Accountability models for alternative schools

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ACCOUNTABILITY MODELS FOR ALTERNATIVE SCHOOLS

A Dissertation

Submitted to the Graduate Faculty of the
Louisiana State University and
Agricultural and Mechanical College
in partial fulfillment of the
requirements for the degree of
Doctor of Philosophy

in

The Department of Education Theory, Policy & Practice

by

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ABSTRACT

Using historical test data from the standardized testing program (LEAP, iLEAP) in the state of Louisiana, this sequential mixed methods study utilized hierarchical linear modeling (HLM) and a logistic regression method to test alternate measures of school performance (student achievement model, growth model, and transition to 9th grade) applied to alternative middle schools serving students who are academically behind. These schools are defined as those serving students who have not yet been able to transition to high school due to grade retention and are substantially older than their grade peers (Aron, 2003). The quantitative study sample included both students attending alternative middle schools of this type in Louisiana and a comparison group of overage middle schools students attending a regular school within the same districts. The quantitative study was followed by an evaluative study of three of the alternative schools determined to be successful using those alternate measures, and utilizing a client-centered model. From the results of this research study, a multiple measure accountability plan for alternative schools is suggested.
CHAPTER 1. INTRODUCTION

Since the passage of the No Child Left Behind Act of 2001 (NCLB), state and local educational policy makers have faced many challenges to implement the accountability program mandated by this federal law. Millions of dollars in funding for education for successful districts and schools ride on the results of mandated standardized student achievement tests (McCabe, 2006). On the opposite end of the performance continuum, the accountability plans of many states include high stakes policies of grade retention of students and sanctions placed on schools.

State and local school districts adopting the policies of student retention and school takeover based on accountability testing are often seen as more credible by taxpayers and, consequently, garner more support by the public and policy-makers (Bali, Anagnostopoulos, & Roberts, 2005; Linn, 2000; McGill-Franzen & Allington, 1993). However, a consequence of these high stakes testing policies can be increasing numbers of students that fail to thrive in a system that holds them back from mainstream educational progress.

One answer to the problem of overage students in traditional school settings has been the creation of alternative schools to meet the needs of these students who are academically behind their peers (Lehr, Tan, & Ysseldyke, 2009, p. 19). The students in these schools are often members of ethnic minorities, living in poverty in declining urban neighborhoods that are traditionally underserved by the educational system (Kim & Taylor, 2008; Kleiner, Porch, & Farris, 2002). While there is wide variability in these alternative schools, many have been shown to be successful in remediating overage students and giving them the academic and social skills they need to become responsible adults (Aron, 2006; Lange & Sletton, 2002).

A policy change in Louisiana has recently placed alternative education centers into the same accountability system as regular schools (Louisiana Department of Education, 2009f). As a result, these schools populated with overage and underachieving students may face closure or
state takeover due to failure to meet state accountability standards (Louisiana Department of Education, 2009e). The School Performance Score (SPS), issued now to all schools in Louisiana and used to rate their effectiveness, is calculated as a weighted average consisting of 90% of the assessment index based on all standardized test scores in the school, 5% of the rate of attendance, and 5% of the dropout index (Louisiana Department of Education, 2009e). Based upon this score, the schools are placed into successful categories designated by one to five stars, or the school is placed into the failing category of Academically Unacceptable School (AUS) (Louisiana Department of Education, 2009e). Because alternative schools serve students who are academically behind, these schools are frequently placed in the punitive AUS category.

The implications of accountability sanctions for alternative schools and the students who attend them can be severe. Students who are academically challenged, but not necessarily exceptional learners as demonstrated by the demographic information presented in Chapter 4, populate these schools. In a high stakes environment, most of the students are attending the alternative school due to multiple failures on the standardized test that determines promotion. The same achievement test is used to determine school performance, and a school receiving a rating of Academically Unacceptable School (AUS) for four consecutive years is eligible for takeover by the Board of Elementary and Secondary Education (BESE) (Louisiana Department of Education, 2009b).

In the past, the state allowed districts with alternative schools to route the students’ test scores back to their referring school (Louisiana Department of Education, 2009e). This policy protected the alternative schools from negative consequences associated with having a lower SPS than the state performance standard. This policy has been under review since 2008, and remains in that status at last report in July 2010 (Louisiana Department of Education, 2010). If the Louisiana accountability standards are applied to alternative schools, they are more likely to be
considered academically unacceptable than schools with regular education programs. In 2008, for example, of the 11 schools in Louisiana that were under consideration for state takeover, five were alternative schools (Maxwell, 2008).

The State Superintendent of Education sparked a debate concerning the policy that allows alternative schools to route the test scores of its students to the referring school (Louisiana Department of Education, 2009f). The controversy began when the Superintendent targeted the practice of a large, urban school district that routed the scores from both magnet and alternative schools back to the students’ home schools. This action effectively boosted the scores of the home schools with the magnet students’ scores and diluting the poor scores of the students attending alternative schools with those of the regular education students (Bronston, 2008). Bronston also reports that this practice was not contrary to BESE policy.

In February 2009, BESE voted to change the state accountability policy and require that alternative schools (and magnet schools) receive a school performance score (Louisiana Department of Education, 2009f). Shortly thereafter, the Superintendent announced his intention to take control of an alternative school that provides adjudicated students a program for high school credit recovery and a chance to earn a General Education Diploma (GED). This school was rated as an Academically Unacceptable school for four previous years and met the requirements for takeover by the state. The superintendent, with school board support, refused to allow the takeover (Thevenot, Carr, Barrow, & Hayes, 2009) citing the fact that a new set of accountability guidelines for alternative schools was being studied but had not yet been implemented (Landon, 2009).

The state legislator serving the district in which the school is located, authored a bill that exempted the alternative school, and only this school, from state accountability rules (Thevenot, et al., 2009). The bill passed the legislature in the summer of 2009 but was vetoed by the
Governor after the state Superintendent and Superintendent of Schools agreed to a compromise administrative plan (Thevenot, et al., 2009). The school is now operating under both district control and monitoring by the Louisiana Recovery School District (Thevenot, et al., 2009).

The Louisiana School and District Accountability Commission, responsible for making recommendations regarding the accountability system to BESE, has studied school accountability measures for alternative schools with participation of the superintendent of the district and a member of the staff of the alternative school embroiled in the controversy (Louisiana Department of Education, 2009f). According to an August 2009 press release, BESE delayed the release of the accountability scores of all alternative schools in the state in order to “consider the recommendations from the School and District Accountability Commission in regard to changing the evaluation method of alternative schools” (Louisiana Department of Education, 2009f, par. 8). As of July 2010, neither a final decision from BESE nor a recommendation from the School and District Accountability Commission has been made regarding the application of the present accountability rules to alternative schools (Louisiana Department of Education, 2010).

The alternative school is often part of a hidden program for overage students in a district. Within the State Department of Education, the code for alternative schools for students who are academically behind, expulsion schools, discipline centers, academic magnet schools, and any other school with “special programs” is the same, (Personal communication, Adrian Franklin, Louisiana State Department of Education, Education Information Consultant, July 17, 2009) making data specific to those school types difficult to obtain. Many overage students educated in special circumstances are housed in programs within a school rather than in separate schools, and these students’ test scores are mixed for accountability purposes with the regular education students’ scores. The test scores of other students who are required to attend an expulsion center
for a specific period of time (less than a full academic year) for the purpose of removing them from the regular school population are also returned to their home school. Only the alternative schools that house these overage students for the duration of the school year are required to keep the scores of the students they educate for accountability purposes (Louisiana Department of Education, 2009e).

