BUILDING RESILIENCY: THE IMPACT OF SCHOOL PROTECTIVE FACTORS
ON ELEMENTARY STUDENTS’ LANGUAGE ARTS ACHIEVEMENT

Gabriel Harlan Simon
B.A., California State University, Sacramento, 1995
M.A., California State University, Sacramento, 1998

DISSERTATION

Submitted in partial fulfillment of
the requirements for the degree of

DOCTOR OF EDUCATION

in

EDUCATIONAL LEADERSHIP

at

CALIFORNIA STATE UNIVERSITY, SACRAMENTO

SPRING
2011
BUILDING RESILIENCY: THE IMPACT OF SCHOOL PROTECTIVE FACTORS
ON ELEMENTARY STUDENTS’ LANGUAGE ARTS ACHIEVEMENT

A Dissertation

by

Gabriel Harlan Simon

Approved by Dissertation Committee:

_________________________________
Carlos Nevarez, Ph.D., Chair

_________________________________
Maria Mejorado, Ph.D.

_________________________________
Robert Wassmer, Ph.D.

SPRING 2011
BUILDING RESILIENCY: THE IMPACT OF SCHOOL PROTECTIVE FACTORS ON ELEMENTARY STUDENTS’ LANGUAGE ARTS ACHIEVEMENT

Student: Gabriel Harlan Simon

I certify that this student has met the requirements for format contained in the University format manual, and that this dissertation is suitable for shelving in the library and credit is to be awarded for the dissertation.

___________________________, Graduate Coordinator
Su Jin Jez, Ph.D.  Date
DEDICATION

I would like to dedicate this work to my amazing wife Sarah and my two children, Zachary and Amanda. Their strength, courage, patience, and encouragement are why I was able to finish this journey. Sarah is extremely resilient and is an inspiration to anyone who faces adversity in his or her life. I love you so much.

I also dedicate this work to my parents, Gerry and Karolyn. This would not have been possible without your love and support. Thanks for making me the persistent person I am today.
ACKNOWLEDGEMENTS

I would like to acknowledge the support of Michelle Harmeier, Jeff Ancker, and the Dry Creek and Roseville City School Districts. Your support of my research will lead to the academic growth of many and hopefully many students will continue to successfully navigate through risk and adversity.

I would also like to acknowledge my best friend Kevin Kurtz. When the chips were down, you were there. Your friendship keeps me grounded and looking towards a better tomorrow.

Finally, I would like to acknowledge the support and guidance of Dr. Carlos Nevarez. His high expectations and guidance were phenomenal and kept me focused on the doctoral coursework and my research. I would also like to acknowledge the support of committee members Dr. Rob Wassmer and Dr. Maria Mejorado. Your feedback and guidance were terrific and helped me to grow as a writer.
CURRICULUM VITAE

Education

- Doctoral Student in Educational Leadership, California State University Sacramento
- Master’s in Educational Leadership, California State University Sacramento
- Bachelor of Arts in Sociology, California State University Sacramento

Professional Employment

- Principal, Creekview Ranch Middle School, Roseville, California, Dry Creek Joint Elementary School District
- Principal, Heritage Oak Elementary School, Roseville, California, Dry Creek Joint Elementary School District
- Assistant Principal, Galt Joint Elementary School District
- Teacher, Antelope Meadows Elementary School, Dry Creek Joint Elementary School District

Fields of Study

- K-12
Abstract

of

BUILDING RESILIENCY: THE IMPACT OF SCHOOL PROTECTIVE FACTORS ON ELEMENTARY STUDENTS’ LANGUAGE ARTS ACHIEVEMENT

by

Gabriel Harlan Simon

This resiliency research can serve to validate previous studies on the resiliency protective factors of caring adult-student relationships, high teacher expectations, and a high level of student engagement. The study’s purpose is to uncover school level protective factors that lead to student resiliency and academic success as reported by individual students. This research investigates how these school factors relate to student achievement. Peer reviewed literature from the past ten years along with seminal works focus on studies related to the aforementioned resiliency protective factors. The study provides a mixed methods approach with quantitative data coming from student surveys on the presence of the protective factors. The qualitative portion of the study collects data from follow up student focus groups to enrich the data. The researcher found that student reports of caring adult relationships in school and time for student to student small group interactions increased students’ language arts test scores by 23 scaled score points for each variable. The qualitative focus groups and
interviews give more detailed information about the type of protective supports that students experienced in school which included high teacher expectations, caring adults who were interested in their lives, and specific examples of meaningful student participation. Low resilient low achieving students explained fewer rich examples of teacher expectations and fewer opportunities for engagement in the classroom. The conclusions drawn from this research provide specificity to school supports that improve the language arts achievement of at-risk students.

Keywords: caring relationships, student relationships, teacher expectations, student achievement, student engagement, student participation, high poverty, economically disadvantaged, resiliency, protective factors
# TABLE OF CONTENTS

Dedication............................................................................................................................................ v
Acknowledgements ............................................................................................................................. vi
Curriculum Vitae............................................................................................................................... vii
List of Tables.................................................................................................................................... xiv
List of Figures.................................................................................................................................... xvi

Chapter

1. **INTRODUCTION**.................................................................................................................. 1
   - Major Policies Addressing the Achievement Gap ....................................................... 6
   - Resiliency Overview ................................................................................................. 10
   - Purpose of the Study................................................................................................. 12
   - Research Questions ................................................................................................. 14
   - Nature of the Study................................................................................................. 14
   - Problem Statement................................................................................................. 15
   - Summary of Theoretical Base ............................................................................. 18
   - Operational Definitions......................................................................................... 20
   - Significance of the Study....................................................................................... 23
   - Assumptions and Limitations............................................................................... 26
   - Confidence Interval ............................................................................................... 27
   - Non Participants.................................................................................................... 28
   - Remainder of the Study........................................................................................ 28

2. **REVIEW OF RELATED LITERATURE**............................................................................. 30
   - Introduction............................................................................................................. 30
   - Introduction to the Impact of Resiliency Protective Factors............................. 33
   - Important Theoretical Aspects ............................................................................ 36
   - Other Related Theories........................................................................................ 41
Seminal Work: The Kauai Study ................................................................. 44
Promoting Resiliency Protective Factors .................................................. 46
Specific Resiliency Protective Factors Impacting Student Achievement ...... 47
  Teacher Expectations ........................................................................ 47
  The Impact of Caring Adults ......................................................... 64
  Meaningful Student Participation ............................................... 87
3. METHODOLOGY ....................................................................................... 100
   Introduction ......................................................................................... 100
   Research Design and Approach ...................................................... 101
   Setting ............................................................................................. 104
   Sample ............................................................................................. 106
   Quantitative Survey Response Rate ............................................ 107
   Qualitative Survey Response Rates ............................................. 108
   Instrumentation ............................................................................. 108
   Discussion of Survey Questions: Quantitative Data Collection Tool .... 109
   Quantitative Data Collection ......................................................... 115
   Quantitative Data Analysis ............................................................ 116
   Discussion of Focus Group Questions: Qualitative Data Collection Tool 118
   Qualitative Data Collection ............................................................ 119
   Qualitative Data Analysis ............................................................. 119
   Issues of Validity ........................................................................... 121
   Issues of Reliability ....................................................................... 122
   Measures Taken to Protect Participants’ Rights ................................. 123
4. ANALYSIS OF THE DATA ..................................................................... 124
   Introduction ......................................................................................... 124
   Research Questions ........................................................................ 126
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interpretation of Findings</td>
<td>127</td>
</tr>
<tr>
<td>Quantitative Survey: Summary of Response Frequencies</td>
<td>129</td>
</tr>
<tr>
<td>Data Analysis: Quantitative Survey Categorization</td>
<td>132</td>
</tr>
<tr>
<td>Descriptive Univariate Statistics: Analysis of Study Participants</td>
<td>133</td>
</tr>
<tr>
<td>Data Analysis: Demographic Variables</td>
<td>134</td>
</tr>
<tr>
<td>Linear Regression Analysis</td>
<td>136</td>
</tr>
<tr>
<td>Qualitative Focus Group Interviews</td>
<td>147</td>
</tr>
<tr>
<td>Qualitative One on One Interviews</td>
<td>157</td>
</tr>
<tr>
<td>Addressing the Research Questions</td>
<td>167</td>
</tr>
<tr>
<td>5. SUMMARY AND CONCLUSIONS</td>
<td>169</td>
</tr>
<tr>
<td>Introduction</td>
<td>169</td>
</tr>
<tr>
<td>Summary of Findings</td>
<td>169</td>
</tr>
<tr>
<td>Conclusions</td>
<td>175</td>
</tr>
<tr>
<td>Revisiting the Study’s Theoretical Framework</td>
<td>188</td>
</tr>
<tr>
<td>Implications for Educational Settings</td>
<td>190</td>
</tr>
<tr>
<td>Implications for Resiliency’s Capacity to Build Student Literacy</td>
<td>193</td>
</tr>
<tr>
<td>Intervention Implications</td>
<td>194</td>
</tr>
<tr>
<td>Policy Implications</td>
<td>195</td>
</tr>
<tr>
<td>Leadership Implications</td>
<td>197</td>
</tr>
<tr>
<td>Recommendations for Action</td>
<td>198</td>
</tr>
<tr>
<td>Recommendations for Further Study</td>
<td>204</td>
</tr>
<tr>
<td>Reflection on the Qualitative Research Process</td>
<td>206</td>
</tr>
<tr>
<td>Conclusion</td>
<td>207</td>
</tr>
<tr>
<td>6. APPENDICES</td>
<td>213</td>
</tr>
<tr>
<td>Appendix A: Quantitative Likert Scale Survey</td>
<td>214</td>
</tr>
<tr>
<td>Appendix B: Focus Group Interview Questions</td>
<td>218</td>
</tr>
<tr>
<td>Appendix C: Quantitative Survey Categorization of Student Responses by Question</td>
<td>222</td>
</tr>
</tbody>
</table>

xii
Appendix D: Linear Regression: Significance of Individual Variables................................................................. 224

Appendix E: Human Subjects Approval .......................................................... 228

REFERENCES.............................................................................................................................................. 230
LIST OF TABLES

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Predictors of Resilience in Young People..................................................................</td>
</tr>
<tr>
<td>2</td>
<td>School Demographics 2008-2009..................................................................................</td>
</tr>
<tr>
<td>3</td>
<td>Survey Items Related to Caring Relationships.........................................................</td>
</tr>
<tr>
<td>4</td>
<td>Survey Items Related to Teacher Expectations.........................................................</td>
</tr>
<tr>
<td>5</td>
<td>Survey Items Related to Student Meaningful Participation........................................</td>
</tr>
<tr>
<td>6</td>
<td>Independent Demographic Variables............................................................................</td>
</tr>
<tr>
<td>7</td>
<td>Responses to the Statement “The teachers and other grown-ups at this school care about me.”</td>
</tr>
<tr>
<td>8</td>
<td>Respondents by School Site........................................................................................</td>
</tr>
<tr>
<td>9</td>
<td>Demographic Variables: Sample Comparison..............................................................</td>
</tr>
<tr>
<td>10</td>
<td>Model Summary of Linear Regression.........................................................................</td>
</tr>
<tr>
<td>11</td>
<td>Causes of Students Getting Along Well with Adults....................................................</td>
</tr>
<tr>
<td>12</td>
<td>Causes of Students not Getting Along Well with Adults.............................................</td>
</tr>
<tr>
<td>13</td>
<td>How Adults Show They Care About Students..................................................................</td>
</tr>
<tr>
<td>14</td>
<td>Student Examples of When Adults Cared About Things that Bothered Them.....................</td>
</tr>
<tr>
<td>15</td>
<td>How Adults Demonstrate They Want Students to do Their Best....................................</td>
</tr>
<tr>
<td>16</td>
<td>What Causes Students and Teachers to Not Get Along Well........................................</td>
</tr>
<tr>
<td>17</td>
<td>How Adults Show That They Care...............................................................................</td>
</tr>
</tbody>
</table>
18. Student Examples of When Adults Cared About Things that Bothered Them........................................................................................................ 162
19. How Adults Show Students They Noticed They Were Absent .................. 163
20. State Wide Data Compared to the Researcher’s Sample of Respondents ...... 188
21. Quantitative Survey Categorization of Student Responses by Question .... 223
22. Linear Regression: Language Arts Scaled Scores ....................................... 225
# LIST OF FIGURES

<table>
<thead>
<tr>
<th>Figure</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.</td>
<td>2009 National Assessment of Educational Progress in Reading: Percent At Proficient Level or Above</td>
<td>5</td>
</tr>
<tr>
<td>3.</td>
<td>Theoretical Framework for the Study of Resiliency</td>
<td>39</td>
</tr>
<tr>
<td>4.</td>
<td>Mixed Methods Study Design</td>
<td>125</td>
</tr>
<tr>
<td>5.</td>
<td>Data Transformation and Triangulation Model</td>
<td>128</td>
</tr>
<tr>
<td>6.</td>
<td>Visual of Major Research Conclusions</td>
<td>170</td>
</tr>
<tr>
<td>7.</td>
<td>Subgroup Achievement Discrepancies</td>
<td>174</td>
</tr>
</tbody>
</table>
Chapter 1

INTRODUCTION

“A school can create a coherent environment, a climate, more potent than any single influence—teachers, class, family, neighborhood, so potent that for at least six hours a day it can override almost everything else in the lives of children.”

-Ron Edmonds (1986)

According to Thomas (2000) & Weinstein (2002), “schools that serve large numbers of (economically) disadvantaged students are least likely to offer the types of instruction” and materials that give students the skills to meet rigorous academic standards (as cited in Becker & Luthar, 2002, p. 201). In addition, these students are more likely to receive negative feedback about their progress in school. Students who come from economically disadvantaged households are more likely to experience academic failure¹ and disengage from school experiences (p. 200). Failure may also include possible sanctions against these students such as retention or unsuccessful promotion to the next grade level. In many schools, at-risk² students are educated in teacher centered classrooms where there is little student engagement.

¹ For the purposes of this study, academic failure is defined as receiving failing or non-proficient academic achievement scores.

² For the purposes of this study, at-risk students are defined by the author as those students who are at risk of academic failure. The author considers economically disadvantaged students, Hispanic, African-American, and students from other minority and disenfranchised groups at-risk.
Figure 1 illustrates federal spending in several categories.

![Bar Chart: Federal Spending Categories in Billions of Dollars (2010)]

**Figure 1.** Categories of Federal Spending in Billions of Dollars (2010).

As this figure clearly illustrates, our nation contributes far fewer funds to provide a highly effective education for students from high poverty households than they are currently spending on welfare and defense costs (United States Government Spending 2010). In fact, our nation spends over 38 times as much to fund welfare as it does in funding K-12 education for students of poverty. According to Anyon (2005), the financial status of families living in poverty is related directly to the amount of funding that schools receive (as cited in Nevarez & Wood, 2007, p. 269). Therefore, it is not surprising that in California where the researcher’s study occurred, the state houses a disproportionate number of high poverty schools and state education funding is significantly lower than most other states in the union. When compared to the other
49 states, California had over 20% of its schools identified for No Child Left Behind (NCLB) Title One\(^3\) corrective action in 2010 (U.S. Chamber of Commerce, 2010). California also had the greatest number of schools who were required to implement system wide restructuring according to NCLB with 247 in the implementation stage (U.S. Department of Education, 2010a). Inequities in educational funding based on family income make it critical for schools and districts to locally address the needs of high poverty schools and their students. These high poverty institutions need to implement classroom strategies that may directly result in improved student outcomes to offset funding inequities. At-risk students can benefit from school based protective factors such as high expectations, caring adult relationships, and a high level of engagement to experience academic success and close the achievement gap. These factors build student resiliency or their ability to bounce back in the face of risk and adversity. The researcher will further explain resiliency later in this chapter.

The income based achievement gap in our nation persists from elementary school through college. Income’s relationship to student achievement was investigated by Evans and Rosenbaum (2008). These researchers demonstrated how family income was related to student grades and predicted the cognitive development of 5\(^{th}\) grade students (p. 504). Income and achievement were not influenced by the amount of parent investment in each child’s education. In their conclusions, Evans and Rosebaum stated that “early childhood poverty matters for later academic

\(^3\) Title One schools are those schools in the United States identified by the Federal Government as eligible for federal funds due to the high percentages of students who receive free or reduced lunches
achievement” (p. 504). Many other studies have also studied the long lasting impact of childhood poverty on achievement (Bradley & Corwyn, 2002, Conger & Donnellan, 2007, Duncan & Brooks-Gunn, 1997, Heckman, 2006, & McLoyd, 1998 as cited in Evans and Rosenbaum, p. 504). However, it should be noted that additional demographic factors outside of socioeconomic status such as single parent households in a child’s life may impact his or her learning. Teacher factors such as level of qualification and years of experience have also been shown to play a role in shaping a student’s success in school.

However, despite countless improvement efforts such as sweeping educational reforms, No Child Left Behind legislation, and statewide accountability requirements to meet adequate yearly progress in language arts and math, the achievement gap between disadvantaged and advantaged students still exists. Figure 2 illustrates the gap in reading in 2009.
Figure 2: 2009 National Assessment of Educational Progress in Reading: Percent At Proficient Level or Above.

As the figure demonstrates, in 2009, 17% of fourth grade students who were eligible for free and reduced lunch performed at or above the proficient level in reading on the National Assessment of Educational Progress (McKinsey and Company, 2009, p. 12). Comparatively, 45% of fourth graders who were not eligible performed at or above proficient on the same assessment in the same year. The resulting reading achievement gap for low income students is 28%. This reading achievement gap persists in high school as well. Finally, in colleges across the nation, “only 9% of freshmen in the top colleges are from the bottom half” of the socioeconomic status distribution (McKinsey and Company, p. 12).

The achievement gap persists when focusing in on specific states as well. When investigating the gap in California in the area of language arts, the data equally
demonstrates a need for improved school and classroom practices when working with at-risk students. The gap in language arts for the 2009 administration of the California Standards Test (CST) was 31% as well. More specifically, 36% of economically disadvantaged students scored proficient or advanced while 67% of students who were not economically disadvantaged scored proficient or advanced.

Major Policies Addressing the Achievement Gap

The history of the achievement gap for students of poverty can be traced back to 1965 when President Lyndon Johnson declared a war on poverty with the passage of Title 1. Shortly after Johnson’s focus on poverty, the Coleman Report (Coleman et al., 1966) mentioned gaps in achievement when explaining the variance between the outcomes of white and minority groups (p. 220). In academic journals, the term first appeared when Gwartney (1970) found that as levels of education increased, the achievement gap between whites and non-whites did as well (p. 878). Historically in the literature, the achievement gap has mostly referred to data in the area of language arts which includes reading, writing strategies and conventions, grammar, and reading comprehension. This data focus is important because the largest gap continues to occur in the area of language arts. The outcome data in the researcher’s study will focus on data from this content area as well because of language arts’ critical influence on student success. Throughout the 1970s and 1980s, the gap between the reading scores of minority and white students narrowed. However, by the late 1980’s the gaps began to widen once again. Today, minority students and students from families living in poverty experience lower graduation rates and their achievement still lags behind
white and advantaged students. Some possible factors contributing to the lower graduation rates and the achievement gap are the education levels of students’ parents and the presence of two parents or caregivers in student households.

No Child Left Behind

In the last 10 years, No Child Left Behind (2001) legislation continues to be the Federal Government’s vehicle to hold schools and districts accountable for improved student outcomes. In addition, it has greatly impacted how schools and districts educate children. Current federal No Child Left Behind legislation places sanctions on schools whose significant subgroups of students fail to make adequate yearly progress in language arts or math. A core tenet of this legislation is that high standards along with measurable goals will improve student outcomes. No Child Left Behind provides billions of dollars each year to schools for the purposes of school improvement. The No Child Left Behind legislation is based upon “Four Pillars” which are “stronger accountability,” “more freedom” in use of federal funds, effective and research proven programs and practices, and choice for parents when schools do not meet targets for academic achievement (U.S. Department of Education, n.d.). Stronger accountability is needed as many schools and districts across the country have failed to make the grade. This legislation focuses on accountability for teaching and learning. In addition, it “also focuses on school districts’ ability to align curricula and lesson plans with state standards” and requires “critical thinking skills” of our nation’s learners (Howard & Rice-Crenshaw, 2006). This accountability includes
additional support for students who are below standard, “corrective actions,” and changes to school leadership (U.S. Department of Education, n.d.).

In some ways, NCLB has positively impacted how we educate our students in the United States. The focus on standards based instruction has led to improved student achievement in many schools across the nation. According to Gerardo Gonzalez (2006), “improvements for math in grades 4 and 8 were statistically significant” (p. 29). The highest gains occurred in reading. More and more states are using content standards to drive instruction and assessment. All subgroups have shown positive growth in some schools while other schools have fallen victim to state sanctions. A purposeful benefit of No Child Left Behind has been the focus on data to drive instruction and the use of research to influence policy and classroom practices (Gonzalez, 2006). Some see NCLB as legislation that drives improvements across the nation.

However, critics of NCLB see this legislation as counterproductive to proactive educational change. NCLB requires that all students will be able to demonstrate proficiency in reading and math by the year 2014. However, when an outside agency is requiring change to happen, schools and districts do not follow with the “total commitment” that is required (Howard & Rice-Crenshaw, 2006). This is not to say that NCLB’s standards for performance are not essential for change to occur. “NCLB holds individual schools, school districts, and states accountable for improvements in student achievement, with particular emphasis on closing the achievement gap” between students with high or low performance (Simpson, LaCava,
& Graner, 2004, p. 68). The Federal law had incentives for performance and still contains sanctions. A few of the law’s sanctions actually assist schools in turning their performance around. The requirement of school improvement plans provides one example of focused school improvement as does NCLB’s multiple measures requirement.

In their article “No Child Left Behind Undermines Quality and Equity in Education,” Guisbond and Neill (2004) cite many false assumptions of the federal mandates. One example is the assumption that teaching can be improved by the use of threats. The results of these threats and narrow focus are teachers who teach to the test. Focus is taken away from the real culprits: “family poverty and inadequate school funding” along with high student mobility (Guisbond and Neill, 2004). In his 2006 article on “Influences of NCLB on K-12 Systematic Educational Reform,” Gerardo Gonzalez (2006) also refers to teaching to the test. He feels as that this narrow focus comes “at the expense of other more learner-centered forms of teaching” (Gonzalez, 2006). The high stakes environment ever present in NCLB has negatively impacted teachers’ relationships with their students. It has also impacted practices in the classroom in a counterproductive way (Granger, 2008). Instructional alignment to the test is valued to a much higher degree than teacher and student relationship building and mentoring. One possible explanation for this is the Federal Government’s accountability measures such as No Child Left Behind and its focus on targeted school improvement. However, since accountability and standardized tests seems to be
permanent fixtures in our country’s educational landscape, improving student outcomes must involve reforms at the student and classroom levels.

The Public Schools Accountability Act

In the state of California, the Public Schools Accountability Act (PSAA) represents our state’s effort to comply with the Federal law. The three main components of the PSAA are the Academic Performance Index, the Immediate Intervention/Underperforming Schools Program (IIUSP), and the Alternative Schools Accountability Index (Russell, Higgins, & Raczek, 2004). The performance index otherwise known as the API determines an annual 5% growth target for each school with a range from 200 to 1,000. Schools who do not meet these targets and score in the lowest 50% of schools in the state may receive state contracted interventions and funding. This improvement funding comes from the IIUSP mentioned above where teams of educators and consultants work with a school or schools to ensure each school is moving towards timely action. The Alternative Accountability System is for “small schools and schools with non-traditional student populations” (Public Schools Accountability Act, 1999). Schools with under 100 valid test scores receive an API with information explaining their need for a private accountability system.

Resiliency Overview

The challenge educators continue to face daily is discovering specific instructional and systemic methods to narrow achievement gaps. How do educators engage at-risk students through a journey of discovery instead of blazing ahead without them? The answers can be found in the study of resiliency, a theory and
“belief in the ability of every person to overcome adversity if important resiliency protective factors are present” in their lives” (Krovetz, 1999, p. 1). This theory asserts that if people in a school community care about a student, hold high expectations for him or her, and provide “purposeful support,” that person will have hope and be able to conquer adversities in his or her life (p. 1). “Burns (1994) defines these resiliency protective factors as traits, conditions, or situations that alter or reverse potentially destructive outcomes” (Shepard, 2004, p. 210). Protective factors can be found in an environment where at least one adult cares deeply about the child and where expectations are clear and set high. Meaningful participation is another protective factor for resilient students as they are given key roles in their place of learning.

The development of protective opportunities is reliant on resiliency becoming a central element in school improvement efforts (Morrison & Allen, 2007, p. 167). Resilient children learn how to establish positive relationships with peers and adults and stay in control. They solve problems, have an identity that leads to independent action, and set goals persistently with a great deal of hope (p. 2). Resiliency builds emotional intelligence which includes the ability to control impulses and manage emotion when experiencing stressful situations (p. 7). A large amount of previous studies have honed in on the lack of student progress and the reasons for it. Studies that investigate the additive impact of resiliency protective factors on academic achievement need to be reviewed and the researcher will do so in Chapter 2. More specifically, in the next chapter, the researcher will include more detailed discussions of current peer reviewed literature on three protective factors that are core resiliency
factors. Through the literature review of peer reviewed studies in Chapter 2, the researcher will also demonstrate the positive influences of these protective factors on student learning in school settings.

School and district educational leaders must take a role in infusing the protective factors (caring teacher-student relationships, high teacher expectations, and meaningful student participation) of resiliency in their schools and classrooms. They can take steps to promote the well being of students in many ways. Leaders can work with their teachers to “provide students with supportive, caring connections to adults at the school” (Hanson & Austin, 2003, p. 14). When focusing on connectedness and building student resiliency, leaders send clear and consistent messages to students and all stakeholders that all children can and will succeed and perform at high levels. In their review of studies on resiliency and the positive impact of school protective factors, Hanson & Austin state that “efforts to improve schools should go beyond the current emphasis on standards and accountability measured by test scores” (p. 14). A narrow focus on simply raising standardized test scores can leave many students behind.

Purpose of the Study

Benard (2006) defined resiliency as how young children and adolescents have bounced back from “risk and adversity” to develop healthy lives and school success (p. 2). The protective factors of teacher expectations, adult-student relationships, and student engagement can be strengthened or developed in school settings to narrow the achievement gap and minimize risks. In considering the staggering statistics regarding
the language arts achievement gap between economically disadvantaged and advantaged students, the purpose of this research is to uncover school level protective factors that lead to student resiliency and academic success as reported by individual students. Much of this study centers on students’ perceptions about the influence of classroom teachers and other caring adults on their performance and on the level of student engagement in their schools. Finally, this study investigates how these school factors relate to student achievement.

Other factors may play a role in impacting student achievement. A school’s environment, climate, or culture have been said to be associated with student outcomes. Other influences have included a child’s social, emotional, cognitive, and physical development. Family and environmental factors in students’ homes also may play a role in their achievement trajectories. Other factors that have been shown to impact student learning are demographic variables. The study’s sampling procedures will control for these demographic variables by using the California Department of Education’s Similar Schools Ranking (2009b) system which will be explained in more detail in the operational definitions. This ranking ensures the two school settings used in this study are comparable demographically with comparable controls accounted for in the study’s sample. Previous studies have used school wide student achievement data as their dependent variables. However, this study will use outcome data in the form of scaled language arts test scores from each individual student. The researcher will also use qualitative coding to analyze narrative data from focus groups and one-on-one interviews with representative students.
Research Questions

The specific objectives of the research are to answer the following research questions:

Research Question #1: To what extent does each of the three resiliency protective factors (caring adult-student relationships, high teacher expectations, and meaningful student participation) explain a statistically significant portion of variability in student language arts achievement?

Research Question #2: To what extent do student demographic variables (ethnicity, parent education level, grade level, gender, English proficiency, economic disadvantage, and special education placement) explain a statistically significant portion of variability in student language arts achievement as reflected by each student’s standardized test score in language arts?

Research Question #3: Within each of the three resiliency protective factors, what specific school supports as reported by the student participants explain variability in student language arts achievement?

Nature of the Study

More specifically, the researcher will use students’ perspectives to study the impact of teacher expectations, caring adult relationships with students, and student engagement on their scaled scores for the language arts portion of the California Standards Test (CST). The student survey includes Likert-scaled items from the resiliency module of the California Healthy Kids Survey (WestEd, 2009c). These questions were used with permission from WestEd. After survey data is collected from
fourth and fifth grade students from two Placer County elementary schools with similar demographics, a linear regression analysis will illustrate any correlations between student perceptions about resiliency in their schools and their language arts scaled scores from the subsequent administration of the California Standards Test. More detailed discussions about the research questions, purpose, and methodology will be addressed in Chapter 3.

Problem Statement

The California Healthy Kids Survey is funded by the California Department of Education. This survey is used in many school districts and counties across the state to collect data on the at risk behavior of fifth and seventh graders as well as data on student resiliency. More specifically, resiliency data includes perception data on caring relationships students experience from adults at school, student perceptions of the frequency of high expectations for them from adults at school, students’ meaningful participation at school, and their level of “personal school connectedness” (WestEd, 2009c, p. 14). The 2006-2008 fifth grade elementary aggregate survey results include statewide information about these resiliency factors that can be a cause of concern for educators. The results indicate that 59% of students reported a high level of caring relationships at school. Sixty-two percent experienced a high level of expectations from adults in this setting but only 17% felt strongly that their participation was meaningful. The overall score for students’ connectedness towards school indicated that 60% of the students surveyed felt personally connected to their schools. As Chapter 2 will clearly indicate, seminal and recent peer reviewed research
shows that resiliency factors in schools have a positive effect on standardized test scores. However, *too few students in our state report that the resiliency factors that positively impact student achievement are highly present at their schools.*

In addition, a large amount of previous studies have honed in on the lack of student progress and the reasons for it. Research from Delpit (1995), Deschenes, Cuban, & Tyack (2001), Lynn (2006), Nelson, and Tierney, Hau, & Englar-Carlson (2006) has demonstrated that at-risk students have been marginalized because “their culture is different and often dismissed or devalued in the academic arena” (as cited in Morales, 2008, p. 3). The researcher suggests that in contrast resiliency is an additive and proactive model where skills and assets are built. Rather than reactions and referrals, a student is enveloped in a web of support. Adults know every child by name, by their face, culture, and background, and by what gifts they bring to their classrooms. There are no excuses or easy remedies. “But there is a reliable network of support that lifts children and their teachers and gives them powerful tools” to learn and grow (Riley, 2006, p. 7). Students feel valued and perform at higher levels academically when resiliency is fostered in school settings.

This phenomenon of resiliency can be traced back 40 years but has been absent from the majority of recent research literature until the last four to five years. Gandara (1995) and her studies on impoverished Mexican Americans who are able to reach the highest levels of education in spite of poverty are viewed by some as seminal works in this field (as cited in Morales, 2008, p.2). In her work with the Puente project, Gandara demonstrated how more Hispanic students became college bound through the
persistence and mentoring of caring adults. However, more recently, Gandara updated the progress report on Hispanic achievement. Hispanic students make up a good portion of at-risk populations in America’s schools. Today one in five of America’s students are Hispanic yet this subgroup of students receives less than seven percent of college degrees awarded each year (Gandara, 2009, p. 38). Resilience can help educators understand the urgency needed to “address this new demographic challenge” along with the challenges of other disenfranchised subgroups for the sake of our country and its at-risk students (p. 38). Resilience can be taught or developed. However it is up to adults in a school community to sow these seeds of change (Brokenleg & Bockern, 2003, p. 23). In their study, Pianta et.al. (2008) reported that the factors of resilience that were investigated are found in low and variable levels throughout elementary classrooms in America (p. 369).

When investigating caring relationships in this study, the researcher’s survey instrument will include student questions about the quality of their relationships with adults at school. This assessment also asks the students to evaluate their interactions with adults and speak to affective behaviors from adults such as caring, listening, empathy, praise, and humor or laughter. Questions about adult expectations for students delve to better understand the level of persistence adults have for students to be successful both academically and emotionally. The remainder of the student survey questions will center on their level of engagement or participation in the classroom as well as school interactions and activities. The survey questions in this study get into greater detail about the level of connectedness students have with their school, their
participation in extracurricular activities, peer interactions about learning, and opportunities for students to share about their personal lives and what they have learned at school.

Summary of Theoretical Base

There are key theoretical bases and conceptual frameworks that assisted in informing this research. Ogbu et al.’s (1998) cultural ecological theory helps to explain factors within and outside of the school setting that contribute to the performance of at-risk minority students. Ogbu’s framework demonstrates how at-risk students are forced into adopting the culture of the majority and how they are denied equitable access to school and classroom resources. Ogbu’s perspective is vital in understanding how schools can better support and engage at-risk learners to narrow achievement gaps and connect all students with meaningful learning opportunities and participation. Although Ogbu’s theory provides an important perspective, the cornerstone of resiliency from a theoretical standpoint is resiliency theory itself which uses hope as a construct for additive school change. The following is a brief summary of each theory. Additional detail on these bases or frameworks will be included in Chapter 2.

