAP</li> <li>• Hold Saturday School for attendance make-up</li> </ul>

The researcher used the concept of resilience as a mechanism and a process to explore the relationship of the Ninth Grade Academy to the development of resilience in freshmen during their transition from middle school to high school. Specifically, the purpose of this study was to: investigate the impact of a ninth grade transition program to build academic resiliency in students measured by the students' growth on a standardized test, as well as the program's stated goals regarding attendance rates and promotion rates.

## **Definition of Variables**

The variables measured and used in this study are operationally defined as follows:

Academic Resiliency: Students who show educational resiliency are defined in this study as those freshmen who experience success in school as evidenced by their academic change on the English 9 EOC scores, promotion rates, and attendance rates.

Academic Change (AC): A measure of the growth model segment of North Carolina's accountability program. It is a numeric indicator of an individual student's growth on assessments for the current year in comparison to the average of the two previous years. Analyses of AC are based on the c-scores and the c-scale, not developmental scores. (See the following definition of c-scale.)

C-Scale: A standardized scale used to measure relative student performance. The c-scale is established based on statewide student performance during the standard setting year. During the standard setting year, 50% of the NC students will fall below "0" and 50% of the students will fall above "0." In the following years, an individual's developmental scale score is converted to a c-score, representing a point on the c-scale. This point on the c-scale demonstrates the student's performance relative to all NC students' performance for this assessment during the standard setting year.

- All students could theoretically perform at or above a "0" in subsequent years, making the c-scale superior to the normative scales.
- Any point at or above "0" represents performance superior to the standard. Any point below "0" represents performance inferior to the standard.
- If a student performs equally as well in two consecutive years, the academic change (AC) will be "0."

- Schools where students achieve equally well in one current year as in previous years will have an AC of “0” on the c-scale.
- Schools where students do not achieve as well in the current year as in previous years will have an AC less than “0” on the c-scale.
- Schools where students achieve better in the current year as in previous years will have an AC greater than “0” on the c-scale.

Expected Academic Change Calculation: Compare the difference between a student’s actual c-scale score for the current year and the average of the student’s two previous assessments with a correction for regression to the mean.

- Positive AC means a gain in academic achievement.
- Negative AC means a loss in academic achievement.
- The formula is  $AC = CS_{c-scale} - (0.92 \times ATPA_{c-scale})$  (NCDPI, 2006, *Determining school status...*)

Daily attendance rate: The number of days in a given school year that a student was present divided by the number of days the student was enrolled in that school for that same year.

Ninth Grade Academy: A transition program that through the application of a pyramid of interventions implements prevention measures for all ninth grade students and intervention measures as necessary for students experiencing risk of academic failure. Its vision is, “The Ninth Grade Academy in cooperation with family and community will create an interdisciplinary and supportive environment in which students develop skills and confidence necessary for scholarship, character, and citizenship” (Mirkwood High School Ninth Grade Academy Web page, 2007). The program goals for the 2005-2006 school year



were the following: 1) 95% promotion rate for ninth graders, 2) 85% of students will be absent less than 10 days per semester, 3) 75% of students will be involved in athletics, music, or other clubs, and extracurricular activities at school, and 4) All students will participate in the Success, Inc. program, designed to teach communication skills in the workplace.

Promotion Rate: The number of students who earned the required number of credits, passed the required Standardized tests, met the attendance requirement, as well as any other requirements mandated by the district and school in order to be promoted to the next grade, divided by the total number of students who were enrolled in that grade in the same year.

## Definition of Terms

The following terms were defined for this study:

At-risk: The term at-risk originated in psychological and medical research. Wang (1994) defined at-risk in the context of education, referring to those students who face social, academic, and environmental factors, which are present in the family, school, and community, which place them in danger of academic failure.

Dropout: A dropout is, “Any student who leaves school for any reason before graduation or completion of a program of study without transferring to another elementary or secondary school.” North Carolina State Board policy (HSP-Q-001).

First time Freshman: A first time freshman is a student who enters high school in the ninth grade for the first time, as opposed to a student who is repeating the ninth grade.

Protective Factors: A protective factor moderates against the negative effects of stressful or risk situations. Protective factors can be found within the individual or within the environment (Henderson and Milstein, 1996); (see Table 2).

Pyramid of Interventions: The Pyramid of Interventions is a framework used to represent the step by step process that uses both prevention and intervention techniques to address academic and behavioral needs. According to Pennington and Smith (2007) a pyramid can provide:

- A common sense framework to continuously improve results for all students
- An integrated approach to service delivery that encompasses general and special education
- A structure for logically embedding research based assessment and teaching/ learning practices (see Figure 2 and Figure 3).

Risk Factors: A risk factor is an individual attribute, individual characteristic, situational condition, or environmental context, which increases the probability of the individual experiencing adverse consequences (Kaplan, 1999).

Resilience: The term was first used in psychopathology to mean the capacity to overcome despite challenging or threatening circumstances. Henderson and Milstein (1996) write, “Resilience can be defined as the capacity to spring back, rebound, successfully adapt in the face of adversity, and develop social, academic, and vocational competence despite exposure to severe stress or simply to the stress that is inherent in today’s world” (p. 7).

Transition: Passing from one condition, place, etc. to another (Neufeldt, 1990). This study examines the transition of students from the 8<sup>th</sup> grade in a middle school environment to the 9<sup>th</sup> grade in a high school environment.

### **Limitations of the Study**

The present study has ten limitations with respect to internal and external validity:

1. The study is limited to those variables chosen for study;
2. The study is limited to the freshman classes in two high schools in one district in the state of North Carolina who made the transition from middle school in the 2005-2006 school year. One school provided a ninth grade academy and one did not. Generalization of results regarding students in other settings may not be appropriate;
3. The data were tested for correlations between variables. No inferences should be made regarding causality;
4. The data available lacked socio-economic background information for the students;
5. The study does not test for fidelity to the Pyramid of Interventions in the treatment school;
6. Although the control school does not use a ninth grade academy or Pyramid of Interventions model, they are not without interventions for the students. The results for the control may be impacted by those intervention and prevention programs;
7. The demographics of the student population in the control school and in the district change rapidly as a result of the district experiencing a tremendous rate of growth. The population between the treatment and control school are dissimilar. When the researcher requested data from a school within the district that would reflect a more similar racial background to that of the treatment school, the district

level staff member stated he was unable to access the information as the school's population changes annually;

8. The original study design included a question that would determine the rate at which the first year freshmen of 2005-2006 participated in extracurricular activities. Although the control school committed to providing the data, the complete data were never obtained. Evidence of the existence of several clubs and extracurricular activities is available as well as evidence of the promotion of these activities to freshmen, but no data are available regarding the numbers or the rate at which students participate;
9. Because each school implements multiple interventions and preventions for its students, no inferences can be made as to the effectiveness of each individual intervention or prevention effort;
10. The study was limited to testing the academic change scores on the English 9 EOC because it is the only state tested course that all first year freshmen are required to take. Freshmen may take a variety of math courses, only some of which have a standardized test.

## **CHAPTER II**

### **REVIEW OF THE LITERATURE**

#### **Introduction**

This paper contains a review of the literature related to the researcher's study. The first section contains a review of the literature regarding transition. It is divided into the following subsections: (a) students in transition, (b) effective transition, and (c) transition: key research. The second section contains a review of the literature on risk and resilience. It is divided into subsections: (a) risk: a theoretical framework, (b) risk versus resilience: the impetus for change in research, (c) resiliency research: an historical perspective, (d) resilience as a construct: empirical studies and theoretical frameworks (e) resilience in education. The third section describes the theoretical framework for this study.

#### **Transition**

##### *Students in Transition*

The studies presented in this section show that making the transition from elementary school to middle school and middle to high school is difficult for most students and for some

it can be traumatic. A great deal of research has been conducted to study the nature of why these transitions are so difficult and what may be effective solutions.

One explanation for the difficulty in moving from elementary to middle and middle to high school is the increase in the size of the new school (Roderick, 1993; Rice, 1997). Often, several small elementary schools feed into one middle school, and the sheer size can be overwhelming. The same is true for middle schools that feed into large high schools. During this transitional period students feel lost and unimportant. Roderick also reported that the heterogeneity in the areas of race, ethnicity, and social diversity of the student body, causes some difficulty for students. Bryk and Thum (1989) reported that the increased departmentalization and tracking that occurs in secondary schools is another source of difficulty for many students. Secondary schools are also known for placing a greater emphasis on competition among students and in ability grouping than do elementary schools (Schumaker, 1998). Other researchers also noted that in secondary school students are less likely to have a personal relationship with their teachers (Mizelle, 1995; Wells, 1996).

Students anticipating making a transition reported concerns about attending a new school. Mizelle (1995) and Wells (1996) wrote that students worry about getting lost, getting to class on time, finding their lockers, and dealing with crowded hallways. Lord et al. (1994); Mizelle (1995); and Wells (1996) added that they were concerned about being teased by older students. Students showed concern about receiving lower or failing grades (Mizelle & Mullins, 1997).

Students' concerns change after making the transition. Students report that: their courses are more difficult, they believe their teachers are stricter, the rules are enforced more strictly, and they feel it is more difficult to make friends (Scott et al., 1995; Wells 1996).

According to Crocket et al. (1989) the mechanics of the school change, including new rules, grading, and teacher expectations, have the greatest impact on students in transition.

### *Effective Transition*

Hertzog and Morgan (1999) studied 56 Florida and Georgia high schools and found that those schools with extensive transition programs had lower dropout and failure rates. How these programs are planned and implemented vary a great deal, but some general guidelines have emerged from the literature.

To be most successful, transition programs should involve all stakeholders including parents, students, teachers, administrators, and counselors. Smith (1997) showed that programs targeting only one group have no impact on transition problems. De Mesquita et al. (1992) evaluated a transition program that reduced freshman failure by 12%. The researchers indicated that part of the program's success was due to the high number of school personnel that were involved in the transition effort.

Several other studies have shown the value of parental involvement in the transition process. Some indicate that, during the transition period, parental involvement has the greatest impact on student success (Rice, 1997; Smith 1997; Camoni, 1996; Kurita & Janzen, 1996; Combs, 1993; de Mesquita et al., 1992).

Lastly, the research indicates that these transition programs need to be comprehensive, provide practical knowledge, and address the affective needs of students (Ferguson & Bullach, 1997). Students are concerned about basic needs such as their class schedule and how to make it to class on time. Not only do they need to know the rules and policies of the new school environment, but they also need assistance in dealing with their



concerns. The following studies and reviews give rich information about the nature and impact of transition programs.

### *Transition: Key Research*

#### *School Transition Environmental Project*

The School Transition Environmental Project (STEP) is a transition program based on a transactional-ecological model. The goals of this type of prevention efforts are: “(1) the modification or removal of conditions of risk in the environment that may be developmentally hazardous and predispose the acquisition of vulnerabilities and/or that precipitate the onset of adaptive difficulties; and (2) The enhancement of conditions in educational and interrelated contexts that increase the probability that students will ‘naturally’ acquire the competencies and strengths that will make them more resilient in the face of life’s challenges” (Felner et al., 1993, p. 105). Key components of STEP included reorganizing the school social system, restructuring homeroom teachers’ roles, and increasing teacher support. STEP students were assigned to the same group of teachers for their core classes of math, science, social studies, and English, similar to a middle school teaming structure. Secondly, homeroom period became an advisory period where the teacher could serve as a counseling link for students and their parents. The STEP teachers met regularly with the staff to combine their efforts in assisting students with the transition.

The initial implementation of STEP was targeted at a large urban high school where students were mostly from low socio-economic status and/or minority backgrounds. The initial findings showed that those who participated in the program showed better academic

and social adjustment, and greater academic growth. They maintained consistent levels of attendance and self-confidence. Students in the control group experienced decreases in grades, self-concept, and attendance (Felner et al., 1981 & Felner et al., 1982). Felner and Adan conducted a five-year follow up in 1988. They found that those students who had been in the STEP program had a dropout rate half the rate as the control group. Initially, the STEP group had higher grades and attendance rates than the control group. Over the five-year period the gap closed somewhat between the groups. The researchers explained that this was a reflection of high dropout rates among the control group. With the lower performing students dropping out, the results of the remaining students in the control group increased. Felner et al. (1988) also noted that the students were only in the STEP program for their first year of high school and attributed the long-term effects to the enduring effects of the intervention and not to any additional program involvement.

#### *Transition Frequency and Achievement Loss*

Alspaugh (1998) conducted a study of achievement loss associated with the transition to middle school and high school. The purpose of his research was two-fold, to explore the nature of the achievement loss associated with the transition to middle school and with the transition to high school, as well as to determine if there is a relationship between school-to-school transitions and the percentage of students who drop out of high school. He studied three groups in sixteen schools districts and found that combining students from several elementary schools into one middle school might contribute to achievement loss. In addition, Alspaugh found that students attending middle school, as opposed to those students who attended k-8 schools, experienced greater achievement loss when making the transition to

high school. He suggested that the increased high school dropout rates for students who had attended middle school may have been associated with the achievement losses and the double transitions at grades 6 and 9, because the schools whose students who had transitioned twice had higher dropout rates than the schools whose students had transitioned once.

### *A Transition Framework*

In Anderson et al. (2000), researchers develop an initial framework for making successful transitions for students. The text outlines key research in transition success or failure, preparedness, and support types. The researchers use grades, appropriateness of behavior, relationships with peers, and students' academic orientations, as indicators of success or failure. Student academic orientations are defined as the amount of time engaged in academic work, correctness of oral responses, and completion of assignments.

Preparedness refers not only to a student's academic preparedness, but also to a student's independence and industriousness, ability to conform to adult standards, and the student's coping mechanisms. Support is categorized as informational, tangible, emotional, and social.

One important aspect of the framework is that support is inversely related to the extent of student preparedness for the transition. In other words the less prepared the student, the more support needed. Secondly, the less continuity between different schools, the greater the need for students to have guidance and support. As well, the type of support needed depends on the area in which the student is deficient.

Anderson et al. (2000) conclude with recommendations for facilitating successful systemic transitions. First, efforts must be comprehensive including, five components outlined by Perkins and Gelfer (1995). A system transition model must include: developing a

planning team, generating goals and identifying problem, developing a written plan, acquiring the support and commitment of teachers and all those involved in the transition process, and evaluating the transition process. Secondly, parents should be involved in the transition process in order to maximize its success. Finally, a sense of community and belonging must be created.

### *Risk and Resilience in Transition*

Catterall (1998) studied eighth graders who were both performing poorly academically and who were expressing a lack of confidence in graduating, but had turned themselves around by the tenth grade. The data were accessed from the *National Education Longitudinal Study of 1988*, which surveyed a sample representative of eighth graders across the United States. In 1988, a total of 24,588 students were represented in the first data collection sample. Of these students, 3,172 were Hispanic and 3,049 were African-American. The follow-up survey of tenth graders identified 20,706 of the original students. Catterall focused on students who had shown academic risk, evidenced by their grades, rather than by focusing his study on students labeled at-risk as a result of their minority or socio-economic status. “These general characteristics ignore differences within groups; moreover, they fail to apprehend the qualities of individual lives that go quite beyond stereotypical views of attitudes, roles, or relationships” (p. 305). Catterall provides research showing that such measures of risk serve to stereotype students and reveal that traditional risk factors are not necessarily an accurate predictor of school failure.

The study shows that, within groups, African-American and Hispanic students showed stronger academic resilience. Academic resilience was not linked to socio-economic

status for these two groups. The results of the study also suggest that there is a benefit in conceptualizing risk through student performance rather than through group characterization. Students were able to move in and out of performance- based groups over the course of time. The data suggests that educators and policy makers should maintain higher expectations for students who would typically be identified as at-risk. This study also suggests that student involvement might promote student resilience from risk.

## **Risk and Resilience**

### *Risk as a Theoretical Framework*

For decades the term at-risk has been used to describe the probability of failure. “Between 1989 and 1994 alone, more than 2,500 articles were published on children and families at-risk” (Swadner & Lubeck, 1995, p. 1). Risk research typically focuses on individuals who are experiencing problems such as failure in school, criminal activity, and alcohol abuse. “A risk factor is a characteristic of a group of people that is associated with an elevated probability of undesired outcomes, as in a risk factor for delinquency or dropping out of school” (Masten, 1994, p. 6). This research looks for evidence of risk factors in individuals, such as victims of: abuse, poverty, and alcoholic parent/s, caregivers. The research then attempts to use these risk factors to predict at-risk behavior.