Other states have implemented alternative accountability assessments for their alternative schools. These assessments include indicators of success in addition to student achievement tests. A summary of the available information on these assessments is found in Table 1.1. In addition, the state of Washington has proposed a criterion-based method for evaluation of alternative schools (Bylsma, 2009).

### Table 1.1
Summary of state accountability systems for alternative schools

<table>
<thead>
<tr>
<th>State</th>
<th>Type of assessment</th>
<th>Summary</th>
<th>Year</th>
<th>Citation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kentucky</td>
<td>Standards-based</td>
<td>3 domains, 58 standards</td>
<td>2001</td>
<td>(Swarts, 2004)</td>
</tr>
<tr>
<td>California</td>
<td>Performance-based</td>
<td>Schools choose three indicators from state-approved list</td>
<td>2000; modified in 2003</td>
<td>(California Department of Education, 2009)</td>
</tr>
<tr>
<td>Florida</td>
<td>Standards-based and performance-based combination</td>
<td>Schools self-evaluate on six standards; assessment includes measureable indicators of student achievement</td>
<td>1999</td>
<td>(Florida Department of Education, 2002)</td>
</tr>
<tr>
<td>North Carolina</td>
<td>Performance-based</td>
<td>Three indicators based on test scores and three locally-chosen indicators from state-approved list</td>
<td>1999</td>
<td>(North Carolina State Board of Education, 2009)</td>
</tr>
<tr>
<td>Texas</td>
<td>Performance-based</td>
<td>Use of base indicators plus school choice of indicators in four domains</td>
<td>1996; redesigned in 2005</td>
<td>(Texas Education Agency, 2009)</td>
</tr>
</tbody>
</table>

The interest in this study was sparked as a result of the recent changes in accountability policies within the alternative school where the researcher worked in a mathematics intervention
program. Originally, the school did not receive a school performance score tied to student test results since these students’ test scores were routed back to their home schools. After a change in state and district policy, this alternative school along with others in the state, was placed under the Louisiana school accountability system, and along with the sanctions that go along with first-year unacceptable status (AUS1), federal Title I funding followed. The district, at the end of the 2009-2010 school year, closed the alternative middle school program at this school.

As a result of the change in accountability policy for the alternative schools, these institutions face serious sanctions for their status as academically unacceptable schools. With recent test scores used as the baseline for accountability, and with little hope of improvement to the ever-increasing level of acceptability, all of these schools could face the possibility of state takeover by the fall of 2014 if the adoption of alternate measures of school performance for alternative schools does not take place. Within the same timeframe, it is also an option for the state or the district to reconstitute these schools as regular education programs, or for the district to close them when faced with a loss of the use of their facilities. If the alternative middle schools that provide intensive educational interventions designed to allow grade recovery for overage students are closed due to accountability failure, there may be few programs available to assist them.

High stakes testing for students in Louisiana can have an enormous impact. Students are retained in 4th grade and again in 8th grade if they are unable to pass the state standardized tests in mathematics and English/language arts. In addition to standardized testing leading to student retention, it is not uncommon for slower maturing students to be retained in first grade to allow them the time they need to catch up developmentally with their peers. For example, in the 2007-2008 school year, 9.6% of first-graders were retained in Louisiana (Louisiana Department of Education, 2008b) This practice creates a population of students who are overage by two to
three years if they are retained in 4th grade due to failure on the state LEAP test (14.1% of fourth-graders in 2007-2008) (LaDOE, 2009b). Clarke, Haney, and Madaus (2000) demonstrated that these students are more likely to drop out of school with a reported 4% to 6% higher rate of early exit from the school system for all students in the states that require passing one or more high states minimum competency tests before 8th grade, and a rate of dropout 10% to 12% higher for minority students (African-American and Hispanic) within the same states. In addition, it was found that for those students who had been retained in grade at some point during the middle grades (4th – 8th), there was a decline of 33% in participation in postsecondary education within the group of students who eventually graduated high school over those students who had not been retained or had been retained in an earlier grade (Ou & Reynolds, 2010).

There is a system whereby students who have been retained in 4th grade can be promoted after two years. This system is similar to social promotion, but it creates a population of 12-year and 13-year old 5th graders nonetheless. These students are essentially sandwiched between high stakes tests. They must meet a minimum standard on an 8th grade standardized test in ELA and mathematics in order to be promoted to 9th grade. Without some sort of academic intervention, one being the alternative education programs of interest in this study, these students can quickly become 16 and 17 year-old 8th graders. Early exit of the educational system, dropping out, is often the outcome.

Interest in this study was deepened from the personal experience of meeting some former students of one alternative school who returned to visit their former teachers. These students related their success in their work (one in particular owned his own company), and as students in local colleges (one studying mechanical engineering at a large four-year university) or vocational training programs. Whereas these stories are anecdotal and are not reliable data for a scientific study, the impact of that school on the lives of these young adults appears to be a positive one.
It is with these concerns that this study was undertaken. Its purpose is to investigate more sophisticated models of assessing and measuring school performance that could be applied to alternative schools and to assess the factors that influence their success. In addition, the study includes an investigation of the school effects on the achievement of overage students attending regular schools vs. alternative schools in order to assess the educational progress of students in both settings.

1.1 Research Problem

The Louisiana model of accountability as it is currently implemented is inadequate when applied to alternative schools with their specialized population of students. First, their small size, a prevailing characteristic of alternative schools found in the literature (Aron, 2006; Lange & Sletton, 2002; Lehr, et al., 2009), makes the conventional proficiency model of accountability particularly volatile (Raudenbush, 2004a). A second limitation of the current accountability model when applied to alternative schools lies in the overall academic weaknesses of the population of students who traditionally attend such schools. Students come to the alternative school serving students who are academically behind with the need for specialized academic interventions and a program that allows them to recover lost years of schooling (Louisiana Department of Education, 2009e). This type of alternative school seeks to remediate and accelerate students who are two to three years behind in grade compared to their age-peers (Aron, 2003). The likelihood of this population of at-risk students achieving the state-mandated measures of success, that of proficient scores on standardized criterion-referenced tests, can be very low.

In an effort to discover a more robust and reliable measure of school performance for alternative education centers with specialized programs for students who are academically behind their age peers, three statistical models were tested to predict student success. These
three accountability models were (1) a value-added model of achievement on standardized tests, (2) growth on standardized tests over time, and (3) student transition from middle school to high school. The educational effects of alternative schools serving students who are academically behind were compared to those of overage students attending regular schools using the state standardized test results.

In addition to testing a quantitative model of accountability for these schools, this study includes a qualitative phase that seeks to identify some of the factors that can be found in successful alternative schools identified using the best-fit statistical model from the previous phase. Researchers have commented on the lack of rigorous and methodologically sound evaluation studies of alternative schools (Aron, 2006; Lange & Sletton, 2002; C. A. Lehr & C. M. Lange, 2003; Lehr, et al., 2009). This research was conducted using the methods of a quasi-experimental, comparative, and mixed methods evaluative study, the results of which will provide the body of literature valuable information on successful alternative schools.

1.2 Purpose

The purpose of the quantitative study was to investigate the differences that may be found in student achievement between overage students in alternative schools vs. regular schools, and to make use of hierarchical linear models (HLM) to measure the success of alternative middle schools for students who are academically behind in Louisiana. In a typical 2-level model used for organizational studies, the random-coefficient parameter of the Level 1 regression equation used to model the academic achievement of an individual student is taken to Level-2 to estimate the organizational effects, in this case the alternative or regular middle school, on the set of these individuals, overage middle school students, modeled in Level 1 (Raudenbush & Bryk, 2002). These statistical procedures, if found to be reliable and robust measures of school performance, could provide a methodological framework that may better inform policy-makers of the academic status of the students attending the alternative schools. The
research study was designed to use the readily available students’ performance data from the standardized testing program presently implemented in the state of Louisiana to explore the use of these three statistical procedures to measure school performance applied to alternative middle schools serving students who are academically behind.