The theory of resiliency was originally known as the “Resilience Cycle” and includes the key elements of needs assessments, protective factors, and the development of a student’s internal locus of control (Morales, 2008, p. 23). Students who are academically resilient achieve despite overwhelming statistics that have historically proven otherwise. Previous research and theory have focused on student
failure and follow a deficit model. Resiliency theory is additive in that it states that if protective factors such as caring adult relationships, high teacher expectations, and student engagement are present, students from marginalized subgroups can beat the odds and experience academic success. Morales (2008) believes that a more comprehensive focus on resiliency and its process is needed (p. 25). In contrast, deficit theories state that students must compromise culturally and move towards assimilating into the dominant culture or they may face becoming “culturally distant” (p. 25).

Spokes of the resilience cycle explain the process that students experience. The spokes include a student recognizing his or her risk factors, students then seeking out resiliency protective factors to reduce the negative impact of the risk, and then managing the factors to increase academic achievement. When a student realizes how effective the factors are in improving their achievement, they continually refine them. In the final spoke of the cycle, the student continues to implement protective factors while hope and envisioning goals keep his or her progress sustained.

In regards to leadership, the researcher feels the theory of social justice leadership best meets the needs of educators urgently attempting to turn around the achievement of their disenfranchised students (Theoharis, 2007, p. 221). Leaders for social justice work persistently to transform school and district cultures, teaching practices, and priorities across their organizations to benefit at-risk students. Gewirtz (1998) defines social justice leadership as centering on “disrupting and subverting arrangements that promote marginalization and exclusionary processes” (as cited in Theoharis, 2007, p. 223). This transformative leadership style is built from a solid
foundation of respect, caring, recognition, and empathetic practices. More detailed descriptions of these theories will be discussed in Chapter 2.

Operational Definitions

At-Risk

For the purposes of this study, at-risk students are defined by the researcher as those students who are at risk of academic failure. The researcher considers economically disadvantaged students, Hispanic, African-American, and students from other minority and deprived groups at-risk.

California Standards Test

This standardized test is given to students in grades 2-8 each spring in California to assess student proficiency of grade level content standards. The test score data used in this study comes from the English Language Arts portion of the annual test. The data was entered as a student’s scaled score from 0 to 600. Students who score a scaled score of 350 or above are considered proficient by the California Department of Education.

Caring Adults

For the purpose of this study, caring adults are those adults in the school setting who are perceived by the students as fair, good listeners, caring, and interested in what the students do outside of the school setting. Caring adults also help students with learning challenges, praise students for good work or performance, and notice when students are absent from school.
Disadvantaged Students

This term is used throughout the dissertation to describe students who are disadvantaged or at risk of school failure due to their socioeconomic status, race, or culture. Disadvantaged students are those students who are afforded fewer opportunities to be actively engaged in school processes and learning environments.

Meaningful Participation

This concept refers to the participation of the students in the school setting. Opportunities for participation that the researcher asked students about included opportunities they had to make decisions at school, to do interesting activities, and to do things that make a difference. In addition, students were asked if they participate in extracurricular activities, if they are given the opportunity to work in small groups or if they are allotted time to write about what they were learning. Students were also asked if they had opportunities to talk about their home lives.

Protective Factors

The students’ perceptions of the presence of these resiliency factors at the research sites were measured by a Likert survey. Protective factors are important developmental supports that are present in environments such as schools. For the purpose of this study the factors which were researched were caring adult relationships, meaningful student participation, and the level of teacher expectations for student success.
Resiliency

The definition used for this study was taken from the resiliency work of Bonnie Benard (2006) who defined resiliency as how young children and adolescents have bounced back from “risk and adversity” to develop healthy lives and school success (p. 2). The majority of this success can come from the school, home, and community environments. For the purpose of this study, the supports that positively impact students’ academic achievement are the external factors of caring relationships, meaningful student participation in the learning process, and high teacher expectations for success.

Similar Schools Criteria

Schools in the state of California are compared using mostly demographic variables or a school characteristics index. This index groups together schools of a similar type with the following similar characteristics:

- Pupil mobility
- Pupil ethnicity
- Pupil socioeconomic status
- Percentage of fully credentialed teachers
- Percentage of teachers who hold emergency credentials
- Percentage of pupils who are designated as English Learners
- Average class size per grade level
- If the school is multi-track year round
Teacher Expectations

These expectations were measured on the student survey with questions about what degree teachers and adults in their school believe they will be successful and if the adults are respectful to them. High expectations also come from following up with students who are not learning or who have the wrong answers.

Significance of the Study

This study adds to the 40 years of resiliency research with a unique contribution. Previous studies have focused on school level outcome data. This study will include survey responses and test scores from individual students as well as qualitative data from student focus groups and interviews. Therefore this study will be able to offer conclusions which are not as far removed from the student level as previous studies on resiliency. In fact, Hansen & Austin (2002) have recommended research data at the student level such as the data generated in the researcher’s study. More specifically, according to WestEd’s (2002) facts sheet entitled Health Risks,
Resilience, and the Academic Performance Index, “further research is needed to determine how the characteristics of individual students are related to individual academic test scores” (Hanson & Austin, 2002, p. 2). The study will analyze student perceptions about classroom and teacher practices instead of evaluating an overall school system’s response to gaps in achievement. This resiliency research can serve to validate previous studies and theories of organizational systemic change.

According to Bonnie Benard (1991), this area of research is supported by other studies in child and human development, family structures, school effectiveness, and research on developing school communities. Caring relationships from adults establish safety and trust with students while high teacher expectations serve to guide and challenge students to high levels of achievement despite numerous risk factors. Students who are able to participate in a meaningful way in the classroom and in school foster responsible decision making and contribute to communities (Benard, 1991, p. 4). The study will also create new knowledge in the field of educational administration about student perceptions of resiliency protective factors and if these perceptions are related to increases or decreases in their language arts achievement. Educational administrators may be able to use the results of the present study to continue to hone their transformational leadership skills in ways that directly impact the learning of each and every student. The results of this study and its recommendations will allow site and district administrators to widen the scope of their school improvement lenses to focus on targeted protective factors that may positively impact student achievement.
Resiliency research “provides the prevention, education, and youth development fields with nothing less than a fundamentally different knowledge base and paradigm for research and practice” (Benard, 1991, p. 5). This paradigm operates as an additive shelter to an at-risk student’s confrontations with adversity. Previous studies in the social sciences have had a more narrow focus on risk and deficit models while studies of resiliency capitalize on student and systemic strengths. Resiliency provides practitioners with optimism as they approach student challenges with learning key content. This paradigm focuses on the process of improving student learning and steers away from programmatic elements in school settings. “Ultimately resilience is a process of connectedness, of linking to people, to interests, and ultimately to life itself” (Benard, 1991, p. 6). Moving from risk to resilience empowers classroom practitioners and educational leaders to require social change within their organizations.

The findings of this study will contribute to California’s goal of eliminating the achievement gap between at-risk and low risk students. As local educators and educational leaders strengthen their relationships with students and elevate their expectations for student success, more previously disenfranchised subgroups may experience language arts proficiency. The complex research design within this study can provide specificity to which protective factors have the greatest impact on student learning. Once again, leaders and their staffs can then seek out professional development on strengthening resiliency protective factors in their organizations.
Assumptions and Limitations

The assumptions and limitations for this study include considerations about the sample size as well as data collection. This was a mixed methods study with a limited sample size. The study was limited to fourth and fifth grade students enrolled in two suburban demographically similar elementary schools in Roseville, California. Other grade levels in the two schools were not studied. Consequently, the results of the study may not be generalizable to other schools, suburban settings, or grade levels. However, the researcher feels that the study sample was representative of both grade levels as 42% of the total number of fourth and fifth grade students from both school sites combined completed surveys and participated in the study. The majority of studies on factors that impact student achievement have been quantitative in nature. A departure from the typical research methodology for this type of study could impact its reliability.

A large portion of the student data for the study was from student perception data that was collected using a student survey and focus group interviews. One limitation of this research design is that students may select responses that they feel are the correct answer instead of expressing their exact perceptions. An assumption is that students will understand all of the survey and interview questions.

The standardized test scaled score data used in the study reflects achievement data from one point in time. Additional achievement data from previous marking periods during the school year could provide important information about the patterns of student success and how they are influenced by the study’s independent resiliency
variables. Other factors or variables could be responsible for the relationship between student resiliency and test scores.

Data is being collected from students only. Teacher perception or observational data would possibly strengthen the research design. However, the researcher feels student data will allow him to most effectively address the research questions because student test scores have been shown by peer reviewed research (see Chapter 2) to most closely correlate to student perceptions.

Confidence Interval

Sampling error may occur in studies as only a portion of the eligible sample is usually studied. The smaller study sample and its research results are used to estimate findings for the total population. Typically, the smaller the response rate the greater chance there is of sampling error. Confidence intervals give an estimate of the discrepancy between actual response rates and the observed response rates. A confidence level of 95% indicates where the range of study values would occur 95% of the time if the researcher uses an unlimited number of samples of the same size from the same population. A confidence interval of 95% means that there is a one in twenty chance that the actual proportion of the population falls outside of the confidence interval.

In the researcher’s study, the English language arts scaled score confidence interval for the population of 198 students was plus or minus seven points at a confidence level of 95%. A confidence level demonstrates that if the survey was administered 100 more times, 95 out of 100 trials would results in scaled test scores
between 402 and 416 and an average test score of 409. The entire eligible population of both study sites combined had an average scaled score of 398 in 2010. This demonstrates that the study’s 198 participants had an average scaled score that was eleven points less than confidence level’s predicted range. Consequently, the researcher in this study cannot be certain that a sample of the entire eligible population’s scaled scores would fall within the range predicted by the confidence level.

Non Participants

Even students who did not participate in the study have an impact on the results. For the quantitative survey, 309 students or 61% did not participate. There could be many reasons why students did not participate. Some parents or students may have been concerned about the confidentiality of the study. Others may have never seen the permission slip due to it getting lost or thrown away. Some potential participants could have felt as if they were evaluating their teacher or school by filling out the survey and this uneasiness could have caused them to decide not to sign the permission slip and complete the survey.

Remainder of the Study

This study was divided into five chapters. Chapter 1 served as an introduction to the study. It described the problem statement, nature of the study, summary of the study’s theoretical base, operational definitions, assumptions, limitations, as well as the study’s significance. The content of the remaining four chapters is briefly outlined below.
Chapter 2 provides a review of recent peer reviewed literature as well as some seminal works in the field of resiliency. More specifically, studies which centered on the following three school protective factors were reviewed by the researcher: the impact of caring adults, teacher expectations, and student participation or engagement. The researcher reviewed studies that focused on the impact of these factors on student achievement.

Chapter 3 contains the present study’s methodology including specific information about the sampling procedures, data collection, data analysis, and issues of validity and reliability. Chapter 4 is a presentation, interpretation, and explanation of the data. Tables and figures will illustrate significant data points. Chapter 5 summarizes the findings and addresses their implication for future research. Finally, the chapter concludes with recommendations for action.
Chapter 2

REVIEW OF RELATED LITERATURE

Introduction

This chapter will begin with introductory information about the impact of school level resiliency protective factors and a rationale for changing school practices to narrow achievement gaps. Important theoretical aspects of resiliency will be reviewed to properly frame the researcher’s research on the impact of protective factors on student outcomes. Seminal works on the long term impact of building student resiliency are discussed. Studies on the three protective factors shown to positively impact student achievement in language arts are reviewed and critically analyzed. The chapter concludes with recommendations about what is needed for schools to experience successful systemic change and to foster resiliency to improve student outcomes.

The researcher’s study is important because many schools where economically disadvantaged students attend still do not provide the proper academic, social, or emotional support that these students’ challenges require. This subgroup’s risk factors include a high degree of mobility, learning challenges, and dysfunctional families. These factors can significantly stand in the way of academic gains (Riley, 2006, p. 2). At-risk students are frequently assigned to the lowest classroom ability groups in elementary and middle schools (Becker & Luthar, 2002, p. 198). To make matters worse, research has shown that teachers’ expectations of students are influenced by the student demographic variables of social class and ethnicity. These demographic
variables illuminate racial and income discrepancies in achievement that get larger as students spend more time in school (The Future of Children, 2005, as cited in Hughes & Kwok, 2007, p. 39). Children from households in poverty score as much as 60% lower in “cognitive performance than middle income children their age” (Neuman, 2009, as cited in Midcontinent Research for Education and Learning [McRel], 2010, p. 30). More specifically, children in poverty arrive in Kindergarten having seen and heard 30 million fewer words than many children from middle income backgrounds (Neuman, 2009, as cited in McRel, 2010, p. 30). What matters most in educating children in poverty and other disenfranchised student subgroups is the guarantee of “challenging, engaging, and intentional instruction” (McRel, 2010, p. 67). Previous educational reforms such as No Child Left Behind (2001) have focused on academic accountability and reforms. However, barriers to learning extend beyond test scores. Roadblocks for at-risk youth come in the form of disengagement, low expectations, and a lack of supportive relationships between adults and children on school campuses. Little attention has been paid in recent reforms to removing those barriers which are environmental in nature.

Currently, many urban settings that house the most at-risk students have a high teacher turnover rate and typically the least qualified staff to deliver instruction. It is more important than ever to look for low cost or no cost ways to improve student learning with the current financial constraints of an uncertain economic future regionally and nationally. Building resiliency focuses on what teachers say and do in their daily interactions with students and provides a framework for an economical
solution to our country and state’s financial woes. Teachers and districts do not need to spend a great deal of monies to improve student learning. They do need to investigate and improve the interactions caring adults in school have with their students, the expectations adults have for student success, and the level of student engagement in their educational settings.

Touchstones of what matter most for these students are high expectations for students, engaging classrooms that develop as learning environments, and supportive and caring relationships with all students (Midcontinent Research for Education and Learning, 2010, p. 67). Although in this chapter the researcher covers seminal works in the area of resiliency, the more current peer reviewed literature from the last ten years includes studies which more closely relate to this study’s research questions and in some cases methodological approaches.

Darling-Hammond (2000) discusses the critical need for a change in the way we educate students in the United States. In a strong statement, she states that if the current system of schools does not change to effectively address of diverse students, “higher standards…will not enable them to learn” (p. 1). She feels that we must expect more from our schools and from our students. Resiliency research and the application of its elements are needed to determine how schools raise the academic performance of at-risk (disadvantaged) students and those above the poverty line. Resiliency involves students’ abilities to rebound from adversity and challenges they face inside and outside of the school setting. Building resiliency is crucial as students who live in high poverty households are exposed to poverty related stress (Wadsworth &
Santiago, 2008, p. 406). This stress has a negative impact on these students’ degree of resiliency and can “hinder the development of effective coping abilities” (p. 406).

Resiliency can be increased and fostered through improving student engagement which in turn positively impacts student achievement. Engagement has been measured in many ways in peer reviewed research literature. However, the researcher’s study will uniquely focus on school factors related to improved student engagement and connectedness. These factors are teachers’ high expectations for student success, caring adult relationships at school, and actively involving all students in the learning process.

These key resiliency protective factors provide educators with ways to effectively harness the interpersonal skills and creative strengths of their students. The results of this study will feed the sense of urgency needed for narrowing the achievement gap by demonstrating how deliberate adjustments to instructional delivery and student interactions improve student learning. The results will be the catalyst educators need to positively impact school system improvements through encouraging others through a student centered vision that fosters resiliency.

Introduction to the Impact of Resiliency Protective Factors

In their study of Kindergarten classrooms, Ponitz, Rimm-Kaufmann, Grimm, and Curby (2009) discovered that classrooms where students were effectively engaged with “rich, positive interactions” were predictive of improved literacy achievement (p. 102). They stated that the daily interactions teachers have with student and student engagement in the classroom both connect what is taught (input) with what is learned
These researchers refer to recent studies from Connor et. al. (2005) and Mashburn et. al. (2008) that indicate that “the actual daily interactions among teachers and students in the classroom most strongly predict achievement” (Ponitz et al., p. 103). Ponitz et al. cited numerous studies which include evidence of the strong link between high levels of student engagement in classrooms and reading achievement (Greenwood, 1999; Greenwood, Horton, & Utley, 2002; Guthrie, Schafer, & Huang, 2001; McWilliam, Scarborough, & Kim, 2003; Perry, VandeKamp, Mercer, & Nordby, 2002).

When speaking to the positive effect of caring adult relationships, Ponitz et al. (2009) acknowledge the link between building connections with students and instructional effectiveness. Social and academic challenges can be addressed “by interacting with children in engaging, interesting, and positive ways” (p. 104). When children become engaged in their classrooms, learning improves. They view engagement as a behavioral response when students face difficulties (p. 104). They conclude their study further emphasizing the strong correlation between engaging instructional practices and reading achievement (p. 117).

Martin and Dowson (2009) further investigate the relationship between school level student engagement and achievement. Some student level school supports that can improve achievement for at-risk students are discussed and include extracurricular programs and activities, mentoring, cooperative learning, and instructional connections to students’ lives (p. 327). Once again, for the purposes of this study, at-risk students are those students who are at risk of academic failure. The researcher
considers economically disadvantaged students, Hispanic, African-American, and Latino students as well as students from other minority or disenfranchised groups at-risk.

Martin and Dowson (2009) also speak to students’ relationships at school with adults and the critical role these relationships play in improving student engagement. They cite numerous studies to support these conclusions (Ainley, 1995; Battistich & Hom, 1997; Hargreaves, Earl, & Ryan; 1996, Pianta, 1998). These researchers also describe the theoretical framework connected to student engagement which will be further defined and explained later in this chapter. The theories these researchers put in context include resiliency theory. Martin and Dowson (2009) discuss “connective instruction” which relates learning to students’ experiences and needs in order to foster motivation and high levels of engagement (p. 344). They offer further evidence of the power of caring adult relationships through their review of previous research in this area (Goodenow, 1993; Teven & McCroskey, 1997; Connell & Wellborn, 1991).

“Addressing the (emotional) health….needs of youth is a critical component of a comprehensive strategy” to improve student achievement (WestEd, 2004, p. 14). Protective factors supported by resiliency research will help educators fulfill the necessary commitment of learning for all students. They will also assist schools in closing achievement gaps that persist in our current deficit driven system.

This literature review begins with additional information about the two theories most closely related to the study’s research questions as well as a review of a seminal study from Werner and Smith (1992). After some brief background on
promoting protective resiliency factors in school settings, a review of the research on the impact of the first protective factor, teacher expectations follows. The second section reviews studies on the influence of caring adults on student outcomes. This review concludes with the third protective factor of meaningful student participation and its role in improving academic achievement. The literature reviewed by the researcher was limited to peer reviewed journals and publications from 2000 to 2010 to create an exhaustive review chronicling the most current studies on the relationship between resiliency and the achievement of elementary school students. However, when appropriate for contextual reasons, some of these studies and articles referred to more seminal works. Searches took place using library databases and combinations of the following key words: resiliency, student, teacher expectations, achievement, engagement, participation, caring, at risk, elementary, and relationships.

Important Theoretical Aspects

Resiliency Theory

The theoretical construct of resiliency provides practical value for intervening in the lives of at-risk students (Morales, 2008, p. 24). In practice, resiliency can support students at any point in their academic careers. It does not assume a baseline of academic proficiency for it to be applicable or successfully applied. Unlike most educational theories or frameworks which follow a deficit model, resiliency is additive and preventative in steering students away from school failure. Resiliency has core ingredients for supporting at-risk students across the nation (p. 26). It is fueled by the proactive nature of educators who persist until students succeed whatever it takes.
Morales brilliantly stated that “there is a great deal of hope and empowerment to be found in the analysis of success (p. 27).

*Cultural Ecological Theory*

John Ogbu et al.’s (1998) cultural ecological theory asserts that there are two factors that influence how at-risk students perform in school. These factors are how society as a whole and the school treat at-risk students and in turn how they respond to the treatments and being educated. Treatment is described in terms of policies and teaching practices. Ogbu’s theory then describes the response of minority students as community forces. Ogbu classifies at-risk students as “caste like” due to their position as a subordinate group (Ogbu et al., 1998, p. 155). At-risk students were denied equitable access to resources within schools and these barriers created lower academic achievement. Ogbu later argued that differences in the performance of at-risk students could not be due to “cultural, linguistic, or genetic differences” (p. 156).

Disenfranchised students respond to systemic discrimination in many ways and may lose trust in the ability of the majority population to educate them. In another response known as “symbolic discrimination” they may adopt the ways of the majority culture or develop a culture that is in direct opposition to the one they consistently interact with (p. 160).

Ogbu et al. (1998) conclude their theoretical explanation with next steps for educators from the cultural ecological perspective. Teachers can begin by building trust with students through the nature of their relationships with them. Students tend to trust teachers more when they believe the teacher is looking out for their best interests
while keeping their identity intact. He describes this further as teachers showing students through words and actions that they believe in them, that their culture is “worthy of respect,” and that success in school will result in an unaltered student identity (p. 168).

Instruction that is culturally responsive is another pedagogical perspective that Ogbu et al.’s (1998) research supports. This type of instructional delivery accommodates for students’ cultural differences, different languages, and diverse learning styles. Schools and classrooms that are culturally responsive honor students’ experiences and cultures. By confronting student opposition or lack of motivation, Ogbu et al. feel teachers can help students to understand the purpose of education and see how student behavior negatively impacts student performance. Students must also view teachers as companions in their educational journeys. Ogbu et al. stated that under his ecological model, teachers are important role models in motivating students towards academic success. They further defined role models as caring adults who give students someone to look up to. In minority (at-risk) communities, successful role models are not high in number and student mentoring is described as vital for students to keep their identities. Teachers need to set standards and expectations high for students as this conveys the message that adults believe students will be successful. Resiliency also seeks to explain the role of caring adults in student success as well as explain the importance of high teacher expectations. Consequently, both theories help to frame the researcher’s study with their similar focuses on the crucial role educators
have in motivating students to beat the odds as they persist towards academic growth.

Figure 3 provides a visual representation of the study’s main theoretical framework.

Figure 3. Theoretical Framework for the Study of Resiliency.
Figure 3 illustrates the overarching theory of resiliency and its assisting theories, cultural ecological theory and the leadership theory of social justice. The three protective factors (caring adult-student relationships, high teacher expectations, and meaningful student participation) and their related theories fall under these two major theories and support the additive impact of resiliency to children’s abilities to respond to risk factors.

*Leadership Theory of Social Justice*

When leaders who promote social justice were studied, they consistently worked to create socially and culturally response educational settings for all students (Theoharis, 2007, p. 223). Leaders advanced their initiatives towards social justice to raise student achievement and close the achievement gap between disadvantaged and advantaged students. School structures of student support were strengthened, the staff’s capacities to successfully navigate positive change was improved, and school cultures were fortified (p. 232).

Principals who became successful leaders of social justice reforms in their schools were proactive in their approaches. Their proactive strategies for school change included purposeful communication, developing a network of supportive administrators, keeping focused on their goals, prioritizing their efforts, immersing themselves in professional learning, and finally building strong interpersonal relationships with staff members. In order to cope with the pressures inherent in advancing social justice efforts, principals made life outside of work a priority and made sure to do some sort of physical activity regularly.
The leadership theory of social justice clearly notes that most change efforts are met with some forms of resistance. This resistance includes competing district office initiatives and staff members whose core values conflict with a site or district’s student centered direction. Theoharis (2007) states that administrators must be on the front lines in the battle to transformationally lead and change schools (p. 250). The theory states that leaders must develop a “reflective consciousness” for social justice that includes equity and justice, a deeper knowledge of self, and the belief that the dream of equitable instruction and instructional systems is possible (Scheurich & Skrla, 2003; Rapp, 2002; as cited in Theoharis, 2007, p. 250).

The theory of social justice leadership makes clear distinctions between good leaders and social justice leaders. While good leaders support programs for diverse learners, leaders for social justice focus on strengthening core instructional methods and curriculum. They also ensure that all students have similar access to the core program in schools (Theoharis, 2007, p. 252). Good leaders empower teachers but leaders for social justice require success for all students and collaboratively meet in a timely manner to problem solve how all students will achieve that success.

Other Related Theories

Open Systems Theory

Other theories are related to resiliency and reducing risk for students. Open systems theory states that organizational constraints are often linked to elements within their environments. Schools as open systems take in environmental resources, process them, and produce outputs (DiPaola & Tschannen-Moran, 2005, p. 61). In this
framework, schools are interdependent with their environments and the people within them. The environments supply schools with the materials that they are composed of. A school’s environment “significantly affects organizational performance, which in turn affects subsequent perceptions and decisions” (Pfeffer & Salancik, 1982; Scott, 2003, as cited in DiPaola & Tschannen-Moran, 2005, p. 61). People in schools are active bodies that respond to, interpret, create, and change their environments (p. 62). Leaders within the organization develop strategies to adapt or cope with the environment and constantly are on the look out for threats and opportunities. The data or information they collect can be used to strategize and respond appropriately.

Motivational Theories

The impact of caring adult-student relationships and teacher expectations are also supported by theories of achievement motivation including expectancy-value theory and self-efficacy theory. Expectancy-value theory states that motivation to achieve success is a product of a person’s perceived likelihood of success and the values or incentives associated with that success. Motivation to avoid failure is derived from similar perceptions. Students who believe they can master classroom objectives possess positive expectations for school success and consequently have a high level of motivation and academic gains (Nicholls et al, 1989, as cited in Martin & Dowson, 2009, p. 334). Students’ expectations and their values can be influenced by people who students have significant relationships with. Relationships are central to the theoretical framework of expectancy-value theory.
Self-efficacy theory is the belief an individual has that they have the capacity to successfully carry out specific tasks. This belief has a direct impact on the individual’s motivation and their achievement (Bandura, 1986; Schell et al., 1995; Schunk & Miller, 2002, as cited in Martin & Dowson, 2009, p. 336). When individuals do not initially experience success, they try other courses of action. When self-efficacy is high, individuals persist and show effort at a higher level. They also problem solve more effectively. Problem solving and the supportive communication of other people help students gain a greater sense of self-efficacy.

Through the social motivational attachment theory, teacher-child relationships are extensions of parent-child relationships. Teachers can be responsive to student needs and create a nurturing foundation for students to learn about their social and academic surroundings (Davis, 2003, p. 209). When relationships with teachers are good or positive, students are motivated to explore and can regulate their social, cognitive, and emotional skills. Attachment theory relates to students’ conflict and emotional dependency or closeness.

The idea that students bring “relational schemas” about the social aspect of their world to the classroom is central to perspectives on attachment (p. 209). Students interpret how teachers initiate interactions and respond to them. These interpretations influence to quality of future relationships for children when these children formulate mental images of positive relationships with adult caregivers that they then bring forward in future relationships (Bretherton & Munholland, 1999; Cassidy, Kirsh, Scolton, & Parke, 1996 as cited in Wu, Hughes, & Kwok, 2010, p. 358). Children
who develop very secure attachments to caregivers early in their lives tend to be better at navigating their physical and social environments and are more likely to find support and successfully experience new situations in school contexts. As children develop, the relationships they have with others affect their ability to be engaged actively in school (Lynch & Cicchetti, 1997, as cited in Davis, 2003, p. 210). The quality of each child’s attachment to his or her teacher can influence developmental and cognitive outcomes in preschool and elementary school. Nurturing and caring teacher-student relationships have been shown to positively impact academic and social skills as well as students’ development of key academic concepts.

Seminal Work: The Kauai Study

Werner and Smith (as cited in Benard, 2004) completed what has been often called the seminal study in studying risk and resilience. They studied over 700 children, many who had up to four high risk factors. The researchers followed the progress of these children from birth to adulthood over 40 years. Known as the Kauai Study, this research demonstrated that at risk children who receive a great deal of support and modeling from low risk adults and youth beat the odds and become responsible citizens. The longitudinal study combined case study accounts and statistical analyses to investigate the impact of biological and social risk factors on the participants’ development and coping abilities. The study found that only one out of six of the study’s sample was struggling with problems ranging from financial issues, violence, substance abuse, or mental health issues forty years later (p. 7). All of the
study participants were born in Kauai in 1955 and the longitudinal data was collected three times during their lives.

The findings of Werner and Smith differ from those of most other social scientists because these researchers concluded that risk factors are predictive for only about 20-49 percent of a given high risk population (as cited in Benard, 2004, p. 8). Other researchers pointed to a higher impact as a result of risk factors. The aforementioned resiliency protective factors or buffers against adversity “predict positive outcomes in anywhere from 50 to 80 percent of a high-risk population” (p. 8). The impact of protective factors was determined by Werner and Smith as more profound than the impact of risk factors or significant negative life experiences or events.

Werner and Smith clear up the misconception that resiliency research only applies to at-risk populations or youth. They state that the supports known as resiliency protective factors apply to all young people who face adversity in addition to simply those at risk of school failure. These protective factors include working on social skills, having a caring and committed caregiver, and having a community support system which may include schools or churches. They further explain resilience as using “self-righting tendencies” to help children develop normally even when they experience the highest levels of adversity in their lives” (Benard, 2004, p. 9). These researchers also cite the important of developing children’s internal locus of control or their “personal power” (p. 22). They were among the first researchers to identify hope and confidence as central to the lives of resilient people.
The authors of the Kauai study conclude their research with recommendations to school personnel to foster student resilience. Their primary recommendation was for educators to continue being positive role models for youth. An example they gave of this type of model was a caring teacher. Werner and Smith also asked school employees to create opportunities for students to participate in the school community through cooperation. They concluded by asking educators to share “the gift of hope” with all students to develop trust, initiative, and competence (WestEd, 2001a, p. 23). The researcher will investigate this recommendation of increased student engagement and its impact on achievement later in this literature review.

Promoting Resiliency Protective Factors

In Promoting Competence and Resilience in the School Context, Masten, Herbers, Cutuli, and Lafavor (2008) discuss that schools can manifest resilience if they respond appropriately to student adversities as “protective environments” (p. 1). They define risk for students as something that predicts an outcome that is not desirable. School and classroom protective factors allow students to gain strength and function despite risks through powerful processes in people and relationships that foster resilience. Some of these processes include high expectations, a positive school climate, and structured classrooms.

These researchers discuss effective strategies to promote student confidence and success. These strategies include “powerful protective relationships, ….self-efficacy, and motivation to meet challenges, …along with strong beliefs that are communicated to students about the possibilities life has in creating meaning”
They stress the importance of strong bonds with caring adults in fostering students’ social and mental development. Table 1 below comes from the research of Masten et al. (2008) and her colleagues and identifies predictors of resilience in young children.

Table 1

**Predictors of Resilience in Young People**

<table>
<thead>
<tr>
<th>Promotive/Protective Factors</th>
<th>Implicated Adaptive Systems</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive relationships with caring adults</td>
<td>Attachment</td>
</tr>
<tr>
<td>Effective parenting</td>
<td>Family</td>
</tr>
<tr>
<td>Intelligence, problem-solving Skills</td>
<td>Learning and thinking systems</td>
</tr>
<tr>
<td>Perceived efficacy, control</td>
<td>Mastery motivation</td>
</tr>
<tr>
<td>Achievement motivation, Persistence</td>
<td>Mastery motivation</td>
</tr>
<tr>
<td>Self-regulation skills</td>
<td>Executive function systems</td>
</tr>
<tr>
<td>Effective stress management</td>
<td>Stress response systems</td>
</tr>
<tr>
<td>Positive friends</td>
<td>Peer and family systems, attachment</td>
</tr>
<tr>
<td>Faith, hope, spirituality</td>
<td>Religion, cultural systems</td>
</tr>
<tr>
<td>Effective teachers, schools</td>
<td>Education systems</td>
</tr>
</tbody>
</table>

The "Short List" of Commonly Observed Predictors of Resilience in Young People (Masten et al., 2008, p. 6)

Specific Resiliency Protective Factors Impacting Student Achievement

*Teacher Expectations*

*Seminal works.* The study of teacher expectations has spanned the last 40 years and for that long studies have demonstrated that “some teachers differentially interact with students” who they believe to be academically successful or unsuccessful (Brophy & Good, 1970; Good, 1969; Hoehn, 1954, as cited in Good and Nichols,
2001, p. 113). Brophy (1982) began to link classroom expectations to the learning of children (Rubie-Davies, 2006, p. 537). He asserted that expectations can positively influence student achievement by as much as 5% each year and also discussed the power of the cumulative effect of high teacher expectations. Teacher expectations can have an impact on student performance because it is the teacher who assigns learning tasks and judges how well students do. Rosenthal and Jacobson’s (1968) *Pygmalion in the Classroom* also suggested that teachers’ expectations of students and their resulting treatment of those students could influence student achievement (as cited in Good & Nichols, p. 115). In this study, teachers were given false information about randomly selected students and were told that the students’ test scores would predict how the students would develop in their learning. The teachers then developed performance expectations of these students based on this false information. The researcher feels that high and equitable expectations for all students will result in the greatest achievement gains. Expectations that are at more of a median level may not meet the educational needs of both high and low achieving students and those in between.

In the 1980s and 1990s, Weinstein and other researchers (Weinstein, 1993; Weinstein, Marshall, Brattesani, & Middlestadt, 1982; Weinstein, Marshall, Sharp, & Botkin, 1987; Weinstein & McKown, 1998) wished to determine if students could tell the difference between high and low expectations and if so, how? (Rubie-Davies, 2006, p. 538) Using a survey inventory with first to fifth grade students, they found that in comparison to low achievers, students perceived that teachers interacted more
positively with high-achieving students (Rubie-Davies, 2006, p. 538). On the other hand, students found that teachers interacted more negatively with low achieving students, leading to far less self-directed learning opportunities. Teachers who discriminated between their low and high achieving students affected students’ academic outcomes and self-concepts to a greater degree than teachers who did not make these distinctions (p. 539). Bratessani, Weinstein, and Marshall (1984) demonstrated that when students reported “differential treatment of high and low achievers,” the expectations from the teacher accounted for 14% of the end of the year achievement variance when controlling for students’ prior academic performance (p. 539). High teacher expectations without the proper classroom supports may result in learner frustration and disengagement.