The literature on risk can be grouped into three general categories, as developed over time. In the first phase of risk research, psychiatrists and psychologists investigated how adverse life experiences related to the development of mental health problems in individuals. The results reveal that being exposed to adversity during childhood has a correlation with being high risk for mental health problems (Doll & Lyon, 1998; Rutter 1985).

The second phase in risk research resulted in the emergence of two different perspectives on how risk was conceptualized. Studies documented the differences in individual's responses to adverse circumstances from a psychopathological perspective. The second perspective that emerged identified risk factors predisposing negative outcomes to certain groups of people. Epidemiological studies of populations who are at-risk were common in this period (Garmezy, 1983; Rutter, 1979, 1985; Werner & Smith, 1982; Gordon & Song, 1994).

These models failed to explain why some individuals were successful in spite of adverse circumstances. "The dilemma stems from the almost universal observation that, even with the most severe stressors and the most glaring adversities, it is unusual for more than one half of observed individuals to succumb to psychological or social dysfunction" (Gordon & Song, 1994, p. 28). Researchers recognized in this dilemma, "...a corrective lens- an awareness of the self-righting tendencies that move children toward a normal adult development under all but the most adverse circumstances" is needed (Werner & Smith, 1992, p. 202). The third phase of research reflects another change in focus.

### *Risk versus Resiliency*

When the third perspective in risk research emerged, the concept of resilience entered the research model. Henderson and Milstein (1996) describe resiliency as "a new paradigm of student and staff development that offers a coherent, research-based framework for the achievement of these goals" (p. 1). Resilience has been defined as "the process of coping with disruptive, stressful, or challenging life events in a way that provides the individual with additional protective and coping skills prior to the disruption that results from the event"

(Richardson et al., 1990, p. 34). Other researchers define resiliency as “the capacity to bounce back, to withstand hardship, and to repair yourself” (Wolin & Wolin, 1993, p. 5). Both definitions account for an individual’s ability to overcome hardship and difficulty.

Contrary to the common deficit model for researching at-risk factors in students, resiliency research focuses on determining which factors help individuals overcome obstacles. “Resiliency research is contributing to a philosophical revolution away from a pathology-based medical model of human development to a proactive wellness-based model. The Wellness Model focuses on the emergence of competence, empowerment, and self-efficacy” (Henderson & Milstein, p. 3). The resiliency model rejects the notion that dysfunction is inevitable and recognizes that individuals react differently to adverse events. This research model attempts to discover *why* some succeed.

Another difference to note between risk and resiliency as research models is that, “risk is mainly a construct that refers to populations. On the other hand, the vulnerability/resilience phenomena tend to refer to individuals” (Gordon & Song, 1994, p. 29). Masten (1994) also recognized that risk, is appropriately used as a statistical concept to describe groups, not individuals.

A third issue to consider when comparing these two initial perspectives is the notion of cause and effect. Much of the research on risk demonstrates that when groups of individuals experience adversity and negative experiences a greater percentage of these individuals are likely to experience social, emotional, or academic difficulty later in life. At-risk research then identifies these negative experiences as predictors of at-risk behavior; however, this cause and effect correlation is difficult to prove. Henderson and Milstein (1996) give an example of the difficulty in drawing such conclusions by asking the question,

“Were the circumstances and characteristics of people who developed addiction or experienced school failure or became involved in criminal behavior the cause or result of their problems?” (p. 4). The correlation between the two is not clear. As Henderson and Milstein suggest (1996), longitudinal and developmental studies are necessary to understand how a disorder develops.

### *Resiliency Research: An Historical Perspective*

One longitudinal study began in 1955 and was tracked by Werner and Smith for over thirty years. This study investigates youth who were identified as high risk due to having four or more risk factors including poverty, prenatal stress, family discord, divorce, parental alcoholism, parental mental illness, and low parental education. The participants were assessed at ages: two, ten, eighteen, and thirty-two, to assess the impact of stress on each individual’s development from childhood to adulthood. The study shows that approximately one third of the identified group went on to become competent adults. Several factors were identified in association with the resilient children in the study. These youth were more mature, responsible, achievement motivated, and had a close bond with a caregiver (Werner, 1989, Werner & Smith, 1982, 1992).

Rutter (1979), in a study suggesting the concept of resilience, researched pre-adolescent children living in inner-city London. In this study, Rutter isolated six factors associated with psychiatric disorders in children: low socio-economic status (SES), large family size, marital discord, maternal psychiatric disorder, paternal criminality, and admission of care of the children to the local authorities. The number of risks to which the child was exposed affected the level of psychiatric disorder that a child experienced. Rutter



also found that risk factors were mediated by risk reducing factors such as positive temperament, gender, a warm personal relationship, supportiveness, and a positive school environment. He identifies three broad categories of factors that were found to be protective against risk: a supportive family environment, a positive support system, and the personality of the child.

Lewis and Looney (1983a, 1983b) studied competence in adolescence as it relates to family qualities. They investigated contrasting environments of African-American working class families with white middle to upper middle class families and found the two groups surprisingly similar. These competent adolescents from both backgrounds were ranked as: being successful in school, involved in a variety of activities, connected socially, and achievement oriented. The following similarities were noted in their families: the parents maintained good relationships with each other, the family members were close and shared parents leadership roles. Both types of families with competent children were found to have connections with extended family, friends, and community.

Garmezy (1983) classified protective factors in two categories: individual and environmental. These safeguards assist in an individual's ability to cope with stressful circumstances while developing competence to deal with a negative experience. In 1984, Garmezy and colleagues identified compensatory protective factors, those factors which directly reduce a problem or disorder. Most often these factors are personal attributes such as sense of humor, intelligence, and internal locus of control.

In a longitudinal study, Furstenberg, Brooks-Gunn, and Morgan (1987) researched long-range outcomes for disadvantaged African-American adolescent mothers. A group of 300 mothers at risk for early childbirth were assessed after five years and again after

seventeen years. This study of resources and motivational differences provided researchers an opportunity to trace the participants' life courses and outcomes and for their children as well. Women who came from large families and had been on welfare had less economic stability. Women whose parents failed to complete high school were more likely to be on welfare. However, mothers who had greater educational aspirations and learning aptitude, and experienced success in school had better outcomes. A higher level of education was also linked to a reduction in childbearing. The researchers note similar results for the children of these participants. Children, whose mothers had not been on welfare in the previous five years, had completed high school, had had only one or two children, and had had better academic achievement and behavioral outcomes.

Research conducted by Baldwin, Baldwin, and Cole (1990) studied families with competent children; one group consisted of white families who lived in a predominately white neighborhood, and the other groups consisted of African-American and Hispanic families who lived in a high-risk urban neighborhood. In school, these children achieved higher than average performance on IQ tests, on achievement tests, and on grades. The parents in both groups maintained high expectations for their children and showed warmth. One interesting difference found in families who lived in high risk areas was the higher values they placed on self-control for their children. They were also more restrictive, less democratic, and monitored their children more closely.

Studies in the area of children reared in foster care or institutions also showed significant results in the area of resilience. When Quinton and Rutter (see Rutter, 1990) studied parenting women who had been raised in institutions, they found that protective factors that occurred during and after their institutionalization mitigated negative outcomes.

Having a positive school experience and a supportive spouse were two elements noted as positive protective factors for these women.

In 1999, Kaplan identified a second type of protective factors, transactional, that serve to buffer or to mitigate harmful effects. These factors influence a problem or disorder indirectly. This researcher reports that positive expectations predicted improved social and emotional adjustment in school resulting in the reduction of the negative effects of high stress on competence.

Studies outlined in this section give a chronological perspective in the area of resiliency. The concept of protective factors such as the ones described in the previous section is central to the construct of resilience; however, one criticism of the early studies is the treatment of the protective factors as variables independent of one another (Doll & Lyon, 1998).

### *Resilience as a Construct*

Masten (1994), referencing longitudinal studies and cross-sectional research, compiled a list of factors that appear to play a significant role in the resiliency of individual children and adolescents across diverse situations. The following is the list of factors:

- effective parenting;
- connections to other competent adults;
- appeal to other people, particularly adults;
- good intellectual skills;
- areas of talent or accomplishment valued by self and others;
- self-efficacy, self-worth, and hopefulness;
- religious faith or affiliations;
- socio-economic advantages;
- good schools and other community assets;
- good fortune (p. 14).

Masten states that the *how* and *by what processes these factors work* has not been fully researched except by Bandura (1977, 1982, 1986, 1990) who conducted research in the area of self-efficacy. He “hypothesized a process by which success feeds back to ones view of the self as effective, which in turn enhances the motivation to act in future situations, as well as minimizing counterproductive anxiety and arousal that can be produced by challenges. Action increases the likelihood of success, and the self-efficacy cycle continues” (p. 14).

Henderson and Milstein compiled a similar list but separated these characteristics into internal and environmental protective factors (see Table 2, Parts 1 & 2).

Table 2.1 Internal and Environmental Protective Factors:

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Internal Protective Factors: Individual Characteristics That Facilitate Resiliency\*

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- 1 Gives of self in service to others and/ or a cause
  - 2 Uses life skills, including good decision making, assertiveness, impulse control, and problem solving
  - 3 Sociability; ability to be a friend; ability to form positive relationships
  - 4 Sense of humor
  - 5 Internal locus of control
  - 6 Autonomy; independence
  - 7 Positive view of personal future
  - 8 Flexibility
  - 9 Capacity for and connection to learning
  - 10 Self-motivation
  - 11 Is “good at something;” personal competence
  - 12 Feelings of self-worth and self-confidence
-

Table 2.1. Continued. Internal and Environmental Protective Factors:

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External Protective Factors: Individual Characteristics That Facilitate Resiliency\*

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- 1 Promotes close bonds
  - 2 Values and encourages education
  - 3 Uses high warmth, low-criticism style of interaction
  - 4 Sets and enforces clear boundaries (rules, norms, and laws)
  - 5 Encourages supportive relationships with many caring others
  - 6 Promotes sharing of responsibilities, services to others, “required helpfulness”
  - 7 Provides access to resources for meeting basic needs of housing, employment, health care, and recreation
  - 8 Expresses high and realistic expectations for success
  - 9 Encourages goal setting and mastery
  - 10 Encourages prosocial development of values (such as altruism) and life skills (such as cooperation)
  - 11 Provides leadership, decision making, and other opportunities for meaningful participation
  - 12 Appreciates the unique talent of each individual
- 

\*Henderson, N. & Milstein, M., (1996, p. 9). Adapted from Richardson et al., 1990; Bernard, 1991; Werner and Smith, 1992; Hawkins, Catalano, and Miller, 1992.

Gordon and Song (1994) state, “Research continues to be dominated by the search for causal agents, significant events, or combinations of factors that either make for stress or risk- related dysfunction, or enable adaptive resilience or resistance to pathology...What seems to be missing from this viewpoint is concern with processual analysis of the multiple

and interacting forces by which behavior of almost any kind is more likely to be explained” (p. 30). He also states, “The conditions we label as *resiliency*, *resistance*, *invincibility*, are relative, situational, and attributional” (p. 31). In the study conducted by Gordon and Song they attempted to describe “the developmental processes in which multiple factors interact dialectically to result in functional and dysfunctional adaptations...instead of focusing on... the defiance of negative predictions of success” (p. 31).

Gordon and Song suggest that protective factors outlined by various studies should be viewed collectively. No single factor is the cause of the dependent variable whether it is success in school or in a career. “The collectivity of factors present in the life of a single subject may best be viewed causally related to his or her achievement. To understand the relationship from which causation is inferred required that one not focus on the presence of specific unitary factors, but examine the nature of the interactions within the collectivity of factors” (1994, p. 32). Henderson and Milstein (1996) also emphasize that resiliency is not a list of traits but a process. Although research suggests that individuals may have genetic tendencies toward resiliency, Higgins (1994) suggests that most of the characteristics associated with resiliency could be learned.

### *Resilience in Education*

Schools can play a critical role in providing an environment where individuals can develop resiliency, such as: “the capacity to bounce back from adversity, adapt to pressures and problems encountered, and develop the competencies- social, academic, and vocational- necessary to do well in life” (Henderson & Milstein, p. 11). Wang, Haertel, and Walberg (1994) define educational resiliencies as “the heightened likelihood of success in school and

in other life accomplishments, despite environmental adversities, brought about by early traits, conditions, and experiences” (p. 46).

Henderson and Milstein have developed a six-step strategy for fostering resiliency in schools based on themes that have emerged from the research. These themes demonstrate how schools, families, and communities can work together to provide environmental protective factors and foster individual protective factors. The first three factors involve mitigating risk:

- 1) Increase Bonding
- 2) Set Clear and Consistent Boundaries
- 3) Teach Life Skills

The next three factors build resiliency:

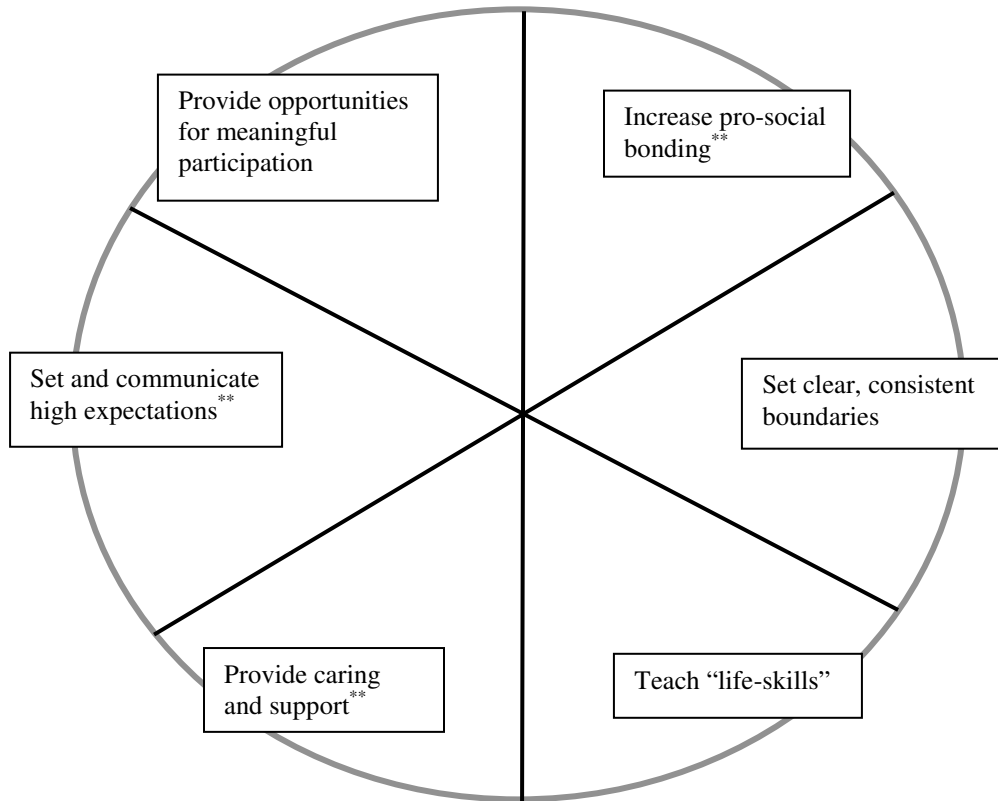
- 4) Provide Caring and Support
- 5) Set and Communicate High Expectations
- 6) Provide Opportunities for Meaningful Participation (see Figure 1).



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Figure 1. The Resiliency Wheel\*

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\*Wheel adapted from Henderson and Milstein (1996).

\*\*Components of the Resiliency Wheel included in this study.

## Theoretical Framework

Masten categorizes resilience research into three categories of phenomena. The first type of research studies individuals identified in high risk groups who experience greater than expected success. The second category of resilience phenomena “refers to good adaptation despite stressful experiences. Studies examine the general effects of stressors on child behavior, the moderators that seem to enhance or reduce the effects of adversity (vulnerability and protective factors)” (1994, p. 7). The third group of phenomena includes studies on the different ways in which individuals recover from traumatic situations and circumstances. This study falls into the second category. The researcher investigated how well a ninth grade class adapted to high school and investigated whether or not a Ninth Grade Academy, through the application of a pyramid of interventions, could serve as a moderator to the stressor of transition.