The first model included in this study employed a hierarchical linear model using student characteristics in the first (structural) level and school characteristics in the second (probabilistic) level to predict student achievement in mathematics and English/language arts (ELA) on the standardized tests administered yearly to all 3rd through 9th grade students in the state. This model allowed the researcher to determine the effect of the alternative school on the achievement of the students attending the school as a value-added estimate. The second model added the estimated mean growth trajectory of a school using a hierarchical linear growth model to fit student achievement data in math and English/language arts. The third method of measuring school performance in this study employed a logistic regression model to determine the effects of school type on the ability of students in alternative schools to transition to high school as compared to overage students in a regular education program. These models will be discussed in more detail in the methodology chapter. If shown to be effective measures of school effects, these statistical models could potentially constitute the foundation of an alternative measure for determining school performance for alternative schools in Louisiana. States with existing accountability programs for alternative schools could incorporate these models of school performance into their accountability plans.

Applying the lens of a practitioner, a brief qualitative case study of three alternative schools that were found to have a measure of school effect in the top one-third of these schools was undertaken. The purpose of this portion of the study was to identify some of the factors that
may contribute to the success of these alternative schools, thus adding to the body of literature on the subject.

1.3 Research Questions

This sequential, explanatory mixed-methods study was guided by the following research questions:

1. Are there significant differences in student achievement in mathematics and ELA for students attending alternative schools serving students who are academically behind and a comparison group of overage students attending regular schools?

2. What are the differences in the measurable school effects on overage students attending alternative middle schools serving students who are academically behind as calculated using hierarchical linear or logistic models of:
   a. Student achievement in mathematics and ELA;
   b. Growth of student achievement in mathematics and ELA; and
   c. Transition to high school?

3. In what ways do successful (as defined by a school effect size in the top one-third of participating schools) alternative middle schools serving students who are academically behind support student learning through:
   a. Providing equitable opportunities for students to learn?
   b. Demonstrating responsiveness to the needs of students, parents, and the community?
   c. Developing and prioritizing instructional goals, monitoring those goals, and reporting its findings to its primary clients, the parents, students, and community?

1.4 Context and Setting

The task of defining an alternative school has been the subject of many studies in academic literature. In the most recent review of the literature on alternative schools Lehr, Tan,
and Ysseldyke (2009, p. 19) stated that a general consensus among authors is that the main purpose of alternative schools is “to serve students at risk for academic failure within the traditional school system.” A definition has also been supplied by the U.S. Department of Education (B. Young, 2002, p. 55):

Alternative education school—A public elementary/secondary school that:

1) Addresses needs of students that typically cannot be met in a regular school,

2) Provides nontraditional education,

3) Serves as an adjunct to a regular school, or

4) Falls outside of the categories of regular, special education, or vocational education.

These definitions have narrowed the use of the term alternative school in the literature, but a more clearly defined operational definition must be briefly discussed to clarify the context of this study.

A few typologies of these schools have been proposed in educational research. In one of the first schemes, by Raywid (1994), suggested three types of alternative schools based on the goals of the program: Type I schools are long-term programs focused on students who are dropouts or potential dropouts; Type II schools serve students who are typically removed from the classroom for a short period of time; Type III schools provide a short term, therapeutic program for students with specific social or emotional problems. Aron (2006) suggests that differences in these three types of alternative schools are “beginning to blur as programs use a mix of strategies or address multiple objectives” (p. 5). Raywid (1999) later proposed a different scheme of classification based on the entity that the program is designed to change: 1) Change the student, a type based on the last two of the original categories of schools described above; 2) Change the school, a type that emphasizes the design of the school that fosters positive
results on student behavior and academic achievement; and, 3) Change the system, a more systemic change in the education of students.

Aron (2003) reports on a different focus of a typology, based on the educational needs of the students. This typology was proposed by Melissa Roderick of the University of Chicago during a roundtable discussion held at the Urban Institute in Washington, D.C. In this discussion, Roderick proposed these four types of alternative educational schools and programs based on who is served: 1) students who have behavioral issues that have caused them to become sidetracked in their educational progress; 2) students who have special educational needs due to unstable home situations (homelessness), pregnancy, recent incarcerations, etc.; 3) students who have already left the system or who are much older than their grade-peers who need high school credit recovery in order to be able to enter adult vocational training or community colleges; and, 4) students who have not yet been able to transition to high school due to grade retention and are substantially older than their grade peers. Some of these students might have already gone to high school, but have been able to obtain only a few credits (Aron, 2003).

The schools of interest to this study are of the fourth type proposed by Roderick, and for this research are called alternative schools whose primary mission is to remediate the student academically, accelerate the student in grade, and return him or her to a regular education program. These alternative schools were also defined in the literature as second chance schools that are schools of choice focused on the remediation of students using innovative educational practices (Lange & Sletton, 1995; C. Lehr & C. M. Lange, 2003; Raywid, 1994). They exist primarily as middle or high school programs initiated in response to multiple student failures.

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1This typology is unpublished. The roundtable discussion on alternative education was funded by the C.S. Mott Foundation and held at the Urban Institute in Washington, D.C. on April 16, 2006 (Aron, 2003, p. 13).
These alternative middle schools also serve a population of students who are most likely to drop out before entering high school. Louisiana has defined this type of school as alternative schools serving students who are academically behind. For the remainder of this paper, they will be referenced simply as alternative schools.

In the most recent national survey of alternative education published in 2001, the NCES reported that there were approximately 10,900 public alternative schools serving 612,900 students at risk of failure constituting 1.3% of the total public school enrollment in the United States (Kleiner, et al., 2002). Ninety-nine percent (99%) of these students were placed in these alternative schools for academic and/or behavioral interventions with the goal of returning them to their regular schools (Kleiner, et al., 2002). Of the districts offering alternative education to its students, 46% to 67% reported the presence of middle school programs (grades 6 through 8), and that demand for enrollment in these programs had exceeded capacity at least once in the three reporting years (Kleiner, et al., 2002). In Louisiana, there is a mandate from the state legislature giving the BESE the authority to require that each parish maintain an alternative education program that serves “at-risk public middle and high school students in grades six through twelve” (Louisiana Revised Statute of 2000).

This research study was conducted in a state that has high stakes consequences for students, schools, and districts linked to results of standardized testing. The participants in this study were the students attending alternative middle schools serving students who are academically behind in Louisiana and a comparison group made up of overage students (two to three years behind in grade) who attend a regular school within the same districts. The quantitative data was taken from the historical scores of these students on the existing standardized test administered in the state accountability program.
Some ethics issues are inherent in a study involving minors in an educational setting. Ethical considerations concerning data collection (standardized testing process) in the quantitative phase of the study were already addressed by the state and district school systems. In addition, the researcher is required to go through a review process within the state in order to have access to this archival data. The test scores that comprise the data for the study must necessarily have an identifying number that ties the scores to a particular student. The Louisiana Department of Education, Office of Accountability generated this identifier in a manner in which neither the researcher nor anyone with access to the data for this study can discern any individual student information.

For the qualitative phase, and after review by the Institutional Review Board, permission of the participants and, most importantly, permission of the parents of minor students who were participants in the focus groups were obtained prior to any interviews or focus groups. These focus groups are designed to obtain only the information necessary to judge how the school is serving its clients (parents, students, and community). These steps minimized threats to the education and personal comfort of the participants.