Recent studies on teacher expectations. The aforementioned researchers who studied the impact of teacher expectations set the stage for future work. Since Rosenthal’s original work in 1965, Hattie (2009) reviewed 800 meta-analyses of research in education. Six hundred seventy-four of the studies that have been conducted since Rosenthal’s work confirm that “teacher expectations can have a powerful effect on student achievement” (as cited in McRel, 2010, p. 13). Once again, due to the vast body of research on the topic of teacher expectations, the researcher will focus on peer reviewed current research from the last 10 years that relate to this study’s research questions and topic.

In 1999 and 2000, Warren (2002) interviewed 29 public elementary school teachers to examine if their expectations were the same for all students regardless of
the race or socioeconomic status of students. Eighteen of the teachers were from schools in which at least 80% of the families qualified for free or reduced lunch. The remaining eleven teachers were from schools with students from high socioeconomic backgrounds where less than 20% of the students qualified for subsidized lunches. Teachers in the study were from diverse racial backgrounds. Interview data was transcribed, sorted, and coded.

The majority of the teachers in the study identified low academic achievement of students as a significant problem facing our schools (Warren, 2002, p. 111). The teachers attributed the students’ low skills mostly to causes outside of the school setting such as family background. The teachers communicated their lower expectations for at-risk students in a variety of ways. They described student differences as “deficits” and felt it was not their responsibility to help students overcome these deficits (Warren, 2002, p. 111). The backgrounds of students’ families including culture were perceived by the teachers as deficits as well. The teachers were able to describe their lower expectations and seemed to lack a great deal of confidence to help students “overcome barriers or differences” (p. 111). Finally, lower expectations were communicated by their lack of determination to work with at-risk students.

Teachers were asked to explain why they felt some students lacked the appropriate grade level skills for success. These explanations included perceived social class differences, what they described as deficient families or backgrounds, ethnicity, and poverty. The teachers in the study stated that they were unable or
unwilling to resolve these differences. The study’s author felt the following comment from a White teacher in a high poverty school was very telling: “You can…almost pinpoint who is going to succeed and who’s not. Some of these kids will make it and some of them won’t” (Warren, 2002, p. 112). Twenty-five percent of the teachers in the study had high expectations for students and felt they could make a difference. These teachers were all from schools with a higher socioeconomic student population and stated that all students can learn and teachers can have an impact on student achievement.

The Warren study demonstrates how teachers’ social and educational beliefs influence how they feel about their students. The findings from this qualitative study have implications for students, teachers, and policymakers in regards to school reform movements and the professional development of teachers. The study offers further evidence of the how the quality of teachers impacts student outcomes (Darling-Hammond, 1997, Haberman, 1995, & Haycock, 1998 as cited in Warren, 2002, p. 114).

*High expectations leading to student success.* In her investigation of the challenges faced by urban schools, Rebecca Gehrke (2005) investigated teaching practices of those teachers who defied the odds and fostered increases in student achievement. One strong element in these successful classrooms was high expectations for student success. She found that teachers who supported at-risk students in achieving academic growth believed that all children could learn regardless of their backgrounds (p. 16). She stated that teachers in these urban settings “say that
maintaining high expectations for students living in urban poor environments is critical” (p. 16). When teachers have low expectations due to their perceived inability to affect change due to a child’s background, student achievement slows almost to a grinding halt. Administrators from successful urban schools feel teachers are successful in educating at-risk students because they do not let perceived barriers to success such as poverty, second language acquisition, or socioeconomic status get in the way of student learning.

Christine M. Rubie Davies (2006) took the research focus from individual students to an entire classroom of students and identified expectations as teacher centered interactions (p. 537). She studied 256 students from 12 classrooms and eight different elementary schools in New Zealand (p. 540). Data on reading decoding was collected for all students at the end of the school year and teachers were divided into three categories based on their expectations. These categories consisted of high-expectation teachers, average-progress teachers, and low-expectation teachers (pp. 540-541). High expectation teachers started the year with elevated expectations and ended it with improved student reading outcomes. Average-progress teachers started with high expectations but their students did not make “statistically significant gains” in the course of a school year (p. 541). Finally, low-expectation teachers started the year with low expectations and their students made no reading gains. All students completed a “self-perception scale” of reading proficiency and the study’s data was analyzed using a one-way analysis of variance (ANOVA) with all three teacher groups (p. 544). The results showed that students across all three groups did not have
significant differences in their beginning of the year self-perception scores. However, when end of the year scores were inputted, the results were statistically significant. The low-expectation group of students saw a decline in their self-perception mean scores while the other two groups’ scores increased. This study supports the argument and the researcher’s hypothesis that “teacher expectations may influence student self-perceptions” and achievement (p. 547). As perceptions and achievement remained high or grew, student reading achievement followed a similar pattern.

This study has implications for teachers, support staff, and administrators as it provides more evidence of the impact of teacher expectations on student reading achievement as well as students’ self-concepts. The researcher’s study will also investigate the impact of teacher expectations in a similar content area. The Davies (2006) study concludes with the recommendation that teachers should emphasize the role of high expectations for students (p. 550). A limitation of this study was the small sample size of low and average expectation teachers in comparison to the sample of high expectation teachers. Additionally, variables that were not controlled for could have impacted the self-perceptions of students. These variables included data on the socioeconomic status, ethnicity, and age of the students. In the researcher’s study, California’s Similar Schools Ranking will serve to control for multiple demographic variables across both of the study’s school sites. The size of this study made it difficult to “isolate all of the variables” (p. 549).

In 2007, Christine Rubie-Davies once again explored the practices of teachers who demonstrated both high and low expectations. The goal of the study was to
explore whether or not interactions with students differed when comparing teachers with high and low expectations. 12 teachers from eight different randomly selected schools in Auckland, New Zealand took part in the study. These teachers had expectations that were significantly above or below their students’ achievement levels. They were again categorized into three groups: high expectations teachers, low expectation teachers, and average progress teachers. High expectation teachers had expectations for their students’ outcomes in reading that were much high than the students’ actual performance. Average progress teachers had students who had high expectations. However, their students did not make significant reading gains during the course of the one year study. Finally, low expectation teachers had expectations that were below the achievement of their students. The student gains from these teachers were negative or very small.

The participants in the study were observed twice in one year during reading instruction. Outcome data consisted of a running record of the children’s reading levels as well as lesson content. Audio taped lessons were coded as teacher feedback, learning feedback, behavior management, procedural, and questioning strategies. Student interactions were then ranked and one way analyses of variance were conducted.

High and average progress teachers “provided a framework for student learning” by giving students numerous instructions and explanations about key concepts (Rubie-Davies, 2007, p. 300). These teachers took time during instruction to orient students about the topic at hand and linked the topic to students’ prior
knowledge which has been shown by other researchers to positively impact student learning (Berliner, 2004, Topping & Ferguson, 2005, & Wray et. al., 2000 as cited in Rubie-Davies, 2007, p. 300). The high expectation and average progress teachers provided more scaffolding and feedback about learning for students than their low expectation counterparts. There were also more frequent checks for understanding. Feedback on student learning was more consistent and more specifically, students were told what they needed to do next to master upcoming skills or to improve. High expectation teachers asked the most open ended questions of any other teacher group and asked their students to make inferences, therefore tapping into students’ high order thinking skills. Low expectation teachers asked the least number of questions and made statements that were more procedural in nature (p. 302). In fact, they made more of these statements in comparison to statements about the actual teaching or lesson content.

One study limitation was the small sample size of teachers used in the investigation. The study could not account for the influence of other variables on teacher expectations. Also, only two lessons were observed and used for data collection and analysis. This places limits on generalizability. Larger scale studies on students or teachers from many classrooms and schools could provide more evidence of teacher expectations. The study’s research design is a limitation because there were numerous analyses which were based on observational data and coding. This increases the chances of Type 1 error occurring. The results of the study are useful in developing future teachers and “the findings in this study illustrate the importance of
Barley & Beesley (2007) studied rural high poverty schools to learn what contributed to their successes. Twenty-one schools in the central United States were identified as high need due the high percentage of families on free or reduced priced lunches. These schools also experienced a high level of academic success. The study was exploratory and descriptive and sought to identify specific variables that led to schools’ successes. The primary methodological approach was qualitative and consisted of interviews of site administrators and case studies using site visits. The sample of over 20 schools included elementary, middle, and high schools. Schools were identified as academically successful if they had two years of standardized reading and math test results with levels of proficiency above their state averages. Principals were asked in the interviews what factors they attributed to their schools’ successes. The responses were coded and included the categories of leadership, instruction, professional community, and school environment (p. 3). The top four factors that were perceived as important by the most Principals were high expectations for students, learning structural supports, utilization of student data, and the alignment of instruction, curriculum, and assessment (p. 3).

For the case study data collection, six schools had site visits from the researchers. Small focus group meetings took place with community members, school
board members, parents, teachers, and the site Principal. The groups were asked to tell researchers what they attributed the schools’ successes to. The focus groups were recorded, transcribed, and coded for the same school factors from the telephone interviews. Many schools once again reported high expectations as a crucial factor for student success. More specifically, teachers stated that “they wanted students to understand that high goals are for everyone” (Barley & Beesley, 2007, p. 5). Teachers and administrators from these high performing schools said that students rise to the occasion when they set goals for themselves with teacher support. Teachers were reported to expect a great deal from themselves and communicated “that they expect no less from the students” (p. 8). Teachers in these schools tended to reinforce the expectations of their teaching colleagues.

The results of the study demonstrate that high expectations for students are important in all school settings in order for students to experience a high level of academic achievement. This unique methodological approach provides a greater understanding of what makes rural high poverty schools successful in educating their students. Quantitative data such as more detailed numerical information about academic achievement or detailed survey data could enhance the quality of the data. The researcher’s study will include a mixed methods approach to offer more specificity to the ways high expectations are communicated to students by examining student perceptions on a Likert scale and qualitative interview data.

Teacher expectations and diverse classrooms. McKown & Weinstein (2007) conducted a large scale study to explore the relationships between teacher
expectations, classroom context, student ethnicity, and the achievement gap in diverse classrooms. One thousand eight hundred seventy-two elementary school children from 83 classrooms took part in the study. The researchers hypothesized that students would report that teachers favored high achieving over low achieving students. They also thought that teachers may use a student’s ethnicity as a basis for his or her expectations for learning. The final goal of the research was to determine how biased teacher expectations contribute to ethnic achievement gaps at the end of the school year (p. 239).

The study was conducted in multiple parts. Part one consisted of a cross section of 640 first, third, and fifth grade students from 30 elementary classrooms in urban settings. Parent reported ethnicity data was collected along with reading and math achievement on standardized tests. Teachers ranked their students in order of their expected achievement in reading and math for the expectation data. Students were asked to rate how often teachers behaved in certain ways towards high and low achieving students.

Regression models were created for each content area and were developed to measure the predictive relationship between achievement and ethnicity. The results indicated that students’ ethnicity predicted teacher expectations for reading achievement. In regards to specific conclusions about ethnic groups, teachers ranked European and Asian American students as most likely having higher achievement than African-American and Latino students in reading and math (McKown & Weinstein, 2007, p. 244).
The findings from this part of the study suggest that increased classroom diversity is accompanied by increasingly biased teacher expectations and this occurs most significantly in highly diverse classroom settings. In fact, the discrepancies in teacher expectations between European and Asian American students and African-American and Latino students was between .93 and 1.0 standard deviations in both reading and math (McKown & Weinstein, 2007, p. 245). The other part of the study sought to develop an understanding of how much teacher expectations contribute to the achievement gap at the end of the school year. The data that was collected in the study was the same type of data that was in part one. A different type of data analysis was used and this consisted mainly of correlation analyses.

The results of this portion of the study suggest that in classrooms with a high level of teacher bias, teacher expectations were associated with achievement discrepancies between the two aforementioned categories of ethnic groups. The standard deviation for achievement was between .21 and .38 (McKown & Weinstein, 2007, p. 256). In less biased classrooms, the expectations had very little impact on the achievement gap. The study was unique in that it investigated the impact of teacher expectations using both teacher and student level variables. The researchers concluded that diversity in the classroom minimizes the bias of teachers “when teachers create classroom climates in which high and low achievers are treated similarly” (p. 257). McKown & Weinstein’s (2007) findings demonstrate the importance of identifying teacher bias in classrooms and intervening to maximize student academic growth.
Limitations of the study include the complexity of school contexts which made it difficult to determine what school and classroom characteristics were precisely related to student achievement. Studies should be completed that focus on student interventions and equitable practices in the classrooms of at-risk students and studies that seek to narrow achievement gaps (McKown & Weinstein, 2007, p. 259). Initiating these types of studies can show practitioners how to “shape these settings towards greater equity” (p. 259).

*Meta-analyses on expectations.* One of the largest studies in the last 10 years on teacher expectations was completed by Tenenbaum & Ruck (2007). They conducted four quantitative meta-analyses to investigate if teacher expectations were different towards minority students. Four studies were reviewed by the researchers and included the works of Barnes (1978), Chang & Sue (2003), Taylor (1979), & Tettegah (1996). Samples of teacher positive and negative speech towards students were analyzed and coded. The ethnic background of each student was considered as a possible factor that could mediate the impact of the teachers’ expectations. The studies included students from the elementary, middle, high school, and university levels. A total of 39 samples were analyzed for differences in teacher expectations for children from diverse ethnic backgrounds. The authors concluded that teachers demonstrated more positive expectations for European American students than for children from ethnic minorities (p. 261). The expectations and teacher talk were less positive for Latino children and African-American children. However, teachers held the highest expectations for Asian American students. Teachers also demonstrated the most
negative expectations for Latino students. The age of students did not play a factor in the level of expectations.

One limitation of the study was the lag time between when data was collected in many studies and when the articles were published. The studies involved in the meta-analyses suggested that teachers “hold lower expectations for African American and Latino children than for European American Children” (McKown & Weinstein, 2007, p. 271). In addition, speech patterns were more neutral for European American children. Tenenbaum and Ruck (2007) concluded at the end of their study that teacher expectations may lead to variance in academic performance and “are likely to contribute to a less than fair climate and limited educational opportunities” for Latino and African American students (p. 271).

*Expectations in elementary schools.* Until recently, there have been few studies on the impact of teacher expectations in the early elementary years (Hinnant, O’Brien, & Ghazarian, 2009, p. 662). Hinnant et al.’s (2009) study focused on 1,000 children in first, third, and fifth grades. Families were recruited for the study in 1991 from ten United States locations (p. 664). This study was longitudinal and consisted primarily of classroom observations and demographic data obtained from the caregivers of the students. Teachers completed the Social Skills Questionnaire (Gresham & Elliott, 1990) which consists of 38 questions about childhood social behaviors (p. 664). Two academic outcome measures were collected in the study. They consisted of teacher reports of classroom performance in reading and math and students’ scores on
standardized measures (p. 664). Teachers also rated students’ academic proficiencies using an academic skills questionnaire.

Descriptive statistics and correlations for the teacher expectancy scores and measures of achievement were used by the researchers (Hinnant et al., 2009, p. 665). Teacher expectations were formulated through hierarchical regressions of teacher reported academic performance of their students and of students’ “social competence” as well as evidence of teacher expectations (p. 666). The methodology of the researcher of the present study will also include a regression in its analysis on teacher expectations and the academic performance of students. Most correlations were significant in Hinnant et al.’s study including teacher expectancy scores in reading and math and teacher expectancies over time. Academic measures were “positively correlated with later teacher expectations” mainly in math (p. 665).

In regards to the regressions, first grade students who were viewed as more socially competent were also viewed as academically competent. Third grade results demonstrated significant relationships between early academic achievement scores and teacher expectations of the abilities of their students. Fifth grade results were similar to those of third grade. The researcher’s study will also use fifth grade students to determine significance. A second set of statistical inquiries in this study showed that early teacher expectations “predicted later child achievement” (Hinnant et al., 2009, p. 666). The reading data supported previous studies (Jussim & Harber, 2005) that have demonstrated “that teacher expectations may have a stronger relation to later
Hinnant et al.'s (2009) study was important because it focused longitudinally on the impact of teacher expectations on student reading achievement from the beginning of students’ school careers. Teacher expectations were also shown to be predictable (p. 669). Social skills were found to be related to expectations at all points in time. The study uncovered that math had more profound effects on achievement and reading effects did not accumulate.

Limitations were found in the study and included measuring achievement in the Spring, therefore providing no data on beginning of the year outcomes. The sample contained a larger percent of students from high-income backgrounds and fewer minority children (Hinnant et al., 2009, p. 669). Due to the researcher’s random sampling in his study, the sample will be more representative of the school population as a whole demographically. The measure of teacher expectations in this study included only teacher perception data as well as observational data on students’ engagement in the classroom. The researcher’s research tools involve student level perception data that is both quantitative and qualitative and asks how students experience expectations at school and in the classroom. Keeping the data closer to the student level may strengthen the researcher’s methodological approach. The teachers’ ratings of motivation in Hinnant et al.’s study could have accounted for achievement variance. Studies with more quantitative student level data such as the data in the researcher’s study would add a needed perspective to the data set. The above study’s
focus on entry level schooling was unique as was its report of math data in addition to reading data. The study concluded with the following recommendation: “Further research into teacher expectations and misperceptions of children’s academic abilities is warranted” (p. 670). The researcher’s study responds to this recommendation by providing additional current research on the impact of teacher expectations.

The Impact of Caring Adults

The resiliency protective factor of caring adults in students’ lives has been shown to positively impact students’ academic outcomes. Noddings (1992) identified caring as “the very bedrock of all successful education” (as cited in Lumpkin, 2007, p. 158). Noddings also identified that a strength of caring teachers was their ability to reflect on and refine teaching practices to meet the needs of every student. In Changing the Odds (2010), the Midcontinent Research for Education and Learning concluded that fostering meaningful relationships with students that were also nurturing and strong were qualities of effective teaching practices (p. 18).

According to Pianta et al. (2008), in addition to instructional aspects of classrooms, there is evidence that emotional classroom aspects are “predictive of gains in achievement” (p. 367). The quality of the adult and student interaction is the biggest determinant of success (Noam & Fiore, 2004, p. 9). Resiliency research demonstrates the huge significance of adults as mentors and role models especially for educationally or socioeconomically disadvantaged students (p. 10). Research has found that African-American and socioeconomically disadvantaged students are less likely than Caucasian or advantaged students to experience supportive relationships with teachers
(Entwisle & Alexander, 1988; Hamre & Pianta, 2001; Ladd et al., 1999; Wehlage & Rutter, 1986, as cited in Hughes and Kwok, 2007, p. 40). The relationships students make with caring adults in a school setting “allow the students to form attachments to programs, schools, and the community” which gives them a secure foundation for success (p. 10). Students respond to adults who make them feel as if they are cared for. Noam and Fiore (2004) state in their overview of relationships across many settings that school-age children in the United States interact with teachers beyond any other adults in their lives in or out of school (p. 12). They further describe the teacher-child relationship as frequent and consistent (p. 12). The researchers feel that relational practices and tools can be developed further through teacher training and work with school learning environments. They conclude by stating the following: “The foundations have been laid in theory, research, and promising practices. Now the institutional changes have to follow” (p. 14).

Hattie’s (2009) synthesis of over 800 meta-analyses related to what impacts student achievement offers further evidence of the significance of the teacher-student relationship. Hattie cites Cornelius-White’s (2007) meta analysis of 119 studies, 1,450 effects, 355,325 students, 14,851 teachers, and 2,439 schools (p. 118). Cornelius-White found a strong correlation (.34) between all teacher variables and all student outcomes. Outcomes included student outcomes and student perceptions and attitudes. He noted that students who do not want to come to school do so mainly because they do not like their teacher (p. 119). This researcher concluded from his analysis of numerous studies that teachers must facilitate student learning by showing that they
care about each student’s learning and each student as a person “which sends a powerful message about purpose and priority” (Cornelius-White, as cited in Hattie, 2009, p. 119).

In the appendix of Hattie’s (2009) research synthesis, the influence of the meta-analyses he reviewed were rank ordered by their positive influence on student achievement. Out of 138 influences on student achievement from multiple domains, teacher-student relationships ranked 11th with an effect size of .72 (Hattie, Appendix 2). Looking at this information from another perspective, the researcher concludes from Hattie’s synthesis that teacher-student relationships have a greater impact on student achievement than 92% of the other influences in the over 800 analyses that Hattie reviewed. More specifically, the following influences mentioned in this study had a less significant impact on achievement: family socioeconomic status (d=.57), parental involvement (.51), student engagement (.48), teacher expectations (.43), gender (.12), and overall teacher effects (.32).

Longitudinal study on classroom relationships. Hamre and Pianta (2001) completed one of the largest longitudinal studies of the impact of early teacher-child relationships. However, their investigation was unique in that it studied the trajectory of student outcomes through eighth grade. The researchers believed that students who were at the greatest risk of academic failure would be from minority groups or students with behavior problems. These hypotheses are consistent with the results from previous studies on this topic (Pianta & McCoy, 1997; Tremontana, Hooper, & Selzer, 1988, as cited in Hamre & Pianta, 2001, p. 627).
One hundred and seventy-nine children were sampled beginning in 1988 and the largest ethnic group in the sample was African-American at 40% (p. 627). Students were given a school academic screening in the beginning of Kindergarten which was a cognitive measure. A teacher behavior rating scale and the Student-Teacher Relationship Scale were used to assess teachers’ relationships with students. In grades one through eight, grades were collected each year as a continuous academic measure and classified as on or above grade level or below grade level in math and language arts. A nationally normed achievement test to measure proficiency in both content areas was also used.

Correlations and regressions were used in the data analysis. Teachers’ predictions about a high level of conflict and dependency with students were significantly related to below level academic performance in both reading and math. The results were most significant for boys in the study. The ratings were more related to outcomes in elementary school than middle school. Relational negativity was described by Hamre and Pianta (2001) as the perception of teachers that students did not have positive relationships with them (p. 631). This relational negativity accounted for a small portion of the variance in scores on the nationally normed test. It also accounted for a significant part of the variance in the number of discipline infractions students received in the upper elementary grades. Also, students with negative teacher relationships had less positive marks for strong work habits in lower elementary school when compared to their peers.
The results of this study demonstrate the powerful effect of early teacher-child relationships in kindergarten on academic achievement. The study also shows some evidence that the effects are mediated through eighth grade (Hamre & Pianta, 2001, p. 634). Kindergarten reports of student negativity predicted students’ grades, scores on standardized tests, and work habits especially in the lower elementary grades. This study provides a great deal of evidence that students’ abilities to form relationships with their teachers forecasts how they will achieve and behave in school (p. 634). More specifically, conflict and over dependency had the greatest impact on academic outcomes. However, the study did find that teacher-child relationship quality more strongly predicts behavioral outcomes than academic outcomes. African-American students with lower quality relationships with their teachers were found to be more likely to have academic and behavioral problems through eighth grade.

The researchers review the implications of the study which include implications for efforts at early intervention in the lives of at-risk students. They suggest that “preventative intervention programs” that seek to strengthen teacher-child relationships “may hold promise for enhancing school outcomes” (Hamre & Pianta, 2001, p. 635). Children who have the additional risk factor of behavioral problems in addition to poor relationships with their teachers would benefit the most from these types of interventions. More specifically, Hamre and Pianta speculate that relationships in the classroom have an impact on academic performance possibly due to teacher sensitivity to students, anticipating their needs, providing timely feedback, and providing strong supports for academic and social “competence” (p. 636).
The most notable limitation of the study was that the measure of the teacher-child relationship was completed in kindergarten and not repeated throughout the child’s educational experiences in other grade levels. Although there was variance in school outcomes as a result of the quality of classroom relationships, the variance was small and deserves further investigation. The results of the study can be interpreted as correlational but are not causal in nature.

The researchers feel that understanding teacher-child relationships and their influence “also requires a focus on children’s perceptions of relationships with teachers” (Hamre & Pianta, 2001, p. 636). Hamre and Pianta also clearly state that “future research should attempt to include input from children” (p. 636). The researcher’s study has taken these recommendations into account. This study will include ratings of student perceptions and qualitative student interview data about the quality of their relationships with adults in the school setting.

*Relationships and reading achievement.* A study that shows the impact of caring adults on student achievement is the study by Worthy, Patterson, Salas, Prater & Turner (2002) of 24 struggling readers in grades three through five. Their study focuses mainly on reading achievement and stresses the importance of social interactions with caring adults to boost students’ reading interests. These researchers sought to understand what factors influenced readers who were resistant to independent reading.

The study took place in an after school reading club with student teachers serving as the tutors. The 24 students who participated in the study came from a
school community where 61% of the students were eligible for free or reduced lunch. The reading program met twice a week for one hour each session. Data was collected using assessments, interviews, and observations. This data was analyzed to determine what influenced the students’ reading habits and attitudes. 21 of the 24 students were observed increasing their reading frequencies and reading achievement (Worthy et al., 2002, p. 187).

The caring approach the tutors took was determined to positively impact reading achievement and motivation. This caring approach included spending a great deal of time trying to connect with and reach students. In the words of Noddings (1984), this caring was seen as “ethical caring” (as cited in Worthy et al., 2002, p. 193). They connected personally with the students and the tutors felt personally responsible for student success. The researcher will seek to show the power of this connectedness in his research which will further be described in Chapter 3.

The researchers in this study were surprised how connected the tutors became to the students after experiencing student reading gains. They concluded that reaching the most difficult students required “responsiveness, personal knowledge, and experience that only a person with close connections with that individual student could provide” (Worthy et al., 2002, p. 195). The tutors and students developed trusting relationships that was believed to impact cognitive growth (p. 195). The researcher believes that his study will also demonstrate the academic impact of caring adult relationships built on trust and persistence.
This study provides further evidence that early student intervention and caring adult support can positively impact student reading outcomes. The “personalized, responsive, relationship-based approach” in the reading club broke the cycle of unmotivated readers (Worthy et al., 2002, p. 196). The study suggests that future studies should further investigate personal connections with at-risk students. The researcher’s study will seek to further illuminate the power of an ethic of caring as recommended by this and other peer reviewed studies.

In their 2004 study on the relationships between teachers and student academic success in preschool through first grade, Pianta and Stuhlman studied a sample of 490 children. 16% of the students in the sample were below the poverty threshold (p. 446). The students were studied over three years through mother and teacher reports about academics and relationships each year. The Woodcock Johnson standardized test was used to assess students’ vocabulary knowledge and results were reported out as standard scores. For additional academic ratings, teachers filled out report cards on each student and rated them for academic performance, work habits, and emotional and social development (p. 447). The achievement ratings covered six content areas including language arts and math. Each child’s relationship with his or her teacher was rated using the Student-Teacher Relationship Scale (p. 450). Fifteen items on the scale assessed each student’s conflict in the classroom and closeness to the teacher. This scale has been tested for validity and it has demonstrated “predictive and concurrent validity” repeatedly (p. 450).
For the study’s data analysis, correlations were used to evaluate the ratings used by the teachers of their relationships with students. Descriptive statistics were also used to summarize the data. Regression analyses were conducted to evaluate if the teacher-child relationships predicted first grade skills above and beyond kindergarten and preschool skills. Teachers’ ratings of the closeness of their relationships were less stable using the correlation analysis. Demographic data related to each family’s socioeconomic status accounted for a significant level of variance in teacher’s ratings of student achievement, social competence, and vocabulary development (Pianta & Stuhlman, 2004, p. 452).

When examining academic performance using regressions, Pianta and Stuhlman (2004) found that conflict and closeness in first grade were significant predictors of teacher ratings of achievement. More specifically, “first grade teachers rated children’s achievement more highly for those children with whom they reported sharing a closer relationship” (p. 452). This supports the researcher’s hypothesis that the resiliency protective factor of caring adult relationships is related to academic achievement.

The Pianta and Stuhlman (2004) study provides support for future studies of how the relationships between teachers and children are related to academic performance. It also informs the researcher’s study as it uses a similar form of data analysis. However, one limitation of the study described above is its focus on teacher ratings and standardized testing data instead of student perception data and measures of achievement. However, the study does add to this field of knowledge by showing
how classroom relationships are related to changes in academic performance over time (p. 455). Additional limitations of the preschool through first grade study include its failure to study additional protective factors such as teacher expectations and student engagement in the classroom and at school. Therefore, the researchers cannot conclude that teacher-child relationships are the exclusive influence on student achievement.

The authors of the study recommend that future studies focus on additional classroom variables. More specifically, they state the following: “Clearly, additional work is needed in this area to develop a clear picture of the effect of relational processes in the classroom” (Pianta & Stuhlman, 2004, p. 456). In following this recommendation, the researcher’s study includes over thirty variables in the school and classroom settings. The study’s results provide implications for efforts to intervene early in the academic and social lives of at-risk students. It also has implications for educational policy in that it may suggest a focus on relationships between teachers and students as a way to increase opportunities for student success.

In their study of Kindergarten and First Grade students, Hamre & Pianta (2005) investigated whether or not strong emotional support from classroom teachers would improve the academic experiences of children who were identified at risk of failing school. 910 Kindergarten children were identified as at risk due to demographic variables and the presence of academic, social, or behavioral problems. (p. 949).

This study was part of a bigger study of early childhood. The study sample was selected using a stratified random sample with oversampling of selected populations.
for demographic variables to ensure diversity. Students were observed in their classrooms during First Grade in 827 classrooms from 747 schools and 32 states (Hamre & Pianta, 2005, p. 954). An assessment in Kindergarten determined the children’s risk status. Teachers reported on external behavior. Social and academic skills were measured using a “social skills rating system” (p. 955). Student achievement was assessed using a standardized measure and most importantly, the relationships between students and teachers were tested using a teacher perceptual rating scale. Classroom observers also rated teacher behaviors during three hour observations in each classroom.

The statistics used were descriptive and ANCOVAs were conducted to see if risk status predicted first grade achievement. Children had equal chances of being in high and low teacher support classrooms. The results of the study demonstrated that high risk Kindergarteners who received a high level of emotional support from their teachers maintained high test scores and those with less support had lower scores. These types of support included emotional support by encouraging children to be more responsible for their learning, high quality teacher feedback, and frequent attempts to engage students in the learning process. Other types of emotional support were proactive classroom management strategies and emphasizing teachers and students working together to create a positive classroom climate (Hamre & Pianta, 2005, p. 962). The researcher’s study will also address caring adult relationships through a random sample but will include an outcome variable that is more closely linked to grade level content. The measure in the above study used social skills rating scales
instead of academic performance measures. The above study has clearly demonstrated the power of caring adult relationships in predicting future academic success for students, especially those students who are economically disadvantaged or possess other risk factors such as parents who are less educated. Even without considering school based interventions or other levels of student support outside of the classroom, simply the way adults interact with students in the classroom can have powerful effects on student outcomes.

As this study provides evidence that the quality of teacher relationships with students can impact academic outcomes, it also demonstrates that “the quality of everyday classroom interactions in the form of instructional and emotional support moderates the risk of early school failure” (Hamre & Pianta, 2005, p. 961). Instructional support included feedback to students and encouraging student responsibility. The authors of this study found the results consistent with other studies on preschool teacher-child relationships. Students who view their teachers as supportive are more likely to achieve the teachers’ goals and be engaged in activities in the classroom (p. 962).

Limitations to the study included the lack of diversity within the sample which impacts generalizability. The majority of families selected for the study were from higher income backgrounds. This limits the analysis of variance for socioeconomic demographic variables. The data set was already in place and was not developed to specifically address the research questions. Outcome measures should be used which are supported by research and are closely correlated to the relationships students have
with adults at school. Future research should include a percentage of high risk students that is representative of the total school population. The researcher will address this recommendation with a more representative student sample. The results of this study “provide evidence of the benefit of understanding schools….as important” to children’s social and emotional development (Hamre & Pianta, 2005, p. 963).

However, Hamre and Pianta failed to glean data directly from the students. Student perception data in the form of interviews, focus groups, or survey research would strengthen future studies on the crucial role of caring adults in classrooms. Child reports of teacher-student relationships can motivate them to work diligently to achieve a school’s academic expectations (Wu et al., 2010, p. 359). The researcher intends to use survey research, focus groups, and interviews to further investigate the impact of caring adult relationships. Hamre and Pianta conclude by stating that research that delves into student perceptions of their relationships in the school setting is needed to further develop this body of research. This concluding comment offers a recommendation for the type of study the researcher will describe further in Chapter 3.

In 2006, Baker further investigated how teacher-child relationships contributed to positive school outcomes. This researcher sees these relationships as mediating or moderating children’s beliefs about how capable they are of being successful in school (p. 212). The elementary age sample consisted of 1,301 students. Baker hypothesized that the mediating effect of the relationship would more greatly affect students’ social and behavioral adjustment over academic outcomes.
The sample included students from each grade level in Kindergarten through Fifth Grade and was representative of the ethnic composition of the participating schools. Fifteen through twenty-one percent of each grade level’s students were sampled. One year of data was selected for study after several years of data collection. Seventy percent of the students in the participating school district were eligible for free or reduced lunch (Baker, 2006, p. 215). In addition, 57% of the sample was African-American which is representative of the district’s demographics. 68 teachers participated in the study from four elementary schools.