The researcher reviews three different frameworks for resiliency theory for their potential use in this study. They include Wolin and Wolin's model describing seven resiliencies (1993); Wang, Haertel, and Walberg's model of families, schools, and communities as protective factors (1997); and Henderson and Milstein's Resiliency Wheel describing six factors which either mitigate risk factors in the environment or build resiliency in the environment (1996).

Wolin and Wolin (1993) describe seven resiliencies as skills and strengths to overcome adversity. They include the following:

1. Insight: the habit of asking tough questions and giving honest answers.
2. Independence: drawing boundaries between yourself and troubled parents; keeping emotional and physical distance while satisfying the demands of your conscience.

3. Relationships: intimate and fulfilling ties to other people that balance a mature regard for your own needs with empathy and the capacity to give to someone else.
4. Initiative: taking charge of problems; exerting control; a taste for stretching and testing yourself in demanding tasks.
5. Creativity: imposing order, beauty, and purpose on the chaos of your troubling experiences and painful feelings.
6. Humor: finding the comic in the tragic.
7. Morality: an informed conscience that extends your wish for a good personal life to all humankind (pp. 5-6).

These seven resiliencies were selected on the basis of Wolin and Wolin's interviews with twenty- five resilient adult survivors; moreover, these resiliencies represent common traits that the survivors employed from childhood to adulthood in order to protect themselves. However, the researcher chose *not* to use these seven resiliencies as a framework for this study for the following reasons: the resiliencies described are reflective of skills obtained over many years, from childhood to adulthood. This present study measured the resiliency of students after they participated in a one-year program. The purpose of this study was to investigate the impact of a transition program for freshmen in building resiliency in students measured by the students' growth on standardized tests as well as the program's stated goals regarding attendance rates and promotion rates. The seven resiliencies as outlined by Wolin and Wolin are not aligned closely enough with what the program for ninth graders claims to do for its students. Additionally, it would have been difficult for the researcher to draw a correlation between the program and the acquisition of these traits over a relatively short period of time.

In 1997, Wang, Haertel, and Walberg, sought to identify conditions that promote resilience and lead to success in learning for youth in inner cities. Their examination of resiliency research uncovered evidence that protective factors mitigate against risk and promote success. Their recommended model for developing resiliency in inner city youth is to implement an inclusive approach to respond to student diversity as well as to implement family-school-community partnerships (p. 12). This model is a better fit for the study than Wolin and Wolin in that it addresses the school's role in building resiliency in students. However, this model goes beyond the extent of this study. Although the Ninth Grade Academy does implement components in its transition program that address the community and parents, the study limits its focus to the school's role in building resiliency. In addition, the Ninth Grade Academy's goals do not state any specific approaches that respond to or address diversity within its population.

The researcher chose Nan Henderson and Mike Milstein's profile of a resiliency building school as a theoretical framework for studying the Ninth Grade Academy using three of six components of the resiliency wheel, two of which address building resiliency in the environment: provide caring and support, set and communicate high expectations. The third component of the resiliency wheel is to increase pro-social bonding which is employed to mitigate risk factors in the environment. The researcher considered the stated goals of the Ninth Grade Academy as well as the ability to measure those goals in determining the most appropriate theoretical framework for this study, limiting the components of the resiliency wheel as a theoretical framework.

The researcher uses the concept of resilience as a mechanism and a process to explore the relationship of the Ninth Grade Academy to the development of resilience in freshmen

during their transition from middle school to high school. Specifically, the purpose of this study is to investigate the impact of a ninth grade transition program in building academic resiliency in students measured by the students' growth on a standardized test, including, as well, two of the program's stated goals regarding attendance rates and promotion rates.

### **Summary**

This review describes the transition of at-risk research to resiliency research giving key studies in the area of resilience. It also establishes the construct of resilience as a process then notes the significance of building resilience in schools. For this study, the researcher applies resiliency as a theoretical framework for freshmen transition from middle school into high school. Components of Henderson and Milstein's resiliency wheel provide a framework for investigating whether a Ninth Grade Academy builds resiliency for ninth graders as they make the stressful transition.

## **CHAPTER III**

### **METHODOLOGY**

#### **Introduction**

This chapter addresses the research design and methods for this study. The chapter is divided into sections on: the purpose of the study, research questions, context of the study, participants, procedures, data analysis, and summary. The context section is divided into the following sub-sections: the district, initial program implementation, data-driven improvements, pyramid of interventions conceptual framework, pyramid of intervention implementation, and model for intervention. The participants section describes the population that was studied. The procedures section outlines the process used in gathering the data for the study and how the data was utilized. The data analysis section describes how the data itself was measured through statistical tests.

#### **Purpose of the Study**

Drawing from resiliency theory and literature regarding transition, the purpose of this study was to investigate the impact of a ninth grade transition program in building academic resiliency in students measured by the students' academic change on a standardized tests as

well as the program's stated goals regarding attendance rates and promotion rates. The study focuses on a Ninth Grade Academy, a transition program that applies a pyramid of interventions for all freshmen in one high school, in one school district, as the treatment group. It measures the participants' educational resiliency in comparison to students attending a second high school, in the same district, as the control group. The study examines whether there is a difference in outcomes for students who were in the Ninth Grade Academy at one high school and students in another high school in the same district that does not have a transition program.

## **Research Questions**

Research Question 1: Is there a relationship between the independent variable, the Ninth Grade Academy; and the dependent variable, the students' academic change scores on the English 9 End-of-Course test, holding race and gender constant?

Hypothesis 1: Participation in the Ninth Grade Academy will positively influence students' Academic Change Scores on the English 9 End-of-Course test, holding race and gender constant.

Research Question 2: Is there a relationship between the independent variable, the Ninth Grade Academy; and the dependent variable, students' promotion to tenth grade, holding race and gender constant?

Hypothesis 2: Participation in the Ninth Grade Academy will positively influence students' promotion to the tenth grade, holding race and gender constant.

Research Question 3: Is there a relationship between the independent variable, the Ninth Grade Academy; and the dependent variable, students' daily attendance rate, holding race and gender constant?

Hypothesis 3: Participation in the Ninth Grade Academy will positively influence students' daily attendance rate, holding race and gender constant.



## Context of the Study

### *The District*

The study was conducted in two high schools in a large district in the Piedmont Region of North Carolina. On the 20<sup>th</sup> day of the 2005-2006 school year, the district had in membership (students who had physically attended school) over 120,504 students: 55.4% white, 26.9 % African-American, 9.2% Hispanic, 4.7% Asian, 3.6% multi-racial, 0.2% American Indian (Central County Public School System, 2006). The district's stated mission is to educate all students to become responsible and productive citizens who can effectively manage current and future challenges. On November 5, 2003, after eighteen months of community effort, the district's school board adopted Goal 2008:

The Central County Public School System is committed to academic excellence. By 2008, ninety-five percent of students in grades 3 through 12 will be at or above grade level, as measured by the State of North Carolina End-of-Grade or Course tests, and all student groups will demonstrate high growth.

In pursuit of this goal, we will:

- Increase challenging educational opportunities for all students.
- Increase student participation and success in advanced classes at the high school level.
- Increase the percent of 9<sup>th</sup> grade students graduating from high school within four years.
- Recruit, develop, support and retain a highly qualified workforce to ensure student success.
- Identify and seek resources necessary to support student success.
- Build a consensus of support through community collaboration. (Central County Public School System Website, 2003).

Prior to this, in 1998, the board had adopted goal 2003, which stated that ninety-five percent of third through eighth grade students would achieve at or above grade level in reading and in math. While the district did not reach its benchmark of 95%, all grades

showed growth with a total of 8.7 points in reading and 17.3 points in math (Central County Public School System Website, 2003).

According to the 2005-2006 Education First NC Report Card (2006), this district's performance on the ABC's End-of Grade tests were higher than the state average for the following student groups: male, female, white, black, Hispanic, American-Indian, Asian-Pacific Islander, Multi-racial, Economically disadvantaged and Not Economically Disadvantaged (NED), Limited English Proficient (LEP), and students with disabilities. Migrant students in this district scored 3.1 percentage points lower than the state average. The district's performance on the North Carolina End-of Course Exams was better than the state's average in all student group categories.

Not only are districts across the state given report cards through the North Carolina Department of Public Instruction, but each school is given a report card. In addition, this district maintains information on its website about each school and its performance on state tests. Each school in North Carolina is given a performance composite score that reflects the school's results on specified state standardized tests. For the year prior to the implementation of the Ninth Grade Academy, both high schools had similar composite scores for all standardized tests. The high school that implemented the Ninth Grade Academy, in 2000-2001, had a composite score of 73.2 in that year. Note the high school chosen as the control group scored a 73.

#### *Initial Program Implementation and Results*

Toward the end of the 2000-2001 school year, a group of staff members from one of the high schools, a transition committee, met to discuss their concerns about ninth graders' transition to high school; as well, they discussed topics such as: high retention rates, high

ratios of discipline referrals, and lower academic achievement. The group of concerned staff designed and implemented a Ninth Grade Academy for all freshmen. “The Ninth Grade Academy, in cooperation with family and community, will create an interdisciplinary and supportive environment in which students develop the skills and the confidence necessary for scholarship, character and citizenship” is the academy’s Vision Statement.

The freshmen teachers met for three days in the summer and for one hour every other week. The county provided money for teachers to hand schedule students over the summer.

The goals of the academy are:

- Ninety-five percent promotion rate for ninth graders
- Eighty-five percent of the students will be absent less than ten days per semester
- Seventy-five percent of students will be involved in athletics, music, or other clubs and extracurricular activities at school
- All students will participate in the Success, Inc. program, designed to teach communication skills in the workplace

Table 3.1 is a list of ways in which this transition program planned to meet its goals. The researcher linked each component with resiliency wheel components:

Table 3.1. Initial Ninth Grade Academy Components Linked with Resiliency Wheel Components

9 <sup>th</sup> Grade Academy Program Components	Resiliency Wheel Component		
Intervention/ prevention strategies and program components	Increase Pro-social Bonding	Provide Caring & Support	Set & Communicate High Expectations
Promote participation in extracurricular activities.	x	x	
Devote time after school to assist students who are in need of extra help.		x	x
Provide tutoring, schedule conferences, and make frequent parent contacts for students failing one or more subjects.	x	x	x
Give students opportunities to test and retest.		x	
Teach study skills and follow up with students to determine if they are using those study skills in class.		x	x
Provide students with a central location, the Ninth Grade Center, for support and assistance as well as a place to go to get to know other ninth graders.	x	x	
Provide an administrator, two counselors and a center coordinator to serve ninth grade students exclusively.	x	x	
Involve parents to circumvent academic and behavioral issues.	x	x	x

9 <sup>th</sup> Grade Academy Program Components	Resiliency Wheel Component (cont.)		
Intervention/ prevention strategies and program components	Increase Pro-social Bonding	Provide Caring & Support	Set & Communicate High Expectations
Convene once a week as a staff to plan and discuss activities, student successes, areas of academic or behavioral concern, and the continual improvement of student services.		x	x
Communicate to parents frequently by phone, e-mail and personal contact.	x	x	x
Provide many means of early intervention for students who are in danger of being retained.		x	x
Counsel each student to develop four year plans to be examined throughout high school.	x		x
Provide transportation for students who stay for: homework, lab, tutoring, and remediation after school.	x	x	
Plan field trips and a variety of extracurricular activities that also involve parents.	x	x	
Contact every parent to attend orientation.	x		x
Implement: after school detention, lunchroom cleanup, and school beautification efforts in lieu of an in-school suspension program that would prevent students from attending class for disciplinary infractions.			x

The school also received a federal grant to open an after school program for all students. During the after school program, students were able to access a computer-based curriculum called Novanet for two days a week. For the other two days, they had access to teachers for assistance. Although the grant for the after school program has expired, some components are still in existence. A homework lab is available for students who need a place to study after school, teachers maintain regular after school hours to assist students who need tutoring.

The program staff committed to: planning field trips, providing a variety of extra curricular activities, and involving parents. Teachers contacted every parent of their second period classes to invite them to attend orientation and asked for their e-mail addresses as well as other phone numbers where they might be reached.

The staff decided against using a typical in-school suspension program for students who violate the school's discipline policy, opting for after school detention, lunchroom cleanup, and various other school beautification efforts. The goal is to allow no more than a twenty-four hour turn around between the infraction and the consequence.

The program promoted ninety-five percent of its freshmen class at the end of its first year. The school received the School of Distinction honor given by the state department as a part of its accountability program. Being a school of distinction signifies that at least eighty percent of all students are at grade level in tested areas. Only eleven percent of all the high schools in the state receive such an honor.

### *Data Driven Improvement*

For the 2002-2003 school year, the Ninth Grade Academy reported that ninety-two percent of the ninth grade was promoted, seventy-eight percent of their students missed ten days or less of school for the entire year, and sixty-seven percent of their students participated in some school related activity or group.

The staff surveyed the students in the program in order to modify it as needed for the 2003-2004 school year. During the first year of the program, pairs of English and social studies teachers taught the same groups of students. They determined that team teaching for two classes produced a minimal impact, so they eliminated this component. In order to maintain the high level of communication about students, they increased the length and frequency of staff meetings. Lastly, each summer the staff met to review data and modify existing programs and examine additional interventions.

### *Pyramid of Interventions Concept*

The Pyramid of Interventions is designed to provide early intervention to students who are struggling, not only academically, but behaviorally and socially, as well. It serves as a framework to represent the step-by-step process for implementing both prevention and intervention techniques which, in turn, address academic and behavioral needs. According to Pennington and Smith (2007) it can provide:

- A common sense framework to continuously improve results for all students
- An integrated approach to service delivery that encompasses general and special education

- A structure for logically embedding research based assessment and teaching/ learning practices.

The concept is that the bottom of the pyramid symbolizes all programs and instructional practices for all students. The next level on the pyramid represents practices and programs for a smaller number of students as needed. As the pyramid narrows, so do the number of students who are served; however, here the level of services and interventions increase and become more targeted to individual need. At each level more support is added for those who need it, ranging from students who are identified as exceptional children to gifted children. In the *Pyramid of Interventions: Parent Guide* for Cincinnati Public Schools, the tiers are:

- Tier 1: School wide interventions (80-90%) support all students in a school and include core instruction that is preventative and proactive.
- Tier 2: Targeted Group Interventions (5-10%) provide additional support for smaller groups of students who may be at risk and who need more targeted help. This is done with high efficiency, in a rapid response.
- Tier 3: Intensive, Individual Interventions (1-5%) support individuals unsuccessful with Tier 1 and Tier 2 interventions. They are assessment based and intense, durable procedures (p.1-2).