1.5 Significance

This research has the potential for theoretical merit and implications for informing educational policy. It will add to the limited body of literature of quantitative studies of the effects of alternative schools on student performance.² In addition, the study seeks to identify an appropriate statistical model for school effect size for alternative schools using student

² In a previous review of the literature using available databases, this researcher found that of 84 available studies of the effects of alternative schools on students published between 1996 and 2008, only ten studies used quasi-experimental methods with independent and dependent variables reporting sufficient data to calculate an effect size.
performance measures that could become part of a larger accountability model not only for these schools, but also for any small school in which an assessment index based on a standard of proficiency is volatile (Raudenbush, 2004b). The mission of an alternative school is vastly different than that of regular school, but a more sophisticated and reliable model of school performance could be applied to all overage students attending any school as an adjunct to the present system of accountability in Louisiana. The results of the qualitative portion of the study will add to the literature an assessment of the factors of alternative schools that contribute to their success.

This study is timely due to the recent statement by the state Superintendent of Education that all students’ test scores should be retained by the school he or she attends (Sentell, 2009). For freestanding alternative schools, this decision places them in jeopardy of being sanctioned or closed due to traditionally low performance on standardized tests by alternative school students. The reality of this situation and an interest in alternative education not only as a model for remediating failing students, but also for designing more effective traditional schools led this researcher to initiate this project. Raywid also expressed a similar belief (1994):

“Amid all the current talk of restructuring, alternatives are the clearest example we have of what a restructured school might look like. They represent our most definite departure from the programmatic, organizational, and behavioral regularities that inhibit school reform. Moreover, many of the reforms currently pursued in traditional schools—downsizing the high school, pursuing a focus or theme, student and teacher choice, making the school a community, empowering staff, active learner engagement, authentic assessment—are practices that alternative schools pioneered. Given such assets and advantages, why have alternative schools not been more widely adopted?” (p. 26)

If issues related to accountability of alternative schools can be better understood, then state sanctions for these schools could be studied for modification. In addition, districts may be better informed as to what support is needed for all of its overage students and not only for the students who present behavior problems.
According to Jones (2004), if one is to agree that schools serve students, parents, and the community as primary clients, then school performance should be judged on the premise, “For what, to whom, and by what means should schools be held accountable?” (p. 585). In an accountability model that focuses on the “needs of the learner,” Jones (2004, p. 585) proposes that such an evaluation include the study of student learning, student opportunity to learn, responsiveness to primary clients (students, parents, community), and organizational capacity for improvement within a school. These components are embedded in the qualitative research question with the exception of “student learning” on the assumption that the quantitative portion of the study has been completed to evaluate this component.

1.6 Limitations

A persistent limitation in any study of school effects remains the problem of sample sizes within schools and the number of schools suitable for study. Statistical models used for accountability purposes and applied to small schools of any type tend to be unreliable according to Raudenbush (2004a). These problems extend to alternative middle schools for which small size is a characteristic related to academic success for students (Lange & Sletton, 2002). The data used in this study is archival, and by including test history of overage students tested in the most recent years (2005 – 2009), the reliability of school level effects should be increased with an increase in the number of students included in the school sample size.

A second limitation of the study is found in the relatively small number of alternative middle schools of choice in Louisiana that serve overage students with the specific purpose to accelerate them in grade and return them to a regular high school environment. According to Louisiana Department of Education records, there were 139 alternative schools or programs in the state serving about 21,606 students in the 2008-2009 school year (Louisiana Department of Education, 2009d). Of these 139 schools, 97 (70%) primarily serve students who have been
suspended, expelled or adjudicated (Louisiana Department of Education, 2009d). In practice, the students attending these 97 schools are required to attend the alternative school or program for a specified period of time by the school district or court system due to extreme behavior problems, and are not the focus of this study. Eleven (8%) of the schools reported that they only serve students who are academically behind (Louisiana Department of Education, 2009d). Another ten (7%) of these schools serve students who are academically behind with a credit retrieval program as well as a dropout retrieval program and GED Options (Louisiana Department of Education, 2009d). Twenty-three (16.5%) of the schools registered with the state as suspension and/or expulsion schools in addition to serving students who are academically behind (Louisiana Department of Education, 2009d). For this study, 24 of these alternative middle schools were chosen from these 139 registered alternative schools on the basis of serving students in grades 4th through 8th who are academically behind their age peers.

Another limiting factor inherent in this research is embedded in the test used to provide the student achievement data and school performance data in Louisiana. It is the same test. In this state with its high stakes policies, the results of this test is not only used to measure the level of academic achievement of a student, but also, it is used to determine student retention in 4th and 8th grades and is the largest component of the School Performance Score (Louisiana Department of Education, 2009e). Whereas the construct validity of the standardized test used in this state is well documented for its use as a measure of student achievement, the social implications attached to the meaning of the scores given to the student (grade retention) and to the school (state takeover or closure) are not intended consequences of the test. We must question the validity of the use of this particular standardized test using Messick’s unified theory in which the validity of a measurement cannot be separated from its consequences (Marcus, 1998). In its article, *Appropriate Use of High Stakes Testing in Our Nations Schools*, the American
Psychological Association (2001, par. 7) states, “a test that has been validated only for diagnosing strengths and weaknesses of individual students should not be used to evaluate the educational quality of a school.”

The fourth important limitation is found in the longitudinal study that will determine the growth model of student achievement between the 4th grade and the 8th grade LEAP tests. The amount of missing data inherent in these studies can influence the results of the analysis (Menard, 2002). This could be especially true of this population of students who traditionally reside in highly transient low socio-economic households. Menard reports that use of “maximum likelihood or multiple imputation methods” (2002, p. 42) may produce results with less bias due to missing data. The SAS® statistical software was chosen to analyze the data in this study with the understanding that this particular statistical software package uses an advanced algorithm to minimize this bias for randomly missing data (Wolfinger & Chang, 1996).

Creating a larger sample of student test data using archival test results from recent years (2005-2009) reduced threats to the reliability of the quantitative analyses. By extending the study to all of the state alternative middle schools that meet the criteria for inclusion, the number of schools in the study was maximized. The decision to use the results of the state standardized test as a measure of student level and school performance was both practical and reasonable. A statistical model of school performance using the present state test for student achievement, if shown to provide reliable information of the school effects of alternative middle schools, could be easily implemented with little additional cost to the districts or the state.

The “Katrina effect” is an important consideration for any researcher in Louisiana since the devastating events in Fall 2005. Students in heavily affected areas were scattered in schools all over the state. The effect of the event on this study may be minimal since the only two alternative schools that were included in the study from the affected area were established the
year after the storm. In other cases, the effects on the educational process during this period, while challenging, were assumed to be similar across other areas of the state.

The perspective of the researcher as a practitioner may introduce bias into the study. There were benefits to these experiences of the researcher working in an alternative school with overage students by lending an element of familiarity and comfort to interactions with the administrators, faculty, students, and parents who participated in the qualitative study. It appeared that the administrators, especially, wished to tell the story of their school to someone they believed would understand its mission and challenges and that perception opened doors to some positive effects on the research. However, the negative influences of bias would no doubt be introduced. It is the awareness of these effects and the careful use of conventional methods of analysis of the data that mitigates any undesirable results. In addition, peer review of this study has been valuable in reducing bias in the reporting of the results.
CHAPTER 2. LITERATURE REVIEW

The relevant issues inherent in this study can be regarded much like the braided strands of fiber within a rope. Although separate, the issues twine together to form a single concern: remediating the education of overage students. If there is a breakdown in the complex system of social, political, and educational organizations that support the students who are most at risk of educational failure, then reasonable chances for the educational success of overage students may simply vanish. For some students, the effect on their lives might be only mild, but for others, the consequences include a life with higher rates of poverty, crime and incarceration (Crothers, 2008).