The Student-Teacher Relationship Scale (Pianta & Nemitz, 1991, as cited in Baker, 2006, p. 217) was used to obtain data from the teachers about their interactions with students. A student behavior rating scale was also used. Two measures of academic achievement were collected and consisted of the results from two standardized tests that were considered reliable, valid, and nationally standardized (p. 217). Report card grades for reading were also collected.

Regression analyses were used to test the association between the teacher-child relationship quality and school outcomes. Separate regressions were used for each outcome variable. Closeness in a teacher-child relationship demonstrated a moderate association with reading grades while conflict showed a stronger association with school outcomes (Baker, 2006, p. 218). Relationships that were warm, trusting, and low in conflict accounted for small variance in the regressions that predicted reading achievement. The association between the relationships and outcomes was similar across all grade levels. When students were rated high for behavior problems and had
close relationships with their teacher, they performed significantly better in the area of reading than children with similar behavior problems and negative teacher relationships. An interesting finding concluded the researcher’s study. She found that student learning problems were the strongest predictor of school outcomes and were stronger predictors than behavior problems or strong teacher-child relationships.

This study supports the researcher’s hypothesis that strong teacher-child relationships positively impact student achievement in the area of language arts. This study adds to the body of literature by demonstrating this beneficial effect of caring teachers across multiple grade levels. Baker (2006) recommends that interventions that are preventative in nature can capitalize on the study’s findings to strengthen resiliency and its protective factors in school settings (p. 224). The study further emphasizes the importance of “relational processes” between teachers and children (p. 226). However, the researcher cautions that focusing on these relationships is only one weapon in what needs to be a multi-faceted arsenal when considering school and classroom improvements.

This study was limited in that focused on teacher ratings of relationships and behaviors. Studies such as the researcher’s that obtain data directly from students themselves may offer unique perspectives and results. Demographic data for individual students about their socioeconomic status would have been helpful in determining this variable’s significance. However, this study provides additional evidence that teacher-child relationships and their positive nature can improve student
outcomes. It also shows that these positive associations can occur across multiple grade levels and school settings in socioeconomically diverse districts and schools.

The impact of less supportive relationships. Hughes and Kwok (2007) demonstrated the impact of less supportive teacher-student relationships in their study of 443 1\textsuperscript{st} grade low achieving readers (p. 39). They began their study because they found that previous research had shown evidence that when students feel a sense of belonging or a lack thereof, it impacts their learning outcomes (Battistich, Solomon, Watson, & Schaps, 1997, Skinner, Zimmer-Gembeck, & Connell, 1998). They felt the need to study students in the early elementary years because of additional research of Hamre and Pianta (2001) that has suggested that “children’s social relatedness” in the primary grade levels can have long-term negative consequences for their academic achievement (as cited in Hughes and Kwok, 2007, p. 39). These researchers hypothesized that the racial identity of children could predict the quality of teacher-student relationships which in turn has an impact on achievement. They remind us that previous studies have shown us that at-risk children, particularly African-American children and children from low socioeconomic backgrounds are less likely than Caucasian students or students from higher socioeconomic backgrounds to “enjoy supportive relationships with teachers” (Entwisle & Alexander, 1999; Hamre & Pianta, 2001; Ladd et. al., 1999; Wehlage & Rutter, 1986, as cited in Hughes and Kwok, 2007, p. 40).

Participants from the study were from three school districts in Texas and came from two sequential cohorts. Students were invited to participate if they scored below
the median score on a state reading assessment. Sixty-two percent of the participants were eligible for free or reduced lunch. Teachers reported their perception of the support they gave to their students using a questionnaire known as the Teacher Relationship Inventory. Students were also interviewed and asked which students get along well with the teachers in their classrooms.

Hughes and Kwok (2007) found that students who were reported to have stronger relationships with their teachers were more engaged in the classroom. They then found that it was the classroom engagement that was positively impacting achievement. However, the quality of the teacher-student relationship did seem to have an indirect effect on reading outcomes. In addition, they found that African American children were less likely to experience relationships in the classroom that supported their achievement.

These findings add to the body of research that shows the importance of social relatedness in the classroom for academic success. Limitations include the inability to generalize the findings to higher achieving students. Also, the data was collected at one point in time so other explanations for the associations need to be considered. The authors recommended observational accounts of student and teacher interactions to document specific processes that are at play in these interactions. Another limitation is the lack of diversity of the teachers in the study in comparison to the students. This study has implications for teacher professional development as the researchers felt that teachers receive very little training on building “warm and supportive” relationships with their students (Hughes & Kwok, 2007, p. 48). Hughes and Kwok conclude their
study with the suggestion for an increased focus on assisting teachers in connecting with their students to help at-risk children get off to a better start.

In 2007, O’Connor and McCartney also examined teacher-child relationships and their impact on academic achievement. Their study of 1,364 children from preschool through third grade took place because the researchers found evidence in previous studies that high quality teacher-child relationships had served as “interventions for children at risk for lower levels of achievement” (p. 341). They cited many researchers in their description of the significance of these relationships, including Birch & Ladd (1997), Hamre & Pianta (2001), and Peisner-Feinberg & Burchinal (1997). Achievement is influenced through teacher and child behaviors such as effective communication through instructional exchanges and security built through this communication (p. 345). The researchers wished to answer questions regarding the persistence of the teacher-child relationships and to what degree the relationships impact achievement.

The sample of students was taken from ten locations throughout the United States. The sample was random but conditional to ensure the demographics were representative. Twenty-four percent of the students were from ethnic minority groups. Classroom observations, teacher questionnaires, and standardized academic measures made up the study’s data set. The reading portion of the academic assessment tested word attack skills, comprehension, and letter-word identification. The teacher questionnaire used to assess the relationship with students was once again the Student-

Regressions were used to investigate the relationship between the ratings on the relationship scale and measures of academic performance. The researchers found that the quality of the relationships in third grade were “significant predictors of achievement” when controlling for family and child demographic variables (O’Connor & McCartney, 2007, p. 354). The effect of the relationship seemed to be dependent on how much time teachers spent with their students attending to their needs.

The authors concluded that the average quality of students’ relationships declined from preschool through third grade possibly due to a greater focus on instructional versus relational interactions. The results from the study showed the need to further assess the quality of teachers’ relationships with individual students and their variations of over time (O’Connor & McCartney, 2007, p. 361). The majority of children in the study showed increases in the quality of their relationships with their teachers. In comparison to peer and maternal attachment factors, O’Connor and McCartney (2007) found that teacher-child relationships are stronger predictors of student performance in third grade.

Consistent with aforementioned studies, the researchers in the above study suggested that interventions in school should focus on improving relationships between teachers and children and prevent the relationship quality from decreasing. They described their findings as “particularly robust” given the large number of
variables used in the regressions (O’Connor & McCartney, 2007, p. 362). A limitation is that other variables could be responsible for the association described in the study.

The study has large implications for young children as 61% of them from birth to age five attend child care (O’Connor & McCartney, 2007, p. 363). The relationships between teachers and children are crucial for the development of these children and focus should turn to improving the quality of poor relationships. Much of the focus of teacher education programs is instructional and the study demonstrates the need for additional professional development on relational practices and improvement in the classroom. The results from the study and similar studies show the “protective effects of high-quality teacher-child relationships” (p. 364). As authors in aforementioned studies have asserted, child and classroom factors associated with relationship quality should be investigated. The researcher’s study will use student perception data to conduct part of this recommended investigation.

A multi-grade longitudinal study of teachers’ emotional support of their students and its link to student achievement was conducted by Pianta et al. (2008). Seven hundred ninety-one children from a diverse sample participated in the study. Classroom observations occurred in the spring of each child’s first, third, and fifth grade school years. Reading and math achievement tests were administered in the same grades for each study participant.

The quality of the teacher-student interaction was coded during the observations and categories of coding included the emotional quality of the interactions as well as the level of exposure to literacy and math concepts (Pianta et
al., 2008, p. 373). Qualities of the teacher-student interaction included each teacher’s affect and the level of attention that was given to each student. Each observation cycle included six to eight 10 minute observations. Each classroom received what the researchers described as “global ratings of classroom-level dimensions” (p. 374). These ratings included the emotional climate of the classroom, the sensitivity of the teacher, and the instructional methods.

The reading achievement outcomes assessed broad reading elements using a standardized measure. Regression analyses demonstrated consistent results with the finding that high quality emotional teacher-student interactions were related to positive reading outcomes across grade levels. Students who were classified as poor due to family reported income had a greater positive change in their reading scores than students who were not classified as poor. This is consistent with results from other studies on the impact of caring teacher relationships on student reading achievement. More specifically, in the third and fifth grades, emotional quality in the observed classroom settings predicted better literacy outcomes (ap. 391).

A limitation of the study is the inability to draw causal inferences using the observational data. The study did speak to the added value of a strong emotional connection between teachers and students. In addition, the sample was not random and randomness may have enhanced the study’s research design and the reliability of the results. The study concludes with the following strong recommendation for future research: “efforts to improve children’s achievement by changing schooling processes should attend to the social and emotional side of the
learning process in addition to instruction” (Pianta et al., 2008, p. 391). The researcher’s study will attend to this emotional side of learning by investigating the impact of caring adult relationships on student achievement along with the impact of two additional protective factors. This research also confirms theoretical frameworks that emphasize the importance of children’s relationships with adults in school settings (p. 393).

*Relationships and student self-regulation.* Liew, Chen, & Hughes (2010) examined the academic impact of teacher and student relationships as additive effects in their study of 761 low income and minority first graders. These students were assessed and determined to be academically at risk of school failure upon entering first grade. They cite numerous studies that have demonstrated positive academic motivation and performance as a result of warm and caring teacher-student relationships (Goodenow, 1993; Hamre & Pianta, 2005; Ladd, Birch, & Buhs, 1999; Palermo, Hanish, Martin, Fabes, & Reiser, 2007; Reddy, Rhodes, & Mulhall, 2003; Birch & Ladd, 1997; Howes, 2000; Hughes, Gleason, & Zhang, 2005; Hughes & Kwok, 2006; Palermo et al., 2007; Pianta, Steinberg, & Rollins, 1995; Ryan, Stiller, & Lynch, 1994, p. 52). Liew, Chen, & Hughes’ study discussed how the relationship between students and teachers allow students to self-regulate their motivation and achievement. They further characterized these positive relationships as “supportive, warm, and low in conflict” (p. 52). When investigating the impact of these relationships, the researchers looked at both reading and math outcome data.
This study was longitudinal and 784 students representing two cohorts were sampled from an urban school district in Southeast Texas (Liew et al., 2010, p. 53). Sixty-one percent of the study’s participants were eligible for free or reduced lunch. Data regarding the teacher-student relationship was collected through a teacher inventory which assessed social support and conflict in the relationship.

Descriptive and correlational analyses were conducted to analyze the data. Positive teacher-student relationships were positively correlated with both reading and math achievement. Finally, regression analyses were conducted to test the interactive effects of the nature of the relationship and the academic achievement of the students. The researcher will conduct a similar complex analysis in his research to ensure the interactivity of all variables are investigated and conclusive answers to all research questions are pursued. The researchers concluded that positive and supportive educators allowed students to compensate for difficulties they had in self-regulating their academic achievement with a positive learning environment “that promotes future academic achievement” (Liew et al., 2010, p. 60).

Strengths of this study included its longitudinal research design and complex regression analyses. The study focused exclusively on at-risk students and a study such as the researcher’s study which includes at-risk, on grade level, and high achieving students in its sample would strengthen the research design and conclusions. Qualitative data such as observational or interview data would have enriched the study.
Studies such as the one summarized above suggest that a positive teacher-student relationship can be extremely beneficial to at-risk students and students who have difficulty with detail or instruction oriented academic tasks. As the authors concluded, this study’s findings may have implications for efforts to narrow the achievement gap for at-risk students (Liew et al., 2010, p. 62). This research also highlights the importance of investing early in the academic lives of at-risk (disadvantaged) students as it will “pay dividends in their future achievement” (p. 62). Teacher training that focuses on improving the social and emotional support teachers provide for their students may prevent the lower achievement of at-risk students.

Meaningful Student Participation

Introduction. In their article calling for a bigger agenda for school reform, Battistich et al. (1999) make a strong point that schools cannot raise students’ academic achievement unless students are willing to engage in learning (p. 417). However, more and more students drop out of school because they do not see the value in getting an education. Furthermore, students who fail to finish high school will earn $16,000 less annually (U.S. Department of Education, 2007, p. 1). In 2007, the drop out rate was 10 times greater for students living in low-income families than their peers from high-income families (p. 4). Clearly, an education is crucial for all students, especially those students from disadvantaged households. But improving the academic performance of students “requires that all schools work to more effectively engage all students” but especially students whose backgrounds have traditionally placed them at risk of school failure (Battistich et al., p. 418). Engaging students must
mean providing them the skills to learn to learn or to become more efficient self-directed learners. Meaningful participation is synonymous with engagement for the purposes of this study and is defined by Jennings (2003) as “the involvement of the student in relevant, engaging, and interesting activities with opportunities for responsibility and contribution” (p. 45).

Battistich et al. (1999) and his colleagues conclude their research article with practical recommendations for practitioners to create classrooms that bear a greater resemblance to engaged communities. Some of these recommendations include increasing the amount of collaboration between students, actively involving students in classroom decision making, engaging student interests, and clearly explaining “the relevance of learning tasks” (p. 422). These researchers recommend that teachers take a “believing stance” which involves believing that students want to become part of a caring and engaged classroom community and they desire to learn if given ownership and purpose (p. 425). If meaningful participation is increased for students in the classroom setting, teachers and administrators can expect to observe students who are more interested in learning, who have increased effort and persistence, who actively work with the teacher to solve problems, and who take time and pride in their academic work. The inadequacies of our current education system must be confronted and educators need to develop a complete range of student abilities and skills for them to fully and effectively participate or engage in learning.

Fredricks, Blumenfield, and Paris (2004) actively critique previous studies on student engagement and state there is a need for studies that identify a source of
reported engagement in schools and classrooms. “Measures are rarely attached to specific tasks and situations” and give general information about engagement (p. 69). Fredricks and his colleagues did not find much research on student emotional engagement which the researcher’s survey instrument will address by asking specific questions about students’ experiences in bonding and becoming connected to their schools. The researchers provide several categories of student engagement. The first category is made up of school-level factors such as student participation in school policies and leadership, cooperative learning, and student choice. The next category of the classroom context includes the engagement practices of teacher support, peers, task characteristics, and the classroom structures or expectations. The final category addresses engaging in each student’s individual needs for “relatedness, autonomy, and competence” (p. 80). They conclude with a recommendation for research on how school and classroom elements influence both emotional and cognitive engagement in children. According to the researchers, this type of research will allow the field to draw conclusions about whether or not specific classroom or school contexts are more crucial than others for strengthening student engagement (p. 86).

Recent studies: Student engagement. Greenwood, Horton, and Utley (2002) reviewed research perspectives and the practice of academic engagement. They defined this engagement as “a composite of specific classroom behaviors: writing, participating in tasks, reading aloud, reading silently, talking about academics, and asking and answering questions” (p. 329). There was a link to the previous section about teacher-child relationships when discussing engagement in the classroom.
Interpersonal skills are part of engagement in that they shape chances to respond and how teachers interact with students for teaching or feedback purposes. In Title I schools or schools with a large percentage of socioeconomically disadvantaged students, student engagement via responding academically is one of many evidence-based strategies used for comprehensive school-wide improvement (Dorsey & Schulte, 1997, as cited in Greenwood, Horton, & Utley, 2002, p. 330).

In studying engagement, Greenwood and his colleagues (Greenwood et al., 2002) sampled 64 kindergarten through fifth grade teachers in 22 schools. Four students in each of the teacher’s classes were selected for the collection of observational data. These students totaling 256 were classified as high, mid, and low achieving and as students in special education. The sample was stratified by classroom and 135 hours of observational data was collected. Observers coded data on what the students were doing during instruction, the classroom setting, instructional tasks and structures, and teacher behaviors (p. 333).

Students spent the most time engaged in responding academically compared to task management or inappropriate behaviors. Throughout the grade level progression, task management lessened and academic responding increased, especially between kindergarten and second grade. The most growth in responding occurred through increased opportunities for writing and reading. Reading instruction was determined to speed up the task management of students. As far as overall classroom engagement, the researchers determined that students spent an average of 42% of observed classroom time watching the teacher or waiting instead of being actively engaged in
learning processes. The lower achieving students and special education students were not less engaged than their more capable peers.

The study was limited because the sample was selected out of convenience which limits generalizability. The grade level analysis was not longitudinal and therefore, trends in engagement practices were difficult to ascertain. Small group work produced moderate engagement effects while whole class instruction had the smallest association with academic engagement. Teachers who gave more frequent attention to individual students were concluded to be “top promoters of academic engagement” (Greenwood et al., 2002, p. 343). The classroom situations that were the weakest promoters of academic engagement were transitions between activities, lecture, and discussion.

The researchers recommended alternatives to whole class instruction which included peer tutoring and computer assisted instruction. The authors concluded their review of research and study with a recommendation for studies on academic engagement to include effects on student achievement. The researcher’s study will use regressions to test associations between student perceptions of engagement and language arts achievement and aligns with this study’s recommendation. They firmly state “we need studies that demonstrate that it is possible to identify instructional situations that are promoters of engagement” (Greenwood et al., 2002, p. 347).

Diperna and his colleagues (Diperna, Volpe, & Elliott, 2002) studied engagement and its impact on language arts achievement. They identified engagement as an “academic enabler” or a behavior or attitude that allows students to become
involved in and experience academic success from classroom instruction (p. 298). The
study’s participants consisted of 394 students and 104 teachers from 21 schools
throughout the northeastern United States. The participants were divided into
kindergarten through second grade and third through fifth grade samples.

A teacher questionnaire was used to assess student skills that contribute to
academic success from the content areas of language arts, math, and critical thinking.
Each teacher used random selection to select five students for the study. Correlations
were used to analyze the associations between key variables. Teacher reported student
engagement showed large effect sizes in the primary grade sample for language arts
achievement. However, the engagement was dependent on the degree of student
motivation which in turn increased engagement and consequently positively
influenced elementary students’ reading achievement.

The study had few limitations but the researchers felt that other models of
engagement should be investigated to see if the model in the study is the best
representation of the association between student variables and academic achievement
(p. 308). Student and/or parent data could have been collected to offer further
validation of the study’s conclusions. The researchers concluded that assessing levels
of student engagement in prevention and intervention practices should be considered
for students who are at-risk academically. They felt that schools and teachers should
consider what is being done to promote engagement for all students.

The California Healthy Kids Survey (CHKS) provides an annual measure of
the perception of meaningful student participation among fifth and seventh grade
students across the state. WestEd, 2004) published studies that investigated how standardized test scores were related to student opportunities to participate and contribute within a school community (p. 4). Four years of test score data for grades seven, nine, and eleven were collected from California’s standardized tests released by the Department of Education. Outcome data also included students’ grade point averages in the 2003 study. In addition, data from the CHKS administration was combined and compared to the academic performance of students. Data on the resiliency protective factors was obtained from a small sample of 229 schools in 2003 and a larger sample in the later study of 628 schools. Student scores on both measures were aggregated into a school-level average.

Regression models were then used to investigate how health risk and resilience were related to changes in test scores with controls for the demographic variables of ethnicity and socioeconomic status (WestEd, 2004, p. 5). The findings from both studies suggested that tests scores increased in schools where students reported that they experienced meaningful participation in the school community as well as when they experienced the aforementioned protective factors of high teacher expectations and caring adult relationships. In the 2003 study, grade point averages were higher for students who reported moderate levels of meaningful participation in their schools. On the CHKS, questions about participation asked about students’ goals for the future, their ability to respond in class, their motivation, and their ability to develop classroom rules and procedures. The study also found that in schools where students’ meaningful participation was low, test scores declined in unison. Test scores also declined when
students reported a low presence of caring adult relationships and when they reported that teacher expectations were not set at a high level for students. This study provides evidence that when resiliency and its protective factors are not highly present, test scores decline. On the other hand, when the resiliency protective factors are highly present, student test performance increases.

The WestEd studies were limited as they did not contain consistent data from early elementary age students. The researcher’s study will address this limitation by including students from two elementary schools in his study. The survey data in the 2004 WestEd study was obtained from fifth grade students while the test score data came from middle and high school students. Since the sample was very purposeful, it may not have been representative of all of California’s students. The researcher will address this issue by using a random sample of students from two grade levels. In addition, the test score data in this study was averaged to create a school score. Test score and survey data for each individual student would enhance the generalizability and reliability of future studies. Consequently, a study which includes student level achievement data as the dependent variable such as the researcher’s study will enrich this body of research by providing a unique data set.

*Student engagement and relationship quality.* Hughes, Luo, Kwok, & Lloyd (2008) studied the impact of student engagement and the quality of teacher and student relationships as they relate to reading and math achievement. In essence, they hypothesized that caring relationships with teachers would allow students to explore their classroom environment more confidently and cope with the academic demands
placed upon them (p. 3). This three year study was extremely comprehensive in its design and assessment measures. Participants were from three school districts in the state of Texas (p. 4). The study which began in 2001 consisted of two First Grade cohorts. The schools ranged in the percentage of economically disadvantaged students from 24% to 61% (p. 4). The students were eligible to be a part of the research study if they had scores below the median on district literacy assessments. Seven hundred eighty-four parents gave consent for their children to participate. Annual assessment data was collected for three years and included teacher questionnaires about their relationships with students and the levels of student engagement in their classrooms. Outcome data was obtained from the reading and math batteries of the “Woodcock-Johnson III Tests of Achievement” (p. 5). Statistics included descriptive measures, correlations, and analyses of covariance.

The findings suggest that “the effect of teacher student relationships on math achievement” were “mediated through effortful engagement” (Hughes et al., 2008, p. 9). The researchers went further to describe the impact of high quality and supportive teacher student relationships. These students were more engaged in the classroom, worked harder, showed perseverance when faced with challenges, accepted teacher feedback more openly, were able to have better coping skills in stressful situations, and paid closer attention to the teacher (Little & Kobak, 2003; Midgley, Feldlauffer, & Eccles, 1999; Ridley, McWilliam & Oates, 2000; Skinner & Belmont, 1993; Wentzel, 1999, as cited in Hughes & Kwok, 2007, p. 41). Reading achievement was also influenced by the quality of teacher student relationships combined with student
engagement. The authors of the study suggest that it “offers the strongest data yet” for the significance of student engagement as it accounts for the impact of relationships on reading and math achievement (p. 9). The effect of engagement did not vary throughout the three year study in either content area. Furthermore, children’s early classroom experiences “launch” them into “trajectories of engagement, achievement, and teacher relatedness” (p. 11).

This study’s sampling methods could be called into question as students were not randomly selected. They were purposefully selected based on achievement below the median which affects generalizability. As previously stated, the researcher intends to use random sampling to acquire a more representative sample. Additionally, minority children in the above study were overrepresented by the study. The study did not include student perception data and relied on the perceptions of their teachers to determine the quality of relationships and engagement. The teacher data was not confirmed with observational data or focus groups of educators.

Student engagement in early childhood. Ladd and Dinella (2009) investigated the impact of engagement early in a child’s school career. Their study of 383 first through third grade children focused on two types of engagement: behavioral and emotional (p. 194). Behavioral engagement was defined as how cooperative or resistant students were when asked to participate in classrooms. Emotional engagement assessed whether students liked or avoided school. Thirty-seven percent of the study’s participants were from lower to middle income brackets. During the longitudinal study, measures of engagement were collected during each year of the
children’s first through third grade experiences. Academic outcome data was gathered each year from first through eighth grades.

Parents completed a demographic questionnaire and parents and teachers answered questions about each participants liking or avoidance of school. Teachers also rated whether students were cooperative or resistant. Achievement tests in math and reading were administered each spring from first through eighth grades. A composite score consisting of an average of a student’s math and reading score composite was entered into the data analysis.

Correlation analyses were conducted to assess variable stabilities and relationships. Analyses of variance were also used to ensure the consistency of the engagement scores across demographic elements. The researchers concluded that perceptions that students liked school were positively correlated with student achievement. Also, teacher reports of student cooperation were also positively correlated with higher student outcomes. However, changes in student participation that demonstrated cooperation more strongly predicted achievement gains. Ethnicity and socioeconomic status were also found to be significantly associated with student achievement. The achievement of the study’s participants was relatively stable over time but the level of engagement was not always stable over time.

The results of the above study extend knowledge about behavioral and emotional engagement and their impact on students throughout the first years of schooling. Each type of engagement was found to facilitate the other and the engagement processes were described as bidirectional (Ladd & Dinella, 2009, p. 202).
The study increases our understanding of the extent of engagement and its ability to predict long-term academic growth. The researchers concluded that if children become more engaged, they would progress more consistently academically. Learning does depend to some extent on a child’s willingness to engage in a classroom by “responding to teacher’s requests, and cooperatively undertaking school-related tasks” (p. 203). When engagement patterns were enduring and consistent, academic gains followed a similar pattern. The results of the study justify emphasizing engagement in school interventions and early school programs. In addition, engagement was found to be more “malleable” than socioeconomic status or cognitive maturity (p. 204).

Conclusion

There is hope to be found in fostering resiliency in at-risk students. However, it is a reform that requires systemic change. This change centers around the belief that what adults do around children each day makes a monumental difference in their lives (Krovetz, 1999, p. 3). Supports and opportunities need to address students’ emotional, motivational, and social needs as well as their academic needs. Schools can develop resilience through fostering mentoring relationships with students. They must build academic and social connections daily with high expectations and the support to make learning happen.

Students require multiple opportunities for engagement and participation in classrooms. Learner-centered practices such as emphasizing choice and differentiating instruction engage students in their learning and build their “academic self-confidence” (p. 163). Future research must include academic outcome data from each
individual student paired with each student’s perception about the presence or absence of resiliency protective factors. Statistical methods of analysis must not only be descriptive. They need to identify independent elements of the three protective factors of caring relationships, meaningful participation, and high teacher expectations that are predictive of improved student achievement. More specifically, little has been done to illustrate which factors predict increased reading achievement. Most studies that focused on reading and math found more significance when using math outcome variables as the dependent variables. Once again, the present study’s methodology is unique in that it uses outcome data from individual students rather than school or grade level summary data. This study addresses specific gaps in resiliency research because student level perception data more effectively gets to the heart of what students think and experience before comparing these perceptions to how each student achieves in the classroom.
Chapter 3

METHODOLOGY

Introduction

The purpose of this study is to investigate the relationship between student perceptions of resiliency protective factors in their schools, the demographic variable of student socioeconomic status, and student performance on the English language arts section of the annual California Standards Test. These protective factors are comprised of caring adult relationships, teacher expectations, and meaningful student participation. The study will attempt to determine if there is a correlation between independent and dependent outcome variables. It will also seek to understand how much influence school protective factors have on these students’ standardized test scores. Specifically, the study will attempt to answer the following three research questions:

Research Question #1: To what extent does each of the three resiliency protective factors (caring adult-student relationships, high teacher expectations, and meaningful student participation) explain a statistically significant portion of variability in student language arts achievement?

Research Question #2: To what extent do student demographic variables (ethnicity, parent education level, grade level, gender, English proficiency, economic disadvantage, and special education placement) explain a statistically significant portion of variability in student language arts achievement as reflected by each student’s standardized test score in language arts?
Research Question #3: Within each of the three resiliency protective factors, what specific school supports as reported by the student participants explain variability in student language arts achievement?

Due to the persistent nationwide and statewide issue of achievement gaps between disadvantaged and advantaged students, this research will inform practitioners on how to support the learning of all students, will identify specific school solutions to low achievement, and will suggest interventions to improve the language arts achievement of at-risk youth in school settings. This chapter will describe the study’s research design and approaches as well as more specifically describe the study’s setting and student sample. This chapter will also include instrumentation and materials, data collection and analysis, issues of validity and reliability, and measures that were taken to protect the rights of the participants and their privacy for the qualitative and quantitative portions of the study.

Research Design and Approach

This was a mixed methods study because the study’s many independent variables measuring student’s perceptions of the presence of resiliency protective factors can best be measured in this way. The quantitative portion of the study provides statistical evidence of correlations while the qualitative portion provides narrative coded data which further explains or elaborates on student perceptions. This approach is known as mixed methods “sequential explanatory design” (Creswell & Plano Clark, 2007, p. 87). After the quantitative data provides a basic understanding of the research problem and preliminary results, the qualitative data will “refine and
explain" the statistical regressions by exploring the students viewpoints in greater
depth (p. 87). Student perceptions were used quantitatively and qualitatively because
the researcher feels that investigating student perceptions of protective factors must
utilize data directly from the student themselves. The data may be more reliable from
the students than it would be by having an outside observer assign values or ratings to
these perceptions. Examples of the independent variables include the demographic
variables of socioeconomic status, special education placement, ethnicity, parent
education levels, and gender and variables that represent student Likert-scale
perceptions from a survey. Data from focus groups on the presence of resiliency
variables within each of the three protective factors will also inform the study. For
example, the protective factor of caring adult relationships includes variables that will
measure student perceptions about how adults treat students at school and interact with
them. High expectations include student perceptions as to whether teachers and other
adults encourage student persistence, show respect, and believe they will be
successful. The final protective factor of meaningful participation (student
engagement) measures student perceptions about their involvement in school. Specific
questions include questions about their ability to work in small groups with other
students, their opportunities to make a difference in the school setting, and
opportunities for them to share information about their home lives.

In the Guidebook for the California Healthy Kids Survey, Austin, Bates, &
Duerr (2009) stress the importance of using quantitative data to guide local decisions
and planning (p. 2). They stress the value of using student perception data to conduct a
needs assessment, plan programmatically, and act and evaluate based on those needs and plans. Quantitative studies such as the research methods employed in the researcher’s study have been previously used effectively by the California Department of Education and WestEd to measure the relationship between student survey data on resiliency and school performance as measured by standardized test score indexes.

Hanson and Austin (2003) explain the significance of this type of study in their investigation into the relationship between student resilience and the academic progress of schools. The authors state that as all schools including both high and low performing schools face intense pressure to increase test scores, “it is especially important to demonstrate the relationship of…..resilience to academic performance” (p. 1). These researchers see this type of study as a vital tool in turning around low performing schools or in simply improving student performance. They also feel that efforts to improve the academic achievement of schools often overlook barriers to learning that are non-academic. In addition, these efforts have come at the expense of programs that are developed to address these barriers to learning (p. 5). Hanson and Austin conclude by stating that studies such as the researcher’s study have important implications for school policy and for educators and administrators attempting to meet the demands of the state’s accountability measures. The research instruments used in this study consist of a student survey, coding of student focus group interviews, and individual student scaled scores on an annual state standardized test. These instruments will further be explained in an upcoming section of this chapter.
Setting

This study was conducted at two elementary schools in two different school districts in Placer County in Roseville, California. These two schools were selected due to their demographic similarities and due to the convenience for the researcher to access both school sites. The first school site will be identified as ABC Elementary School. This school’s total enrollment for the 2008-2009 school year was 856 students and it houses students in grades Kindergarten through Fifth Grade (Ed-Data, 2010). ABC Elementary School houses 72 English Learners who make up 8% of the school’s total enrollment. 2% of these English Learners speak Spanish while 1% speak Ukrainian, 1% Punjabi, 1% Russian, and 2.5% other languages. 17% or 143 students qualify for free or reduced lunches. Table 2 shows the ethnicity of ABC Elementary compared to the ethnicity of 123 Elementary, the study’s second research site.

Table 2

<table>
<thead>
<tr>
<th></th>
<th>ABC Elementary</th>
<th>123 Elementary</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Indian</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>Asian</td>
<td>7%</td>
<td>10%</td>
</tr>
<tr>
<td>Pacific Islander</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>Filipino</td>
<td>4%</td>
<td>4%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>8%</td>
<td>10%</td>
</tr>
<tr>
<td>African American</td>
<td>1%</td>
<td>3%</td>
</tr>
<tr>
<td>White</td>
<td>67%</td>
<td>71%</td>
</tr>
<tr>
<td>Multiple/No Response</td>
<td>11%</td>
<td>0%</td>
</tr>
</tbody>
</table>

123 Elementary’s total enrollment for 2008-2009 was 599 students. It houses grades Kindergarten through Fifth Grade as well. Eight percent of the total school population
or 46 students at 123 Elementary are identified as English Learners. Three percent of these English Learners speak Spanish, 2% speak Russian, and the remainder of the English Learners speak Guajarati, Korean, and Ukrainian. Thirteen percent of the students or 75 qualify for free or reduced lunches. These two schools were used purposefully by the researcher because they were determined to be Similar Schools based on the 2009 Academic Performance Index Similar School’s ranking. As previously mentioned in Chapter 1, schools in the state of California are compared using mostly demographic variables using a school characteristics index. This index groups together schools of a similar type with similar demographic characteristics.

The Academic Performance Index (API) goal of all K-12 schools in California is a score of 800 or higher. The index scores range from 200 to 1000. In 2010, ABC Elementary had an API growth score of 890. This score was an increase of 15 points from the previous school year. The entire school district that houses ABC Elementary received a 2010 growth score of 889, a decrease of 1 point. ABC Elementary also received API scores for what the California Department of Education calls significant subgroups. These are groups of students who make up at least 15% of the school’s total tested population or who are 100 or greater in number. ABC Elementary’s white subgroup scored 897 in 2010 while the socioeconomically disadvantaged subgroup scored 826. Although this school’s performance met the state target of 800, there is a significant gap between the language arts proficiency of the white subgroup compared to the proficiency of the socioeconomically disadvantaged subgroup. In 2010, 76% of the white students in the school scored proficient or advanced in language arts on the
2010 spring administration of California’s standardized test. This is in contrast to 57% of socioeconomically disadvantaged students scoring proficient or advanced. The resulting achievement gap in language arts is 19%.