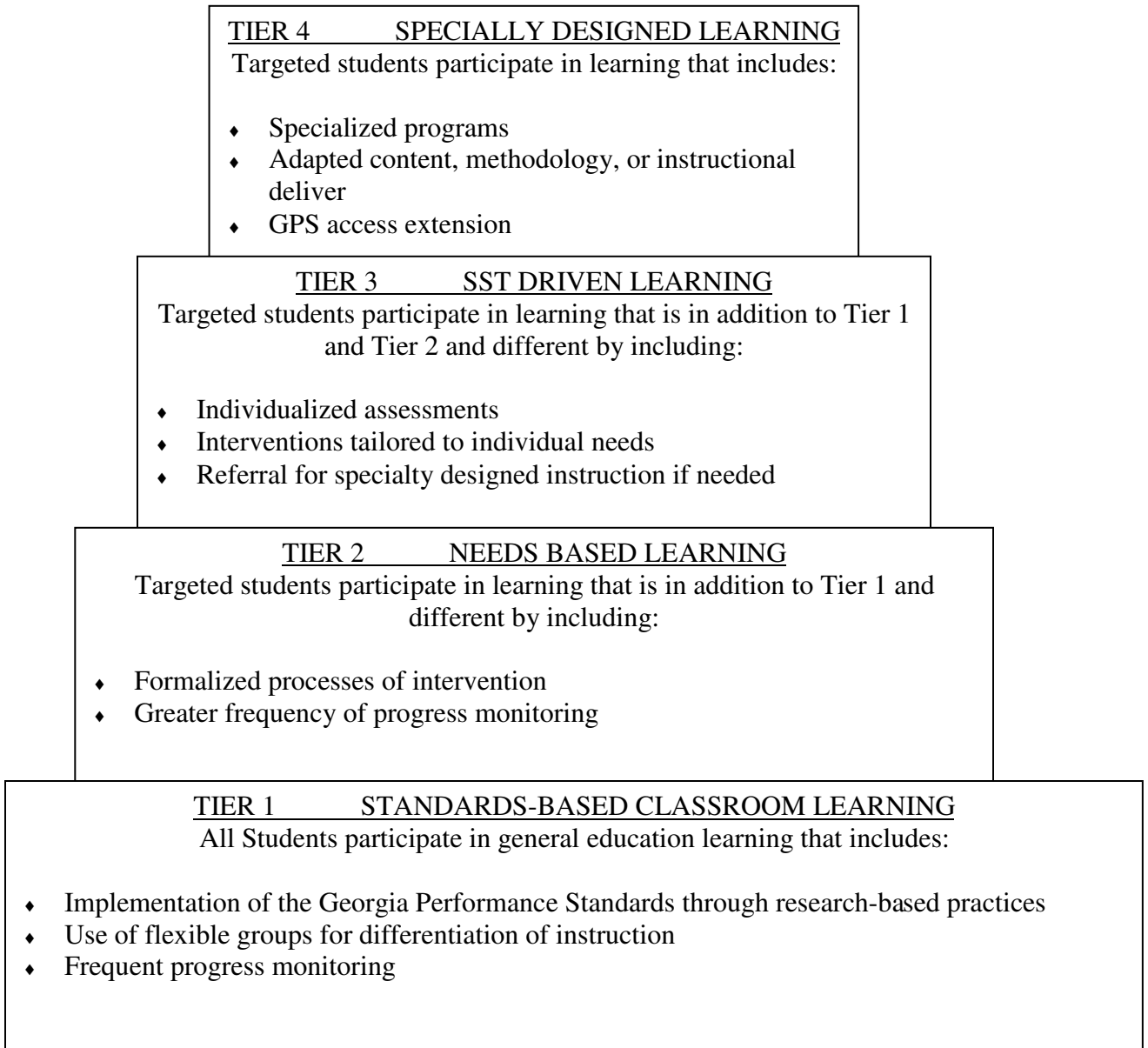
Georgia's Department of Education developed a *Georgia Student Achievement Pyramid of Interventions*. This pyramid outlines four tiers of student intervention. School districts and individual schools can use it as a template to organize the resources made available to various groups of students (see Figure 2).

Richard Dufour says that pyramids prod us to ask the questions: "Are our kids learning? How do we know that they are learning? And most importantly, what are we



prepared to do when they do not learn?" (Creel et al., 2006, p. 2). The staff at the Ninth Grade Academy asked themselves these very questions.

Figure 2. GEORGIA STUDENT ACHIEVEMENT PYRAMID OF INTERVENTION

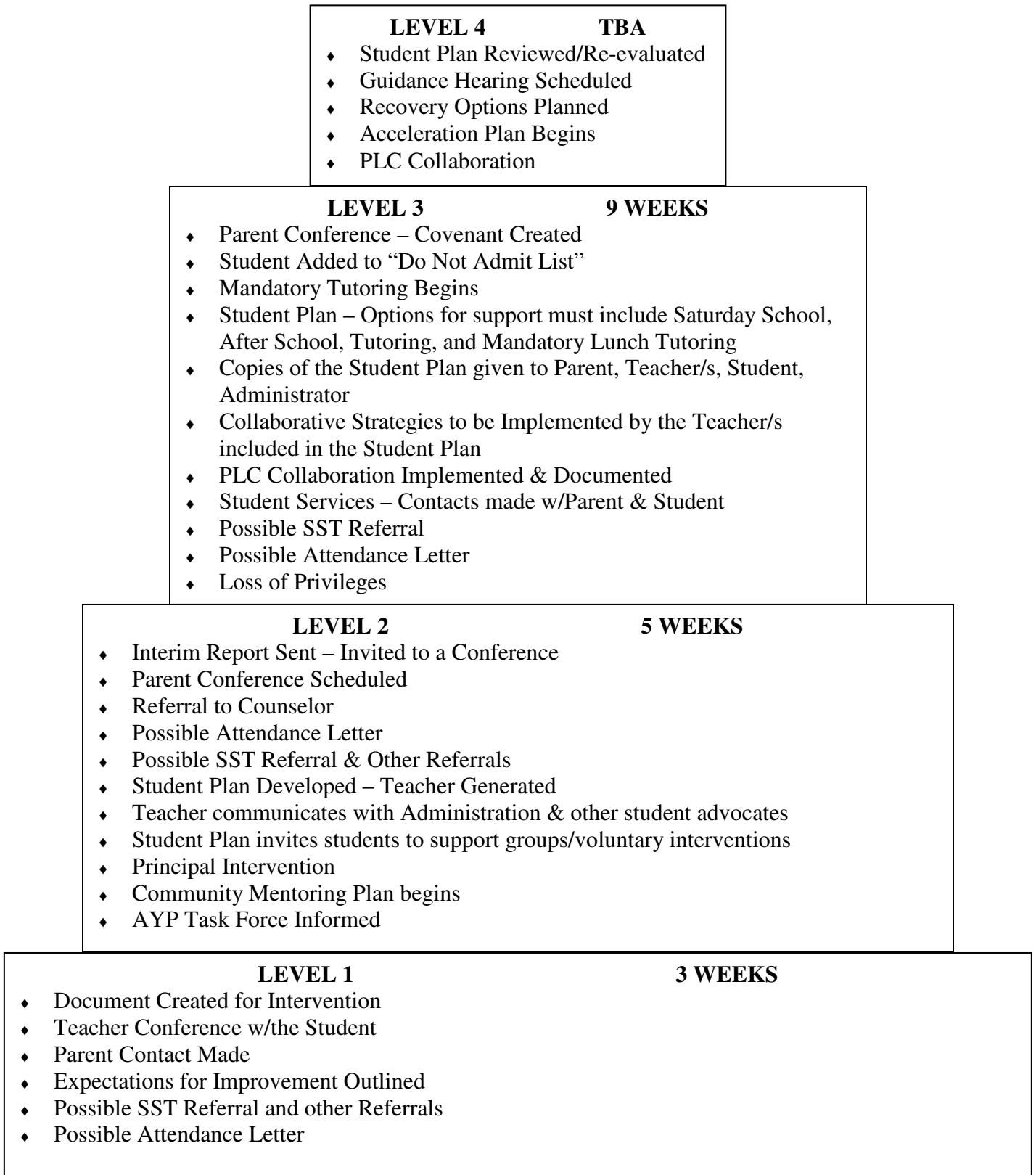


### *Pyramid of Interventions Implementation*

In the staff's ongoing process of assessing their program and improving support to students, they implemented a pyramid of interventions (see Figure 3). Although their test scores were not declining, they were concerned that as test scores seemed to plateau. The staff felt that their scores which had systematically improved had recently become stagnant.

The key to the pyramid is early detection and notification for the intervention process. The procedures to mobilize the pyramid of interventions are outlined in Figure 4. Teachers are expected to notify parents at the first signs of struggle from a student (usually about three weeks into the course). A series of forms were developed which allow teachers to document any contacts that they have made so that anyone (administrator, counselor, etc.) can see what contacts have already been made. In order to assist students struggling academically, they instituted a Mandatory Guided Study Hall (MGSH) for any students who received a failing grade as of the first report card (see Appendix C). These students were to go to a study session for the first fifteen minutes of their daily lunch for extra time to get work done. While not a tutorial, there are staff members in each of these sessions to assist students. Students remain in MGSH until they are receiving at least a seventy-three percent for the semester grade. MGSH is not optional for these students; they are required to attend until they have improved their grade. Disciplinary consequences are given if the students do not attend.

Figure 3. Ninth Grade Academy Pyramid of Intervention



Although the entire school is using the Pyramid of Interventions, the Ninth Grade Academy has adapted the pyramid and forms to even better meet the needs of freshmen. Their intervention form is given to teachers at three weeks and teachers are asked to identify students who are having difficulty with academics and behavior. As well, teachers are asked to notify parents. This contact is invaluable for the process to work because teachers are the primary line of communication with parents. These students are referred to counselors who engage the students, set up improvement plans as well as conferences, depending on the need. At interim reports (five weeks), students are placed in MGSB. Rather than waiting for report cards and a failing grade, the intention is to catch the potential for failure for freshmen even earlier. The hope is that by adding this intervention before grades are finalized, many students will be able to improve by the time report cards are issued. Because the nature of the Ninth Grade Academy is rooted in early intervention, the process of early detection appears to be an effective modification of the whole school's pyramid for the ninth grade students. Additionally, the guided study hall is mandatory for freshmen and voluntary for the rest of the school. (A. Markoch, personal communication, October 30, 2007)

Figure 4. Ninth Grade Academy Intervention Process

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Level One – 3 Weeks

- Student Communication – Inform the student of possible failure and discuss strategies for improvement; using Level One Form, document expectations for improvement.
  - Parent Communication – Inform parent of student’s possible failure and discuss strategies for improvement; document type of parent contact made. (If Parent Contact Information is invalid, request correct information from student including home/work/cell phone numbers and parent e-mail. Send correct information to the data manager for system updates.)
  - Teacher Completes Level One Form and files for Documentation.
- 

Level Two – 5 Weeks

- Interims Sent Home
  - Teacher completes Level Two Form and submits both Level One and Level Two forms to the Student Assistance Program Coordinator.
  - A guidance counselor will screen Level One and Level Two Forms to be certain that all steps in the process have been completed.
  - Student Services and Intervention Team (I Team) will communicate with parents.
  - If needed, a guidance counselor, I Team, and Student Services will schedule parent conferences.
  - As parents are contacted, they will be informed that students will be required to attend Mandatory Guided Study Hall (MGS) if grades do not improve.
  - If the student is in Special Programs, the case manager will be notified.
- 

Level Three – 9 Weeks

- Student Failure List is generated.
  - A guidance counselor and I Team communicate with parents of failing students.
  - Reports Cards and Mandatory Guided Study Hall Letters are sent home.
  - Students who are on the Failure List are placed on the Do Not Admit List (DNA).
  - Students attend MGS for the first fifteen minutes of their Lunch Period on a daily basis; if parents request, students may be required to extend MGS for an additional 15 minutes.
  - Special Programs students will attend the Curriculum Assistance (CA) Lab for MGS unless an alternate plan is created.
  - MGS is required for at least 3 weeks; students may be removed from DNA List and from MGS after 3 weeks if the teacher, administrator, and parent agree that significant improvement has been made.
  - Teachers will need to e-mail/contact the student’s administrator to recommend student’s removal from DNA and MGS.
- 

A. Markoch (personal communication, October 30, 2007)

### *Model for Interventions*

The treatment site was chosen because of its comprehensive approach to the freshmen problem. As noted in Chapter One, many studies have focused on the issue of freshman failure, but they have reviewed programs that target students who have been identified as at-risk for school failure. This Ninth Grade Academy program implements preventative measures for *all* students and targets interventions for students as they begin to show signs of academic risk for failure. Catterall (1998) found that students move in and out of academic risk groups over time and that using a resiliency framework, rather than a risk-based model to identify those students who are in academic need, proved more effective in building resiliency in these students. Blakenstein in his book, *Failure is not an Option*, describes how to build a Professional Learning Community (PLC) based on trust. Once establishing a common mission and vision, values, and goals, the second principle in building a PLC is to ensure achievement for all students through a system of prevention and intervention. He writes that:

Effective schools do not follow a “sink or swim” approach. Nor do they wade in to rescue students only when they have proven they can’t swim. Schools that are committed to success for all students systematically identify struggling students. They identify problems as early as possible- well before students have a chance to fail. The timely identification of problems is what distinguishes intervention strategies from remediation strategies. When prevention programs are already in place for all students it becomes easy to identify those who are at risk for academic difficulties. Mechanisms for identifying struggling students should ideally be built on the programs already in place for supporting *all* students. For example, a high school that monitors *all* incoming freshmen by having staff members submit frequent progress reports automatically has a “net” in place for “catching” struggling students (Blakenstein, p. 113).

Table 3.2. Pyramid of Intervention Components Linked with Resiliency Wheel Components

Pyramid of Intervention Components	Resiliency Wheel Components		
Intervention/ prevention strategies and program components	Increase Pro-social Bonding	Provide Caring & Support	Set & Communicate High Expectations
<b>Level 1 – 3 Weeks</b>			
Document Created for Intervention		x	x
Teacher Conference w/the Student	x	x	
Parent Contact Made	x	x	
Expectations for Improvement Outlined			x
Possible SST Referral & other Referrals		x	
Possible Attendance Letter			x
<b>Level 2 – 5 Weeks</b>			
Interim Report Sent – Invited to a Conference	x		
Parent Conference Scheduled	x	x	x
Referral to Counselor	x	x	
Possible Attendance Letter			x
Possible SST Referral & Other Referrals		x	
Student Plan Developed – Teacher Generated		x	x
Teacher communicates with Administration & Other Student Advocates		x	



Pyramid of Intervention Components	Resiliency Wheel Component (cont.)		
	Increase Pro-social Bonding	Provide Caring & Support	Set & Communicate High Expectations
Intervention/ prevention strategies and program components			
Student Plan Invites Students to Support Groups/Voluntary Interventions	x	x	
Principal Intervention			x
Community Mentoring Plan begins	x	x	
AYP task Force Informed		x	
<b>Level 3 – 9 Weeks</b>			
Parent Conference – Covenant Created	x	x	x
Student Added to “Do Not Admit List”			x
Mandatory Tutoring Begins		x	x
Student Plan – Options for Support Must Include Saturday School, After School, Tutoring, and Mandatory Lunch Tutoring		x	x
Copies of the Student Plan Given to Parent, Teacher/s, Student, Administrator			x
Collaborative Strategies to be Implemented by the Teacher/s Included in the Student Plan		x	x
PLC Collaboration Implemented & Documented	x	x	
Student Services – Contacts made w/Parent & Student	x	x	

Pyramid of Intervention Components	Resiliency Wheel Component (cont.)		
Intervention/ prevention strategies and program components	Increase Pro-social Bonding	Provide Caring & Support	Set & Communicate High Expectations
Possible SST Referral		x	
Possible Attendance Letter			x
Loss of Privileges			x
<b>Level 4 – TBA</b>			
Student Plan Reviewed/Re-evaluated		x	x
Guidance Hearing Scheduled	x	x	
Recovery Options Planned		x	
Acceleration Plan Begins		x	x
PLC Collaboration	x	x	

The researcher was interested in studying a program with a holistic approach. This Ninth Grade Academy serves all students using “best practices” from research in its plan to meet the needs of its freshmen class. The staff only identifies students as at-risk after students show difficulties in academic progress. Only then do the staff members implement specific, focused interventions. In addition to what is outlined in the Ninth Grade Academy’s Pyramid of Interventions, other prevention measures are available to all students through the after school tutoring opportunities and through Success, Inc., a quarterly seminar promoting such topics as: effective communication, critical thinking, decision-making, and work ethics. The academy also celebrates student involvement in extracurricular activities with the Wall of Fame, a wall displaying the names of each student and the extra curricular activity each student is involved in. Intervention efforts in many Ninth Grade Academies address students who were identified as at-risk prior to entering high school. Risk factors typically considered for a student’s participation in these intervention programs include race, low socio-economic status, behavioral problems or low academic performance, while in middle school. In searching for a school site, the researcher considered the findings of Catterall (1998) who provides research showing that such measures of risk serve to stereotype students and demonstrate that traditional risk factors are not necessarily an accurate predictor of school failure. The researcher chose the program for its inclusion of all freshmen in its efforts to successfully transition them into high school, rather than a program designed exclusively for students who had been pre-identified as being at-risk for academic failure while attending middle school.

The researcher chose the control school because of its similarity to the experimental group as shown in the composite score of both schools prior to the implementation of the

Ninth Grade Academy. The decision of the treatment school to implement a Ninth Grade Academy was a site based decision, made out of concern for its own students and from a desire to assist them. The decision was not imposed by the administration of the school or district.

#### *Intervention/ Prevention Programs at the Control Site*

The researcher met with staff members at the control site to determine what interventions or preventions were offered students that might impact freshmen. The following is a description of several programs actively in place at the control site during the 2005-2006 school year. Some of the programs are designed especially for freshmen while others are offered to all students, including freshmen. The control school does not have a defined freshmen academy model for structuring or delivering interventions, nor do they have a Pyramid of Interventions.