The mandates of NCLB have caused the states to create systems of student and school accountability (Wenning, Herdman, Smith, McMahon, & Washington, 2003). The state of Louisiana applies high stakes consequences to both students and schools. This policy of grade retention causes many students to fall behind in grade, particularly in the intermediate grades of 4th through 8th. In Louisiana, alternative schools serving many of these students are now under the accountability rules applied to all state public schools (Louisiana Department of Education, 2009e). This action could place these special schools and programs under sanctions that include state takeover or closure by the district.

This investigation was designed to address this problem by suggesting additional statistical methods of viewing school performance. These methods could be applied to alternative schools as part of an accountability plan based on multiple measures of success. This review of literature is intended to provide background information on the relevant issues facing both overage students and alternative schools. A discussion of the statistical methods and models that were applied to the students attending alternative schools used in this investigation will be presented in Chapter 3.
The review of literature will begin with the history and current practices of the School Accountability movement and its implementation in the state of Louisiana. Next, a summary of the literature concerning the rise of high stakes testing policies, the social and political effects of these policies on students and schools, and recommendations for reform will be presented. A survey of the history, current trends and policies, and the effects on students of alternative schools found in the literature will be found in the following section. The review will conclude with a summary of the findings that are relevant to this investigation.

2.1 The School Accountability Movement

Wiliam (2010) poses the basic questions that are at the heart of the school accountability discussion: “to whom” and “for what” are students and schools to be held accountable? (p. 108) These questions have simple answers as illustrated by the author. The primary groups to whom schools should be accountable according to Wiliam (2010) are the taxpayers that pay for the service and the parents who are its consumers. One can expand this list of stakeholders to include employers, institutions of higher education, and ultimately the students who benefit from the quality of the education that they receive (Wiliam, 2010). This “client-centered” view of education and school accountability is supported by Jones (Jones, 2004), and will supply the theoretical framework of the qualitative portion of this research.

The discussion of school accountability presented in the following sections begins with a brief review of the history of school accountability. It continues with a discussion of the current issues related to accountability found in the literature, and it concludes with an examination of the topics relevant to this study regarding the implementation of the Louisiana school accountability system.
2.1.1 Historical Perspective

According to Cuban (2004), the school accountability movement in the United States began with taxpayer supported public education in the early 1800’s. The local school board was charged with collecting school taxes and was held accountable by taxpayers for the expenditures to support education for the district’s children. Later in the 19th century, students in Boston were given a written examination to qualify to enter a high school (Cuban, 2004). As cited in Wiliam (2010), the use of these examinations to determine the effectiveness of schools and their teachers soon came into question. In *Elements of Pedagogy*, White (1886) commented on the effects of using these examinations:

“They have perverted the best efforts of teachers, and narrowed and grooved their instruction; they have occasioned and made well-nigh imperative the use of mechanical and rote methods of teaching; they have occasioned cramming and the most vicious habits of study; they have caused much of the overpressure charged upon schools, some of which is real; they have tempted both teachers and pupils to dishonesty; and last but not least, they have permitted a mechanical method of school supervision.” (pp. 199-200)

The industrialization of the U.S. in the late 19th century and early 20th century brought other managerial and efficiency systems to the educational system along with using tests to measure the performance of its students in an effort to deal with an increased birthrate and large influx of immigrants (Ramaley, 2005). According to Haertel and Herman (2005), one of these systems, the use of student IQ and aptitude testing in the first half of the 1900’s was intended to select and sort students by abilities and intelligence with the goal of efficiency of instruction at the expense of educational equity (Ramaley, 2005).

In 1957 with the successful launch of a Soviet satellite, Sputnik, and the subsequent threat of a nuclear attack from across the world, the U.S. was shocked into legislative action in an effort to improve the perceived gap in achievement between students in this country and those in Russia (Cuban, 2004). Some important federal legislation that followed this event and
influenced the rise in school accountability policies includes:


- Elementary and Secondary Education Act (ESEA) of 1965 that provided federal funding for education of poor children (U. S. Department of Education, 2011), and

- Title I added to the ESEA law that included federally mandated and designed budgetary constraints and accountability associated with the use of the funding (U. S. Department of Education, 2011).

Resistance to court-ordered desegregation and federal control in the late 1960’s began a power struggle between local school boards and federal regulatory agencies (Cuban, 2004). In the meantime, across the nation, children’s scores on the SAT, Scholastic Aptitude Test, began to fall (Cuban, 2004). There was a public outcry for improvements to the educational system that seemed to be failing to educate children who were unable to be successful in a more technologically complex world and work environment (Cuban, 2004).

In Smith and Fey (2000) it is stated that the public call for accountability in education is an expression of “dissatisfaction with the status of public schools or who is believed to control them” (p. 335). According to the authors (Smith & Fey, 2000), the publication of the report, A Nation at Risk (National Commission on Excellence in Education, 1983), was the impetus for the shift in control for school reform efforts from local boards of education to state and federal governments that began with the entry of federal money into the local systems. In addition, they report that it has been the educational policy under the administration of at least three presidents to use high-stakes standardized testing as an inexpensive means through which state and local districts can demonstrate the implementation of educational reforms (Smith & Fey, 2000).
Ramaley (2005) also cites the importance of The Nation at Risk report as the “basis for our current approach to … assessment” (p. 62). The author also notes that included in the report was a call for excellence and equity for all students whether bound for higher education or the workplace. Some important recommendations cited in the report were to strengthen graduation requirements (including computer science for all students), to adopt higher standards for student performance, to increase academic time for students, and to strengthen the teaching profession through higher standards of pre-service and in-service professional development (Ramaley, 2005)

As a reauthorization of ESEA in 1994, the Improving America’s Schools Act (IASA) refocused education on all students in all public schools (Haertel & Herman, 2005; Jorgensen & Hoffmann, 2003). It was reported by both of these sources, that IASA was the first federal mandate to all states to implement a set of learning standards for students and assessments aligned with those standards. There was to be a state standardized assessment in at least one grade in each of three levels: upper elementary (grades 3 – 5), middle school (grades 6 – 9) and high school (grades 10 – 12) (Jorgensen & Hoffmann, 2003)

The No Child Left Behind Act of 2001 (NCLB) mandated the expanded test-based accountability system now implemented in this country (Linn, 2008). Its passage was praised as an educational equalizer for students of color in 2002 according to Darling-Hammond (2007). The years of inequity in education in this country would be mediated by shining a light on the inadequacies of education in schools with high rates of students living in poverty and high percentages of students of color. The entitlement of these students to have certified and highly qualified teachers was recognized by the federal mandate. The complexities of this law based on the Texas accountability system have caused problems for state and local school boards that have struggled to implement its many requirements and to deal with the many sanctions instituted by
the law itself and by individual states. The wide variation between the states in the implementation of the mandates of NCLB is demonstrated in the extensive tables presented in McCabe (2006).

2.1.2 Current Accountability Practices

There is little doubt that the impact of NCLB on educational systems is far-reaching, however, the mandates of this federal law related to school accountability are relatively simple (Wenning, et al., 2003):

• States are required to administer an annual standardized achievement test to all of its students attending public and charter schools.

• Test scores within each state, district, and school must be reported along demographic groups based on race and ethnicity, educational disabilities, economic disadvantage, gender, and English language proficiency.

• Test success is based on proficiency standards determined by each state, based on frequencies of students within a school, district, or state who score above a state-determined cut score. Improvement is defined as the differences in rates of proficiency over time, and is used to report Annual Yearly Progress (AYP) for each school and district.

• States have until the 2014 testing cycle to show 100% proficiency in all content areas (English language arts, mathematics, science, and social studies).