At 123 Elementary, the 2010 API growth score was 918, an increase of 1 point from the previous year. In comparison, the entire school district’s score was 866. In terms of subgroup performance, 123 Elementary’s white subgroup’s API was 923 while its socioeconomically disadvantaged subgroup scored 840. The aforementioned achievement gap in language arts between white students and disadvantaged students is also present at 123 Elementary. Eighty-two percent of the tested white students scored proficient or advanced in 2010 while 63% of the socioeconomically disadvantaged students met this mark. The resulting achievement gap in language arts is 19%. It is notable that the achievement gap in language arts is the same percentage of proficiency at both of the study’s research sites. While the index data above reports school wide achievement data, this research will examine each student’s individual test performance.

Sample

The study’s sample was a random sample of fourth and fifth grade students taken from both school sites. The total sample size was 198 students. However, all fourth and fifth grade students at each study site were invited to participate totaling 476 students. Language arts scaled score standardized test data was obtained from all study participants. In addition, the school districts both provided the demographic data.
This study attempted to uncover the relationship between student perceptions of resiliency factors at their schools and individual student test scores. It also sought to investigate the nature of the relationships between factors and test scores as well as to discover if any of the factors correlated with student test scores.

Quantitative Survey Response Rates

Survey response rates are important in determining the representativeness of the study’s sample. The rate is determined by dividing the number of study participants by the total number of students who were eligible to participate. Low response rates can create a sample that demonstrates some level of bias. WestEd (2001b) who developed the California Healthy Kids Survey where many survey items for this study were obtained recommend a 60% response rate.

When combining the number of fourth and fifth grade students at both school sites who were eligible to participate, the total number was 507 students. After parent and student permission slips were sent home with all of the 507 eligible students, 198 students and their parents signed the permission slip for them to take part in the study. The led to a response rate of 39% for the quantitative survey instrument. When looking at the response rates for each of the study’s sample sites, ABC Elementary had a total of 296 eligible fourth and fifth grade students who could participate in the study. One hundred twenty-eight students from ABC Elementary participated in the Likert-scale survey with a resulting response rate of 43%. At 123 Elementary, 211 students were eligible to participate. Permission was obtained for 75 of these students
resulting in a 36% response rate. Results should be interpreted with caution due to the rates being below the recommended threshold.

Qualitative Survey Response Rates

There were two configurations used for collecting the qualitative data through the use of open ended interview questions. First, two focus groups with six students in each group were interviewed at each school site. Then individual students were selected from the study’s population to participate in one-on-one interviews using the same open ended questions used in the focus group interviews. Three students at each site with proficient test scores and high reported levels of caring relationships and small group instruction were interviewed one-on-one. Additionally, three students at each site with test scores below proficiency and with low levels of caring relationships and small group instruction were interviewed one-on-one.

Instrumentation

As previously mentioned, this study’s research design used a student survey and student test score data as instruments. For the qualitative portion of the study, focus group questions sought additional narrative information from students on the presence of resiliency protective factors in their schools. The quantitative survey data was collected from ABC Elementary and 123 Elementary between the dates of March 22, 2010 and May 22, 2010. Prior to the survey administration, each site Principal met with his or her fourth and fifth grade teachers to review the survey administration guidelines and to pass out materials. Permission was then granted by parents and students for 198 total students to participate in the study. The quantitative survey was
administered by each fourth and fifth grade teacher during the aforementioned dates. The qualitative focus group interviews took place between the dates of September 1, 2010 and September 30, 2010. Finally, the one-on-one student qualitative interviews took place between September 30, 2010 and October 31, 2010. The focus group interviews were conducted with two randomly selected focus groups of six students each at each of the two school sites. These interviews lasted approximately twenty minutes for each of the four sessions. Six students at each school site were also purposefully selected based on their academic achievement and survey responses to participate in one-on-one interviews with the researcher. The same qualitative data collection tool was used for both the focus groups and the interviews. Each one-on-one student interview lasted approximately 15 minutes.

Discussion of Survey Questions: Quantitative Data Collection Tool

In this section, the researcher will discuss why the specific survey questions were chosen. The researcher will also explain the use of the test score data and the link between the survey and achievement data to the study’s three research questions. The survey results will be statistically analyzed with the student level achievement data. The coded qualitative data from student focus groups is also intended to answer this study’s research questions. The survey questions were designed to answer the three research questions. The survey consisted of 26 Likert scale questions. The scale was modeled after the scale in the California Healthy Kids Survey (CHKS) with the permission of WestEd who developed the CHKS. The survey in its entirety is included in the appendices. Most of the instrument’s questions were taken directly from the
CHKS. The remaining questions came from an exhaustive review of peer reviewed literature on accurately assessing student level resiliency factors in schools. The Likert-scale quantitative survey consisted of eleven questions about the protective factor of caring adult relationships, six questions of teacher expectations, and nine questions about students’ meaningful participation in schools and classrooms.

The questions were developed to assess three protective factors which are supported by the aforementioned research as positively impacting student achievement. Each protective factor was represented by a section on the survey. Students responded to questions about the presence of the three categories of protective factors at their school sites by selecting one of the following four answer choices:

1 Not True At All
2 A Little True
3 Pretty Much True
4 Very Much True

If a student answered a survey question by circling “very much true” or a score of 4, this was inputted as a high presence of the particular protective factor element. A score of 3 or “pretty much true” and “a little true” (2) indicated a moderate presence of the element while a score of 1 (“not true at all”) indicated a low presence of a protective element.

The first survey section was entitled “Caring Relationships” and was developed to assess the presence of caring adults in a student’s school experience.
More specifically, this section of the survey asked students if they felt close to their teachers or adults at school, if adults listen to them, treat them fairly, and care about them. In addition, questions in this section asked students if they got along well with adults at school, if adults were interested in their lives outside of school, if adults used humor with them, were helpful, and if adults care about things that bother the students. Finally, questions in this section about student and adult relationships at school asked students if they were praised for good work and if adults noticed when they were absent from school. Table 3 shows the descriptive statistics for the survey items that relate to student perceptions of caring relationships at both school sites.

Table 3

Survey Items Related to Caring Relationships

<table>
<thead>
<tr>
<th>Item</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adults care about me</td>
<td>198</td>
<td>0</td>
<td>1</td>
<td>.566</td>
<td>.497</td>
<td>.247</td>
</tr>
<tr>
<td>I am close to adults</td>
<td>198</td>
<td>0</td>
<td>1</td>
<td>.338</td>
<td>.474</td>
<td>.225</td>
</tr>
<tr>
<td>Adults listen to me</td>
<td>198</td>
<td>0</td>
<td>1</td>
<td>.389</td>
<td>.489</td>
<td>.239</td>
</tr>
<tr>
<td>Adults treat me fairly</td>
<td>198</td>
<td>0</td>
<td>1</td>
<td>.465</td>
<td>.500</td>
<td>.250</td>
</tr>
<tr>
<td>I get along with adults</td>
<td>198</td>
<td>0</td>
<td>1</td>
<td>.222</td>
<td>.417</td>
<td>.174</td>
</tr>
<tr>
<td>Adults use humor</td>
<td>198</td>
<td>0</td>
<td>1</td>
<td>.399</td>
<td>.491</td>
<td>.241</td>
</tr>
<tr>
<td>Adults are interested in what I do outside of school</td>
<td>198</td>
<td>0</td>
<td>1</td>
<td>.278</td>
<td>.449</td>
<td>.202</td>
</tr>
<tr>
<td>Adults help me</td>
<td>198</td>
<td>0</td>
<td>1</td>
<td>.712</td>
<td>.454</td>
<td>.206</td>
</tr>
<tr>
<td>Adults care about things that both me</td>
<td>198</td>
<td>0</td>
<td>1</td>
<td>.318</td>
<td>.467</td>
<td>.218</td>
</tr>
<tr>
<td>Adults believe I can do a good job</td>
<td>198</td>
<td>0</td>
<td>1</td>
<td>.510</td>
<td>.501</td>
<td>.251</td>
</tr>
<tr>
<td>Adults notice when I am absent</td>
<td>198</td>
<td>0</td>
<td>1</td>
<td>.657</td>
<td>.476</td>
<td>.227</td>
</tr>
</tbody>
</table>
Responses to these questions on the Likert-scale survey were entered into SPSS as a 1 if students reported that the above elements of caring relationships were very much present in their schools. A zero was entered into SPSS for lower levels of these elements. As Table 2 shows, variance among responses in this category of questions ranged from .17 to .25. Student reports of caring adults at school and adults caring when something bothered students had the highest means across the 198 respondents. Student reports of getting along with adults at school had the lowest mean score.

The second section of the survey was entitled “High Expectations” and sought to better understand what adults expected out of students at school. This section asked students if adults encourage them to be persistent and to do their best. It also asked students if adults believe they will be successful, that they can do a good job, and if adults ask them follow up questions when they provide incorrect answers. The final question in this section asked students if adults respect them. Table 4 shows the descriptive statistics for the survey items that relate to teacher expectations at both school sites.
Table 4

Survey Items Related to Teacher Expectations

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adults tell me to never give up</td>
<td>198</td>
<td>0</td>
<td>1</td>
<td>.460</td>
<td>.500</td>
<td>.250</td>
</tr>
<tr>
<td>Adults believe I will be successful</td>
<td>198</td>
<td>0</td>
<td>1</td>
<td>.621</td>
<td>.486</td>
<td>.237</td>
</tr>
<tr>
<td>Adults tell me to do my best</td>
<td>198</td>
<td>0</td>
<td>1</td>
<td>.859</td>
<td>.349</td>
<td>.122</td>
</tr>
<tr>
<td>Adults believe I can do a good job</td>
<td>198</td>
<td>0</td>
<td>1</td>
<td>.859</td>
<td>.349</td>
<td>.122</td>
</tr>
<tr>
<td>Adults ask me follow up questions</td>
<td>198</td>
<td>0</td>
<td>1</td>
<td>.687</td>
<td>.465</td>
<td>.216</td>
</tr>
<tr>
<td>Adults respect me</td>
<td>198</td>
<td>0</td>
<td>1</td>
<td>.500</td>
<td>.501</td>
<td>.251</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>198</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The variance among responses in this category of questions ranged from .12 to .25 which was a larger range than the previous category of questions related to adult-student relationships. Student reports of adults expecting them to do their best had the highest mean response at .86. Student reports of adults asking follow up questions in the classroom had the lowest mean score.

The final section asked students about their level of engagement at school or “meaningful participation.” Students responded to questions about their ability to make decisions at school, make a difference, participate in extracurricular activities, and work with other students in small groups. In addition, student engagement questions asked students if they were given time to write about their learning, respond to questions from teachers on a regular basis, and given opportunities to talk about their home lives. Finally, students responded to questions asking if activities they did
at school were interesting and if they felt like they were a part of their school. Table 5 shows the descriptive statistics for the survey items related to student meaningful participation at both school sites.

Table 5

*Survey Items Related to Student Meaningful Participation*

<table>
<thead>
<tr>
<th>Survey Item</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>I have many opportunities to make decisions</td>
<td>198</td>
<td>0</td>
<td>1</td>
<td>.384</td>
<td>.488</td>
<td>.238</td>
</tr>
<tr>
<td>I do activities at school that are interesting</td>
<td>198</td>
<td>0</td>
<td>1</td>
<td>.444</td>
<td>.498</td>
<td>.248</td>
</tr>
<tr>
<td>Adults are interested in what I do outside of school</td>
<td>198</td>
<td>0</td>
<td>1</td>
<td>.278</td>
<td>.449</td>
<td>.202</td>
</tr>
<tr>
<td>I do things at school that make a difference</td>
<td>198</td>
<td>0</td>
<td>1</td>
<td>.323</td>
<td>.469</td>
<td>.220</td>
</tr>
<tr>
<td>I feel like I am part of this school</td>
<td>198</td>
<td>0</td>
<td>1</td>
<td>.561</td>
<td>.498</td>
<td>.248</td>
</tr>
<tr>
<td>I participate in before/after school activities</td>
<td>198</td>
<td>0</td>
<td>1</td>
<td>.429</td>
<td>.496</td>
<td>.246</td>
</tr>
<tr>
<td>I am given time to work with other students</td>
<td>198</td>
<td>0</td>
<td>1</td>
<td>.318</td>
<td>.467</td>
<td>.218</td>
</tr>
<tr>
<td>I am given time to write</td>
<td>198</td>
<td>0</td>
<td>1</td>
<td>.253</td>
<td>.436</td>
<td>.190</td>
</tr>
<tr>
<td>I am given a chance to respond to questions</td>
<td>198</td>
<td>0</td>
<td>1</td>
<td>.520</td>
<td>.501</td>
<td>.251</td>
</tr>
<tr>
<td>I am given opportunities to talk about my home life</td>
<td>198</td>
<td>0</td>
<td>1</td>
<td>.283</td>
<td>.452</td>
<td>.204</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>198</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The variance among responses in this category of questions ranged from .19 to .25 which is the least amount of variance out of the three categories of questions. Student reports of feeling like they were a part of school had the highest mean response at .56.
Student reports of having time to write in class and opportunities to work in small
groups with other students had the lowest mean scores.

The collection of individual student standardized test score data that was
provided by both school districts was a key part of this study’s research design.
Previous studies have used school summary data or school academic performance
indexes as outcome measures. This study’s use of each student’s individual test score
provides a unique approach to the study of resiliency. It is the hope of the researcher
that the use of student level data will help to pinpoint which specific school actions,
processes, programs, supports, or strategies have a positive impact on student
achievement. Previous research studies have drawn conclusions about the impact of
each protective factor as a whole but few have been able to draw specific conclusions
about the elements of each factor. These more specific conclusions will hopefully have
implications for more targeted school improvement efforts across the state and the
nation.

Quantitative Data Collection

The data which was collected in this study consisted of survey results from the
random sample, student level demographic characteristics, and district provided
individual student language arts standardized test scores. The demographic data that
was collected consisted of the following key data points: gender, grade level, ethnicity,
socioeconomic status, parent education level, English proficiency, and special
education qualification. All fourth and fifth grade students at both school sites were
asked to take home and complete parent and student positive permission forms to take
part in this study. A signed student and parent consent letter was required for students to participate in the study and to allow them to complete the survey. Site Principals met with school staff and asked all fourth and fifth grade teachers to facilitate the prompt distribution and return of the permission forms. They also asked teachers to have students who had been granted permission to participate in the survey take the survey in their classrooms. District administrators also encouraged the site administrators to support this study. The administration of the survey took place within four weeks of the administration of the state standardized test so that the two data points could be collected within a similar time frame. Samples of the permission forms and surveys are included in the appendices section of this study.

Quantitative Data Analysis

The survey and test score data was inputted into the Statistical Package for the Social Sciences (SPSS). Descriptive and inferential statistics were used in analysis of the study’s data. However, in order to accurately delve into an investigation of the relationships between the elements of protective factors and student achievement, a more complex analysis was used. A linear regression analysis assisted the researcher in more accurately addressing all aspects of the three research questions. Descriptive measures served to summarize variable averages and standard deviations. Inferential cross tabulations were appropriate due to the number of categorical demographic variables such as gender, grade level, and student perception data. As mentioned previously, the student perceptions included the factors of adult relationships, teacher and adult expectations, and student engagement. The complex regression analysis
allowed the researcher to accurately determine the statistical significance of the data. The analysis informed the researcher about which variables were influencing student outcomes due to chance and which variables if any demonstrated a significant relationship to the outcome data.

Due to the large number of independent demographic variables used in the study, the researcher provided descriptive statistics in Table 6 for the demographic variable data collected from both school sites.

Table 6

*Independent Demographic Variables*

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asian</td>
<td>198</td>
<td>0</td>
<td>1</td>
<td>.051</td>
<td>.220</td>
<td>.048</td>
</tr>
<tr>
<td>Parents are college graduates</td>
<td>192</td>
<td>0</td>
<td>1</td>
<td>.635</td>
<td>.483</td>
<td>.233</td>
</tr>
<tr>
<td>Fifth Grade</td>
<td>198</td>
<td>0</td>
<td>1</td>
<td>.450</td>
<td>.499</td>
<td>.249</td>
</tr>
<tr>
<td>Female</td>
<td>198</td>
<td>0</td>
<td>1</td>
<td>.535</td>
<td>.500</td>
<td>.250</td>
</tr>
<tr>
<td>African American</td>
<td>198</td>
<td>0</td>
<td>1</td>
<td>.035</td>
<td>.185</td>
<td>.034</td>
</tr>
<tr>
<td>Hispanic</td>
<td>198</td>
<td>0</td>
<td>1</td>
<td>.111</td>
<td>.315</td>
<td>.099</td>
</tr>
<tr>
<td>English Learner</td>
<td>198</td>
<td>0</td>
<td>1</td>
<td>.050</td>
<td>.209</td>
<td>.044</td>
</tr>
<tr>
<td>White</td>
<td>198</td>
<td>0</td>
<td>1</td>
<td>.732</td>
<td>.444</td>
<td>.197</td>
</tr>
<tr>
<td>Special Education</td>
<td>198</td>
<td>0</td>
<td>1</td>
<td>.070</td>
<td>.257</td>
<td>.066</td>
</tr>
<tr>
<td>Coyote Ridge</td>
<td>198</td>
<td>0</td>
<td>1</td>
<td>.647</td>
<td>.479</td>
<td>.230</td>
</tr>
<tr>
<td>Economically</td>
<td>198</td>
<td>0</td>
<td>1</td>
<td>.152</td>
<td>.359</td>
<td>.129</td>
</tr>
<tr>
<td>Disadvantaged</td>
<td>198</td>
<td>0</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>192</td>
</tr>
</tbody>
</table>
The variance among responses in this category of questions ranged from .04 to .25 which is the greatest amount of variance out of the categories of variables used in the study. The ethnic category of white students had the highest mean score at .73. African American and Asian students as well as English Learners had the lowest mean scores. The demographic data set was obtained from both district offices as Excel files. The “parentcollegegrad” variable was entered as a 1 if the students’ parents had at least some college educational experiences. High school graduates or parents who reported that only some high school was completed were entered as 0’s. Special education students were students who had an Individualized Education Plan at each school site. These students received speech and language, resource specialists, or special day class services or any combination of the three. Students were entered as economically disadvantaged if they qualified for free or reduced lunch due to low annual income or a lower parent education level.

Discussion of Focus Group Questions: Qualitative Data Collection Tool

The focus group questions consisted of ten open ended questions. These questions were used to glean more specific information about the presence of the three school level resiliency protective factors of caring relationships, teacher expectations, and student engagement. The qualitative tool was developed by the researcher. Questions about caring adult-student relationships included the following: who the adults are students are close to at school, what causes students to get along or not get along with their teachers or other adults, adults use of humor at school, and if teachers or other adults at school care about things that bother students. In asking questions
about teacher expectations, the researcher used open ended questions about
expectations for doing a good job in class, teachers’ communications about students
not giving up, and if teachers want their students to do their best and how this is
communicated to students. Finally, qualitative data on student engagement was
obtained through questions about student involvement in extracurricular activities and
teachers’ interests about what students do at home or outside of school.

Qualitative Data Collection

This data was collected in four interviews with six interviewees in each
interview session. A total of 24 students were interviewed using the ten open ended
questions as a guide for data collection and later coding and analysis. Purposeful one-
on-one interviews took place with six students at each site. Interviews were scheduled
with parent and student permission and notification. Locations and times were
determined by site administrators. Responses to the interview questions were used by
the researcher to identify themes in the data that were then investigated from the
interview transcripts across student responses.

Qualitative Data Analysis

The quantitative regression results were used to formulate further questions for
the small student focus groups. The researcher focused the qualitative portion of the
study on open ended questions to further explain significant correlations between
survey items and student test scores. Qualitative data was analyzed beginning with the
coding of the interview transcripts. This analysis was kept separate from that of the
quantitative data so that the researcher could best investigate the research problem and
guiding research questions. After both qualitative and quantitative data were analyzed separately, the data was triangulated to transform, relate and compare the data results. This resulted in a better understanding of the research questions that were asked. After qualitative data was coded and themes and codes were computed and counted, the numerical data was entered into the Statistical Package of the Social Sciences (SPSS) for analysis.

Data was interpreted by explaining trends and patterns that were discovered during data analysis. The researcher presented the interpretations of both data sets that he felt was reasonably supported by the data. The qualitative data was analyzed using the following steps recommended by Creswell (2003):

1. Prepare and organize the data for analysis.
2. Read through the data for trends and patterns.
3. Code the data based on similar categories or topics.
4. Describe the people, settings, and categories.
5. Represent the themes and findings in a narrative passage.
6. Interpret the data.

Interviews from the focus groups were digitally recorded and transcribed. Themes emerged from the transcription and quotations were selected to support the focus group themes. The analysis took place over multiple times to ensure that accurate interpretation took place and themes were consistently identified.
Issues of Validity

The researcher worked to ensure the validity of the study in order to measure what he intended to measure through the research methodology. This study’s methodology was reviewed critically by a doctoral dissertation committee and a cohort of doctoral peers. The survey questions were tested to ensure that all of the questions measured what was intended. The questions were also tested to make sure they informed the researcher’s pursuit of answering the study’s research questions. Since 20 of the survey’s 26 questions were taken with permission directly from the California Healthy Kids Survey (WestEd, 2009c) the guidebook that accompanies this survey’s implementation served as useful to the researcher in speaking to this study’s validity. Researchers from WestEd found that when the survey items related to resiliency from this and the state Healthy Kids studies were administered correctly, they “provided a valid reflection of actual behaviors” (p. 6). In addition, these researchers concluded that surveys using questions from this state assessment of student resiliency (also used by the researcher) possess a “respectable amount” of validity (p. 6). The authors of the guidebook feel the most important issue of validity is how honestly the students answered the survey questions. They cite research from O’Malley, Bachman, & Schulenberg (2000) that states that surveys like the researcher’s instrument that are anonymous and confidential have answers with a high degree of validity. They also state that student over and under reporting of behaviors balance out any abnormalities in the responses.
One area of validity that may be questioned in this study is the representativeness of the data. The guidebook for these types of surveys and questions suggests that at least 60% of the total population’s usable completed surveys should be collected as a minimum standard to insure validity and representativeness of the data. However, in this study, 46% of the total population returned usable survey documents. Due to this validity issue, the researcher took caution to ensure appropriate generalizations were made when reporting the results of the data analysis and in making future recommendations. A larger sample would have allowed for a greater reduction in Type I and Type II error (data outliers). However, the researcher feels that having 46% of the total number of available students complete the survey allows for the generalization of the results to both school sites as well as demographically similar school settings. Validity was enhanced through the use of a variety of data collection instruments and through a mixed methods approach.

Issues of Reliability

Reliability is the extent to which the survey yields similar results on repeated trials. The researcher’s survey instrument has been shown to have a high degree of reliability. Surveys were conducted during the same four week window under similar conditions. The setting of a fourth or fifth grade classroom was consistent across the survey’s administrations at both research sites. Students were not able to discuss the survey with each other before completing it and teachers read a consistent script in each classroom when administering the survey to students. Parents were given an opportunity to review the survey in the school office before giving permission for their
child to participate in the study. One person was responsible for collecting all of the survey data and inputting it into a spreadsheet and the Statistical Package for the Social Sciences (SPSS). A formal pilot survey was conducted at the researcher’s elementary school to ensure that the survey was easy to administer. This pilot also allowed the researcher to verify that students understood what was being asked of them on the survey.

Both the survey and focus group interview questions were developed to elicit consistent responses from the students. Both instruments were administered in similar settings within the same time frame. Therefore, different responses to the survey questions and interview questions were not from providing different environmental stimuli.

Measures Taken to Protect Participants’ Rights

The district, school, and the university Human Subjects Committees approved the researcher’s study before parent and student permission was sought and before the survey was administered. In addition, demographic and test score data were not collected until permission was granted from these multiple stakeholders. The approval process involved all necessary parties prior to the start of the data collection and prior to data analysis. The researcher feels that this process was comprehensive and effectively ensured that the study’s participants were protected and had their privacy rights upheld. Documents including permission slips, human subjects approval forms, and the data collection tool are referenced in the appendices.
Chapter 4

ANALYSIS OF THE DATA

Introduction

This chapter includes the data results of the study’s quantitative student survey, qualitative student focus groups, and one-on-one student interviews. The explanatory sequential research design used the quantitative data and regression results to craft qualitative student interview questions. These questions complimented the detail and description of the students’ perceptions about the resiliency protective factors. The same questions were used for both the focus groups and student interviews. The researcher sought to enrich the data by asking students to further explain their caring relationships with adults at school and their work with other students in small groups. Later in this chapter, the qualitative data was coded into themes related to the resiliency protective factors. A detailed discussion about the response rates, data analysis, findings, and interpretation of the data for each of the three research questions for this study were also included in this chapter. Figure 4 illustrates the mixed methods design.
Figure 4. Mixed Methods Study Design.

Figure 4 illustrates the researcher’s research design beginning with the quantitative survey used to address all three of the research questions. Data from the focus groups
and purposeful interviews were used to enrich and further explain the quantitative data. These qualitative interviews and protocols were essential in adding specificity to the researcher’s investigation of the third research question. The qualitative process allowed the researcher to gain a more in depth understanding of the student perceptions of their behavior, the behavior of their peers, and the interactions they had with their teachers and other adults at their schools. The process also allowed the researcher to investigate the possible reasons for the students’ perceptions.

*The purpose of this mixed methods study is to uncover the presence of school level protective factors as reported by individual students that lead to student resiliency and explain academic success.* More specifically, the researcher investigated the language arts standardized test scores of each student as a measure of academic success. The study analyzed the relationship between the resiliency protective factors and student achievement and qualitatively sought out more specific examples of the presence of the factors at each of the two research sites. The final goal of the study was to develop specific supports and direction for school leaders to use when seeking to transform the achievement of all students.

**Research Questions**

The following research questions guided the study’s investigation into the relationship between the resiliency protective factors and student outcomes:

*Research Question #1:* To what extent does each of the three resiliency protective factors (caring adult-student relationships, high teacher expectations, and
meaningful student participation) explain a statistically significant portion of variability in student language arts achievement?

*Research Question #2:* To what extent do student demographic variables (ethnicity, parent education level, grade level, gender, English proficiency, economic disadvantage, and special education placement) explain a statistically significant portion of variability in student language arts achievement as reflected by each student’s standardized test score in language arts?

*Research Question #3:* Within each of the three resiliency protective factors, what specific school supports as reported by student participants explain variability in student language arts achievement?

*Interpretation of Findings*

In order to accurately interpret the large amount of data from this mixed methods investigation, the researcher used a triangulation design. This design allowed the researcher to compare quantitative data with qualitative data and then draw conclusions about the research problem that were substantiated by the data. Figure 5 shows how the data was transformed and triangulated.
Descriptive Univariate Statistics: Quantitative Survey Items on Caring Relationships

The following sections of Chapter 4 will contain the descriptive statistics for the survey statements on the quantitative Likert-scale survey. This survey contained statements for the three categories of resiliency protective factors. The categories on the survey were caring relationships, high expectations, and meaningful student participation. The survey was used quantitatively and its analysis seeks to address question one and question three of the study’s three research questions. In answering the research questions, the researcher selected specific information from the survey and interviews that contained data which helped to specifically answer the research questions. In doing so, not all of the data that was collected was presented by the researcher.

Research Question #1: To what extent does each of the three resiliency protective factors (caring adult-student relationships, high teacher expectations, and
meaningful student participation) explain a statistically significant portion of variability in student language arts achievement?

*Research Question #3*: Within each of the three resiliency protective factors, what specific school supports as reported by student participants explain variability in student language arts achievement?

**Quantitative Survey: Summary of Response Frequencies**

In the survey, students were asked their perceptions about the presence of the protective factors in their schools and classrooms. After the surveys were collected, each statement was evaluated and coded into SPSS as a score of 1 for the high presence of a factor indicated by a student response of a 4 and a score of 0 for students’ responses of 1, 2, or 3. The purpose of this was to focus on the high presence of protective factors to evaluate their relationship to student language arts outcomes and to answer the study’s research questions. Table 7 lists the survey questions and the percentage of respondents who responded “very much true” to each question.
Table 7

*Responses to the Statement “The teachers and other grown-ups at this school care about me.”*

<table>
<thead>
<tr>
<th>Student Survey Question</th>
<th>Percent of Students who Answered “Very Much True”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teachers and other grown-ups at this school want me to do my best.</td>
<td>86</td>
</tr>
<tr>
<td>When I need help with what I am learning about, teachers and other grown-ups at this school help me.</td>
<td>71</td>
</tr>
<tr>
<td>Teachers and other grown-ups at this school believe that I can do a good job.</td>
<td>69</td>
</tr>
<tr>
<td>Teachers and other grown-ups at this school notice when I am not at school.</td>
<td>66</td>
</tr>
<tr>
<td>Teachers and other grown-ups at this school ask me follow up questions when I say the wrong answer.</td>
<td>63</td>
</tr>
<tr>
<td>Teachers and other grown-ups at this school believe I will be successful.</td>
<td>62</td>
</tr>
<tr>
<td>The teachers and other grown-ups at this school care about me.</td>
<td>57</td>
</tr>
<tr>
<td>I feel like I like I am a part of this school.</td>
<td>56</td>
</tr>
<tr>
<td>I do activities at this school that are interesting.</td>
<td>56</td>
</tr>
<tr>
<td>I am given a chance to respond to teacher questions on a regular basis.</td>
<td>52</td>
</tr>
<tr>
<td>At this school, teachers and other grown-ups tell me when I do a good job.</td>
<td>51</td>
</tr>
<tr>
<td>Teachers and other grown-ups at this school show that they respect me.</td>
<td>50</td>
</tr>
<tr>
<td>The teachers and other grown-ups at this school treat students fairly.</td>
<td>47</td>
</tr>
<tr>
<td>Teachers and other grown-ups at this school tell me to never give up.</td>
<td>46</td>
</tr>
<tr>
<td>Statement</td>
<td>Percentage</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------</td>
<td>------------</td>
</tr>
<tr>
<td>I participate in school programs, activities, or clubs here before or after school.</td>
<td>43</td>
</tr>
<tr>
<td>Teachers and other grown-ups at this school use humor, smiles, or laughter with me.</td>
<td>40</td>
</tr>
<tr>
<td>At this school, teachers and other grown-ups listen to me when I have something to say.</td>
<td>39</td>
</tr>
<tr>
<td>I have many opportunities to make decisions at this school.</td>
<td>38</td>
</tr>
<tr>
<td>I feel close to teachers and other grown-ups at this school.</td>
<td>34</td>
</tr>
<tr>
<td>Teachers and other grown-ups at this school care about things that bother me.</td>
<td>32</td>
</tr>
<tr>
<td>I do things at this school that make a difference.</td>
<td>32</td>
</tr>
<tr>
<td>I am given time in class to work with other students in small groups.</td>
<td>32</td>
</tr>
<tr>
<td>I am given opportunities to talk about my life at home.</td>
<td>28</td>
</tr>
<tr>
<td>Teachers and other grown-ups at this school are interested in what I do at home or outside of school.</td>
<td>28</td>
</tr>
<tr>
<td>I am given time to write about what I am learning.</td>
<td>25</td>
</tr>
<tr>
<td>Students get along well with teachers and other grown-ups at this school.</td>
<td>22</td>
</tr>
</tbody>
</table>

As Table 7 indicates, the majority of the study’s respondents marked “very much true” to 11 of the 26 statements on the survey. Of these 11 statements, four of them fell under the resiliency protective factor of caring relationships. Examples of these caring interactions included providing students help when they needed it, praise for doing a
good job, and adults noticing when students were absent. Statements about high
expectations made up three of the 11 statements that most students noted were present.
Highly present expectations noted by the students included adults wanting students to
do their best, believing that they can do a good job, and believing students will be
successful. Finally, most students marked statements about their meaningful
participation in reference to doing things at school that made a difference as well as
being given chances to respond to teacher questions on a regular basis. The
information on Table 21 (Appendix) summarizes all three categories of survey
questions on the quantitative Likert-scale survey.

Data Analysis: Quantitative Survey Categorization

The data above demonstrates that students noted that caring was the most
present protective factor at both school sites. In Placer County where students from the
study attended school, there were also high levels of caring relationships reported at
school (WestEd, 2009b, p. 14). Ninety-seven percent of fifth graders in the county
reported high and moderate levels of caring adult relationships (p. 14). High
expectations were also reported at a slightly more frequent level in the county. Ninety-eight percent of fifth graders reported high and moderate levels of high expectations
by adults in school. The researcher feels that this county data is significant in
comparison to the study’s student responses as well. On seven statements total, a
majority of students in the study also noted high levels of caring relationships and
expectations at school. This comparison speaks to the consistency of the data from the
student responses on the survey. Across school sites and the entire county, students reported high levels of caring relationships with adults and high adult expectations.