Two weeks prior to the beginning of the school year, all freshmen are invited to attend the Bulldog Institute, a freshmen orientation program. This two day orientation is designed to acclimate students with the campus. Upper classmen serve as team leaders for groups of 12-15 upcoming freshmen. The students meet in the auditorium the first day for introductions and to receive their agenda for two days. During these two days, students receive: student identification cards, computer log-ins, class schedules, and they participate in team building activities. Parents are invited to attend a question and answer session on the first day with the school's Parent Teacher School Association (PTSA). The students are informed of the more than 70 different clubs available at this school. They are not only encouraged to join clubs, but to propose new club ideas, as well. At the end of the second

day, the students are taught the school fight song and given a Bulldog t-shirt with their expected graduation year printed on it.

Another program offered to all students is the Academic Coaching (AC) program which provides academic coaching, career counseling, and personal mentoring throughout the four-year curriculum. The curriculum includes lessons in team building and leadership skills. The purpose is to help each student connect with the larger school community, aid in the communication between home and school, and provide a time for regular student conferences on their individual academic progress. Every student belongs to an AC team which meets daily with a faculty coach. Interims and report cards are issued during AC at which time coaches conference with each student regarding their academic progress. As well, trained senior class mentors attend an assigned freshmen AC and provide additional mentoring and academic coaching. When possible, students remain with the same adult staff member as their coach for all four years of high school. Each coach is the point of contact between the school and the parents. AC is also used to integrate guidance curriculum. AC meets for fifteen minutes every day and for extended time periods for academic conferencing and occasional special programs.

As previously mentioned, senior class members are trained as mentors and tutors for the freshmen class. This service is not only provided during the academic coaching period but also before and after school. The school's Dean of Students, who also serves as the Leadership Coordinator, facilitates: recruitment, training, and ongoing support for the mentors. The mentors are recruited based on their desire to participate, grade point average, and letters of recommendation. Training begins at the end of the students' junior year and continues into their senior year for a total of seven sessions. Training includes topics such as:

confidentiality, getting to know the student, and how to manage issues that require the assistance of an adult. Mentors are given a guide of activities to use including: icebreakers, team building strategies, activities to get to know the students, and helping the student choose a career pathway. Mentors train in pairs, practicing both different scenarios and how to respond to them. They keep a journal throughout the year, and they meet as a group with the Dean of Students on a regular basis and/or as needed. It is interesting to note that the mentor training packet was designed by a student as her graduation project. Mentors are not required to use these activities; they are encouraged to be creative and assist the students in whatever their needs may be. Rather than wait for the traditional four and a half weeks to issue interim reports, they are given out during AC every three weeks to insure prompt feedback to the students and their parents/guardians. Mentors are available to discuss the interims with students and to offer tutoring assistance.

Additional tutoring is available by individual teachers during weekly office hours. Departments work together to make certain that subject area teachers are available each afternoon. Students are encouraged to seek tutoring from any available teacher who teaches that subject.

Freshmen who enter high school, not having passed the eighth grade EOG's in reading, are enrolled in year- long English courses rather than a semester course. An accelerated review of the eighth grade curriculum is taught in the first semester, and the English 9 curriculum is taught the second semester. Additionally, students who have not passed the 8<sup>th</sup> grade EOG in Math are taught Algebra in a year- long, block course. Another course option, for freshmen only is Communication and Technology in World History. This course is taught by two teachers in a team approach by integrating the English 9 and World

History curricula as well as implementing technology. Students who take this course remain with their team teachers for a 90 minute block period the entire year.

Additional resources provided to students include the following: students and parents can request weekly progress reports; students are allowed to re-test until the material is mastered; planners are issued to all students which teachers explain as to their usage.

Although not presently available due to a lack of funds, during the 2005-2006 school year a guidance counselor was specifically assigned to freshmen. See table 3.3 for a list of the intervention and prevention efforts links with the resiliency wheel components chosen for the purpose of this study.

Table 3.3. Control Site Interventions Linked with Resiliency Wheel Components

Intervention/Prevention Programs	Resiliency Wheel Component		
Intervention/ Prevention strategies and programs	Increase Pro-social Bonding	Provide Caring & Support	Set & Communicate High Expectations
Bulldog Institute	x	x	x
Encourage club membership and student-generated submission for club ideas.	x	x	
Academic Coaching	x	x	x
Senior mentors and tutors for freshmen	x	x	x
English 9 available in a remedial year-long, block course		x	x
Algebra available in a remedial year- long, block course		x	x
Team approach to an integrated course for freshmen		x	x
Weekly progress reports available upon parent/ guardian request		x	x
Students are given opportunities to retest		x	x
Three week Saturday school EOC preparation		x	x
Ninth Grade Counselor		x	
Planners given to all students		x	x



## **Participants**

The population studied consisted of first time freshmen during the 2005-2006 school year at the school site with the Ninth Grade Academy transition program. There were approximately 600 freshmen in the program that school year. The control group consisted of first time freshmen (2005-2006) in another high school in the same school district, also having approximately 600 freshmen enrolled. The number of participants for each statistical test varied based on the data available. For Research Question 1, regarding English EOC Academic Change scores, the study included 486 participants in the control group and 490 in the treatment group. In order to be able to calculate an Academic Change score, standardized scores on the Seventh and Eighth grade NC EOG's in reading and the English 9 EOC had to be available. The required North Carolina standardized test data over a three year period was unavailable for every student. For Research Question 2, regarding promotion rates, the study included 556 participants in the control group and 577 in the treatment group. For Research Question 3 regarding attendance rates the study included 556 students in the control group and 573 in the treatment group.

The other high schools in the district were excluded because they have very different profiles than the experimental group. Many are new high schools with newly defined and frequently changing demographics. The researcher discovered after collecting the data that the district lines for the schools change yearly. The population in the control group changed from the time the researcher chose it and the time the data was available for collection. The numbers of students in each ethnic group varied between the two sites. Under advisement of the Odum Institute, the researcher controlled for differences in ethnic background by

measuring like groups. To strengthen the study, as many participants as could be identified in both schools were included in the data sets.

### **Procedures**

The researcher sought formal permission to conduct this study from the research and evaluation department for the school district through an application process for conducting research. Secondly, the researcher met with an administrator at each high school to explain the nature of the study and discuss how the data could benefit the school. The researcher visited the academy in its first year of operation, and had a lengthy phone conversation with the ninth grade guidance counselor of the program close to the end of its second year. In 2004, the researcher visited the site again, met the new Ninth Grade Academy administrator, and collected additional background information. After district level approval was granted, the researcher visited the program again to discuss the data needed and to designate two additional times to collect different pieces of data. The Ninth Grade Academy administrator was enthusiastic and helpful in gathering the data throughout the study.

The following data were collected from the district by students' names and identification numbers: proficiency scores on the Eighth grade End-of-Grade Reading test, scores on the English 9 End-of-Course test, the academic change score for the English 9 EOC, gender, race, and promotion rates for the 2005-2006 school year.

Each high school provided detailed daily attendance reports for each student for the 2005-2006 school year. Neither had a group report for the attendance rates of the student body or for the freshmen class. These individual student reports were lengthy, but they did contain data on how many days the student was present as well as how many days the student

was enrolled. The researcher entered the attendance data for each individual student into an Excel file to calculate each students' rate of attendance.

At the individual school level, they were able to provide information regarding which students were repeat freshmen during the 2005-2006 school year. For the treatment site, the administrator highlighted the names of each student who was a repeat freshman. The researcher deleted them from each data set. The control site provided a list of students and dates in which they enrolled as freshmen. The researcher compared the data sets to determine who enrolled at an earlier date than 2005-2006 school year. Those students were eliminated from the data set. As noted earlier, the Ninth Grade Academy only serves first year freshmen. To study the program results, repeat freshmen were eliminated.

### **Data Analysis**

All statistical procedures were performed using SPSS. The researcher examined the accuracy of the data, including scanning for missing values, prior to analysis. The variable gender was coded as male=0, female=1. The variable race was coded as American Indian=1, Asian=2, Black=3, Hispanic=4, Multi-racial=5, and White=6. Because some racial groups were so small, the data were analyzed a second time by grouping all minorities as White=1, and all other races=0. The participants were coded Treatment School=1 and Control School=0. Each research question represents a set of data that the researcher analyzed using statistical tests to measure the relationship between variables. All hypotheses in this study point to the relationship of the independent variable, the Ninth Grade Academy; with dependent variables students' AC scores on the English 9 EOC test, promotion to the tenth grade, and daily attendance rate.

### *Research Question One*

To determine the relationship between the independent variable, the Ninth Grade Academy; and the dependent variable, the students' academic change score on the English 9 End-of-Course test, the researcher chose two statistical tests to compare the academic change scores between the treatment school and the control school. Academic Change (AC) is a measure of the growth model segment of North Carolina's accountability program. It is a numeric indicator of an individual student's growth on assessments for the current year in comparison to the average of the two previous years. Analyses of AC are based on the c-scores and the c-scale, not developmental scores. A c-scale score is a standardized scale used to measure relative student performance. The c-scale is established based on statewide student performance during the standard setting year. During the standard setting year, fifty percent of the NC students will fall below "0" and fifty percent of the students will fall above "0". In the following years, an individual's developmental scale score is converted to a c-score, representing a point on the c-scale. This point on the c-scale demonstrates the student's performance relative to all NC students' performance for that assessment during the standard setting year. The academic change score is calculated using the difference between a student's actual c-scale score for the current year and the average of the student's two previous assessments with a correction for regression to the mean. Positive AC means a gain in academic achievement. Negative AC means a loss in academic achievement.

After obtaining the academic change score for each individual student, an independent samples *t*-test was used to investigate the relationship between the variables by comparing the mean academic change scores of the two groups. Additionally, a chi-square

test was used to investigate the relationship between the variables by comparing the means of students, within both the treatment and the control group, who made or exceeded expected academic change scores. The researcher tested the difference in group means for students' academic growth on the English 9 EOC in both the treatment school and the control school for the entire class of first year freshmen. The researcher also measured the differences in means among like groups at each school: males, females, like races, like gender and race combined, all whites, and all other races.

### *Research Question Two*

To determine relationship between the independent variable, the Ninth Grade Academy; and the dependent variable, students' promotion to tenth grade, the researcher used a chi-square test. For coding purposes, Promotion =1 and Retention=0. The researcher tested the differences between the rate of promotion of the treatment school and the control school for the entire class of first year freshmen. The researcher also measured the differences in means among like groups at each school: males, females, like races, like gender and race combined, all whites, and all minority races.

### *Research Question Three*

To determine relationship between the independent variable, the Ninth Grade Academy; and the dependent variable students' daily attendance rate, an independent samples *t*-test was used. The researcher tested the differences between the attendance rate of the treatment school and the control school for the entire class of first year freshmen. The researcher also measured the differences in means among like groups at each school: males, females, like races, like gender and race combined, all whites, and all other races. As noted in *Limitations of the Study* (p. 22), the researcher was not permitted to obtain the socio-economic status of the students.

### **Operationally Defined Variables**

#### Dependent

- 1) Academic Resiliency as evidenced by:
  - a. English 9 EOC Academic Change Scores
  - b. Promotion Rates
  - c. Daily Attendance Rates

#### Independent

- 1) Participation in the Ninth Grade Academy
  - a. Participant in the academy (treatment group)
  - b. Non-participant in the academy (control group)

## **Summary of the Methodology**

This chapter has explained the methods used to conduct this study. The two sites were chosen intentionally: one for its Ninth Grade Academy program provided to all freshmen through the implementation of a pyramid of interventions and one that does not have a Ninth Grade Academy. The participants were first year freshmen in the 2005-2006 school year. The data collected came from the district's data base and from each school's database, NCWISE. The staff also assisted in eliminating repeat freshmen from the data set. Independent samples *t*-tests and *Pearson's* chi square tests were the methods of data analysis employed in this study. The following chapter presents the results obtained with these methods.

## CHAPTER IV

### FINDINGS

This chapter reports the results of analysis of data obtained for the three research questions raised in Chapter 1. As stated previously, this study investigated the impact of a ninth grade transition program in building resiliency in students measured by the students' individual success on a standardized test, as well as the program's stated goals regarding attendance rates and promotion rates. This study focuses on a Ninth Grade Academy, a transition program that applies a pyramid of interventions for all first year freshmen in one high school in one school district as the experimental group. It measures the participants' educational resiliency in comparison to students attending a second high school in the same district, the control group. This chapter reports the findings in three sections; one for each research question. Research question one is subdivided into two sections: independent samples *t*-test and *Pearson's* chi square analysis.

#### Results for Research Question One

*Is there a relationship between the independent variable, the Ninth Grade Academy; and the dependent variable, students' academic change (AC) score on the English 9 End-of-Course test, holding race and gender constant?*



*Independent Samples t-Test Analysis*

To evaluate the hypothesis that participation in the Ninth Grade Academy will positively influence students' AC score on the English 9 End-of-Course test, holding race and gender constant, an independent samples *t*-test was conducted comparing the AC score of the treatment and the control group. The results show no statistically significant difference at the .01 level,  $t(974) = 1.722, p = .085$ . Students' mean AC scores in the treatment group ( $M = .13, SD = .54$ ) were higher than the students mean AC scores in the control group ( $M = .07, SD = .57$ ); (see Table 4.1).

Table 4.1 Mean Academic Change Scores for All Ninth Grade Students

	Control Group			Treatment Group		
	Number (N)	Mean (M)	SD	Number (N)	Mean (M)	SD
Total Pop	486	0.07	0.57	490	0.13	0.54

When comparing mean AC scores within like gender and ethnic groups, the numbers of participants are too small to determine statistical significance for all groups except for black females, white females, black males and white males. The results for black females show no statistically significant difference at the .01 level,  $t(198) = -1.011, p = .313$ . The results for white females show no statistically significant difference at the .01 level,  $t(235) = 1.237, p = .217$ . The results for black males show no statistically significant difference at the .01 level,  $t(213) = .714, p = .460$ . The results for white males show no statistically significant difference at the .01 level,  $t(253) = 1.148, p = .252$ .

Table 4.2 Mean Academic Change Scores for Gender and Ethnic Groups

	Control Group			Treatment Group		
	Number (N)	Mean (M)	SD	Number (N)	Mean (M)	SD
Am In F	2	0.41				
Asian F	3	0.98	0.23	3	0.48	0.18
Black F	154	0.15	0.50	46	0.06	0.63
Hisp F	3	-0.02	0.58	12	0.10	0.30
Multi F	6	0.50	0.52	9	0.44	0.61
White F	58	0.14	0.48	179	0.24	0.50
Am In M						
Asian M	6	0.01	0.11	1	-0.08	
Black M	157	-0.05	0.60	58	-0.12	0.59
Hisp M	4	-0.26	0.48	9	0.17	0.58
Multi M	5	0.18	0.42	6	-0.44	0.59
White M	88	0.04	0.68	167	0.12	0.52

The results comparing mean AC scores for all minority students in the treatment group against mean AC scores of all minority students in the control group show no statistically significant difference at the .01 level,  $t(482) = -.974, p = .33$ . The mean AC score for all minority students in the control group ( $M = .07, SD = .56$ ) was higher than the mean AC scores for all minority students in the treatment group ( $M = .01, SD = .60$ ). The results comparing the mean AC score for all white students in the treatment group against the mean AC score for all white students in the control group showed no statistically significant difference at the .01 level,  $t(490) = 1.925, p = .055$ . The mean AC score for all white students in the treatment group ( $M = .18, SD = .51$ ) was higher than the mean score for all white students in the control group ( $M = .08, SD = .61$ ); (see Table 4.3).

Table 4.3 Mean Academic Change for Whites and for All Minorities

	Control Group			Treatment Group		
	Number (N)	Mean (M)	SD	Number (N)	Mean (M)	SD
All						
Minorities	340	0.07	0.56	144	0.01	0.60
All Whites	146	0.08	0.61	346	0.18	0.51

The results comparing the mean AC score for all female students in the treatment group against the mean AC score all female students in the control group show no statistically significant difference at the .01 level,  $t(473) = .798, p = .425$ . The mean AC score for all female students in the treatment group ( $M = .21, SD = .52$ ) is higher than the mean AC score for all female students in the control group ( $M = .17, SD = .50$ ). The results comparing the mean AC score for all male students in the treatment group against the mean AC score for all male students in the control group show no statistically significant difference at the .01 level,  $t(499) = 1.332, p = .183$ . The mean AC score for male students in the treatment group ( $M = .05, SD = .55$ ) is higher than the mean AC score for male students in the control group ( $M = -.02, SD = .62$ ); (see Table 4.4).