• Failure to meet proficiency standards results in withholding federal funding. Schools that fall short of AYP targets for individual subgroups can apply for “safe harbor” against sanctions if the number of students who score below proficiency on the standardized test decreases by at least 10% or other improvements within that subgroup can be documented (Linn, 2005).
States are charged to decide what type of standardized test to administer, the cut score used to define proficiency and the time line for testing different content areas (Wenning, et al., 2003). Linn (2008) argues that the definition varies so widely between the states and that the correlation of those academic standards compared to those of NAEP (National Assessment of Educational Progress) is so low (0.09 for 4th grade reading in one measure) that the term proficiency essentially has no meaning for state to state comparisons. Linn (2008) suggests that common standards in education should be studied and that growth models (longitudinal studies) and value-added measures of accountability would be more valid and fair to all states and schools.

Also found in Linn (2008) is a discussion of an accountability model by Carlson (2002) who condenses school accountability into two very simple questions: “How good is this school?” and “Is this school improving?” To clarify some basic measures that will allow a researcher to obtain the answers to these questions, the author has produced a simple two-by-two table that uses measures of school status and change against those of achievement and effectiveness that can be employed in a multiple-measures model of school accountability that if adopted by states can present a complete picture of how the students in a school are performing. An adaptation of this method of school accountability is presented in Table 2.1 that includes a designation of the approaches as measuring within-cohort and between-cohort effects.

The current measures of accountability that are mandated by NCLB are found in Cells 1 and 2 in Table 2.1. A proposed pilot program described in Cell 3 is being studied in nine states (Linn, 2008) that will allow these states to supplement the current accountability measures with a between cohort growth or value-added model. An evaluation report of this pilot was recently released by the U.S. Department of Education (Hoffer, Hedberg, Brown, Halverson, & Reid-Brossard, 2011). In this pilot, nine states proposed between-cohort growth models with the
intent to identify “high-growth schools serving low-income and minority communities” (Hoffer, et al., 2011, p. xix) students who are not meeting proficiency as being on-track towards future proficiency. The report concludes is that of the models used in these nine states a between-cohort projection model was the most accurate predictor of student proficiency (Hoffer, et al., 2011). What is proposed in this study is found in Cell 3, a value-added model of student achievement within schools having elements of the models found in the U.S. Department of Education pilot study, and in Cell 4, a within-cohort measure based on the growth of student achievement over time in alternative schools. In addition, a study of the probability of their transition to 9th grade will be made using logistical regression methods. These models, their applications in recent studies, and statistical methods of analysis will be discussed in Chapter 3.

Table 2.1
Methods of measuring school accountability (Adapted from Carlson 2002 and Linn 2008).

<table>
<thead>
<tr>
<th>Status: How good is this school? (between-cohort measures)</th>
<th>Change: Is this school improving? (within-cohort measures)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achievement Cell 1: Use of current measures of NCLB</td>
<td>Cell 2: NCLB current use of year-to-year change in percentage of students below proficiency (safe harbor)</td>
</tr>
</tbody>
</table>

Other issues related to school accountability found in current literature are the questions of the reliability, validity and equity of the current use of accountability testing. As described by Wiliam (2010), the logic of using student test scores to judge schools is easy to misunderstand. The common belief is that, “students attending higher quality schools will (by definition) have higher achievement than those attending lower quality schools…” (Wiliam, 2010, p. 110). The author points out that in practice, the converse of this statement is what is
needed for valid accountability, that “higher student scores are indicative of higher quality schooling” (Wiliam, 2010, p. 110). Another inconsistency, illuminated by Wiliam (2010) in the use of accountability testing as implemented as a result of NCLB mandates, is the existence of an incentive for students within schools to perform poorly, thereby affording the parents of those students access to additional services such as tutoring and school choice.

Forte (2010) discusses the effectiveness of NCLB to achieve its goal of “improving achievement among low-achieving students in high-poverty schools” (p. 76). The author identifies the basic assumptions of the policies of the federal act in order to evaluate its efficacy. These assumptions are (Forte, 2010):

- Schools that need improvement are identified as such.
- Identified schools engage in an improvement process.
- Schools are better able to serve students and student achievement increases. (p. 77)

Forte argues that the achievement model used by NCLB and found in cells (1) and (2) in Table 2.1 (Carlson, 2002) are unrealistic expectations for which many “false positive” (p. 78) results exist which, she argues, serves to dilute the increasingly limited resources available to schools that truly need assistance. In her conclusion, Forte (2010) adds her voice to others calling for an accountability model of school effectiveness answering the questions found in cells (3) and (4) of Table 2.1 (Carlson, 2002).

Other authors have called into question the reliability and equity of the proficiency measure of accountability. Zvoch and Stevens (2008) argue that these between-cohort measures, though easy to calculate from a set of test scores, are not valid, reliable, and equitable measures of school performance, especially when applied to low-performing schools. In addition, the authors mention that such an unreliable measure of school performance that is used to make decisions on job retention for administrators and teachers (especially those who choose to work
in low-performing schools) may represent a violation of the 14\textsuperscript{th} Amendment to the U.S. Constitution guaranteeing equal protection under the law. Their study shows an increased reliability (a range of 0.80 and 0.99 for all analyses) when using within-cohort growth measures compared to between-cohort reliabilities (range of 0.14 to 0.65) (Zvoch & Stevens, 2008). The authors (Zvoch & Stevens, 2008) also state that these more reliable within-cohort measures employed in their study are currently not allowed under the accountability rules of NCLB.

Berliner (2008), in his Letter to the President, places concerns about federally mandated accountability squarely in the laps of teachers. Research has shown, according to the author, that it is the quality of teaching that truly makes a difference in the achievement of students. Berliner (2008) advocates that teachers should be professionally trained (appropriate teacher training courses, and a formal three-year in-service training period similar to a physician’s residency) and that those professional teachers be given a voice in the way that school accountability is implemented. The author states (Berliner, 2008),

Under current policies, teachers and school administrators are at the mercy of high-stakes tests that can cause children to be left back or not graduate from high school. Results from these tests can cause teachers and administrators to be ridiculed in the press and even to lose their jobs. This places teachers in an untenable situation. As one teacher put it, ‘My job depends on how some 12-year-old feels and thinks one morning.’ (p. 254)

Many other researchers share Berliner’s concerns about high-stakes testing and its consequences for education. This issue will be discussed in more detail later in this section.

\textbf{2.1.3 School Accountability in Louisiana}

According to Quality Counts at 10: A Decade of Standards-Based Education (McCabe, 2006), Louisiana leads all others in the implementation of the accountability requirements of \textit{No Child Left Behind}. As a means to encourage improvement in student achievement scores, \textit{NCLB} has provided six sanctions that may be implemented by states when schools continue to fail to
meet accountability standards. These consequences are reconstitution of schools, reconstitution of schools as charters, permitting student transfers to more successful schools, turning failing schools over to private management, withholding funds, and school closure. McCabe (2006) reports that twenty-eight states have adopted at least one of these accountability sanctions. Six states might be considered more punitive than others having adopted five of the six sanctions (McCabe, 2006). Louisiana and Tennessee implement all sanctions except school closure when schools consistently fail to meet state accountability standards. Illinois and Maryland implement five of the six sanctions with the exception of allowing student transfers, and California and Ohio implement five of six sanctions with neither state withholding funds to failing schools (McCabe, 2006).