Descriptive Univariate Statistics: Analysis of Study Participants

In Chapter 3, descriptive statistics were provided for the survey responses. Mean frequencies for the demographic independent variables were also included by the researcher. The statistics below offer information on the number of students who were positive on the independent demographic variables. It is also important to include because this data was collected across multiple school settings with similar student populations. The samples were convenient as well due to the location of each of the schools in the study.

Forty-six and one-half percent of the respondents in the study’s sample were male while 53.5% were female. It should be noted that the eligible sample contained 52% male students and 48% female students. Only 5-6% separates the sample’s gender from the gender of the total eligible number of fourth and fifth grade students. Of the 198 participants, 55% were in the fourth grade and 45% were in the fifth grade. The eligible population had 40% fourth graders and 60% fifth graders.
Table 8 shows the number of respondents at each school site.

Table 8
Respondents by School Site

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td>123 Elementary</td>
<td>70</td>
<td>35.4</td>
<td>35.4</td>
</tr>
<tr>
<td></td>
<td>ABC Elementary</td>
<td>128</td>
<td>64.6</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>198</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

ABC Elementary had 128 participants in the study making up 64.6% of the study’s participants. 123 Elementary had 35.4% of the participants or 70 student participants.

Data Analysis: Demographic Variables

For the purposes of analysis, the researcher will use the demographic variables from the study’s sample population to assess its comparability and representativeness to the demographics of both school sites. Table 9 reports each demographic variable and its comparison to the total fourth and fifth grade populations of both schools combined. This comparison of two independent proportions in known as proportional difference.\(^4\)

---

\(^4\) *Proportional difference* calculates the ratio for the significance of the difference between two independent proportions. It is calculated by first computing the proportion for each independent sample and then computing the difference between the two proportions (Vassar, 2010).
Table 9

*Demographic Variables: Sample Comparison*

<table>
<thead>
<tr>
<th>Demographic Variable</th>
<th>Number in Sample</th>
<th>Number in Total Population</th>
<th>Proportional Difference (Vassar 2010)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hispanic</td>
<td>22</td>
<td>60</td>
<td>-.36</td>
</tr>
<tr>
<td>Asian</td>
<td>10</td>
<td>30</td>
<td>-.50</td>
</tr>
<tr>
<td>English Learner</td>
<td>10</td>
<td>30</td>
<td>-.50</td>
</tr>
<tr>
<td>Male</td>
<td>93</td>
<td>251</td>
<td>-.84</td>
</tr>
<tr>
<td>Female</td>
<td>105</td>
<td>246</td>
<td>-.84</td>
</tr>
<tr>
<td>White</td>
<td>145</td>
<td>348</td>
<td>.84</td>
</tr>
<tr>
<td>African-American</td>
<td>8</td>
<td>15</td>
<td>.68</td>
</tr>
<tr>
<td>Special Education</td>
<td>14</td>
<td>50</td>
<td>-1.23</td>
</tr>
<tr>
<td>Economically Disadvantaged</td>
<td>30</td>
<td>104</td>
<td>-1.74</td>
</tr>
<tr>
<td>Fifth Grade</td>
<td>89</td>
<td>298</td>
<td>-3.6</td>
</tr>
<tr>
<td>College Graduate</td>
<td>123</td>
<td>194</td>
<td>5.52</td>
</tr>
</tbody>
</table>

Table 9 demonstrates that many of the study’s variables are comparable with and somewhat representative of the population that was eligible for the study. More specifically, the third column of proportional difference demonstrates that the following variables in the sample were the most comparable to the entire populations
of both schools with 99.9% confidence: Hispanic, Asian, English Learner, Male, Female, White, African-American, Special Education, and Economically Disadvantaged. The researcher feels that these variables demonstrate a considerable amount of representativeness for the sample. In Chapter 2 the researcher provided examples of the achievement gap between disadvantaged and advantaged subgroups. A more representative sample of this subgroup could have more significance when investigating the impact of this variable on students’ language arts outcomes.

Other demographic variables were much less representative of the total population of both schools. Fewer fifth grade students were in the study’s sample which could call the significance of this variable into question. In addition, a considerably larger number of students whose parents were college graduates were part of the study’s sample.

Linear Regression Analysis

Variable Descriptions

A multiple regression analysis was conducted to predict the variance in English language arts scaled test scores from the presence of the resiliency protective factors of caring adult-student relationships, high teacher expectations, and meaningful student participation. In addition, demographic variables were also entered into the regression to once again predict variance in student test scores. The independent variables were divided into distinct non-ordered sets. The first set housed the demographic variables of parent education levels, student ethnicities, student language proficiencies, grade level, gender, special education participation, school of
attendance, and economic disadvantage. The regression analysis assisted the researcher in addressing all three research questions.

The predictors present in the regression and in the set entitled caring relationships included student perceptions of caring adults on campus, if they felt close to them, if adults listened to them and treated them fairly, if they get along with adults, if adults used humor, adults helping students and caring if something was bothering them, praise when students did a good job, and if adults noticed when students were absent.

The predictors in the regression set called high expectations housed student perceptions of being told by adults to be persistent, student beliefs about whether or not they will do a good job and be successful, adults asking follow up questions, and teachers and other adults at school showing respect for students.

The predictors in the final set of quantitative survey statements entitled meaningful participation addressed students’ engagement in the school and classroom. Perceptions included opportunities to make decisions, do interesting activities, do things at school that make a difference, and students feeling like they were a part of their school. Other predictors in the student engagement set were involvement in extracurricular activities, time to work with other students in small groups, time for writing, opportunities to respond to questions, and opportunities to talk about students’ home lives.

Research Question #1: Overall relationship between predictors and criterion variables. The model summary in Table 10 demonstrates how strongly the
independent demographic variables along with the survey variables are related to the
dependent test score variable.

Table 10

*Model Summary of Linear Regression*

<table>
<thead>
<tr>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>R Square Change</th>
<th>Sig. F. Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>.619</td>
<td>.384</td>
<td>.235</td>
<td>.384</td>
<td>.000</td>
</tr>
</tbody>
</table>

The overall strength of the relationship between the predictors (independent
demographic and survey variables) and the criterion (language arts scaled score)
variable is just over 38%. In other words, when considering the R squared value, 38%
of the variability in each student’s language arts test score from the mean can be
explained by the independent demographic and survey variables.

*Research Question #2: Individual demographic predictors.*

This investigation into significance\(^5\) will begin with a description of the
significant demographic variables. Table 22 (Appendix) reports whether each
independent variable made a significant contribution to the prediction equation.
Specifically, research question #2 addresses these variables and asks if they explain
student test score variability. With 99.6% confidence, the fact that a child’s parent was
a college graduate raised his or her language arts score. The average variability was an
increase of 22 scaled score points on a test score scale that ranged from 0-600. The

\(^5\) For the purpose of the regression analysis, *significance* was reported for p values less than .1. The
confidence intervals were computed using the following equation: 1-p.
confidence interval for this variable explains that the researcher can conclude with 95% confidence that the student test scores increase between 7 and 37 scaled score points for students whose parents are college graduates.

A second significant demographic variable as referenced by Table 22 (Appendix) was Fifth Grade representing fifth grade students. This variable was significant at .000. This variable also predicts decreases in student test scores with 99.9% confidence. The average variability was 26 scaled score points. In other words, being a fifth grade student predicts a decrease in student test scores. This data is consistent with district and state wide data on fourth and fifth grade students using the same standardized measure of achievement. The confidence interval range was between -41 and -12 points.

A third significant demographic variable was Special Education. This variable represents students who have qualified for special education speech, resource, or special day class services. The special education variable was significant at .000. With 99.9% confidence, this third variable predicts test score decreases with an average of 49 scaled score points. The confidence interval range (95%) was between -77 and -22 points. This portion of the analysis suggests that special education students are likely to have lower language arts test scores than students who are not being served through special education services.

A final significant demographic variable in Table 22 was Economically Disadvantaged which represents students whose families qualified for free or reduced lunch. Typically students on free or reduced lunch have parents with only high school
education levels or have parents who make a gross annual income which is below the Federal poverty line set by the U.S. Census Bureau each year. In 2009, the poverty line for two adults with one child in a single household was $14,787 (U.S. Census Bureau). This variable was significant at .001. This final significant demographic variable predicts test score variability with 99.9% confidence. The average change in scaled score points or average variability was a decrease of 34 points. The researcher is confident that for every value of the variable Economically Disadvantaged, the dependent test score variable decreases between 53 and 15 points. This part of the regression suggests that economically disadvantaged students are likely to have lower test scores in language arts than advantaged students.

There were other demographic variables used in the multiple linear regressions. However, they did not predict a significant amount of test score variability. These variables were Asian, female, African-American, Hispanic, English learner, white, and ABC Elementary (students who attended ABC Elementary School).

*Research Questions #1 and #3: Linear Regression Analysis for Individual Resiliency Predictors*

Table 22 (Appendix) also includes information on significant and non-significant resiliency variables from the quantitative survey instrument. This data helped the researcher to address research questions one and three about what protective factors or school supports explain test score variability. The first significant variable falls under the protective factor of caring relationships. Students were asked
how true the following statement was: The teacher and other grown-ups at this school care about me. Students who marked a 4 on the survey indicated that this statement was very much true. The researcher inputted a value of 1 into the SPSS data used for the above regression for items students marked as very much true. He inputted a 0 for items the students marked as pretty much true, a little true, or not true at all. The researcher made the decision to only indicate when variables were highly present as indicated by students on the survey.

The caring adults variable was significant at .027. It predicted an average positive test score variability of 23 points with 96.3% (1-.027) confidence. For every value of this variable, the researcher is 95% confident that a student’s test score will increase between 3 and 43 points. This first resiliency indicator and its regression analysis suggest that students who indicate that caring adults are highly present at their school may have higher test scores than those who indicate that caring adults are less present.

The second significant variable also falls under the protective factor category of caring relationships. Students were asked how true the following statement was: Teachers and other grown-ups notice when I am not at school. The data was inputted as described above for the previous significant variable in this category. The variable which referred to adults noticing when students were absent was significant at .090 with 91% confidence. It predicted an average test score variability of 14 scaled score points on student language arts outcomes. For every value of this variable, the researcher is 95% confident that a student’s test score will range from a 2 point
decrease to a 30 point increase. These results suggest that students who indicate that adults notice when they are absent may have slightly lower or higher test scores than those who indicate that adults are less likely to notice their absence.

There was one additional variable that had significance in the linear regression. It was under the resiliency protective factor category of meaningful student participation. For this variable on the survey, students were asked how true the following statement was: I am given time in class to work with other students in small groups. The “time for small groups” variable was significant at .008. It predicted an average student language arts outcome variability of 23 points with 99.2% confidence. It should be noted that this variability in scaled score points is the same as the “adultscare” variable. The researcher is 95% confident that a student’s test score will increase between 6 and 40 points. The results of this variable’s significance suggest that students who report that time to work with other students in small groups is highly present may have higher test scores than students who indicate that small group work is less likely in their schools.

Although a few variables demonstrated significance in their relationship with student language arts outcomes, many variables did not show statistical significance. Adults caring about things that bother students was a variable under the category of caring relationships that was the closest to significance at a .158. For this variable, students responded on the survey to the following statement: Teachers and other grown-ups at this school care about things that bother me. Adults listening to students was also close to significance at .172. Students responded to the following statement
for this variable about adults at school listening to them: At this school, teachers and other grown-ups listen to me when I have something to say. It should be noted that that the “adultscarebother” variable was stated in a similar way to the significant “adultscare” variable and both variables asked students to reflect on the amount of caring demonstrated by adults at school. The remaining variables under the category of caring relationships did not show significance and represented statements on the survey about adults treating student fairly, students getting along with adults at school, adults using humor with students, adults helping students with learning, and adult praise for students doing a good job.

The resiliency category of high adult expectations did not produce any significant variables in the linear regression. Students responses to statements in this category about adults believing in their success and asking them to be persistent did not appear to result in test score variability. Students also responded to statements about adults showing them respect and asking them follow up questions. However, it should be noted that the majority of the study’s respondents reported that some statements in the high expectations category were very much true. These statements included adults’ beliefs that students can be successful, wanting them to do their best, and adult beliefs that students can do a good job in school.

The resiliency protective factor of meaningful student participation or engagement had only one statistically significant variable in the regression which was students given time to work with other students in small groups. The rest of the statements about meaningful participation were not significant. However, the majority
of the students who completed the survey reported that they felt like they were a part of their school and were given opportunities to respond to teacher questions on a regular basis.

The California Standards Test’s scaled scores range from 0 to 600. Students whose parents are college graduates are expected to score approximately 22 points higher while special education students, economically disadvantaged students, and fifth grade students are respectively expected to score approximately 26, 49, and 34 points lower. These results may be interpreted as what drives the aforementioned achievement gap in language arts. However it should be noted that this previously described gap can be closed by creating learning environments where students feel strongly that adults at school care about them, notice when they are absent, and provide them opportunities to work with other students in small groups. The presence of these protective factors can respectively raise students’ test scores by approximately 23, 14, and 23 scaled score points.

*Research Question #1: Moderator Variables*

In separate linear regression analyses from those mentioned previously, the researcher investigated the impact of moderator variables. Moderation takes place in a regression when the relationship between an independent and dependent variable depends on a third variable known as the moderator variable (Moderation Statistics, 2010). In this action, the researcher analyzed data on the significant interactions between two independent variables and one dependent variable that have positively affected the strength of the relationship of variables which were statistically significant
in aforementioned regressions. For this moderation analysis, the researcher inserted a formula into SPSS that multiplied the value of the originally significant independent variable by another statistically significant independent variable. After this formula was executed, the researcher ran a linear regression with the newly created variable to better understand the relationship between combined independent variables and the dependent student outcome variable.

For the first moderation investigation, the researcher multiplied the value for the demographic special education variable by the variable labeled as “absent.” The “absent” variable included student data which reflected to what degree students felt that adults at school noticed when they were not at school. This newly created variable (“absentspeceduc”) was then added to the original regression. The resulting adjusted R squared value increased from .235 to .279. This regression explains a greater degree of variability between the newly created variable and the dependent test score variable. This regression was also statistically significant at .001. Therefore, the researcher is 99.9% confident that when adults notice that special education students are absent, their test scores can increase by as much as 28%.

This newly created regression allowed the researcher to conclude with 95% confidence that for every value of the combined special education variable and variable about student absences, a student’s test score increased by an average of 91 scaled score points. The lower bound variability for the test score was 36. However, the upper bound variability was 147 scaled score points. When considering the current scaling of the California Standards Test, 147 points can raise a student’s overall
language arts proficiency by as much as two proficiency levels. In summary, special education students who reported that adults at school noticed when they were absent experienced higher test scores than special education students alone. When investigating the relationship of just the demographic variable to test scores, special education students explained a decrease in student test scores ranging from 77 to 22 points.

For the second moderation effect, the researcher multiplied the value for the Fifth Grade variable by value for the variable labeled “adultscare.” The “adultscare” variable included data which reflected to what degree students felt that adults at school cared about them. The newly created variable (“fifthcare”) was added to the original regression equation. The resulting adjusted R squared value slight increased from .235 to .249. This regression explained slightly more variability between the newly created variable and student language arts test scores. This regression was significant at .021. From this regression, the researcher concluded that with 99.8% confidence, for every value of the combined fifth grade variable and variable about caring adults, a student’s test score will increase by an average of 38 points. The variability ranged from 6 to 70 scaled score points. In summary, fifth grade students who reported that adults in school care about them (“very much true”) demonstrated higher test scores than fifth grade students who did not report that this statement was “very much true.” Fifth grade students when analyzed without the moderating effect on test scores explained a decrease in student test scores ranging from 41 to 12 points.
Qualitative Focus Group Interviews

Small Group Explanatory Research Design

The researcher completed four focus group interviews with six students at each interview session to address research question #3.

Research Question #3: Within each of the three resiliency protective factors, what specific school supports as reported by student participants explain variability in student language arts achievement?

Information on the one-on-one purposeful questionnaire will follow this section. These students were selected randomly based on a table of random numbers from the original 198 student random sample. Two focus group interviews took place at each school site. Students were sent home with a letter reminding their parents that they had given their children permission to participate in the research study.

The researcher met with students in office conference rooms at both school sites. Multiple long rectangular tables were in the center of the room and inspirational artwork was mounted on the walls at both school sites. Both school sites had a white board on one wall of their conference rooms. Six students were asked to sit anywhere around the table. The interview sessions were tape recorded for future reference.

Students were reminded that they had participated in the study previously by filling out a Likert-scale survey in the spring of the previous school year. The researcher told the students they would be asked questions about their relationships with adults at school, expectations adults had for them at school, and their level of meaningful participation or school and classroom engagement. For this research
design, the quantitative survey and the significance of its variables determined what questions the researcher asked the students. The researcher included quotes from students for the questions that were significant in the regression analyses which were reviewed earlier in this chapter.

*Small group design: Qualitative emergent themes – caring relationships.* This section of Chapter 4 will review the themes which emerged from the four small focus group sessions. Each interview question will be included along with tables and discussions of the themes that emerged from each question across the four groups. The first six questions asked students about the nature of the relationships with caring adults at school.

1. *What causes students to get along well with teachers and other grown-ups at this school?*
Table 11 summarizes the themes that emerged from student responses to this question.

Table 11

*Causes of Students Getting Along Well with Adults*

<table>
<thead>
<tr>
<th>Teacher Behaviors</th>
<th>Student Behaviors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nice (4)</td>
<td>Listen and do well</td>
</tr>
<tr>
<td>Respect our right to learn</td>
<td>Enjoy school (2)</td>
</tr>
<tr>
<td>Like the students in our class</td>
<td>Give teachers ideas</td>
</tr>
<tr>
<td>Have a special personality</td>
<td>Act responsibly</td>
</tr>
<tr>
<td>Encourage us to do better</td>
<td>Talk to teachers about a problem</td>
</tr>
<tr>
<td>Funny so you can remember things</td>
<td>Trust the teachers</td>
</tr>
<tr>
<td>Play games to help us learn</td>
<td>Get used to each other</td>
</tr>
<tr>
<td>Don’t ignore us (2)</td>
<td></td>
</tr>
<tr>
<td>Open</td>
<td></td>
</tr>
<tr>
<td>Ask us what we want to do</td>
<td></td>
</tr>
</tbody>
</table>

As Table 11 shows, the answers to the first questions could be categorized into two themes. Students responded with examples that were either teacher or student behaviors. Four students described that students get along well with adults because they are nice. Two students felt that adults did not ignore them at school. Many other reasons were given by students that represented varied teacher behaviors, including respecting students’ rights to learn, teachers having a special personality, teachers making learning fun, and teachers playing games to help students learn.

Table 11 also includes students responses categorized under the theme of student behaviors. Two students felt that students get along well with adults because
students enjoy school. There were less responses that could be categorized as student behaviors. Other responses included students giving teachers ideas, trusting the teachers, and students talking to teachers and other adults about a problem.

2. *What causes students to not get along well with teachers and other grown-ups at this school?*

Table 12 summarizes teacher and student behaviors that were derived from student responses to this question about students not getting along well with teachers.

Table 12

*Causes of Students not Getting Along Well with Adults*

<table>
<thead>
<tr>
<th>Teacher Behaviors</th>
<th>Student Behaviors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Don’t answer your questions (2)</td>
<td>Rude students take out aggressions on teachers</td>
</tr>
<tr>
<td>Are rude (2)</td>
<td>Misbehave</td>
</tr>
<tr>
<td>Act frustrated (scream, yell mean) (5)</td>
<td>Disrespectful (9)</td>
</tr>
<tr>
<td>They are too strict</td>
<td>Have a different point of view than the teacher does</td>
</tr>
<tr>
<td>Give too much work</td>
<td>Irresponsible</td>
</tr>
<tr>
<td>Play favorites</td>
<td>Uncomfortable</td>
</tr>
<tr>
<td>Let other students get more involved</td>
<td>Shy</td>
</tr>
<tr>
<td></td>
<td>Base expectation on experience of sibling</td>
</tr>
</tbody>
</table>
As Table 12 demonstrates, student responses explained more student behaviors than teacher behaviors. Nine students stated that students did not get along well with adults due to students being disrespectful. Student misbehavior was also cited by the students as having a different point of view from the teacher. Interpersonally, students stated that the relationship between students and teachers could be negatively impacted due to students being shy or uncomfortable. Teacher behaviors that were cited by the focus group students included a teacher acting frustrated which was mentioned by five students. Two students said that teachers don’t answer student questions or are rude. Other examples included teachers playing favorites or letting other students get more involved in learning activities.

3. **Who are the adults at this school who you feel the closest to?**

All students (24) cited that they were the closest to teachers at school. Three students stated that they were also close to administrators and yard duty supervisors. Two students said they were close to office staff and parent volunteers. Finally, one student felt close to the librarian.

4. **Do teachers and other grown-ups at this school show they care about you?**

*How do they show you that they care?*

All students said that teachers and other grown-ups at their school showed that they cared about them. Table 13 shows the diverse responses categorized under the resiliency protective factor themes of relationships, expectations, and student engagement.
Table 13

*How Adults Show They Care About Students*

<table>
<thead>
<tr>
<th>Relationships</th>
<th>Expectations</th>
<th>Student Engagement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Help at recess (2)</td>
<td>Show they want to be here (2)</td>
<td>Ask about our weekend</td>
</tr>
<tr>
<td>Eye contact</td>
<td></td>
<td>Fun</td>
</tr>
<tr>
<td>Are nice</td>
<td></td>
<td>Check in at parent/teacher conferences</td>
</tr>
<tr>
<td>Don’t get frustrated</td>
<td>Show they want to help</td>
<td></td>
</tr>
<tr>
<td>Tell mean people to stop (2)</td>
<td></td>
<td>Don’t give up on us (2)</td>
</tr>
<tr>
<td>Fix problems</td>
<td></td>
<td>Say good job</td>
</tr>
<tr>
<td>Respect you</td>
<td></td>
<td>Want a good situation</td>
</tr>
<tr>
<td>Trust you</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Confidential</td>
<td></td>
<td>Tell us not to stress</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tell us to think it over</td>
</tr>
</tbody>
</table>

Under the theme of relationships, two students said that adults tell mean people to stop being mean and provide help at recess. Other relationship oriented responses were students stating that adults fix problems and respect and trust you. Under the protective theme of expectations, two students said that adults wanted to be at school, showed they wanted to help, and didn’t give up on them. Adults also gave praise and gave students specific ways to deal with problems at school. The final thematic protective category the researcher classified the qualitative data into was student
engagement. The following answer of Alex, a short Hispanic boy offers further detail about the students’ perceptions about their relationships with caring adults at school:

“They give you eye contact and they show and they show you that they wanna be here and help you.”

The category of engagement offered many different responses with no student responses repeating themselves. Students said that adults showed they cared by doing such things as asking about their weekend or checking in.

5. Do teachers and other grown-ups at this school care about things that bother you? If so, please give an example of when this happened.

Thirteen students felt that adults cared about things that bothered them while eleven did not feel this way. The researcher categorized student examples of support as peer, classroom, and home support. Table 14 shows the answers to student questions about adult caring.

Table 14

Student Examples of When Adults Cared About Things that Bothered Them

<table>
<thead>
<tr>
<th>Peer Support</th>
<th>Classroom Support</th>
<th>Home Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>Help with problem on the playground (3)</td>
<td>Move kids who distract you</td>
<td>Helped with sister’s emotional problems</td>
</tr>
<tr>
<td>Get stuff back for you that other kids took</td>
<td>Help when you have trouble with a subject</td>
<td>Talked me through stress from a divorce</td>
</tr>
<tr>
<td>Help with problems with friends</td>
<td>Make you feel comfortable</td>
<td></td>
</tr>
</tbody>
</table>
As Table 14 shows, three students cited help with playground problems under the category of peer support. Examples of classroom support cited by students were adults moving students who distracted them and helping students. Home support was represented by adults helping students with issues at home such as divorce or emotional problems.

6. *When you are not at school (sick, absent), do teachers and other grown-ups at this school notice? How do they show you that they noticed?*

Twenty-three out of 24 students felt that adults at school noticed when they were absent. The researcher created a response category called relationships. Under this category, four student responses described adult acknowledgement or adults seeking information from students about their absence. The second category created from the responses was engagement. Adults re-engaged students in the learning environment by giving them missed work. Five students noted this as an example. Suzie, a blonde haired fair skinned fifth grader offered the following perspective that included examples of relationship building and engagement:

“They acknowledge you. They will call on you. They’ll talk to you.”

*Qualitative emergent themes – expectations.* The second set of focus group questions asked students about the expectations adults had for them at school.

7. *Do teachers and other grown-ups at this school tell you to never give up? What do they mean when they say this?*

Twenty students out of 24 said that adults at school told them to never give up. Nine students stated that adults expected them to keep trying while two cited high
expectations. In reference to student engagement, seven students stated that adults helped them to understand their work. Four students gave examples of adults helping them. Other examples of adults engaging students to communicate persistence were the use of whiteboards and questioning techniques.

8. Do you feel that teachers and other grown-ups at this school want you to do your best? If so, what do they say or do to make you feel this way?

All of the students in the focus groups felt that teachers and other grown-ups at school wanted them to do their best. The researcher categorized their examples under the three protective factors. Table 15 illustrates this categorization of student responses.

Table 15

_How Adults Demonstrate They Want Students to do Their Best_

<table>
<thead>
<tr>
<th>Relationships</th>
<th>Expectations</th>
<th>Student Engagement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Write good job on test</td>
<td>Do the best you can (3)</td>
<td>Provides a purpose for learning (3)</td>
</tr>
<tr>
<td>Eye contact</td>
<td>Never give up (3)</td>
<td>Extension pages (2)</td>
</tr>
<tr>
<td></td>
<td>You will do better next time</td>
<td>Spend more time to learn it (3)</td>
</tr>
<tr>
<td></td>
<td>Believe in you</td>
<td>Homework Club</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Help you (4)</td>
</tr>
</tbody>
</table>
As Table 15 shows, the fewest student examples fell under the protective factor of relationships. Nine students cited examples under expectations and thirteen students provided data on student engagement. Examples of engagement that students cited were adults helping students, providing a purpose for learning, and spending more time for students to learn information.

9. *Do you feel like you are a part of this school? If so, how do the adults and other grown-ups make you feel this way?*

All of the students felt as if they were part of their schools. The most examples came from the category of student engagement. Five students said that teachers gave them a lot of choices in the classroom. Three mentioned being on student council while two students explained classroom jobs or having a purpose for learning. The resiliency factor of relationships had two student examples of teachers saying good things to them or feeling accepted. The factor of expectations had only one student example. A student stated that when he was called on his teacher expected him to respond.

10. *Are you given time in class to work with other students in small groups?*

*During the day, when do you work with small groups the most? The least?*

All but one student gave examples of when they were given time to work with other students in small groups. Students worked with small groups the most during language arts (11), science (6), and math (5). Social studies and physical education were also mentioned by a few students as subjects where they worked with
small group the most. Johnny, a tall fourth grader with black hair offered the following detail about small group work during language arts instruction:

“Yeah language arts. Kinda like reading out of our big textbook. Yeah we sit side by side in two pair groups and then we just read.”

Only five students said they worked in language arts the least while two students said they worked in science or social studies the least.

Qualitative One-on-One Interviews

High achieving high resilient versus low achieving low resilient students. The researcher used statistical significance from the quantitative regression analysis to form the small group and one-on-one interview questions. The same qualitative tool was used in small group and one-on-one student interview settings. Three high resilient high achieving students were interviewed individually at each school site followed by interviews of three low achieving low resilient students at each school site. The researcher wanted to obtain responses from both types of students to determine if the level of resiliency students reported at school along with their achievement levels resulted in distinctly varied responses when comparing high and low interview coding. This assisted the researcher in further addressing research questions #3.

The researcher purposefully selected these students from the original random quantitative sample of 198 students based on their quantitative survey responses and levels of academic achievement in language arts on the 2010 California Standards Test. High resilient students marked “very much true” to statements about the
presence of caring relationships with adults at school and the presence of small group work with other students at school. High achieving students were those students who scored a minimum proficiency scaled score of 350 points or higher which resulted in proficient or advanced ratings. Low resilient students marked “pretty much true”, “a little true”, or “not true at all” to the same questions about relationships and small group work. Low achieving students were those students who scored below 350 scaled score points on the standardized test.

Previously, responses to the targeted small group interview questions and their frequencies were described. The responses of the high high students and low low students are summarized below in a comparative manner.

**Summary of responses about caring relationships.**

1. *What causes students to get along well with teachers and other grown-ups at this school?*

   High high and low low students both stated that teachers are nice and helpful. They also both mentioned that students respect teachers. Both high high and low low students provided a similar amount of detail in their responses to this question.

2. *What causes students to not get along well with teachers and other grown-ups at this school?*

   In the one-on-one interviews, both types of students stated that teachers caused students to be upset when they were strict or mean. In reference to student behaviors, the high high students provided the same number examples for some of the causes of teacher-student discord. Table 16 details the different responses to this question.
### Table 16

*What Causes Students and Teachers to Not Get Along Well*

<table>
<thead>
<tr>
<th>Teacher Behaviors</th>
<th>Student Behaviors</th>
</tr>
</thead>
<tbody>
<tr>
<td>High High</td>
<td>Low Low</td>
</tr>
<tr>
<td>Teacher won’t give the</td>
<td>Students are not nice</td>
</tr>
<tr>
<td>students what they want</td>
<td>Students don’t listen</td>
</tr>
<tr>
<td>Teachers are mean</td>
<td>Students are mean</td>
</tr>
<tr>
<td></td>
<td>Don’t like rules (2)</td>
</tr>
<tr>
<td></td>
<td>Annoyed</td>
</tr>
<tr>
<td></td>
<td>Mad at other students</td>
</tr>
<tr>
<td></td>
<td>Talk out of turn</td>
</tr>
<tr>
<td></td>
<td>Push people (2)</td>
</tr>
<tr>
<td></td>
<td>Kick/throw stuff (2)</td>
</tr>
</tbody>
</table>

As Table 16 shows, responses about student behaviors were quite diverse. High high students mentioned teachers not giving students what they want and students getting frustrated. Low low students gave multiple examples of students being physical to others (4), misbehaving in the classroom, and not liking the rules. The researcher feels that the students were inferring about their lack of voice in the classroom and not being heard by their teachers. They also gave many examples of peer conflict. A focus on giving these low achieving low resilient students more praise and affirmations than corrections may improve their ability to rebound from risk and adversity. Also, student support with problem solving peer conflicts could also improve their resiliency.
3. *Who are the adults at this school who you feel the closest to?*

The answers to this question were exactly the same for high high and low low students. The majority of students mentioned teachers as the person they felt the closest to. Administrators were the next in frequency and one student from each purposeful group mentioned yard supervisors.

4. *Do teachers and other grown-ups at this school show they care about you?*

*How do they show you that they care?*

Eleven out of the 12 students who were interviewed one-on-one responded that adults showed that they cared about them. Table 17 provides a summary of the responses under the categories of the three resiliency protective factors.
Table 17

*How Adults Show That They Care*

<table>
<thead>
<tr>
<th>Relationships</th>
<th>Expectations</th>
<th>Student Engagement</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>High High</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>They are a good</td>
<td>They reward you</td>
<td>Make it fun</td>
</tr>
<tr>
<td>listener</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tell jokes</td>
<td>They don’t mark off points</td>
<td>They help you (2)</td>
</tr>
<tr>
<td>They are nice (4)</td>
<td>They are the best teacher</td>
<td>Teach in</td>
</tr>
<tr>
<td>They don’t yell</td>
<td>Encourage me to do my best</td>
<td>understandable</td>
</tr>
<tr>
<td>Ask what’s wrong</td>
<td>Clean our hands</td>
<td>ways</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Low Low</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Help you solve a</td>
<td>Want us to be safe</td>
<td>Help us get A’s (2)</td>
</tr>
<tr>
<td>problem with a</td>
<td></td>
<td></td>
</tr>
<tr>
<td>mean student (2)</td>
<td>Tell you to do a good job</td>
<td>Give hints for</td>
</tr>
<tr>
<td></td>
<td></td>
<td>answers</td>
</tr>
<tr>
<td>Helps me when I</td>
<td></td>
<td>Help with math</td>
</tr>
<tr>
<td>am upset (2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Encourage you</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Listen to you</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Don’t ignore you</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 17 demonstrates a similar amount of responses from both types of students with the exception of expectations. High high students provided more examples of adult expectations for them at school.
5. *Do teachers and other grown-ups at this school care about things that bother you? If so, please give an example of when this happened.*

The researcher categorized student examples of support as peer, classroom, and home support. Table 18 shows the answers to student questions about adult caring.

**Table 18**

*Student Examples of When Adults Cared About Things that Bothered Them*

<table>
<thead>
<tr>
<th>Peer Support</th>
<th>Classroom Support</th>
<th>Home Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>Help with problem on the playground (3)</td>
<td>Move kids who distract you</td>
<td>Helped with sister’s emotional problems</td>
</tr>
<tr>
<td>Get stuff back for you that other kids took</td>
<td>Help when you have trouble with a subject</td>
<td>Talked me through stress from a divorce</td>
</tr>
<tr>
<td>Help with problems with friends</td>
<td>Make you feel comfortable</td>
<td></td>
</tr>
</tbody>
</table>

As Table 18 shows, three students cited help with playground problems under the category of peer support. Examples of classroom support cited by students were adults moving students who distracted them and helping students. Home support was represented by adults helping students with issues at home such as divorce or emotional problems.