Table 4.4 Mean Academic Change for All Females and for All Males.

	Control Group			Treatment Group		
	Number (N)	Mean (M)	SD	Number (N)	Mean (M)	SD
All Females	226	0.17	0.50	249	0.21	0.52
All Males	260	-0.02	0.62	241	0.05	0.55

*Pearson's Chi Square Analysis*

A second method employed to evaluate the hypothesis that participation in the Ninth Grade Academy will positively influence students' academic change score on the English 9 End-of-Course test, holding race and gender constant was a *Pearson's* chi square test. This method was conducted to determine the difference between the percentage of students in the treatment group and in the control group that met or exceeded the expected academic growth score. The results show no statistically significant difference at the .01 level, *Pearson's*  $\chi^2$  (1,  $N = 976$ ) = 2.013,  $p = .156$ .

Table 4.5 Percent of Ninth Graders that Met or Exceeded Expected Academic Change

	Control Group			Treatment Group		
	Number (N)	#met	% met	Number (N)	# met	% met
Total Pop	486	290	59.7	490	314	64.1

When comparing percentages of students within like gender and ethnic groups who met or exceeded their expected academic change score, the numbers of participants were too small for all groups except for black females, white females, black males and white males.

The results for the treatment and control groups of black females show no statistically significant difference at the .01 level, *Pearson's*  $\chi^2$  (1,  $N = 200$ ) = .178,  $p = .673$ . The results for the treatment and control groups of white females shows no statistically significant difference at the .01 level, *Pearson's*  $\chi^2$  (1,  $N = 237$ ) = .749,  $p = .387$ . The results for the treatment and control groups of black males shows no statistically significant difference .01 level, *Pearson's*  $\chi^2$  (1,  $N = 215$ ) = .329,  $p = .567$ . The results for the treatment and control groups of white males shows no statistically significant difference at the .01 level, *Pearson's*  $\chi^2$  (1,  $N = 255$ ) = .017,  $p = .895$ .

Table 4.6 Percent of Each Race and Gender Group that Met or Exceeded Academic Change

	Control Group			Treatment Group		
	Number (N)	# met	% met	Number (N)	#met	% met
Am In F	2	2	100			
Asian F	3	3	100	3	3	100
Black F	154	99	64.3	246	28	60.9
Hisp F	3	2	66.7	12	9	75
Multi F	6	5	83.3	9	8	88.9
White F	58	38	65.5	179	128	71.5
Am In M						
Asian M	6	3	50	1	0	0
Black M	157	80	51	58	27	58
Hisp M	4	1	25	9	7	77.8
Multi M	5	4	80	6	2	33.3
White M	88	53	60.2	167	102	61.1

The results comparing the percent of all minority students who met or exceeded the expected AC score in the treatment group against the percent of all minority students who met or exceeded the expected AC score in the control group show a statistically significant

difference at the .01 level, *Pearson's*  $\chi^2$  (1,  $N = 484$ ) = .613,  $p = .434$ . The percent of minority students in the treatment group who met or exceeded the expected AC score (58.5%) is higher than the percent of minority students who met or exceeded the expected AC score in the control group (58.3%). The results comparing the percent of all white students who met or exceeded the expected AC score in the treatment group against the percent of all white students who met or exceeded the expected AC score in the control group show no statistically significant difference at the .01 level, *Pearson's*  $\chi^2$  (1,  $N = 492$ ) = .778,  $p = .378$ . The percent of white students who met or exceeded the expected AC score in the treatment group (66.5%) is higher than the percent of white students in the control group (62.3%).

Table 4.7 Percent Making or Exceeding Expected AC for All Minorities and for All Whites

	Control Group			Treatment Group		
	Number (N)	# met	% met	Number (N)	#met	% met
All						
Minorities	340	199	58.5	144	84	58.3
All Whites	146	91	62.3	346	230	66.5

The results comparing the percent of all female students meeting or exceeding expected AC scores in the treatment group against all female students in the control group show no statistically significant difference at the .01 level, *Pearson's*  $\chi^2$  (1,  $N=475$ ) =1.239,  $p=.266$ . Female students in the treatment group met or exceeded expected academic change scores at a greater frequency than the female students in the control group. The results comparing the percent of all male students meeting or exceeding expected AC in the treatment group against all male students in the control group show no statistically significant

difference at the .01 level, *Pearson's*  $\chi^2 (1, N=501) = .466, p = .495$ . Male students in the treatment group had a greater frequency of students who met or exceeded expected academic change scores than the male students in the control group (see Table 4.8).

Table 4.8 Percent of All Females and all Males that Met or Exceeded Expected Academic Change Scores

	Control Group			Treatment Group		
	Number (N)	# met	% met	Number (N)	# met	% met
All						
Females	226	149	65.9	249	176	70.7
All Males	260	141	54.2	241	138	57.3

## Results for Research Question Two:

*Is there a relationship between the independent variable, the Ninth Grade Academy; and the dependent variable, students' promotion to tenth grade, holding race and gender constant?*

To evaluate the hypothesis that participation in the Ninth Grade Academy will positively influence students' promotion to the tenth grade, holding race and gender constant, a *Pearson's* chi square test was conducted comparing the promotion rates between the treatment group and the control group. The results show significance at the .01 level, *Pearson's*  $\chi^2 (1, N=1133) = 19.067, p = .000$ . Promotion rates of students in the treatment group (89.9%) are greater than the promotion rates of students in the control group (80.6%).

Table 4.9 Promotion Rates for all Ninth Grade Students

	Control Group			Treatment Group		
	Number (N)	#prom	% prom	Number (N)	#prom	% prom
Total Pop	556	448	80.6	577	518	89.9

When comparing promotion rates of students within like gender and ethnic groups, the numbers of participants were too small to determine statistical significance for all groups except for black females, white females, black males and white males. The promotion rates for the treatment group and control group of black females show no statistically significant difference at the .01 level, *Pearson's*  $\chi^2 (1, N = 231) = 2.337, p = .126$ . The promotion rates for the treatment group and control group of white females show no statistically significant difference at the .01 level, *Pearson's*  $\chi^2 (1, N = 262) = .167, p = .683$ . The promotion rates for



the treatment group and control group of black males show no statistically significant difference .01 level, *Pearson's*  $\chi^2 (1, N = 271) = 1.053, p = .307$ . The promotion rates for the treatment group and control group of white males show no statistically significant difference at the .01 level, *Pearson's*  $\chi^2 (1, N = 284) = 5.416, p = .020$ .

Table 4.10 Promotion Rates for All Race and Gender Groups.

	Control Group			Treatment Group		
	Number (N)	#prom	%prom	Number (N)	#prom	%prom
Am In F	3	2	66.7			
Asian F	3	3	100	4	4	100
Black F	176	137	77.8	55	48	87.3
Hisp F	4	3	75	14	14	100
Multi F	6	6	100	13	12	92.3
White F	61	59	96.7	201	192	95.5
Am In M						
Asian M	6	6	100	1	1	100
Black M	194	134	69.1	77	58	75.3
Hisp M	5	4	80	14	11	78.6
Multi M	6	4	66.7	6	5	83.3
White M	92	90	97.8	192	173	90.1

The results comparing the promotion rate of all minority students in the treatment group against all minority students in the control group show a statistically significant difference at the .01 level, *Pearson's*  $\chi^2 (1, N = 587) = 5.725, p = .017$ . The promotion rate of minority students in the treatment group (83.2%) exceeds the promotion of minority students in the control group (74.2%). The results comparing the promotion rate of all white students in the treatment group against all white students in the control group show no statistically significant difference at the .01 level, *Pearson's*  $\chi^2 (1, N = 546) = 4.060, p = .044$ . The promotion rate of white students in the control group (97.4%) exceeds the promotion rate of white students in the treatment group (92.9%).

Table 4.11 Promotion Rates for All Minorities and for All Whites.

	Control Group			Treatment Group		
	Number (N)	#prom	% prom	Number (N)	#prom	%prom
All						
Minorities	403	299	74.2	184	153	83.2
All Whites	153	149	97.4	393	365	92.9

The results comparing the promotion rate of all female students in the treatment group against all female students in the control group show a statistically significant difference at the .01 level, *Pearson's*  $\chi^2 (1, N = 540) = 16.692, p = .000$ . Female students in the treatment group had a greater promotion rate (94.1%) than the female students in the control group (83%). The results comparing the promotion rate of all male students in the treatment group against all male students in the control group do not show significance at the .01 level, *Pearson's*  $\chi^2 (1, N = 593) = 4.867, p = .027$ . Male students in the treatment group had a

greater promotion rate (85.5%) than the male students in the control group (78.5%); (see Table 4.12).

Table 4.12 Promotion Rates for All Females and for All Males.

	Control Group			Treatment Group		
	Number (N)	#prom	% prom	Number (N)	#prom	% prom
All Females	253	210	83	287	270	94.1
All Males	303	238	78.5	290	248	85.5

### Results of Research Question Three

*Is there a relationship between the independent variable, the Ninth Grade Academy; and the dependent variable, students' daily rate of attendance, holding race and gender constant?*

To evaluate the hypothesis that participation in the Ninth Grade Academy will positively influence students' daily attendance rate, holding race and gender constant, an independent samples *t*-test was conducted comparing the daily attendance rate of the treatment and control group. The results showed no statistically significant difference at the .01 level,  $t(1127) = 1.475, p = .140$ . The mean attendance rate of the treatment group ( $M = 95.9, SD = 5.16$ ) minimally higher than the attendance rate of the control group ( $M = 95.4, SD = .8.03$ ).

Table 4.13 Mean Attendance Rate for All Ninth Grade Students

	Control Group			Treatment Group		
	Number (N)	Mean (M)	SD	Number (N)	Mean (M)	SD
Total Pop	556	95.4	8.03	573	95.9	5.16

When comparing mean attendance rates, within like gender and ethnic groups, the numbers of participants were too small to determine statistical significance for all groups except for black females, white females, black males, and white males. The mean attendance rates for the treatment group and the control group of black females show no statistically significant difference at the .01 level,  $t(229) = .473, p = .636$ . The mean attendance rates for the treatment group and the control group of white females show no statistically significant

difference at the .01 level,  $t(257) = -2.411, p = .017$ . The mean attendance rates for the treatment group and the control group of black males show no statistically significant difference at the .01 level,  $t(269) = 1.044, p = .297$ . The mean attendance rates for the treatment group and the control group of white males show no statistically significant difference at the .01 level,  $t(280) = -1.076, p = .283$ .

Table 4.14 Mean Attendance Rate for Gender and Ethnic groups

	Control Group			Treatment Group		
	Number (N)	Mean (M)	SD	Number (N)	Mean (M)	SD
Am In F	3	97.6	97.6			
Asian F	3	98.1	1.28	5	99.1	0.87
Black F	176	95.0	7.48	55	95.5	6.66
Hisp F	4	98.3	2.13	14	94.9	4.71
Multi F	6	98.8	.817	13	97.1	3.39
White F	61	97.4		198	95.9	
Am In M						
Asian M	6	96.6	1.36	1	99.4	
Black M	194	93.8	10.9	77	95.2	5.74
Hisp M	5	97.3	.796	14	94.7	7.79
Multi M	6	97.8	3.14	6	94.7	3.84
White M	92	97.1	4.02	190	96.5	4.70

The results comparing the mean attendance rate for all minority students in the treatment group against the mean attendance rate for all minority students in the control group show no statistically significant difference at the .01 level,  $t(586) = 1.134, p = .257$ . The mean attendance rate of all minority students in the treatment group ( $M = 95.5, SD = 5.87$ ) is slightly higher than the mean attendance rate of all minority students in the control group ( $M = 94.6, SD = 9.08$ ). The results comparing the mean attendance rate for all white students in the treatment group against the mean attendance rate for all white students in the

control group show no statistically significant difference at the .01 level,  $t(539) = -2.493$ ,  $p = .013$ . The mean attendance rate of all white students in the control group ( $M = 97.2$ ,  $SD = 3.59$ ) is higher than the mean attendance rate of all the white students in the treatment group ( $M = 96.2$ ,  $SD = 4.78$ ); (see Table 4.15).

Table 4.15 Mean Attendance Rate for all Whites and for all Minorities

	Control Group			Treatment Group		
	Number (N)	Mean (M)	SD	Number (N)	Mean (M)	SD
All						5.87
Minorities	403	94.6	9.08	185	95.5	
All Whites	153	97.2	3.59	388	96.2	4.78

The results comparing the mean attendance rate of all female students in the treatment group against the mean attendance rate of all female students in the control group show no statistically significant difference at the .01 level,  $t(536) = .182$ ,  $p = .855$ . The mean attendance rate of all female students in the treatment group ( $M = 95.9$ ,  $SD = 5.16$ ) is minimally higher than the mean attendance rate of all female students in the control group ( $M = 95.8$ ,  $SD = 6.52$ ). The results comparing the mean attendance rate of all male students in the treatment group against the mean attendance rate of all male students in the control group show no statistically significant difference at the .01 level,  $t(589) = 1.664$ ,  $p = .097$ . The mean attendance rate of all male students in the treatment group ( $M = 96.0$ ,  $SD = 5.17$ ) is higher than the mean attendance rate of all the male students in the control group ( $M = 95.0$ ,  $SD = 9.11$ ); (see Table 4.16).

Table 4.16 Mean Attendance Rate for All Females and for All Males.

	Control Group			Treatment Group		
	Number (N)	Mean (M)	SD	Number (N)	Mean (M)	SD
All Females	253	95.8	6.52	285	95.9	5.16
All Males	303	95.0	9.11	288	96.0	5.17

## Summary

For all three research questions, data were analyzed comparing results from various statistical tests for the total first year freshmen population in both the treatment school and control school. The data was further analyzed for gender and all ethnicities. Due to the small number of each subgroup, the researcher also analyzed the data for all white, all minorities, all males, and all females.

The data analysis conducted for research question one does not demonstrate that the independent variable, participation in the Ninth Grade Academy, has a statistically significant impact on the expected AC scores on the English 9 EOC test. There is no statistically significant difference between the two schools, when comparing mean academic change scores on the English 9 EOC test, or when comparing the percentages of students who achieved positive growth on their AC scores. For research question two, the analysis suggests a relationship between participation in the Ninth Grade Academy and students' promotion to the tenth grade. The analysis for Research Question Three does not demonstrate a relationship between the independent variable (Ninth Grade Academy) and the dependent variable (student's daily attendance rates). The final chapter provides a discussion of the relationship of these findings with previous research as well as any implications these results have for practice.



## **CHAPTER V**

### **SUMMARY AND DISCUSSION**

This final chapter of the dissertation is divided into four sections. The first section provides a brief overview of the background and statement of the problem for the study. The second section provides a review of the methodology for the study. The third section summarizes the results of the research. The final section is a discussion of the findings of the research; it is divided into three subsections: interpretation of the findings and their relationship to previous research, implications for practice, and recommendations for further research.

#### **Background and Statement of the Problem**

Research regarding the transition from middle to high school reveals that the difficulties many students experience are even more difficult than previous transitions. Ninth grade is documented as one of the most difficult school years in a child's education. Chute (1999) conducted a study revealing that ninth grade has the highest number of failing grades and the lowest rate of attendance than any other grade. Studies show that ninth grade has the highest percentage of students who are "too old for their grade" as well as the highest rate of retention than any other grade level. Dropout rates also are at their highest in the ninth grade.

In addition to students having to pay a high price for dropping out of school, educators face high stakes for dropout rates. Meeting the accountability measures as outlined in the No Child Left Behind Act has become a much larger challenge as the accounting of drop outs has changed. In order for a high school to meet all of their accountability measures, they must not only show growth in all subgroups of their student population, but they must also show an increase in what is now called a four year cohort graduation rate.