Louisiana was one of the first states to institute these high stakes testing policies (Robelen, 2000). The American Educational Research Association defines high stakes as the “serious consequences” (2000, p. 24) imposed by test results on individual students or on educators over and above the mandated reporting of those results required by NCLB. In Louisiana, the Board of Elementary and Secondary Education (BESE) oversees the process of setting the cut score that determines the level of proficiency on standardized tests (Louisiana Department of Education, 2009e). Students in the 4th and 8th grades must meet or exceed the cut score set by a committee of Louisiana educators (Louisiana Department of Education, 2006) on the standardized, criterion-referenced test (LEAP-21) or be retained in grade (Louisiana Department of Education, 2009g). Students in high school must meet or exceed a cut score on a series of Graduation Exit Exams in order to receive a diploma (Louisiana Department of Education, 2009e).
2.2 Issues Related to High-Stakes Testing

Since the passage of the No Child Left Behind Act of 2001, efforts by state and local policy makers to implement accountability policies aimed at meeting student achievement goals mandated by the federal law have been numerous and highly publicized. Some states, Louisiana being one of the first, instituted high stakes testing policies. As previously defined, high stakes refers to the sanctions placed on students, schools, and districts that fail to post acceptable scores on state-mandated standardized tests.

These standardized tests became high stakes for students in at least ten states in the early part of the 21st century (Amrein & Berliner, 2002) with a projected 28 states by 2008 (Schrag, 2004). Educational literature contains several studies that report creative and often dishonest methods implemented by schools and districts in the name of improving student achievement that include reclassification of students as learning disabled or retention of the student in the grade before standardized testing begins (Hursh, 2005; McGill-Franzen & Allington, 1993). Researchers frequently voice concerns that policy makers are ignoring effects of test equity, narrowing of curriculum, increasing rates of grade retention and the resulting increase in school dropouts (Amrein & Berliner, 2002).

After an historical overview of the current policies related to grade retention as a result of high stakes testing in this state, a review of the social and political implications of these policies will be presented. This section will conclude with a presentation of the intended outcomes and unintended consequences of these policies, and current proposals found in the literature for their reform.

2.2.1 High Stakes Testing in Louisiana

The District Composite Report for East Baton Rouge Parish found in the 2007-2008 Louisiana State Education Progress Report (Louisiana Department of Education, 2009c) states
that Louisiana was the first among the states in the academic year 1999 - 2000 to implement a policy of student retention in 4th grade and in 8th grade for students who failed to meet minimum standards on the state mandated LEAP test. In the same report, it is stated that the promotion standard for 4th grade students was raised in 2004, and after a year delay due to the effects of Hurricanes Katrina and Rita on the state, the promotion standards were raised again in 2007 for both 4th grade and 8th grade students.

2.2.2 Social Issues

There are several social consequences that come with the accountability policies related to high stakes testing. The student who is retained because of failing the high stakes test is more likely to exit school early (Au, 2007; Clarke, Haney, & Madaus, 2000). It has long been reported that an increased rate of school dropouts leads to an increase in families living in poverty and crime (Crothers, 2008). AERA (2000, par. 6) states in its policy on high stakes testing that “decisions that affect individual students’ life chances or educational opportunities should not be made on the basis of test scores alone.”

An interesting phenomenon was reported in the McGill–Franzen and Allington (1993) article, “Flunk’em or get them classified”. They found that some districts and schools in Texas had an unwritten policy to identify weaker students, and then retain them in order to place them into categories that would exempt them from high stakes testing, or to classify them in such a way that would increase the accommodations given to those students during testing. The pressure to increase test scores caused many students to undergo considerable social stigma as a result of these actions placed upon them simply to raise test scores (McGill-Franzen & Allington, 1993). Frattura and Topinka (2006) expressed a concern about further marginalizing students of color by policies that classify them as special needs recipients in the name of accountability. Darling-Hammond (2007) points out that probably the “most adverse unintended consequence of
NCLB” (p. 5) is that the sanctions imposed on schools encourages them to simply get rid of weaker students. Creative record keeping (record-losing) can easily cause a student to disappear from the rolls, only to be “found” later (Darling-Hammond, 2007). This practice was also discussed in McGill-Franzen and Allington (1993).

Darling-Hammond (2007) raised other social justice issues. The ethics of policies that punish the schools and students most in need of resources has been called into question by Darling-Hammond (2007). One of the stated purposes of NCLB was educational equity, but the sanctions imposed on the poorest schools and less advantaged students are counter to its intent. Another ethical concern discussed in the same work is the effect of curriculum narrowing that denies students a full education allowing them to participate in a global economy. According to Darling-Hammond (2007), the United States has been losing educational ground for years, and the effect of teaching to the test is not providing our students with skills they need to make gains in critical thinking and creativity. Darling-Hammond (2007) concludes the article with a call for an end to these practices that harm both our students and our society.

2.2.3 Political Influences

Bali, Anagnostopoulos, and Roberts (2005) state, “the politics of retention are, in part, racial politics” (p. 148) In their study, they found that more politically conservative districts with a school board whose members are of the racial majority had higher rates of student retention, and more stringent policies related to grade retention. Decisions made by these bodies often impacted minority students and those in poverty in subtle ways as well. For instance, the authors reiterate that it has been shown that smaller class sizes are particularly beneficial to increase the student achievement of these students (Bali, et al., 2005). If members of a school board do not consider these students valuable due to bias related to race or poverty, they may not expend the necessary resources to make smaller class sizes a reality. (Bali, et al., 2005)
There are conflicts inherent in any political situation. These conflicts are discussed by three of the authors: Torres (2004), Schrag (2004), and Au (2007). Torres (2004) states that the public policies of school accountability are a conflict between the welfare of the collective (society at-large and business) with the welfare of the individual. This author questions the ethics of employing sanctions on students in the name of the greater good. Schrag (2004) describes this conflict as one of resource allocation in schools. The question raised in this article is whether it is best to allocate funding and human resources to the student who is most likely to pass the high stakes test with help, or use the same resources for the student who is more likely to fail the test in a process similar to medical triage. Schrag (2004) calls this ethical dilemma, “gap minimizer vs. opportunity maximizer.” Au (2007) discusses the conflict with policies related to curricula. Whereas a stated goal of NCLB is to improve the curriculum by mandating that states standardize it (for example, the Louisiana Comprehensive Curriculum) for use in all schools, the effect on the curriculum due to high stakes testing is actually a narrowing of the curriculum as teachers are pressured to teach the test (Au, 2007).

2.2.4 Summary

The majority of the authors of the articles included in this review presented a balanced approach (both positive and negative) to the issues related to high stakes testing and most of the referenced articles did not present a positive recommendation of continuing with these policies without alteration. An examination of the statements related to policy found within the included articles was made to identify beliefs held by both proponents and opponents of accountability policies put into place by the No Child Left Behind Act of 2001 (NCLB). Tables A.1 and A.2 found in the Appendix summarize the beliefs that were revealed.

The stated general goals of the accountability policies in the state of Louisiana (Louisiana Department of Education, 2008b) are:
To raise educational performance

To monitor the academic growth of schools and districts

To monitor the academic performance, test participation, attendance rates, non-dropout rates, and graduation rates of students in targeted subgroups identified as economically disadvantaged, students from racial and ethnic groups, students that have disabilities, and students that have limited English proficiency.

Although this report (Louisiana Department of Education, 2008c) states that students in 4th and 8th grades must score at “appropriate achievement levels” (p. 55) in order to be promoted to the next grade there is no specific goal mentioned for the policy of forced student retention.

Other intended goals found in the literature by proponents of the policy of student retention based on high stakes testing as reported by the cited articles include:

- To improve educational productivity (Bali, et al., 2005; Hursh, 2005; Torres, 2004);
- To direct attention to disparities in achievement between districts and schools (American Educational Research Association, 2000; Torres, 2004).
- To improve curricula viewed as “incoherent and redundant” (Torres, 2004, p. 250).