Eleven out of the 12 students responded that adults at school cared about things that bothered them. For this question, low low students provided more examples of peer and classroom support. Both types of students described adults helping them with peer issues but low low students gave more examples. In regards to classroom support,
low low students gave more examples of this type of support such as adults saying hi, helping them, and telling them to calm down when they were frustrated.

6. When you are not at school (sick, absent), do teachers and other grown-ups at this school notice? How do they show you that they noticed?

All of the students responded affirmatively to this question. Table 19 shows the responses under the protective categories of relationships and engagement.

Table 19

<table>
<thead>
<tr>
<th>Relationships</th>
<th>Engagement</th>
</tr>
</thead>
<tbody>
<tr>
<td>High High</td>
<td></td>
</tr>
<tr>
<td>Smile</td>
<td>Get you work</td>
</tr>
<tr>
<td>Welcome me back (2)</td>
<td>Chairs left on</td>
</tr>
<tr>
<td>Treat me the best they can</td>
<td>Lunch clip on string</td>
</tr>
<tr>
<td>Ask are you OK (2)</td>
<td></td>
</tr>
<tr>
<td>Ask why you were gone</td>
<td></td>
</tr>
<tr>
<td>Emailed me about missing work</td>
<td></td>
</tr>
<tr>
<td>Miss me</td>
<td></td>
</tr>
<tr>
<td>Low Low</td>
<td></td>
</tr>
<tr>
<td>My friends tell them</td>
<td>Take attendance (2)</td>
</tr>
<tr>
<td>Ask where you were (2)</td>
<td>Leave work to do on my desk</td>
</tr>
<tr>
<td>Say sorry you were sick (2)</td>
<td>Help me with spelling</td>
</tr>
</tbody>
</table>
Under the category of relationships, Table 19 clearly indicates the more diverse responses from the high high students. Responses that fell under the category of engagement were about the same in number. In their multiple examples of relationships with adults, high high students gave examples of non-verbal adult responses, interpersonal responses, and adult-student communication. Low low students’ examples were only verbal.

*Summary of responses about expectations.* The next two questions again asked about adult expectations for students.

7. *Do teachers and other grown-ups at this school tell you to never give up?*

   *What do they mean when they say this?*

   All of the students said that adult at their school told them to never give up. High high students gave more examples of the expectations adults had for them. They stated that adults told them to keep going to get a better grade (2), told them they can do anything (2), told them to do their best, and stated they should stick their mind to tasks. In comparison, the low low students’ responses were mostly about adults communicating to them to do their best.

8. *Do you feel that teachers and other grown-ups at this school want you to do your best? If so, what do they say or do to make you feel this way?*

   All of the students who were interviewed one-on-one said that adults wanted them to do their best. The responses about adult expectations for persistence were the most notable and a similar number of responses were noted for the two types of student interviewees. High high students provided examples of teachers encouraging
them to do their best (7), expecting them to stay out of trouble, and using confidence to achieve goals (2). Low low students said that teachers tell them they can do tasks (2), asked them to do their best (3), said to show their work, and asked about studying for quizzes and tests.

Summary of responses about meaningful participation. The final two questions were about the level of student engagement at school.

9. Do you feel like you are a part of this school? If so, how do the adults and other grown-ups make you feel this way?

Both high high and low low students all felt like they were a part of their schools. High high students provided examples of how adults expected them to go to college and gave rewards for a job well done. However, low low students did not provide any responses to this question that could be categorized as having to do with adult expectations. Both types of students gave several examples of how adults engaged them. Some of examples of engagement included assemblies, guest speakers, getting involved with students, clubs, activities, asking students to participate, answering student questions, and using computers as a resource to answer student questions.

10. Are you given time in class to work with other students in small groups?

During the day, when do you work with small groups the most? The least?

All of the one-on-one interviewees stated that they had time in class to work with other students in small groups. When asked when they worked with small groups the most, high high students mostly mentioned language arts. However low low
students said math was when they worked with small groups the most. Social studies and science were mentioned by both types of students as subjects where they worked in small groups the least amount of time during the school day.

*Qualitative Emergent Themes*

The qualitative questions for the small group and one-on-one interviews were constructed from the analysis of the quantitative survey data. Themes emerged from the qualitative data and were illustrated in tables in the previous section. In summary, responses about caring adult relationships at school could be broken down into the two categories of teacher and student behaviors. Both types of students gave more examples of student behaviors than teacher behaviors. The students’ qualitative responses were also sorted based on the protective factor (caring relationships, expectations, and meaningful participation) that the responses most closely related to. The protective factor that the most student responses related to was the nature of the relationships between adults and students at school. Responses to the questions about adult expectations were categorized similarly to the questions on caring relationships. High high and low low students both provided more examples of adult expectations than they did for the other two resiliency protective factors. Finally, responses relating to student engagement provided more examples of the engagement factor than the other two. This is not surprising as the questions directly related to the level of student engagement at school and in classrooms.
Addressing the Research Questions

Research Question #3: Within each of the three resiliency protective factors, what specific school supports as reported by the student participants explain variability in student language arts achievement?

The qualitative data enriches the quantitative data and further answers this research question. The qualitative responses provided very specific student examples of school supports that were shown by the quantitative regression to influence the variability of student language arts outcomes. Teachers were mentioned the most by students as the adults they feel closest to at school. Adults demonstrated their level of caring for students through a variety of means. They treated them nicely, helped them solve problems, encouraged students, and taught them in understandable ways. Adults at school noticed when students were absent by asking about their well being, welcoming them back, and by showing compassion.

Students provided numerous examples of school supports that helped them to feel engaged or part of their school. These supports included clubs, encouraging them to participate in class, and answering their questions. A large majority of the students who were interviewed one-on-one and in small focus groups said that they had opportunities to work in small groups with other students in a few subjects. Language arts and math provided the most opportunities while social studies and science provided the least amount of small group student interactions.

There were some clear distinctions between the responses of the high high and low low students resulting from the one-on-one interviews. High high students
provided fewer examples of peer and classroom support. The researcher feels that this may demonstrate that when it comes to increasing student achievement, peer and classroom support is less likely to be as important as school level supports. Students also gave more concrete examples of what teachers expected from them compared to students with lower achievement and a lower amount of reported protective factors. This points to the importance of clear expectations for all learners. High high students mentioned that adults at school expected them to go to college and provided rewards for getting tasks accomplished satisfactorily. These expectations and rewards are therefore important in increasing student resiliency and achievement. Finally, the higher achieving students cited more instances of working with other students in small groups in language arts. This qualitative finding confirmed that statistical significance of small groups found in the quantitative regression analysis. Chapter 5 will include an interpretation of what these findings mean and how they answer the research questions.

The researcher’s study of the resiliency protective factors and their relationship to student achievement will conclude in Chapter 5. This chapter will provide a brief overview of the study, its research questions, and the findings. These findings will then be interpreted and conclusions will be made to address the three research questions. The study’s findings will be related to the larger body of resiliency literature. Finally, Chapter 5 will investigate the implications for future school, leadership, and organizational improvements and conclude with recommendations for future research.
Chapter 5

SUMMARY AND CONCLUSIONS

....we can, in fact, get even the poorest children to high standards of achievement....if we are relentless about the use of time, and if we stay focused on getting better results.”

(Kati Haycock as cited in Holland, 2007, p. 56)

Introduction

Chapter 5 begins with a brief summary of the study’s findings. Conclusions are included to address each of the three research questions. Implications of the study’s findings for multiple settings and applications are investigated. The researcher will engage in a discussion of the study’s findings and their significance. In conclusion, the researcher recommends practical action steps and applications for the study’s conclusions. Recommendations for further study are also made in this chapter.

Summary of Findings

Figure 6 illustrates the key findings from the researcher’s study followed by a more detailed narrative account.
Figure 6. Visual of Major Research Conclusions.

- **Caring Adult Relationships:** Caring adults in schools result in increased student language arts achievement (+23 scaled score points).
- **Teacher Expectations:** No significance quantitatively. Qualitative student interviews demonstrated higher expectations for high achieving students.
- **Meaningful Student Participation:** Students interacting in the classroom with other students about learning results in increased language arts achievement (+23).
- **Demographic Key Findings:** Fifth grade students (+26) and students with parents who are college graduates (+22) have higher language arts achievement. Special education (-49) and economically disadvantaged (-34) designations result in lower test scores.
As Figure 6 demonstrates, two of the three protective factors had elements that positively impacted student achievement. Certain demographic variables resulted in either increases or decreases in language arts achievement. Additionally, the school supports of caring adults and time for small group interactions both had significant positive influences on student achievement.

Two variables in the category of caring adult-student relationships demonstrated significant test score variability. Past research on the impact of caring adult-student relationships has supported the researcher’s conclusions about how levels of caring result in higher student achievement levels (Crosnoe, Johnson, & Elder, 2004, Greenberg et al., 2003Gregory & Weinstein, 2004, Pianta et al., 2002, Roeser et al., 2000, & Zins, Bloodworth, Weissberg, & Walberg, 2004, as cited in Hamre & Pianta, 2005, p. 951). The variable that measured student perceptions about adults at school caring about them had a test score range within the 95% confidence interval. There was a strong impact on student test scores ranging from 3 to 43 scaled score points. This can propel a student who has achieved at the basic level of proficiency in the past to score proficient on future assessments. Another variable in the category of caring relationships that was statistically significant was whether adults noticed when students were absent. The impact on student test scores was an increase of as many as 30 points. When adults noticed that special education students were absent, the test score increased to even a greater degree. Students want to be engaged in the learning process by caring adults and something as simple as
acknowledging them when they return from an absence may pay huge dividends for relatedness and student success.

There were no significant variables in the survey category of adult expectations. These findings are not supported by the majority of the research literature on the impact of teacher expectations on student achievement. Varying expectations exist in classrooms and can greatly impact student outcomes (Brophy, 1982, Cooper & Good, 1983, Jussim, 1989, as cited in Rubie, 2004, p. 54). However, the researcher did not discover that expectations had a significant impact on student test scores when analyzing the results of the linear regression. Most of the previous studies in this area have focused on teacher perception data and perhaps this could be a factor in the significance of the student perception data used in the researcher’s study.

The final category of meaningful student participation had one significant variable. The variable that measured student reports of having time to work with other students in small groups was significant and the impact on test scores ranged from an increase of 4 to 60 points on the language arts achievement measure. The findings in the area of small group student interactions are consistent with the research literature on relatedness and its impact on engagement and student achievement (Furrer & Skinner, 2003 as cited in Appleton, Christenson, & Furlong 2008, p. 377). Students need time during instruction and skill practice to interact with peers about their learning. When teachers provide many opportunities for students to work with their peers, learning increases as does their engagement in classroom activities.
Quite a few of the demographic variables showed significance in the regression analysis. The variable that referred to the parent education level of each student’s parents resulted in positive test score variability. This variable identified students who had at least one parent who was a college graduate. This is consistent with longitudinal research on the long term effects of parent education levels on students’ successes in school (Davis-Kean, 2005, Dearing, McCartney, & Taylor, 2001, Duncan, Brooks-Gunn, & Klebanov, 1994, Haveman & Wolfe, 1995, Nagin & Tremblay, 2001, Smith, Brooks-Gunn, & Klebanov, 1997, as cited in Dubow, Boxer, & Huesmann, 2009, p. 225). More specifically, parent education levels of eight year old children “significantly predicted educational and occupational success for the child 40 years later” (Dubow et al., 2009, p. 224). However, this research shows that the negative long term academic impact of having less educated parents can definitely be mediated by having adults in schools establish caring relationships with students. The fifth grade variable also demonstrated negative score variability.

The special education variable which noted special education program placement demonstrated the highest decreases in the student outcome measure (-77 to -22 points). The concern over special education students’ lower academic outcomes has been present in the research literature and continues to be a concern in our high stakes testing environments (Ysseldyke, Thurlow, Kozleski, & Reschly, 1998, as cited in Carnine & Granzin, 2001, p. 466). The final significant demographic variable was the economic disadvantage variable which identified students on free or reduced lunch. This variable also resulted in decreases for the dependent test score variable.
The data obtained from the researcher’s regression analysis is consistent with statewide data on these significant subgroups in comparison to non-identified students. Figure 7 illustrates the achievement discrepancies created by these student designations.

Figure 7. Subgroup Achievement Discrepancies.

The researcher’s study found that the special education and economically disadvantaged designations resulted in lower student test scores. As Figure 7 illustrates, the 2010 California Adequate Yearly Progress statewide report shows similar results (California Department of Education, 2010a). When compared to all students, economically disadvantaged students achieved 13% lower English language arts scores and special education students achieved 22% lower scores. Therefore, the
researcher’s investigation into the impact of student demographics on language arts achievement had findings that are still apparent across the state.

The random qualitative student focus group interviews and purposeful one-on-one student interviews offered possible explanations for the significant quantitative variables. The use of focus groups is widely supported in the literature because it results in the interaction of participants, “enhances the quality of the data,” and gives rich data on the student perspective (Kenny, 2005, as cited in Rae & Cochrane, 2008, p. 218). It is necessary for the researcher to be forthcoming about the limitations of these methods, some of which include the difficulties inherent in interpreting non-verbal student responses and the challenge of ensuring that participation occurs by all subjects. Students provided enriching explanatory data on their relationships with adults at school, the level of caring, adult expectations for student persistence, and opportunities for students to work in small groups. This data could not have been uncovered using strictly quantitative methods. By asking the students themselves, the researcher gave them a needed voice. They provided positive and vibrant examples of how their schools foster resiliency and the development of protective factors. Students stated numerous examples of caring and engagement which will be detailed later in this chapter.

Conclusions

Conclusions to Address Research Questions

Research Question #1: To what extent does each of the three resiliency protective factors (caring adult-student relationships, high teacher expectations, and
meaningful student participation) explain a statistically significant portion of variability in student language arts achievement?

A high level of caring adult-student relationships in school resulted in increased language arts test scores.

The protective factor of caring adult relationships had the highest number of significant variables that explained variability in student language arts achievement. Student confirmation of adults demonstrating that they cared explained double digit test score increases. Additionally, student confirmation of adults who had noticed when they were absent explained mostly positive student outcome variability. The test score variability for these two variables ranged from a low of -2 points to a high of 43 points. Increases of this magnitude can allow students to move up in language arts proficiency levels. They can also serve to mediate the negative effects of the aforementioned demographic variables.

High adult expectations for students did not significantly impact student test scores.

The protective factor of high adult expectations did not appear to significantly explain changes in test scores. The researcher feels that this finding provides evidence that teacher expectations at any level without follow through will not significantly impact student achievement. This follow through is achieved when teachers and other caring adults build relationships with students, hold high expectations with them, effectively monitor the effectiveness of their expectations, and at the same time engage them in meaningful participation in their classrooms and schools. Putting the
protective pieces of resiliency together can close the achievement gap for disadvantaged students as the previous content and further findings illustrate.

*Students’ meaningful participation in small group interactions with other students resulted in improved language arts outcomes.*

Student work with other students in small groups under the factor of meaningful student participation explained scaled score variability. This was the only variable within statements of the protective factor of student engagement that was found to be significant in the regression.

It should be noted that Hattie’s (2009) meta-analyses uncovered similar results. The effect sizes for caring adult-student relationships (.72) were the largest, followed by student engagement (.48) and teacher expectations (.43). The effects of these protective factors were greater than overall teacher effects (.31).

*Research Question #2: To what extent do student demographic variables (ethnicity, parent education level, grade level, gender, English proficiency, economic disadvantage, and special education placement) explain a statistically significant portion of variability in student language arts achievement as reflected by each student’s standardized test score in language arts?*

*Students whose parents were college graduates had higher language arts test scores while 5th grade students had lower scores.*

Parent education level explained positive test score variability. Students who had at least one parent who graduated from college had significantly higher test scores. These findings are very consistent with the greater research literature on parent
education and its predictive impact on student achievement (Klebanov, Brooks-Gunn, & Duncan, 1994, Haveman & Wolfe, 1995, Smith, Brooks-Gunn, & Klebanov, 1997, as cited in Davis-Kean, 2005, p. 294). If more parents and consequently more children become better educated, at-risk children may have more enduring and persistent educational trajectories. Students who were fifth graders explained test score decreases when compared to fourth graders. This data was consistent with patterns of achievement when comparatively analyzing grade level achievement data across the county and state. Fourth graders tend to have higher test scores in language arts when compared to fifth graders. This data from the researcher’s study is consistent with recent statewide standardized test scores. More specifically, in the state of California during the 2010 spring administration of the California Standards Test, 63% of 4th grade students in the entire state scored proficient or advanced in language arts (California Department of Education, 2010b). Comparatively, 58% of 5th grade students scored proficient or advanced.

*Special education and economically disadvantaged student designations resulted in decreased student test scores.*

Special education students explained the largest amount of test score variability (-77 to -22 points). In 2004, 30 of 39 states had a 40% achievement gap in fourth grade reading between disabled and non-disabled students (Pew Charitable Trust, 2004 as cited in Eckes & Swando, 2009, p. 2479) Students who were economically disadvantaged also had test score decreases by as much as 53 points. The regression analysis in this quantitative portion of the study supported
aforementioned research conclusions about students of poverty and the achievement gap in language arts between disadvantaged and advantaged students. Regionally and nationally, students of poverty tend to perform lower on standardized tests than their non-disadvantaged counterparts. Research supports the researcher’s conclusions about the impact of economics on achievement. Coleman and Jencks are just a few of the researchers who have found that students who come from more affluent backgrounds perform better (Coleman, et. al., 1966 & Jencks, et. al., 1972, as cited in Tajalli & Opheim, 2005 p. 44). This information about the lower achievement of disadvantaged students must result in a greater sense of urgency for educators to establish caring relationships with students and to strengthen school based protective factors for them. Disadvantaged students often have few assertive adult advocates in their lives and rely on those adults they interact with daily at school to develop their resilient capacities.

Research Question #3: Within each of the three resiliency protective factors, what specific school supports as reported by the student participants explain variability in student language arts achievement?

Certain elements of caring adult-student relationships and student engagement resulted in higher student test scores. However, the meditative effect impacted but did not overcome certain negative demographic effects.

Using the quantitative analysis, the researcher concluded that caring adults, adults noticing when students were absent, and time given to students to work with other students in small groups were all specific school supports that explained test score variability. As stated earlier in the chapter, these conclusions are supported by
research literature conducted on these protective factors. In most cases, this level of variability could mediate but not overcome the negative variability caused by certain demographic variables. For example, a fifth grade special education student who qualified for free and reduced lunch would have a lower test score that was reflected by the existence of their demographic characteristics. However, if this student experienced a caring adult at school or time to work with other students in small groups, the negative impact of their demographic characteristics could be lessened by these school supports.

*The qualitative portion of the study provided specific examples of school supports related to caring adult-student relationships.*

The qualitative analysis explained what school supports looked like according to student perceptions. These explanations provided more specificity and detail to enrich and enhance the research conclusions when considering educational supports. The school support of caring adults was perceived by students in many different ways. Students in the random and purposeful interviews alike stated that adults showed they cared through the relationships they had with students on campus. Students’ spirits seemed to visibly illuminate brightly when they described teacher supports. Examples of this interactive relationship included the following:

- Helping students
- Being nice to students
- Being good listeners
- Encouraging students
Listening to students

Eye contact

Fixing problems

Demonstrating trust

Demonstrating respect

Maintaining confidentiality

Asking about students’ lives outside of school

The qualitative portion of the study provided specific examples of school supports related to teachers’ expectations of their students.

Students also perceived the school support of caring adults through the lens of the expectations they had for them at school. Unfortunately, students gave less detail about these expectations than previous lively descriptions about demonstrating caring adult-teacher interactions. Examples of these expectations included the following:

Rewarding students

Encouraging students to do their best

Praising students for quality work

Asking students to be persistent in their work efforts

Requiring students to think things over when providing a response
The qualitative portion of the study provided specific examples of school supports related to engaging students at school and in the classroom.

Finally, students offered examples of how caring adults engaged them in the school and classroom settings. Teachers who facilitated student to student small group interactions left the strongest impression on student language arts test scores.

Examples of adult engagement strategies included the following:

- Making learning fun
- Teaching material in understandable ways
- Checking in with students to check for understanding
- Using writing as a way for students to express themselves and solve problems

The student focus groups and interviews informed the researcher about which adults students had the most caring interactions with at school.

In addition, the qualitative portion of the study provided information from students about which adults they felt closest to at school. The majority of them felt closest to teachers while about half as many felt closest to administrators and yard duties. Teachers were mentioned right away by students and the mention of other adults usually did not occur until after some follow up questions. This points to the amazing and immediate impact of classroom teachers who are the first adults students enthusiastically described.
Focus groups and interviews provided data on how students felt noticed when they were absent from school.

In order to build relationships with students, adults smiled, welcomed students back to school, asked them questions about their absences, showed that they missed them, and simply acknowledged the students’ absences. The adults at school also made efforts to re-engage students in the educational settings by providing them work that they missed and by helping them catch up with missed work. The mediating variable of special education had a large impact on student achievement when teachers noticed that these students were absent. This may provide an explanation for how special education students often feel disconnected from the general education classroom settings. All students deserve to be noticed, including those with special needs. It is an educator’s job to ensure that all students and their lives are a visible and interactive part of daily instruction.

Examples of student engagement were provided by the students from the qualitative data.

The school support of meaningful student participation was explained by students using numerous examples. Students felt connected to adults at school and engaged with them for many reasons. Adults gave them high fives, recognized them after they had moved on to another grade level, respected them, accepted them, greeted them, and were helpful. Students also provided examples of how adults engaged them with their high expectations for student success. Students described adults asking them to make goals for college and their future careers and calling on
them frequently to require their participation. The questions that addressed student engagement brought out vibrancy in the student responses. Students perked up, leaned in, and were engaged in actively describing their meaningful participation in the classroom setting. The power of student engagement was especially evident through the interactions between the researcher and the student subjects.

Research in the area of student engagement supports the richness that can be gleaned from qualitative approaches. These type of methodologies that “investigate the complex interaction between identity development, school context, and engagement are critical for advancing our understanding of how and why some students do well in school and others do not” (Conchas, 2001; Locke-Davidson, 1996; & Mehan, 1996, as cited in Fredricks et al., 2004, p. 87).

Students provided the most diverse examples when describing how they felt like they were part of their school through engaging programs and activities. Student assemblies, clubs (clay and German clubs), guest speakers, activities (spelling bee and plays), and classroom jobs all gave students a feeling of ownership and connectedness to their schools. Students became the most animated when they described the engaging elements of their schools. Students said they were the most engaged in small group learning during language arts or reading blocks. They reported about half of the level of engagement for math as they did for language arts. Science and social studies provided students with the least amount of small group interactions. However, students reported significantly lower levels of engagement when asked about writing opportunities. Seventy-four and seven-tenths percent noted lower levels of time given
for writing about learning. Students frequently gain valuable critical thinking skills through writing about what they learn in classrooms and increasing these opportunities might lead to increased student engagement and improved skills in critical thinking.

*There were some clear differences between the responses of high achieving and highly resilient students in comparison to low achieving low resilient students.*

High high students gave more specific examples of what teachers expected of them beyond their elementary years. They did not provide as many examples of how they were supported in the classroom by their peers and teachers. Finally, these students stated that they worked in small groups more frequently during language arts instruction. Low resilient low achieving students’ examples of teacher expectations were more limited. These students mainly described teachers telling them to try hard and to do their best. Expectations for these students were also limited to expected progress in their current classroom or school while students who were higher in achievement and resiliency discussed expectations for schooling beyond their elementary years.

In summary, all but one of the 36 interviewees indicated that adults at school showed that they cared about them. These responses were not varied when comparing high resilient high achieving students to low resilient low achieving students. All but one student also stated that adults noticed when they were absent from school. All thirty-six students felt like they were a part of their school through their participation in engaging activities, programs, and adult interactions.
The interviews of students who had higher language arts test scores and who also reported a higher presence of the resiliency protective factors provided some important information about school supports referenced in the third research question. These students’ responses provided some data that explained why it may be important for lower achieving students who have fewer characteristics of resiliency to achieve at higher levels. High high students had a clearer understanding of teacher expectations and felt that adults at school expected them to attend college. For example, high high students mentioned “expectations for college success” and “graduating high school.” However, low low students stated expectations more vaguely. They said adults wanted them to “try their best” or “do well.” High high students also reported being rewarded for completing classroom tasks while low low students were given verbal praise and less specific feedback.

The greater research literature points to the importance of having high and clear expectations for all students. Teachers who use expectations successfully truly believe that all children can learn at high levels regardless of their backgrounds and openly accept the responsibility to hold these expectations consistent among all students (Brophy, 1999; Zeichner, 2003, as cited in Gehrke, 2005, p. 16). Finally, high high students worked in small groups with other students more frequently during language arts instruction. Lower achieving students require the same level of engagement and interactions with their peers. Raising the degree of engagement for low achieving students in the classroom will undoubtedly change their academic trajectories and increase their school success (Buhs & Ladd, 2001; Ladd, Birch, &
Buhs, 1999; Ladd et al., 2000, as cited in Ladd & Dinella, 2009, p. 191). The school supports mentioned above by the high high students could be motivating for lower achieving students to experience. They might also increase the resiliency for these students who need to develop protective factors for school success.

*There were some elements of adult initiated protective factors in school that were not perceived by students as highly present.*

When asked questions about the protective factor of caring adult-student relationships, the majority of students did not report that getting along with adults was highly present. Also, the majority did not feel strongly that adults were interested in what they did outside of school. Questions about the protective factor of meaningful participation revealed that the majority of adults in school were not highly interested in what students did outside of school. In addition, the majority of students did not note high incidents of time to write in school and noted that opportunities to talk about their home lives were not highly present.

It should be noted for the purposes of the generalizability of the study’s research conclusions that compared to state wide data from the California Healthy Kids Survey (WestEd, 2009c) similar percentages of the researcher’s small sample of 198 students responded that some protective factors were highly present (WestEd, 2009c, pp. 15-16). Table 20 shows this comparison when investigating student responses to similar questions on each survey.
Table 20

*State Wide Data Compared to the Researcher’s Sample of Respondents*

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>I feel like I am part of this school.</td>
<td>51%</td>
<td>56%</td>
</tr>
<tr>
<td>Teachers and other adults care about me.</td>
<td>58%</td>
<td>57%</td>
</tr>
<tr>
<td>Teachers and other adults listen to me when I have something to say.</td>
<td>45%</td>
<td>39%</td>
</tr>
</tbody>
</table>

As the table clearly shows, just under half of students across the state and in the study’s sample felt connected or a part of their schools. Parallel results for the presence of caring adults in school and adults listening to students were found when comparing samples from the study with the statewide sample of students. The data above provides evidence that the study’s recommendations found within this chapter may be applicable to multiple schools, districts, counties, and states due to its proportionality when comparing the small study samples to much larger ones.

Revisiting the Study’s Theoretical Framework

Resiliency theory is supported by the study’s conclusions as there is evidence that the resiliency protective factors of caring adult-student relationships and small
group student engagement resulted in increased student test scores. The random sample used in the study did include some students who possessed risk factors such as being economically disadvantaged. However, the negative impact of these student’s risk factors was lessened by the presence of protective factors in the school setting.

Cultural ecological theory and its relation to how schools treat at-risk students in the form of teaching practices were pertinent to the researcher’s study. Students from disenfranchised groups need culturally responsive classrooms that confront their lack of motivation. These classrooms respond by ensuring that teachers and students are companions in their educational experiences. In the qualitative portion of the study, students provided narrative evidence of culturally responsive practices such as incentives and encouragement used to motivate students. Students described how teachers were partners in their education by engaging them and problem solving with them.

The leadership theory of social justice applied to the study because it required educators to move beyond good teaching or practice towards the goal of creating better schools for marginalized students. When leaders hold all stakeholders accountable for justly and equitably educating at-risk students, achievement will improve. Part of this equitable education includes the protective factors studied by the researcher such as developing caring relationships between adults and students, engaging all students in meaningful learning experiences and participation, and holding the highest level of expectations for all students.
The motivational theories that were described in Chapter 2 were validated by some portions of this study. Students gave narrative accounts of how they were attached to their schools, teachers, and classrooms (attachment theory). In addition, their responses to questions about teacher expectations provided evidence that illustrated expectancy-value theory from a student point of view. Students explained that they persisted in school because their teachers and other caring adults expected them to do so. Students described instances when the value of increased achievement communicated by teachers motivated them to keep trying and to do better in school.

In reference to self-efficacy theory, the qualitative data provided student accounts of believing that they had the ability to complete work and be successful in school. Students both directly and indirectly stated that these beliefs kept them motivated and allowed them to persist until they learned a concept or solved problems. In summary, this theory and the other motivational constructs demonstrate how the resiliency protective factors studied in the researcher’s study are fostered through motivational strategies and practices implemented by caring adults.

Implications for Educational Settings

The findings from this study have school and classroom improvement implications. This study demonstrated that students who perceive caring relationships with adults in school settings can experience test score variability. These test score increases were explained through the regression analysis. These conclusions can assist school leaders and classroom teachers in narrowing achievement gaps between disadvantaged and advantaged students. At-risk students who experience various
levels of caring from teachers, administrators, yard supervisors, or others can improve their academic outcomes.

This study also provided evidence that when students perceive that they have opportunities to work with other students in small groups, the positive variability of their standardized test scores in language arts can be explained by this perception. Most students worked in small collaborative student groups during language arts instruction. School leaders can hold teachers accountable for engaging students in the learning process through evaluative feedback on these types of observed student interactions. They can also provide staff development opportunities on how to facilitate more student to student interactions during math, social studies, and science lessons. Students who are more engaged in learning can experience improved academic outcomes. Engaging student interactions would benefit all students but are especially crucial when considering strategies to narrow achievement gaps and improve subgroup performance. This study’s quantitative data analysis concluded that the decreased test scores of students in special education and economically disadvantaged students can be explained simply by their socioeconomic status or special education placement. This makes it even more critical for students from these and other disenfranchised groups to be given school and classroom opportunities to interact with other students.

The researcher strongly feels that student connectedness and its roots can be firmly planted by cultivating resiliency and its protective factors. Researchers also agree and have documented positive outcomes that are associated with high levels of
school connectedness “across racial, ethnic, and income groups” (Daley, Buchanan, Dasch, Eichen, & Lenhart, 2010, p. 18). Unfortunately, lower levels of connectedness have been found among minority students. However, as the researcher’s study has demonstrated, there are some specific protective factors that can increase school connectedness and academic achievement. School personnel can provide social supports through caring and meaningful relationships with students daily. Weekly check-ins with at-risk students can help them solve problems with classroom content or issues outside of the classroom walls (p. 19). Students who work with other students in small groups or partners will become more engaged in classroom activities and may be more likely to demonstrate mastery of content objectives in language arts.

Condly (2006) discussed the implications of supporting a focus on building student resiliency in educational settings. He stressed the importance of identifying at-risk students and then providing them with supports and opportunities in school. These opportunities may include “opportunities to explore in safety and security” and “opportunities to believe and to dream” (p. 228). Condly sees schools as “ideal locations” to design and implement support programs to help student build their capacity to be resilient and overcome “environmental stressors” (p. 229). Condly concluded by stating that studies whose analyses move beyond correlations can help in the design of programs for at-risk youth (p. 231). The researcher’s linear regression analyses coupled with qualitative methods moved in this direction and will help with program design and in building student resiliency in school settings. The researcher
agrees with Condly who stated that we know enough about student success to tailor programs to meet their needs.

Implications for Resiliency’s Capacity to Build Student Literacy

Mc Tigue, Washburn, & Liew (2009) offer some recommendations for building successful readers through focusing on socio-emotional development. These researchers cite many researchers whose works contain evidence that developing students’ capacities to be resilient can boost literacy success (Duncan et al., 2007; Raver & Knitzer, 2002; Zins, Bloodworth, Weissberg, & Walberg, 2004, as cited in Mc Tigue et al., 2009, p. 423). Students with academic resilience do not give up in challenging situations because they believe that their efforts will lead to success. This type of resilience applies to literacy development because learning to read and reading to learn both require persistence. Safe environments tend to foster student achievement because they encourage students to be engaged in learning and therefore become self-directed (p. 425).

Examples of academically resilient student behaviors in literacy include students who look forward to reading and writing instruction, students who do not require much redirection to stay on task, and students who react to books and stories. The work of Mc Tigue and his colleagues (Mc Tigue et al., 2009) offers some additional evidence that resiliency is a needed focus for improved student literacy outcomes. The researcher’s study concluded that various aspects of caring adult relationships with students and student engagement did predict positive test score
variability. His study contributed to the body of research which focuses on best practices in improving reading and writing outcomes.

Intervention Implications

The researcher’s study has implications for designing school based and classroom interventions for at-risk students. The study’s findings provide specific recommendations for engaging students in the learning process. Small group student to student interactions may improve language arts outcomes for students. In addition, the presence of a caring adult in the life of a student can explain an increase in student test scores. Shepard (2004) recommended using students’ multiple intelligences to design activities and engaging interventions. Shepard stated that at-risk students respond well to activities that are hands-on and interactive (p. 210).