Programs and strategies implemented to assist “at-risk” students may have a positive impact on student outcomes. The concept of resilience offers a context for understanding how a school can build resilience in students who might otherwise fail. Resiliency theory focuses on protective factors that enable people to succeed in the face of adversity and in spite of having been identified at-risk. As stated in Chapter 1, this research studies resiliency phenomena that “refer to good adaptation despite stressful experiences. Studies examine the general effects of stressors on child behavior, the moderators that seem to enhance or reduce the effects of adversity (vulnerability and protective factors)” (1994, p. 7). No decline in student performance could be interpreted as good adaptation. This study is a quantitative examination of one school’s attempt to build academic resiliency in students during the stressful transition to high school that is established in research and noted in the literature.

Drawing from resiliency theory and literature regarding transition, the purpose of this study was to investigate the impact of a ninth grade transition program in building resiliency in students measured by the students’ academic change on a standardized test as well as the program’s stated goals regarding attendance rates and promotion rates. This study focuses on a Ninth Grade Academy, a transition program that applies a pyramid of interventions for all freshmen in one high school in one school district.

## **Review of the Methodology**

This research is a post-test only control group design, quantitative study. There were three research questions and three hypotheses tested. The research examined the impact of an independent variable, a Ninth Grade Academy, on students' academic change score on the English 9 EOC test, promotion to the tenth grade, and daily attendance rate.

The population for study consisted of first time freshmen classes at two different schools within the same school district. The two sites were chosen purposively; one for its Ninth Grade Academy program that is provided to all freshmen through the implementation of a pyramid of interventions and one that does not have a Ninth Grade Academy. The participants were first year freshmen during the 2005-2006 school year. The data collected came from the district's data base and from each school's database, NCWISE. The staff also assisted in eliminating repeat freshmen from the data set.

For research question one, an independent samples *t*-test and a *Pearson's* chi square test were conducted to determine if there was a relationship between the independent variable, participation in the Ninth Grade Academy; and the dependent variable, students' academic change score on the English 9 EOC test. For research question two, a *Pearson's* chi square test was conducted to determine if there was a relationship between the independent variable, participation in the Ninth Grade Academy, and the dependent variable, students' promotion to the tenth grade. For research question three, an independent samples *t*-test was conducted to determine if there was a relationship between the independent variable, participation in the Ninth Grade Academy, and the dependent variable, students' daily attendance rate.

## Summary of the Results

Research question one sought to determine if there was a relationship between the independent variable, the Ninth Grade Academy, and the dependent variable, the students' academic change scores on the English 9 End-of-course test. The results were analyzed for all first year freshmen in the following categories: total population, gender and race combined, gender only, white only, and all minorities. The independent samples *t*-test showed no statistically significant difference between the two schools when comparing mean academic change scores on the English 9 EOC. The results demonstrated higher means, although not at a significant level, for the treatment group in the following categories: the total population, white females, white males, all whites, all females and all males. The results demonstrated higher means, although not at a significant level, for the control group in the following categories: black females, black males, and all minorities.

The results of the *Pearson's* chi square test showed no statistically significant difference between the two schools, comparing the percentages of students who made positive growth. The results demonstrated higher means, although not at a significant level, for the treatment group in the following categories: the total population, white females, black males, white males, all whites, all females and all males. The results demonstrated higher means, although not at a significant level, for the control group in the following categories: black females, and all minorities.

Research question two sought to determine if there was a relationship between the independent variable, the Ninth Grade Academy, and the dependent variable, the students' promotion to the tenth grade. For research question two, a *Pearson's* chi square analysis

demonstrated that participation in the Ninth Grade Academy had a significant influence on students' promotion to the tenth grade ( $p < 0.01$ ) for the following groups: total population, females, and all minorities. The results demonstrated higher means, although not at a significant level, for the treatment group in the following categories; black males, black females, and all males. The results demonstrated higher means, although not at a significant level, for the control group in the following categories: white females, white males, and all whites.

Research question three sought to determine if there was a relationship between the independent variable, the Ninth Grade Academy, and the dependent variable, the students' daily attendance rate. For research question three, an independent samples *t*-test did not demonstrate a relationship between the independent variable, Ninth Grade Academy and the dependent variable student's daily attendance rates. The results demonstrated higher means, although not at a significant level, for the treatment group in the following categories: total population, black females, black males, all minorities, all females, and all males. The results demonstrated higher means, although not at a significant level, for the control group in the following categories: white females, white males, and all whites.

## **Discussion of the Findings**

This study sought to add to the body of quantitative research available on the concept of resiliency building in schools, in particular, to examine this concept during school transition. Much of the previous research has examined transition programs that target students identified as being at-risk prior to making the transition. This research studied an entire ninth grade class during their first year of high school. This study sought to examine a Ninth Grade Academy's capacity to build resiliency for the entire ninth grade class. Specifically, the relationship between the independent variable, a Ninth Grade Academy and dependent variables (students' academic change score on the English 9 EOC, students' promotion to the tenth grade and students' daily attendance rate) were examined to determine their influence on the students' educational resiliency as they transition to high school.

## *Interpretation of the Findings and Their Relationship to Previous Research*

### *Research Question One*

Results of this first investigation indicate that the Ninth Grade Academy had no statistically significant impact on students' academic change score on the English 9 EOC test when compared to another high school in the district. To determine any patterns, the researcher reviewed ninth grade students' scores on the English 9 EOC test from the 2001-2002 school year, the year prior to the program implementation, to the present. The researcher also sought any potential explanation of the results to research question one by reviewing the research on school reform initiatives and research regarding resiliency.

Upon further review, the researcher discovered that, although this program did *not* have an impact on growth scores in relationship to the control school, it does indicate that since its implementation, proficiency scores on the English 9 EOC test have improved. Table 5.1 shows that test scores at the treatment school have improved since the implementation of the Ninth Grade Academy in 2002-2003 as well as the control school without an academy. At the treatment school, scores increased significantly after the first year, and they continued to improve after the second year, surpassing the district's average scores. However, the third and fourth year show a slight decrease in proficiency. The control school experienced a significant increase in the 2002-2003 school year but the scores steadily declined every year thereafter. In comparison to the state, the treatment school and the control school have always had a greater rate of proficiency. While the Ninth Grade Academy may not have impacted its students' AC scores at a rate greater than the control school, evidence indicates that their results over time were more stable than that of the control school. Further research

is needed to compare specific intervention efforts at each school to determine the effectiveness of their efforts.

Table 5.1. Performance of Students on the English 9 EOC Test\*

Percentage of students' scores at or above grade level

Year	North Carolina	District	Treatment School	Control School
2001-2002	69.7	81.2	83.2	79.1
2002-2003	81.4	89.0	88.4	92.6
2003-2004	81.5	87.5	90.6	88.6
2004-2005	81.9	87.4	89.9	86.8
2005-2006	82.8	87.2	89.0	83.4

\*Data available on the NC Public Schools Report Card.

The researcher discussed this finding with the Ninth Grade Academy administrator who stated that improved test scores had not been the focus of the Ninth Grade Academy. The program's primary goals were: to support students as they transition to high school, engage students in the school environment, and assist them with their classes. He said that, by focusing on helping the students to succeed with class work, a secondary benefit may have resulted in improved test scores, but that the latter was not their primary focus for interventions. He also noted that, prior to the freshmen class of 2006-2007, students were not required by state statute to be proficient on state standardized tests in order to pass the course. In light of this new proficiency requirement, their targeted interventions, as outlined in the Pyramid of Interventions, may need revision. Succinctly put, the new proficiency standard necessitates new interventions; additionally, the way that growth scores are



calculated has the potential to profoundly impact the Pyramid of Intervention for the Ninth Grade Academy. As previously explained, the growth score calculation is a true measure of each individual's growth on standardized tests. Previously, growth scores for schools were based on the number of students who were proficient on a particular exam in comparison to the percentage of students who were proficient on that same exam for the previous two years. In essence, growth was a measurement of students' success in a given year in comparison with the success of a different group of students in a previous year. This new growth measurement has the potential to be a much more informative and accurate measure of how individual students are performing as opposed to measuring how different sets of students score on a particular test. The absence of program components that specifically target improved test scores may be an indicator of why there is no significant difference between the treatment group and the control group; however, recall that the students did show growth on the English 9 EOC test.

Alspaugh (1998) shows that students transitioning from middle to high school experience achievement loss. The students in the treatment school show growth in every population group. One might argue that the data demonstrated evidence of resiliency in that the students showed growth on a standardized test rather than showing loss. These students not only met growth expectations but exceeded them during their ninth grade year. "Resilience has been defined as overcoming predictions of failure" (Catterall, 1998, p. 304). The fact that these students showed academic resiliency may be an indication that the Ninth Grade Academy had an impact, but not in comparison to the control school. Additionally, the control school had many academic interventions, which confounds the comparison between the two schools' standardized test scores.

Another possible interpretation of the results for research question one may be found in the research regarding school reform. The themes that may have relevance for the Ninth Grade Academy include: change takes time, plateaus can occur and be overcome, and new initiatives often result in a temporary decrease in outcomes.

The implementation of the Ninth Grade Academy is essentially a school reform effort. According to Fullan (2000), it takes approximately six years to achieve successful change in a secondary school and that it only happens in a small number of schools. Reforms that work are rarely reproduced, and they often do not last. “Put in terms of the change process, there has been strong adoption and implementation, but not institutionalization. The main reason for the failure of these reforms to go to scale and to endure is that we have failed to understand that both local school development and the quality of the surrounding infrastructure are critical for lasting success” (p. 581). Often reforms have an initial impact which plateaus. Fullan (2004) suggests the reason for such plateaus is that those who implement new strategies do not have ownership in the process.

Not only do school reform efforts plateau, but often schools experience a decrease in outcomes upon implementation. Fullan refers to this as the “implementation dip.” He suggests that, “understanding the change process is to understand the finding that all eventual successful change proceeds through an implementation dip” (Fullan, 2001, p. 57). Knowing about the “implementation dip” impacts the way in which practitioners respond to it which serves to shorten the length of time it lasts. According to the English 9 EOC test proficiency scores, the Ninth Grade Academy may be experiencing an implementation dip.

To overcome plateaus, Heifetz and Linsky (2002) recommend addressing “adaptive challenges” as opposed to “technical solutions.” Technical problems are those with well known solutions. Adaptive challenges are those that exceed common knowledge solutions.

[Summarily], the main properties of adaptive challenges include:

- The challenge consists of a gap between aspiration and reality, demanding a response beyond our current repertoire.
- Adaptive work to narrow the gap requires difficult learning.
- The people with the problem are the problem, and they are the solution.
- Adaptive work generates disequilibrium and avoidance.
- Adaptive work takes time (Heifetz & Linsky, 2002, p. 4).

As new accountability measures are implemented state-wide, such as the new proficiency on the EOC tests requirement, the Ninth Grade Academy will also need to modify and adapt their intervention efforts to meet these demands. The only way to determine whether this program is experiencing a lack of institutionalization, a plateau, or an implementation dip, is to conduct long range studies.

### *Research Question Two*

The results demonstrate that the Ninth Grade Academy had a *statistically significant* difference in the students’ promotion rate when compared to another high school in the district. The promotion rate suggests that these interventions had a positive impact on the academic resiliency in the freshmen class, treatment group, which supports the work of Henderson and Milstein (1996) who claim that schools can play a critical role in providing an environment in which individuals can develop resiliency. This study has shown evidence that the Ninth Grade Academy implemented practices that: set and communicated high expectations, provided caring and support, and increased prosocial bonding (see Figures 3.1

and 3.2.). Samples of program components that build protective factors in students are described below:

*Evidence of setting and communicating high expectations.*

Several program components serve to communicate high expectations to the students in the ninth grade. Setting high expectations serves as a protective factor, building resiliency into the school environment. (Henderson and Milstein, 1996) If a student is in danger of failing a class, as early as three weeks into the course, the teacher will communicate this possibility and discuss strategies for improvement. The teacher provides opportunities for students to retest as needed. If the student is still in danger of failing a class, among other strategies, Mandatory Guided Study Hall (MGSH) is required. The student is required to attend MGSH for the first fifteen minutes of lunch until his/her grade in the course improves. Clearly, failure is not an option. Students are more likely to experience success in school when expectations are clear and consistent (Werner & Smith, 1982).

*Evidence of providing caring and support.*

The Ninth Grade Academy staff members do not simply raise the level of expectations for students, they provide assistance which fosters success. According to Henderson and Milstein (1996) this resiliency wheel component builds resiliency in the environment and is "...the critical foundation for all resiliency building. It is the most crucial element of resiliency-building attitudes but should also be expressed by behaviors. These included noticing all students, knowing their names, drawing out the ones who may not readily participate, and investigating and intervening when students are dealing with difficult circumstances" (p. 28). The implementation of the Pyramid of Interventions provides a vehicle for providing care and support for students. The staff devotes time after school to

tutor students. They teach study skills and follow up with students to make sure they are using these skills. The program has an administrator who works solely with the ninth grade students. Additionally, the Ninth Grade Academy has two counselors and a ninth grade center coordinator. All support staff members play a crucial role in applying the Pyramid of Interventions.

*Evidence of increasing prosocial bonding.*

The Ninth Grade Academy has a Ninth Grade Center that serves as a “safe haven” for students who need assistance and support and as a place to meet other ninth grade students. There is a lounge where students can choose to eat their lunch. Along the walls are pictures the students create which represent the various extracurricular activities in which they participate. The center coordinator and two guidance counselors are located in the Ninth Grade Center. According to Doyle and Doyle (2003) students who make a connection with one caring adult are more likely to experience success in school. The staff promotes extracurricular involvement and recommends that each child becomes involved in two different extracurricular activities during their ninth grade year.

Increasing positive parent involvement generates prosocial bonds; Wang, Haertal, and Walberg (1997) recommend a model of developing resiliency by implementing an approach responding to diversity as well as the implementation of family-school-community partnerships (p. 12). The treatment school’s Pyramid of Interventions includes family members, community members, and school staff in the process; as well, the academy also plans field trips and extracurricular activities involving parents. The information released to the researcher only documented that these programs existed. The above information only

notes that these program components are available. As noted in the limitations, the control school did not provide the data needed to determine any statistical significance.

*Effectiveness as a transition program.*

The promotion rate of the ninth graders indicates a relationship between the Ninth Grade Academy and its effectiveness as a transition program. The results support the study by de Mesquita et al. (1992) who reported a transition program that reduced freshmen failure by 12%. It also supports the research of Hertzog and Morgan (1999) who found that schools with extensive transition programs had lower dropout and failure rates. Further, in the work of Felner et al. (1982) it was found that students participating in the STEP transition program showed better academic adjustment, academic growth, and maintained consistent levels of attendance.

This particular Ninth Grade Academy served all first year freshmen as opposed to academies designed for students already identified as at-risk before entering high school. This program's delivery of interventions to all students through a pyramid of interventions expands the research of Smith (1997) who demonstrated that programs targeting only one group have no impact on transition problems. Catterall (1998) suggested that there is a benefit in conceptualizing risk through student performance rather than through group characterization such as race and low socio-economic status, because students are able to move in and out of performance-based groups over time. The Pyramid of Interventions approach of making interventions available to *all* students and adding layers, *as students demonstrate need*, supports Catterall's findings.

### *Effectiveness of the pyramid of intervention*

A pyramid of interventions served as a vehicle for the Ninth Grade Academy to deliver services to students as needed. The pyramid outlines the process by which staff members are alerted to apply interventions to students as they demonstrate need. This framework functions as a safety net to catch any students whose academic performance may be declining. The researcher notes that the interventions target classroom success. Most interventions are applied when a student shows some sign of academic failure. Possibly, the intense focus on policy led to improved grades; it then follows, improved grades result in students passing classes and earning credits which in turn results in promotion. This type of attention to grades may explain why the program only impacted promotion rates at a statistically significant level. The results may also indicate a change in the staff's behavior which might explain why there is a significant difference in the promotion rates but not in attendance or growth in standardized test scores.

### *Research Question Three*

The results of this question indicate that the Ninth Grade Academy had no statistically significant impact on students' daily attendance rate when compared to another high school in the district. The results did show that the students in almost every population group at the treatment school had higher rates of attendance than at the control school. The results suggest that the high rate of attendance in both schools is attributable to other factors.