In their youth development model for at-risk youth, Edwards, Mumford, & Serra-Roldan (2007) asserted that intervention models that build resiliency need to begin early in a child’s school career (p. 38). Early intervention allows educators to find the best intervention and instructional methods and use them to provide students with equitable access to grade level material. These authors suggested that students’ external assets need to be built through multiple educators communicating shared expectations and objectives to them in different ways (p. 39). They stated that at-risk children who have adults at school who show they want them to be successful and try to understand where they are coming from are less likely to experience failure. The researcher’s aforementioned conclusion about the power of caring adults in raising student achievement is supported by Edwards et al. The researcher’s study’s findings
have implications for interventions as stated previously. However, these interventions need progress monitoring to evaluate their success and must include academic elements. Interventions can be modified based on progress measurements that evaluate their effectiveness in raising student achievement.

In their article about resilience and “academic buoyancy” (the ups and downs of schooling), Martin and Marsh (2009) also note the importance of positive teacher-student relationships and school engagement (p. 353). Students must have control, confidence, and a high level of commitment to be buoyant. The implications for school interventions are that when educators intervene in the lives of at-risk students, they need to create a sense of ownership of the learning process along with restored confidence in a student’s ability to be academically successful.

Policy Implications

It is essential that policies are created that direct different types and amounts of resources towards interventions that truly make a difference in the lives of students. The works of Martin and Marsh (2009) along with the conclusions from the researcher’s study have implications for the development of future educational policies. Policies that promote “primary prevention” before students become academically disadvantaged connect students to their schools and to caring adults (p. 365). In turn, their learning outcomes improve and their resiliency is built through the development and improvement of school based protective factors.

Under our current unstable economy and with the numerous educational budget constraints regionally and nationally, more policies must be developed that
preserve programs and structures that intervene early in the lives of at-risk youth and foster resilience. When the recession hit California, the state lost at least one fifth of the base of its revenue between 2008 and 2010 (EdSource, 2010, p. 1). This led to a sixty billion dollar budget shortfall. California is still operating with a deficit in the billions and based on our current governor’s 2011 budget, school will receive 11.3% less per pupil compared to funding in 2007 to 2008. In its 2010 to 2011 budget analysis, the Legislative Analyst’s Office offered some solutions so school districts could try and stay fiscally afloat. One solution was creating categorical program spending flexibility for districts. This recommendation came to fruition and this categorical flexibility can allow school districts in California to direct previously restricted funding sources towards policies and programs for at-risk students. If budget flexibilities do not continue, school administrators will have their hands tied with restricted funding limitations and may not be able to direct funds to benefit students with the greatest gap in achievement.

In addressing the need for policies that foster early intervention, Martin and Marsh (2009) stated that these policies must “break vicious circles such that the initial inability to cope constructively with disadvantage and stressful circumstances does not mushroom over time” (pp. 366-367). Policies must be timely to target “critical times and turning points” (p. 367). If the circles are not broken and policies are not purposefully developed for the academic success of disadvantaged students, many students will continue to fail and be unable to rebound from adversity and risk.
Leadership Implications

The researcher’s study has implications for transformational leaders who seek to strengthen staff members’ collective capacity to positively change student language arts outcomes. Leaders who transform give all stakeholders in their organization a voice including the students. Initiating change without student voices heard through surveys, interviews, or informal conversations leaves out a crucial piece of the transformative puzzle. Transformational leaders should attempt to raise the levels of personal commitments from their organizational members and in the name of social justice should strategically keep formidable forces of resistance at bay (Theoharis, 2007, p. 248). These commitments are the organization’s goals for student success. Fostering resiliency can improve student outcomes as demonstrated by the researcher’s study. This creates the motivation that is needed for staff members to feel and act on the sense of urgency for organizational and pedagogical changes. Leaders who require educators to develop caring and engaging relationships with all students can improve student learning. Leithwood and Jantzi (2006) found that leadership in a school has an influence on whether or not teachers change their instructional practices (p. 223). More importantly, “the potency of leadership for increasing student learning hinges on the specific classroom practices which leaders stimulate, encourage, and promote” (p. 223).

Leaders who effectively advance social justice in their schools have knowledge and skills in special education, working with English learners, race and poverty, and working with families from diverse backgrounds (Theoharis, 2007, p. 250). Leaders
themselves must develop resiliency as they hit roadblocks to social justice head on. They may do this through “enhancing reflective consciousness and developing a broader knowledge and skills base” (Theorharis, 2007, p. 250).

Recommendations for Action

Classroom Applications

Resiliency can and must be developed daily in classrooms across our country. “Teachers are in uniquely powerful positions to positively impact youths who are surrounded by dysfunction and at risk for school failure” (Rockwell, 2006, p. 14). Educators do face many challenges in today’s accountability system. They are confronted with high stakes tests, students who are at-risk or who have learning disabilities, cultural and socioeconomic diversity, and students whose first language is not English. Families in poverty value relationships. The relationship between caring adults and students in school and classroom settings has been shown by the researcher to explain test score increases and positive student perceptions of their schools. Students who are at-risk of school failure need the urgent and early interventions of caring adults and engaging learning environments. Without them, these students will withdraw, miss assignments, perform poorly on tests, procrastinate, and lower their own expectations for school success (p. 15).

At-risk students can learn advanced academic material but their level of mastery depends on each teacher’s attention to solving problems and creative instructional practices (p. 18). The researcher recommends that educators clearly state their expectations for key tasks, provide multiple opportunities for the recognition of
student successes, and communicate frequently and affectively with all students. Classroom teachers must determine what each student’s strengths are and build on these strengths rather than focus on weaknesses. This positive focus “communicates respect for the student’s healthy, functional abilities” (Rockwell, 2006, p. 18). These student centered actions are also essential for nurturing a student’s sense of hope for the future and their belief that they can make choices that positively impact their lives. Downey (2008) also identified the importance of building student self-esteem by focusing on their strengths and achievements (p. 58). She also stressed the importance of building strong and affective teacher-student relationships. She reminded us that at-risk students need “healthy interpersonal relationships” that are based on respect, care, and trust (p. 57). Students cannot and will not perform to their full potentials if they are not respected and genuinely cared for.

Downey (2008) also made some critical recommendations for classroom teachers to increase opportunities for meaningful student participation. Students must understand how academic content relates to their lives. This learning purpose can then be related to each student’s academic and future goals. Students can be engaged by contributing to classroom rules, routines, and schedules. Students need to have input into daily classroom activities to develop a sense of belonging and ownership. Cooperative learning can also assist students in becoming personally responsible for classroom contributions. Downey concludes her recommendations for fostering student engagement with suggested strategies for developing “transferable life skills” (p. 61). These skills should include interpersonal and communication skills,
extracurricular activities, and literacy skill development. Extracurricular activities allow students to use their time before or after school in a positive manner and gain a broad range of experiences in the school community. Interactions in the classroom during peer learning activities and between adults and students can be magical and a source of strength for at-risk students. “Educational resilience” can be experienced when students have chances to cope with stress, manage conflict, problem solve, think critically, and make important decisions about their learning (p. 61).

Teachers must go above and beyond their daily duties to make certain that students can resiliently respond to risks and challenges in their lives. This requires them to attend to each student’s strengths and to conduct their classroom orchestra with purposeful student engagement and adult-student connectedness as their essential harmonies. At-risk students can teach us a great deal about learning and how to persist in the face of adversity. Their daily successes should be “aligned with our best efforts to support and celebrate who they are” (p. 19).

Leadership Applications: Practices for Transformation and Justice

Exercising leadership that truly transforms student learning will require collective strong commitments and leaders with a global perspective on issues such as social justice, equitable teaching practices, and inclusive education. Clarity is also needed about what systemic supports hold all stakeholders accountable for establishing caring adult-student relationships and facilitating student engagement. Mandates from the top down should be questioned by leaders if they do not promote effective instruction and improved student outcomes. Glanz (2007) called for
courageous leadership where leaders “stand up despite opposition” to changes and initiatives that conflict with what the researcher’s study and research have shown is in the best interest of teachers and students (p. 128). According to Glanz, without courage leaders “become mere technicians, administrative guardians, nothing more than custodians of the institution” (p. 129).

Disenfranchised students needs school administrators who relentlessly pursue the highest level of caring and engagement for them every minute of every instructional day. The researcher seeks to simplify transformational leadership by stating his own definition. This type of leadership is being courageous enough to confront difficult and uncomfortable situations in the best interest of supporting all students, whatever it takes. Transformational leaders have charisma, want to influence others, and have strong moral values (Glanz, 2007, p. 130). Fullan (2003) developed five critical mind sets and actions that leaders “must cultivate: a deep sense of moral purpose, knowledge of the change process, capacity to develop relationships across diverse individuals and groups, skills in fostering knowledge creation and sharing, and the ability to engage with others in coherence amidst multiple innovations” (p. 35). When cultivating resiliency in their schools, school leaders should zero in on the action of building relationships with staff members and on requiring them to demonstrate caring with all students. Resiliency also relies on leaders to hold teachers accountable for engaging their students and becoming classroom innovators.

In the words of Bolman and Deal (1995) and their book Leading with Soul, “leading is giving. Leadership is an ethic, a gift of oneself. It is easy to miss the depth
and power of this message” (p. 102). According to Bolman and Deal, leadership is not merely visions of excellence or positive change. It is the “gift of self” that becomes reciprocal the more it is set into action (p. 102). The gift of love is also essential for leading with soul, which these authors define as a willingness to be caring, vulnerable, and respectful. The gift of power engages others in working towards a common goal or cause and possibly disempowering oneself as the leader to raise the influence of others. The final gift of significance serves leaders well because it provides “a coherent sense of meaning” (p. 109). This significance is built through symbolic forms such as ceremonies and stories. As Bolman and Deal (1995) so poetically state, “when ritual and ceremony are authentic and attuned, they fire the imagination, evoke insight, and touch the heart” (p. 111). The affect of the heart and the ethic of caring are essential for leaders to embrace and develop if they truly feel the urgency to narrow achievement gaps for their disenfranchised students.

**Influencing Future Educational Policies**

During our current uncertain economic times, it is more important than ever to become targeted with the dwindling resources in our nation’s schools. The pressure of our accountability systems makes it imperative for administrators and educators to do more to increase student outcomes with fewer resources. When students are successful, they contribute to a greater degree to society and the economy. Well educated youth blaze trails while those with lower amounts of resiliency go down a different and more uncertain path. Policies that seek to support the development of resiliency in our schools increase the “adaptive capacities” of our students (Brennan,
2008, p. 56). Investing in our youth has been shown to develop their capacities to serve as organizational and community leaders (Brennan, 2006; Nitzberg, 2005, as cited in Brennan, 2008, p. 56).

In order to influence the development of sound educational policies that center on youth resiliency, educational leaders must build and improve support structures of a social nature. Policies that focus on establishing student social networks, improved student engagement in schools, adult-student partnerships, and other mentoring programs will improve the outcomes of at-risk students as demonstrated by the aforementioned thorough review of recent peer reviewed literature (Chapter 2). Brennan (2008) feels that by linking together these support structures and programs, the result would be the enhancement of their effectiveness and a contribution to “wider community resiliency” (p. 61). Students need to be empowered to contribute to the school and local communities. This improved local and community engagement will increase student connectedness and allow them more input in decision-making, problem solving, and action oriented reform (p. 61). Leader advocacy for the engagement and connectedness of at-risk students can become a beacon of hope in our sometimes bleak outlook that can become more deficit oriented than strengths-based or solution oriented.

Impact on Informed Decision Making

The researcher’s study provides an exceptional model for using student perceptions to shape school improvement and to drive improved student language arts outcomes. Leaders should seek out the perceptions of their students with tenacity and
purpose. The collection of quantitative data on student perceptions of caring relationships with adults and their engagement in the classroom can be combined with qualitative observational data. This data collection should occur with the goal of identifying evidence of classroom strategies and supports that build student resiliency. The collection would also serve to identify supports that were not frequently present for the purpose of targeted professional development and improved instructional approaches.

In “Developing Resiliency,” Drake (2008) urges educators to use the conclusions from many years of resiliency research to make informed decisions in their classrooms. These decisions will connect all students to the learning process and improve their engagement. Teachers actively listen to children and accept their messages without judging them. They also need to believe in the “worth of every child” and highlight his or her strengths (p. 29). These strengths then become the foundation for future achievement. Students should experience a sense of ownership by being asked to fulfill classroom responsibilities according to their unique skill set (p. 29). When teachers encourage students to take risks, students see their mistakes as learning opportunities rather than road blocks. Students who experience these supports in schools will be able to bounce back quickly from adversity.

Recommendations for Further Study

Masten (2001) stated that “the new frontier” of resiliency research must seek to understand resiliency from many levels, including the further study of adult-child relationships and how individuals interacts with “the systems in which it is embedded”
The important influence of schools on a child’s development and resiliency should not be overlooked when studying protective factors and their relationship to student success. Longitudinal studies can strengthen research conclusions about resiliency if student success can be demonstrated at multiple benchmarks over time. The seminal work of Werner and Smith (1989) showed how powerful the reduction of risk through resiliency can be. If a large longitudinal study cannot be completed, the presence of multiple data measurements during a school year “would enable more careful analysis of change across time” (Hamre & Pianta, 2005, p. 963).

The causal nature of the test score variability that was demonstrated by the researcher’s study should be investigated further. The regression made it difficult to conclude the directionality of the relationship between resiliency and outcome variables. Further studies can combine student and teacher data sources to better triangulate the data and its conclusions. Multiple data sources would also serve to provide information about the validity of perceived or observed measures of the resiliency protective factors.

Future studies on the impact of caring relationships, teacher expectations, and student engagement on student outcomes should involve samples which include a larger percentage of at-risk students. Studies from high poverty or more highly diverse schools could offer further data and conclusions on the impact of resiliency on student achievement. “Research with higher risk samples could provide more information on the protective effects” of adult-student relationships for those students who are at-risk for lower test scores (O’Connor & McCartney, 2007, p. 364). In addition, future
studies should shed some more specific light on the impact of relational classroom processes on student achievement. They should also investigate other dynamics of motivation to further explain the role engagement has in student resilience and academic success (Skinner, Furrer, Marchand, & Kindermann, 2008, p. 779). Brophy (2008) stated that the study of engagement should include tools for processing information and making efficient decisions (p. 140). Brophy feels the future of research on the protective factor of engagement should possess “rich examples” of what it means “to scaffold students’ learning experiences in ways that help them appreciate the value of what they are learning” (p. 40).

Reflection on the Qualitative Research Process

Focus group interviews have been used in the academic arena over the past 20 years (Cheng, 2007, p. 194). In these interviews, the researcher was able to converse with students in a comfortable way and gleaned more specific information about student perceptions of school supports. The qualitative process for the researcher’s study gave voice to the students’ perceptions of their relationships with adults, adult expectations for learning, and the level of their school and classroom engagement. The researcher was able to obtain more specific and narrative data on the protective factors. Students stated what resiliency looked like and felt in the context of their relationships with caring adults and their meaningful participation in the classroom. In the larger scope of social science research, qualitative research allows researchers to be inductively subjective in diverse contexts. The phenomena that are being investigated are better understood using multiple research approaches.
Without the qualitative approach used in the study, the student perceptions would be limited to the Likert-scale which the quantitative survey was based on. The qualitative focus group interviews enriched the quantitative data. Students were able to provide examples of caring relationships and student engagement that were not bound by predetermined responses. The involvement of thirty-six interviewees provided varied and diverse perspectives. Without these lenses, the researcher’s study and its conclusions would not be as informed or specific.

Conclusion

We all remember teachers that touched our lives. These teachers cared about us, had high expectations for our success, and engaged us actively in the learning process every minute of every instructional day. They respected our uniqueness, talents, and interests. We were visible while others were invisible or left behind.

History books and memoirs are full of examples of caring teachers who have touched the lives of their students. Anne Sullivan believed that Helen Keller could read and write even though she was deaf and blind (Lumpkin, 2007, p. 158). Jaime Escalante helped students of poverty in East Los Angeles achieve remarkable levels of success in math because he “refused to accept the prevailing attitude that these youth could not overcome past educational deprivations” (p. 158).

The researcher strongly feels that being a transformational teacher and leader requires a different type of engagement. Educators, leaders, and policy makers must be engaged in the continuous improvement of our schools and classrooms. This level of engagement means zero tolerance for achievement gaps. It means courageously
requiring all who work with our youth to establish connections with and engage all students, especially those at-risk of school failure or who have become polarized by risk and adversity. Teachers who engage their students in the learning process do so through active student involvement. Students are not only hearing and seeing learning happen. They are doing the learning with their peers with the teacher as their facilitator. Actively involved students process new content by working with their peers through problem based inquiries and real world applications.

The protective factors of resiliency in the lives of vulnerable children increase the odds of those children overcoming adverse life experiences (Katz, 1997, p. 49). The talents of students who overcome high levels of risk are showcased and valued so they can develop a sense of mastery and success. Students become resilient and more academically successful when they feel that they really matter. Resilient students’ contributions are seen as crucial to collectively understanding content objectives.

In facing life’s challenges, there is no greater resource than schools for “protecting, nourishing, and stimulating children raised under conditions of severe adversity” (Katz, 1997, p. 96). Schools and the professionals within them have the often unharnessed power to nourish students’ talents, intervene where students are vulnerable, enhance the interpersonal skills that are necessary for strong caring relationships to develop, and “permanently alter the developmental trajectories of children” (p. 96). Schools that offer greater protective possibilities have been shown to house higher levels of achievement than less protective schools whose students were exposed to the same environmental and societal risks. The researcher has
demonstrated that when students have strong supportive relationships with adults at school and are meaningful contributors to classroom learning, their supports explain language arts test score increases.

The protective factors of resiliency can provide turning point experiences for the most at-risk student subgroups. Turning points occur when an environment and the people who work within it recognize a child’s strengths and talents and therefore open up new opportunities for that child (Katz, 1997, p. 152). Children need leaders and educators who are driven by a sense of hope and are energized into action by the opportunity of turning point experiences for their students. Conditions and circumstances of risk can be insurmountable for young children as they continually fail year after year. However, “new sources of protection, strength, and understanding” will propel them over treacherous mountains of adversity (p. 153). The researcher’s study has demonstrated clearly that the protective possibilities of caring adult relationships and student engagement are those sources of protection that indeed make a difference in the language arts outcomes of students. The researcher concludes the study with a call to action for educators, leaders, and policymakers. That action is the creation of turning points for all students despite their levels of risk. The researcher will conclude this work with a poem by Myra B. Welch (1993) that powerfully conveys the incredible hope and transformative power that lie within a turning point for a child (p. 158).
‘Twas battered and scarred, and the auctioneer

    Thought it scarcely worth his while

    To waste much time on the old violin,

    But held it up with a smile.

‘What am I bidden, good folks,’ he cried.

    ‘Who’ll start the bidding for me?

A dollar, a dollar,’ then, two! Only two?

    ‘Two dollars, and who’ll make it three?

Three dollars once; three dollars, twice;

    Going for three…’ But no,

From the room, far back, a grey-haired man

    Came forward and picked up the bow;

Then, wiping the dust from the old violin,

    And tightening the loose strings,

He played a melody pure and sweet

    As a caroling angel sings.

The music ceased, and the auctioneer,

    With a voice that was quiet and low,

Said: ‘What am I bid for the old violin?’

    And he held it up with the bow.

‘A thousand dollars, and who’ll make it two?
Two thousand! And who’ll make it three?

Three thousand, once; three thousand, twice

And going and gone,’ said he.

The people cheered, but some of them cried,

‘We do not quite understand

What changed its worth?’ Swift came the reply:

‘The touch of a master’s hand.’

And many a man with life out of tune,

And battered and scarred with sin,

Is auctioned cheap to the thoughtless crowd,

Much like the old violin.

A ‘mess of potage,’ glass of wine;

A game—and he travels on.

He is ‘going’ once, and ‘going’ twice,

He’s ‘going’ and almost ‘gone.’
But the Master comes and the foolish crowd

Never can quite understand

The worth of a soul and the change that’s wrought

By the touch of the Master’s hand.

(Welch, 1993 as cited in Katz, 1997, p’s. 159-160)
APPENDIX A

Quantitative Likert Scale Survey
Please read the following directions to your students out loud.

Dear 123 Elementary Student

Thank you for completing this survey. The purpose of it is to look at how adults treat you and work with you in the classroom and at school. I want to see if these things are related to how you do on tests. Although your name is on this survey, I will not type your name when I am entering your answers into the computer so please be honest.

Please circle one answer for each question about your experiences at Blue Oaks Elementary School.

Thank you for participating. (some questions used with the permission of WestEd)

<table>
<thead>
<tr>
<th>Gender</th>
<th>Grade Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boy</td>
<td>4th</td>
</tr>
<tr>
<td>or</td>
<td>5th</td>
</tr>
<tr>
<td>Girl</td>
<td></td>
</tr>
</tbody>
</table>

Caring Relationships

1. I feel close to teachers and other grown-ups at this school.

<table>
<thead>
<tr>
<th>Not True At All</th>
<th>A Little True</th>
<th>Pretty Much True</th>
<th>Very Much True</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

2. At this school, teachers and other grown-ups listen to me when I have something to say.

<table>
<thead>
<tr>
<th>Not True At All</th>
<th>A Little True</th>
<th>Pretty Much True</th>
<th>Very Much True</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

3. The teachers and other grown-ups at this school treat students fairly.

<table>
<thead>
<tr>
<th>Not True At All</th>
<th>A Little True</th>
<th>Pretty Much True</th>
<th>Very Much True</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

4. Students get along well with teachers and other grown-ups at this school.

<table>
<thead>
<tr>
<th>Not True At All</th>
<th>A Little True</th>
<th>Pretty Much True</th>
<th>Very Much True</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

5. The teachers and other grown-ups at this school care about me.

<table>
<thead>
<tr>
<th>Not True At All</th>
<th>A Little True</th>
<th>Pretty Much True</th>
<th>Very Much True</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

6. Teachers and other grown-ups at this school use humor, smiles, or laughter with me.

<table>
<thead>
<tr>
<th>Not True At All</th>
<th>A Little True</th>
<th>Pretty Much True</th>
<th>Very Much True</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

7. Teachers and other grown-ups at this school are interested in what I do at home or outside of school.

<table>
<thead>
<tr>
<th>Not True At All</th>
<th>A Little True</th>
<th>Pretty Much True</th>
<th>Very Much True</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

8. When I need help with what I am learning about, teachers and other grown-ups at this school help me.

<table>
<thead>
<tr>
<th>Not True At All</th>
<th>A Little True</th>
<th>Pretty Much True</th>
<th>Very Much True</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

9. Teachers and other grown-ups at this school care about things that bother me.

<table>
<thead>
<tr>
<th>Not True At All</th>
<th>A Little True</th>
<th>Pretty Much True</th>
<th>Very Much True</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
10. At this school, teachers and other grown-ups tell me when I do a good job.

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not True At All</td>
<td>A Little True</td>
<td>Pretty Much True</td>
<td>Very Much True</td>
</tr>
</tbody>
</table>

11. Teachers and other grown-ups at this school notice when I am not at school.

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not True At All</td>
<td>A Little True</td>
<td>Pretty Much True</td>
<td>Very Much True</td>
</tr>
</tbody>
</table>

### High Expectations

1. Teachers and other grown-ups at this school tell me to never give up.

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not True At All</td>
<td>A Little True</td>
<td>Pretty Much True</td>
<td>Very Much True</td>
</tr>
</tbody>
</table>

2. Teachers and other grown-ups at this school believe I will be successful.

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not True At All</td>
<td>A Little True</td>
<td>Pretty Much True</td>
<td>Very Much True</td>
</tr>
</tbody>
</table>

3. Teachers and other grown-ups at this school want me to do my best.

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not True At All</td>
<td>A Little True</td>
<td>Pretty Much True</td>
<td>Very Much True</td>
</tr>
</tbody>
</table>

4. Teachers and other grown-ups at this school believe that I can do a good job.

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not True At All</td>
<td>A Little True</td>
<td>Pretty Much True</td>
<td>Very Much True</td>
</tr>
</tbody>
</table>

5. Teachers and other grown-ups at this school ask me follow up questions when I say the wrong answer.

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not True At All</td>
<td>A Little True</td>
<td>Pretty Much True</td>
<td>Very Much True</td>
</tr>
</tbody>
</table>

6. Teachers and other grown-ups at this school show that they respect me.

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not True At All</td>
<td>A Little True</td>
<td>Pretty Much True</td>
<td>Very Much True</td>
</tr>
</tbody>
</table>

### Meaningful Participation

1. I have many opportunities to make decisions at this school.

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not True At All</td>
<td>A Little True</td>
<td>Pretty Much True</td>
<td>Very Much True</td>
</tr>
</tbody>
</table>

2. I do activities at this school that are interesting.

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not True At All</td>
<td>A Little True</td>
<td>Pretty Much True</td>
<td>Very Much True</td>
</tr>
</tbody>
</table>

3. I do things at this school that make a difference.

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not True At All</td>
<td>A Little True</td>
<td>Pretty Much True</td>
<td>Very Much True</td>
</tr>
</tbody>
</table>
4. I feel like I like I am a part of this school.  

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not True At All</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A Little True</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pretty Much True</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Very Much True</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5. I participate in school programs, activities, or clubs here before or after school.  

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not True At All</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A Little True</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pretty Much True</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Very Much True</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6. I am given time in class to work with other students in small groups.  

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not True At All</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A Little True</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pretty Much True</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Very Much True</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

7. I am given time to write about what I am learning.  

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not True At All</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A Little True</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pretty Much True</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Very Much True</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8. I am given a chance to respond to teacher questions on a regular basis.  

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not True At All</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A Little True</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pretty Much True</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Very Much True</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

9. I am given opportunities to talk about my life at home.  

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not True At All</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A Little True</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pretty Much True</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Very Much True</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX B

Focus Group Interview Questions
Focus Group Interview Questions

Caring Relationships

1. What causes students to get along well with teachers and other grown-ups at this school?
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________

2. What causes students to not get along well with teachers and other grown-ups at this school?
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________

3. Who are the adults at this school who you feel the closest to?
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________

4. Do teachers and other grown-ups at this school show they care about you? How do they show you that they care?
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
5. Do teachers and other grown-ups at this school care about things that bother you? If so, please give an example of when this happened.

__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________

6. When you are not at school (sick, absent), do teachers and other grown-ups at this school notice?

How do they show you that they noticed?

__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________

Expectations

7. Do teachers and other grown-ups at this school tell you to never give up? What do they mean when they say this?

__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
8. Do you feel that teachers and other grown-ups at this school want you to do your best? If so, what do they say or do to make you feel this way?

__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________

Meaningful Participation

9. Do you feel like you are a part of this school? If so, how do the adults and other grown-ups make you feel this way?

__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________

10. Are you given time in class to work with other students in small groups? During the day, when do you work with small groups the most? The least?

__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
APPENDIX C

Quantitative Survey Categorization of Student Responses by Question
Table 21

Quantitative Survey Categorization of Student Responses by Question

<table>
<thead>
<tr>
<th>Questions Where the Majority of Students Noted Very Much True on the Survey</th>
<th>Questions Where the Majority of Students Noted Not True At All, A Little True, or Pretty Much True</th>
</tr>
</thead>
<tbody>
<tr>
<td>The teachers and other grown-ups at this school care about me.</td>
<td>I feel close to teachers and other grown-ups at this school.</td>
</tr>
<tr>
<td>When I need help with what I am learning about, teachers and other grown-ups at this school help me.</td>
<td>At this school, teachers and other grown-ups listen to me when I have something to say.</td>
</tr>
<tr>
<td>At this school, teachers and other grown-ups tell me when I do a good job.</td>
<td>The teachers and other grown-ups at this school treat students fairly.</td>
</tr>
<tr>
<td>Teachers and other grown-ups at this school notice when I am not at school.</td>
<td>Students get along well with teachers and other grown-ups at this school.</td>
</tr>
<tr>
<td>Teachers and other grown-ups at this school believe I will be successful.</td>
<td>Teachers and other grown-ups at this school use humor, smiles, or laughter with me.</td>
</tr>
<tr>
<td>Teachers and other grown-ups at this school want me to do my best.</td>
<td>Teachers and other grown-ups at this school are interested in what I do at home or outside of school.</td>
</tr>
<tr>
<td>Teachers and other grown-ups at this school believe that I can do a good job.</td>
<td>Teachers and other grown-ups at this school care about things that bother me.</td>
</tr>
<tr>
<td>I do things at this school that make a difference.</td>
<td>Teachers and other grown-ups at this school tell me to never give up.</td>
</tr>
<tr>
<td>I am given a chance to respond to teacher questions on a regular basis.</td>
<td>Teachers and other grown-ups at this school ask me follow up questions when I say the wrong answer.</td>
</tr>
<tr>
<td></td>
<td>I have many opportunities to make decisions at this school.</td>
</tr>
<tr>
<td></td>
<td>I do activities at this school that are interesting.</td>
</tr>
<tr>
<td></td>
<td>I do things at this school that make a difference.</td>
</tr>
<tr>
<td></td>
<td>I participate in school programs, activities, or clubs here before or after school.</td>
</tr>
<tr>
<td></td>
<td>I am given time in class to work with other students in small groups.</td>
</tr>
<tr>
<td></td>
<td>I am given time to write about what I am learning.</td>
</tr>
<tr>
<td></td>
<td>I am given opportunities to talk about my life at home.</td>
</tr>
</tbody>
</table>
APPENDIX D

Linear Regression: Significance of Individual Variables
Table 22

Linear Regression: Language Arts Scaled Scores

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>95% Confidence Interval for B</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>(Constant)</td>
<td>412.122</td>
<td>20.601</td>
</tr>
<tr>
<td>Adults care about me</td>
<td>22.542*</td>
<td>10.117</td>
</tr>
<tr>
<td>Adults listen to me</td>
<td>-13.120</td>
<td>9.556</td>
</tr>
<tr>
<td>Adults treat me fairly</td>
<td>10.177</td>
<td>8.342</td>
</tr>
<tr>
<td>I get along with adults</td>
<td>1.631</td>
<td>9.832</td>
</tr>
<tr>
<td>Adults use humor</td>
<td>-4.337</td>
<td>9.027</td>
</tr>
<tr>
<td>Adults help me</td>
<td>5.089</td>
<td>9.663</td>
</tr>
<tr>
<td>Adults care about things that both me</td>
<td>14.177</td>
<td>10.004</td>
</tr>
<tr>
<td>Adults believe I can do a good job</td>
<td>-4.263</td>
<td>8.702</td>
</tr>
<tr>
<td>Adults notice when I am absent</td>
<td>14.134*</td>
<td>8.283</td>
</tr>
<tr>
<td>Adults tell me to never give up</td>
<td>-3.507</td>
<td>8.325</td>
</tr>
<tr>
<td>Adults believe I will be successful</td>
<td>-.377</td>
<td>9.353</td>
</tr>
<tr>
<td>Adults tell me to do my best</td>
<td>12.855</td>
<td>-0.008</td>
</tr>
<tr>
<td>Adults believe I can do a good job</td>
<td>-5.047</td>
<td>10.837</td>
</tr>
<tr>
<td></td>
<td>Adults ask me to follow up questions</td>
<td>Adults respect me</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>-------------------------------------</td>
<td>------------------</td>
</tr>
<tr>
<td></td>
<td>Intercept</td>
<td>1 Year</td>
</tr>
<tr>
<td>--------------------------</td>
<td>-----------</td>
<td>--------</td>
</tr>
<tr>
<td>Hispanic</td>
<td>-15.351</td>
<td>15.341</td>
</tr>
<tr>
<td>English Learner</td>
<td>-22.733</td>
<td>21.259</td>
</tr>
<tr>
<td>Special Education</td>
<td>-49.460*</td>
<td>13.731</td>
</tr>
<tr>
<td>ABC Elementary</td>
<td>-.460</td>
<td>9.027</td>
</tr>
</tbody>
</table>

* Only these regression coefficients are statistically significant from zero with 90% confidence. The researcher can be 90% confident that the indicated direction of effect is as noted in the table.
APPENDIX E

Human Subjects Approval
April 13, 2010

To: Gabriel H. Simon, Doctoral Candidate
   Educational Leadership & Policy Studies
   College of Education

From: Maria Dinis, Chair
   Committee for the Protection of Human Subjects

Re: Protocol 09-10-094 (Mar)

"The Impact of Environmental Protective Factors on the Academic Achievement of 4th and 5th Grade Students as Measured by the California Standards Test"

The Committee for the Protection of Human Subjects conditionally approved your application as "Minimal Risk" at its March 15, 2010 meeting. With the additional materials you have provided your project is now approved as Minimal Risk.

This IRB approval is with the understanding that you will promptly inform the Committee if any adverse reaction should occur while conducting your research (see "Unanticipated Risks" in the CPHS Policy Manual). Adverse reactions include but are not limited to bodily harm, psychological trauma, and the release of potentially damaging personal information.

The approval applies to the research as described in your application. If you wish to make any changes with regard to participants, materials, or procedures, you will need to request a modification of the protocol. For information about doing this, see "Requests for Modification" in the CPHS Policy Manual.

Your approval expires on April 30, 2011. If you wish to collect additional data after that time, you will need to request an extension for the research. For additional information, see "Requests for Extension" in the CPHS Policy Manual.

If you have any questions, please contact me at 278-7161 or the Office of Research Administration at 278-7924. Thank you.
REFERENCES


doi:10.1037/0893-3200.19.2.294


Retrieved from Education Full Text database


Retrieved from ERIC database


WestEd. (2004). *How are student health risks & resilience related to the academic progress of schools?* San Francisco: T. L. Hanson, G. Austin, & J. Lee-Bayha.