The school district's attendance policy not only outlines expectations for the students but also for the school:

At the secondary level cumulative absences above ten days in a block course (20 in a full year course) are excessive. After five days of accumulated absences in

one or more block courses (ten in a full year course) there will be a school determined, expectations-based intervention to help the student improve his or her attendance. The intervention will involve parents. After ten days in a block course (20 in a full year course) and failure to meet previously determined expectations, the student will be subject to failure, retention, or summer school. All schools will develop a plan to improve attendance. As a part of this plan, each school will establish procedures to develop and implement interventions, and disciplinary actions for unexcused absences and a process for dealing with students who fail to meet previously-determined expectations (CCPSS Board Policy- Attendance, section 6000.8 and 6000.9).

The researcher found that both schools had programs to address absenteeism. At the treatment school, when a student exceeds ten days, he or she may attend Saturday school to validate attendance. The student has the opportunity to make up time, hour-for-hour. At the control school, academic coaches place phone calls to parents when their students are absent.

Providing intervention for students with high absenteeism indicates recognition of the negative impact of absenteeism. Rumberger (1995) found that students who were absent 15-25% of the time were more likely to drop out of school. In order to receive course credit in high school, students must be present for a minimum number of hours. Violating this policy results in loss of course credit. Promotion for high school students is contingent upon earning a certain number of course credits. Many students who repeat courses do so because they have violated the attendance policy. Providing an opportunity to make restitution for missing school can have a positive impact on schools' promotion rates.

### *Implications for Practice*

#### *Implications for Cohort Graduation Rate*

Accountability measures continue to increase each year through the No Child Left Behind Act. As previously mentioned, not only must educators search for ways to improve



standardized test scores, but they must also increase their cohort graduation rate. The results of the first cohort measurement were released in February, 2007, for the group that should have graduated during the 2005-2006 school year. The data presents a new challenge for educators to track freshmen not only to keep them from dropping out, but to insure that they graduate within four years. The results of this study may have implications for practitioners who will be searching for programs that build resiliency in students as they transition to high school. This program shows a statistically significant impact on ninth graders' promotion to the tenth grade. The Ninth Grade Academy concept, in particular, one that implements interventions for all freshmen using a pyramid of interventions may offer a viable option.

#### *Implications for Multi-level Training*

Due to the No Child Left Behind Act, national attention is being drawn to high stakes accountability measures and the consequences for not meeting expectations. The solutions must be sought at the university level, the systemic level, and the operational level. This study is only one of many researching issues regarding dropouts and how a school might build protective factors into the environment. While the results of this study are limited to one school, they could have implications for practice at all levels.

Because solving school wide problems in isolation rather than working in teams is ineffective, training programs at the university level need to bring more focus on teaching administrators, guidance counselors, social workers, and classroom teachers, to work in collaborative teams. Training in isolation is ineffective. For interventions to be effective, they must be comprehensive and collaborative. Students in the various divisions of schools of education need to be able to collaborate with one another when they enter school systems in

order to serve students' needs effectively. Which begs the question: Why not model that at the university level? Training in establishing professional learning communities and creating a pyramid of interventions could have a profound impact on student success.

This study provides evidence of success for a system-wide review and further study of this particular adaptation of a Ninth Grade Academy. Specifically, the school board and the superintendent may consider a Ninth Grade Academy model that serves all freshmen, rather than a few targeted at-risk students. District level leaders should also consider additional research as to the effectiveness of building a pyramid of interventions through a professional learning community. Studies should focus on: the development of the pyramid, the appropriateness of the interventions given the needs of the student body, interventions grounded in research, the commitment of staff members to implement the interventions, and the process by which the pyramid is modified over time as the needs of the students change. Blankenstein (2004) suggests that an effective system is designed to deliver interventions to all students and monitors individual performance in order to identify early problems. Additional intensified intervention strategies are to be added as needed (p. 115). District leaders can create opportunities for collaboration and teaming across the district providing opportunities to: share intervention strategies, create pacing guides, align curriculum, and create common assessments that could have a profound impact on instruction.

The results of district-wide collaboration would certainly impact individual schools. Fullan (2000) writes, “[C]ollaborative schools do not take on the greatest number of innovations; they do not engage in the greatest number of staff development days. Rather, they are selective: they select and integrate innovation; they constantly work on

connectedness; they carefully choose staff development, usually in groups of two or more; and they work on applying what they learn.

Blankenstein (2006) recommends the following guidelines to practitioners developing a system of prevention and intervention such as a pyramid of interventions.

- Get verbal commitment from the faculty members and define success.
- Provide examples of exemplary programs.
- Jointly develop a plan of action to be used when students don't learn.
- Agree on criteria for identifying students in need of assistance and ensuring they enter the appropriate programs.
- Surface objections and address resistance.
- Pilot aspects of the new program
- Build a culture of success.
- Refine and add interventions (pp. 123-125).

### *Areas for Further Research*

In discussing the applicability of the results of this study for educators, it is important to note the limitations of the findings of the research. The variables chosen for study were limited. In particular, socio-economic status information was not available. The study was limited to the first year freshmen classes of two high schools in only one district in North Carolina and for only the 2005-2006 school year. Generalization of the results may not be appropriate. Additionally, the data were tested for correlations between variables. No inferences should be made for causality.

The following additional research could broaden the scope of this present study:

- When made available, administer resiliency survey instruments to students as they finish their freshmen year. Follow up with interviews or discussion groups to help determine which components of the freshmen academy are effective in building resiliency in students, and to further determine which components on the resiliency wheel are embedded in the program. Surveys and interviews would add insight regarding the students' resiliency beyond test scores, promotion rates, and attendance rates.
- Conduct longitudinal research on the effect of a Ninth Grade Academy's use of a pyramid of intervention as a mechanism to deliver these efforts effectively. In particular, to study the possible correlation between the Ninth Grade Academy and the four year cohort graduation rate. (The first time freshmen class of 2005-2006 should graduate in 2008-2009 school year.) Data regarding the long term effects of such a program could have an impact on how this and other Ninth Grade Academies may improve their services. Such

a study could extend the research of Felner (1988) who found that students who had been in the STEP transition program five years earlier had half the dropout rate of the control group.

- Compare results for students at the end of their first year in high school as well as their four year cohort graduation rate in schools without freshmen transition programs, transition programs targeted at students identified as at-risk prior to entering high school, and programs that provide interventions for all ninth grade students. The results may provide invaluable insight for educators searching for options to improve their four year cohort graduation rate.
- Research effectiveness of the Pyramid of Intervention concept seeking to determine:
  - Are the interventions based on proven research?
  - Are the intervention strategies chosen based on the students' needs?
  - Is it data driven?
  - Does the staff operate as an effective team in analyzing their own students' needs, finding the interventions, and applying the interventions as outlined?

This research could extend the work of Perkins and Gelfer (1995) who suggest that a transition model include: developing a team, generating goals and identifying problems, developing a written plan, acquiring the support and commitment of teachers and all those involved in the transition process, and evaluating the transition process.

## Summary

This study examined a Ninth Grade Academy transition program's ability to impact academic resiliency in first year ninth grade students. This Ninth Grade Academy implemented a pyramid of interventions as a way to address the needs of all first year freshmen. All students received support. As students demonstrated a need for academic help, layers of support were added. The Ninth Grade Academy embeds collaboration between family, students, staff, and community members. This study was limited to measuring students' academic resilience through academic growth scores on the English 9 EOC test, promotion rates, and daily attendance rates.

Findings showed that, while all groups of students in the treatment group showed academic resilience in that they exceeded growth scores, they did not show a statistically significant difference than the control school. The treatment school's promotion rate was significantly higher than that of the control group. The attendance rate was high for both schools; therefore, the rate cannot conclusively be attributed to the transition program.

Results from this study provide educators insight into one program that had a significant impact on the promotion rate of its first year freshmen. In order for high schools to meet Adequate Yearly Progress for the No Child Left Behind Act, the new Cohort Graduation Rate has been included in the model. Schools will be held accountable for the percentage of students who graduate in four years. Practitioners will be searching for options to address the high nonpromotion rate for the ninth grade. This study is limited to one particular high school and the results may not be generalized for all settings; however, the

concept of the Ninth Grade Academy, as well as its use of the Pyramid of Interventions, is adaptable in any given setting.

## Appendix A. COHORT GRADUATION RATE

House Select Committee on High School Graduation and Drop Out Rates  
October 24, 2006

### The rate for a school will be calculated as follows:

Students who graduated with a diploma prior to June 30, 2006

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Students in the school in the 9<sup>th</sup> grade in 2002-03\*  
Plus students who transferred into the school in the grade appropriate to the cohort\*\*  
Minus students who transferred out of the school and students who are deceased\*\*\*

### The rate for an LEA will be calculated as follows:

Students who graduated with a diploma prior to June 30, 2006

---

Students in the LEA in the 9<sup>th</sup> grade in 2002-03\*  
Plus students who transferred into the LEA in the grade appropriate to the cohort\*\*  
Minus students who transferred out of the LEA and students who are deceased\*\*\*

### The rate for the state will be calculated as follows:

Students who have graduated with a diploma prior to June 30, 2006

---

Students in the state in the 9<sup>th</sup> grade in 2002-03\*  
Plus students who transferred into the state in the grade appropriate to the cohort\*\*  
Minus students who transferred out of the state and students who are deceased\*\*\*

### Notes:

- Only includes those students who are in the 9<sup>th</sup> grade for the first time.

\*\* Students who were in 8<sup>th</sup> grade in 2001-02 and transfer in as a  
9<sup>th</sup> grader in 2002-03  
10<sup>th</sup> grader in 2003-04  
11<sup>th</sup> grader in 2004-05  
12<sup>th</sup> graders in 2005-06

\*\*\* Students who transfer out are those who have not been reported as having dropped out and the school has received a records request from an educational institution, public or private in North Carolina or another state.

**Dropout students count as non-graduates unless they enroll in another school on track at some point.**

**The state rate is not the average of the LEA or school rates.**



## Appendix B: Teacher Intervention Documentation Form

**Teachers: Send this form to Student Services to recommend intervention by a Student Services staff member. Please note: Documented communication and teacher intervention must be completed prior to requesting Student Services intervention.**

### Teacher Intervention Documentation Form

**Student Name:** \_\_\_\_\_ **Grade:**    9    10    11    12    **Today's Date:** \_\_\_\_\_

**Teacher Name:** \_\_\_\_\_ **Subject:** \_\_\_\_\_ **Student's Grade:** \_\_\_\_\_

**Is the above student identified as Special Programs? Yes** \_\_\_\_\_ **No** \_\_\_\_\_

**The above student is in jeopardy of academic failure for the following reasons:** (Mark a "X" for all that apply.)

- Poor Attendance
- Tardiness
- Lack of Basic Skills \_\_\_\_\_
- Low Quiz Grades \_\_\_\_\_
- Low Test Grades \_\_\_\_\_
- Does not pay attention in class
- Does not make up missed assignments
- Does not turn in homework
- Submits incomplete assignments
- Needs to improve note-taking and organizational skills
- Needs to improve study skills
- Does not utilize available teacher and school assistance resources (ex. after-school tutoring/assistance)
- Social and/or Behavioral issues \_\_\_\_\_
- Other, : \_\_\_\_\_

*(3 Weeks - 5 Weeks)*

Complete each of the following:

Student's Grade: \_\_\_\_\_ as of \_\_\_/\_\_\_/\_\_\_ (date), \_\_\_\_\_ as of \_\_\_/\_\_\_/\_\_\_ (date), \_\_\_\_\_ as of \_\_\_/\_\_\_/\_\_\_ (date)

Communicated:

\_\_\_ Possible class failure with Student Date: \_\_\_/\_\_\_/\_\_\_ with Parent/Guardian: Date: \_\_\_/\_\_\_/\_\_\_

\_\_\_ If applicable, with student advocate (coach, advisor, etc.): Date: \_\_\_/\_\_\_/\_\_\_, Date: \_\_\_/\_\_\_/\_\_\_

\_\_\_ Strategies for student's success to both student and parent/guardian.

\_\_\_ Available class and school resources to both student and parent

\_\_\_ Teacher Tutoring sessions scheduled for: M T W TH F Time: \_\_\_\_\_

Room: \_\_\_\_\_

**Student attends sessions as scheduled** \_\_\_\_\_ **Yes** \_\_\_\_\_ **No**

\_\_\_ Mandatory Guided Study Hall information to student and parent

Type of Parent/Guardian Communication:

Email, \_\_\_\_\_, Date: \_\_\_/\_\_\_/\_\_\_\_, Date: \_\_\_/\_\_\_/\_\_\_\_, Date: \_\_\_/\_\_\_/\_\_\_\_,  
Date: \_\_\_/\_\_\_/\_\_\_\_

Phone call, (h) \_\_\_\_\_ (c) \_\_\_\_\_ (w) \_\_\_\_\_, Date: \_\_\_/\_\_\_/\_\_\_\_, Date:  
\_\_\_/\_\_\_/\_\_\_\_

\_\_\_\_\_ Date: \_\_\_/\_\_\_/\_\_\_\_, Date:  
\_\_\_/\_\_\_/\_\_\_\_

Teacher-generated letter (copy provided) Date: \_\_\_/\_\_\_/\_\_\_\_ Date: \_\_\_/\_\_\_/\_\_\_\_ Date:  
\_\_\_/\_\_\_/\_\_\_\_

Parent-Teacher Conference Date: \_\_\_/\_\_\_/\_\_\_\_, Date: \_\_\_/\_\_\_/\_\_\_\_  
Communication

Comments/Notes: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Distributed Interim, Date: \_\_\_/\_\_\_/\_\_\_\_ Student returned signed interim to teacher \_\_\_ Yes \_\_\_ No

Attached MGSB letter to interim report \_\_\_ Yes \_\_\_ No Parent agrees? \_\_\_ Yes \_\_\_ No

Student returned signed MGSB letter to teacher \_\_\_ Yes \_\_\_ No

Submitted MGSB letter to Student Services \_\_\_ Yes \_\_\_ No

Teacher's Signature \_\_\_\_\_,  
\_\_\_/\_\_\_/\_\_\_\_

**Student Services or Intervention Team Use Only:**

Date of Administrator Notification: \_\_\_/\_\_\_/\_\_\_\_  
\_\_\_/\_\_\_/\_\_\_\_

Date of Counselor Referral:

Date of Attendance Letter sent: \_\_\_/\_\_\_/\_\_\_\_  
\_\_\_/\_\_\_/\_\_\_\_

Date of Case Manager Notification:

Date of SST Referral \_\_\_/\_\_\_/\_\_\_\_

Cc: Administrators : 9<sup>th</sup> - \_\_\_\_\_ 10<sup>th</sup> - \_\_\_\_\_ 11<sup>th</sup> - \_\_\_\_\_ 12<sup>th</sup> - \_\_\_\_\_

Counselors: 9<sup>th</sup> (A-J) \_\_\_\_\_ 9<sup>th</sup> (K-Z) \_\_\_\_\_

10<sup>th</sup> - 12<sup>th</sup> (A-F) \_\_\_\_\_ (G-N) \_\_\_\_\_ (O-Z) \_\_\_\_\_

Dean of Student Services/CTCA Counselor: \_\_\_ SST Coordinator: \_\_\_\_\_ SP Case Manager: \_\_\_\_\_

## MANDATORY GUIDED STUDY HALL (MGSH)

### What is MGSH?

**MGSH** is a new component of the Wake Forest-Rolesville High School Intervention Program. It initially serves as a punitive measure for students failing one or more classes; reinforcing the concept that “**Failure is NOT an option!**”

However, the ultimate goal of **MGSH** is to allow students the following opportunities: to identify, develop, and improve study skills and organizational skills; receive remediation and/or tutoring; develop a connection with a staff member or community volunteer for personal and academic motivation, and to be accountable for successes or failures.

### How does MGSH work?

- Students failing one or more classes will attend **MGSH** on a daily basis for the first fifteen minutes of their lunch period.
- Students will promptly report to the multi-purpose room next to the cafeteria.
- Students will use the required time to: 1) organize and prepare for quizzes, tests, daily, and/or homework assignments 2) complete remedial assignments 3) receive tutoring for a specific concept or problem. (It is understood that fifteen minutes for a tutoring session is not a lot of time. However, by addressing the difficult concept or problem on a daily basis students will benefit from the time accumulated) 4) complete make up work, and 5) identify and write strategies for passing the courses that they are failing, and 6)utilize available remediation and tutorial resources.
- Students who wish to stay for an extended fifteen minutes may do so if parental permission is obtained.
- MGSH begins **October 1<sup>st</sup>** for ninth grade students.

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