Opponents of high stakes testing and student consequences related to failure to meet minimum competency levels on the test were many as reported by the authors of the reviewed literature. The primary reasons the authors gave for those who oppose these policies are those related to social justice. Nearly all agreed that student retention rates were greater for ethnic minorities (Amrein & Berliner, 2002; Au, 2007; Bali, et al., 2005; Clarke, et al., 2000; Darling-Hammond, 2007; Frattura & Topinka, 2006; McGill-Franzen & Allington, 1993; Schrag, 2004). Other reasons for opposition to these policies included the belief that grade retention increased
the dropout rate among students (Au, 2007; Clarke, et al., 2000), applied a social stigma to failing students (Hursh, 2005; McGill-Franzen & Allington, 1993; Torres, 2004), and caused schools and districts to remove failing students from the testing pool by classifying them as special needs students or by retaining them in the grade before high-stakes testing sanctions took effect (Darling-Hammond, 2007; Hursh, 2005; McGill-Franzen & Allington, 1993).

Other unintended consequences of the policy high stakes testing are focused on effects found at the school/teacher level. These consequences are:

- Misapplied focus on testing rather than the application of resources to make a difference in “meaningful student learning” (Darling-Hammond, 2007, p. 6)

Where there is opposition to the consequences imposed on districts, schools, teachers, and students by the results of high stakes testing, most authors agree that the baby should not be thrown out with the bath water. Positive changes can be made in the policies related to high stakes testing and in their implementation that could make NCLB a “second opportunity (i.e. the Brown ruling being the first) to raise the level of consciousness with respect to racial disparities in academic output” (Torres, 2004, p. 264)

### 2.2.5 Current Recommendations for Policy Reform

Many authors in this study made recommendations for reform of policy. Clarke, Haney, and Madaus (2000) recommended that states should study patterns of grade retention and
dropout rates with the same energy as test scores. In addition, they stated that strategies should be implemented that would encourage weaker students to stay in school. AERA (2000) policy on high stakes testing recommended a continuing study of the testing process to determine intended and unintended consequences to students. Similarly, Torres (2004) asked for a coalition of stakeholders be formed to monitor policy formation and implementation for civil rights violations.

Some authors recommended improvements in the implementation of the high stakes testing policy related to reporting of test scores, evaluations of schools and validity. Darling-Hammond (2007) and Ho (2008) said that a more effective measure of school progress would include the adoption of a continuous improvement model of student achievement. This would serve schools with more diverse student populations by showing the progress over time that the students and school is making even if their overall scores are below the minimum accountability standard. McGill-Franzen and Allington (1993) suggested that states use an age-level assessment rather than a grade-level one that would eliminate policies of grade retention based on test performance. AERA (2000) questions the validity of a single test used to evaluate all of the domains of student academic performance, school quality, teacher quality, district improvement, and curriculum. Clarke, Haney, and Madaus (2000) called for consistent calculations of dropout rates among the states.

Other authors recommended modifications in federal funding related to accountability. Torres (2004) asked for adequate federal funding to implement the policies of NCLB citing the fact that only ten percent (10%) of state accountability budgets are federally funded. Darling-Hammond (2007) recommended that an expenditure of $3 billion federal dollars equal to that spent by the U.S. to fund only one week of troops in Iraq could be used to prepare 40,000 high quality teachers annually. With an influx of federal funding, the authors agree that using the
money to create more authentic assessments of students, schools, teachers, and districts, along with adequate funding to remediate weaknesses in the educational system would accountability with the original intent of NCLB to be realized.

2.3 Alternative Education Centers

The most recent national survey of public alternative schools was made in 2001. The NCES reported that there were approximately 10,900 public alternative schools serving 612,900 students at risk of failure constituting 1.3% of the total public school enrollment in the United States (Kleiner, et al., 2002). Ninety-nine percent (99%) of these students were placed in these alternative education centers for academic and/or behavioral interventions with the goal of returning them to their regular schools. Of the districts offering alternative education to its students, 46 to 67 percent reported the presence of middle school programs (grades 6 through 8), and that at least once in the past three years demand for enrollment in these programs had exceeded capacity (Kleiner, et al., 2002).

When examining the current literature on alternative schools, a few issues quickly confront the reader. First, the definition of an alternative education program is broad and has evolved over time. Second, the typology of alternative schools is currently fluid. Third, those who determine policy for public alternative schools often misunderstand their purpose and importance to at-risk students within their systems.

This section of the literature review will begin with a brief history of alternative education. The focus of the review will then narrow to alternative schools within the public education system. A brief review of some issues related to social justice for students at risk of academic failure and evidence that students at risk of educational failure are better served in this type of school environment will conclude the review of literature related to alternative schools.
2.3.1 Historical Perspective

According to Young (1990), alternative education has been present in the American education system since its birth. These schools set themselves apart based on race, religion, gender and social class. It is agreed by many authors that public alternative schools began in the 1960’s as a response to the civil rights movement (Ahearn, 2004; Lange & Sletton, 2002; Raywid, 1984, 1994; T. W. Young, 1990).

According to Lange and Sletten (2002), it was the design of the Open Schools popular in the 1970’s that greatly influenced the formation of other educational alternatives in public schools. These schools were characterized by choice (parent, teacher, and student), autonomy, alternative assessments and student-centered curricula. Young (1990) listed the following examples: Schools Without Walls, Schools Within a School (academies), Multicultural Schools, Continuation Schools, Learning Centers focused on special needs of students, Fundamental Schools, and Magnet Schools.

Raywid (1983) reports that the 1970’s saw an explosion in the number of alternative education centers from about 100 early in the decade to more than 10,000 at the end. Young (1990) characterized the changes in alternative education in the 1980’s as turning from the more open schools to “more conservative and remedial” (p. 20) ones. This, he says, was in response to the need for programs to serve the rising number of students who were disruptive and failing in school. The 1990’s to the present have seen an increase in this type of program, possibly due to the increase in school violence according to Ahearn (2004). Presently, there is an increased interest in alternative education for suspended and expelled students, a growth in state legislation and policy concerning alternative education, and a call in the literature for less ambiguity in the definition of alternative education (Ahearn, 2004).
2.3.2 Definition and Typology of Alternative Education Centers

Raywid’s 1984 article outlines a set of characteristics common to most alternative schools. The author “sidestep(s) a definition since definitional attempts have been troublesome” (Raywid, 1984, p. 71), possibly referring to her 1983 article in which she states both a formal and substantive definition (Raywid, 1983). In the 1984 article, the characteristics include elements of the 1983 definitions. They are (Raywid, 1984, p. 71):

- A distinct and identifiable administrative unit with its own personnel and program
- School climate is given considerable attention within the unit
- Students and staff enter the school as a matter of choice rather than assignment
- The school is designed to respond to particular needs not met in local schools; the program is distinctly different from other schools in the area
- The design of the program and the impetus to launch it comes from one or more of the groups directly affected by the program: parents, teachers or students
- The school generally addresses a broader range of student development than just the cognitive or academic. There is concern about the sort of person the learner will become.

Many of the authors agree that there may be variation in the characteristics of any one alternative education center; many of them agree on the use of Raywid’s typology of alternative schools presented in her 1994 article (R. M. Foley & L. Pang, 2006; Hosely, 2003; Lange & Sletton, 2002; C. Lehr & C. M. Lange, 2003; Lehr, Moreau, & Lanners, 2004). Raywid (1994) groups alternative education centers into three types (p. 27):

Type I: School of choice. They often resemble magnet schools. They are likely to reflect programmatic themes or emphases pertaining to content or instructional strategy or both.
Type II: Last chance programs. Students are forced to attend these schools as a last step before expulsion. Their emphasis is typically on behavior modification.

Type III: Remedial focus. These centers are designed with a remedial focus on academic and/or social emotional issues.

This typology is seen throughout the literature as the most enduring description of alternative education centers. Lange and Sletten (1995) proposed a fourth type of alternative school consisting of elements of all three types: choice, remediation, and innovation to define a second chance program that provides academic intervention after some educational failure (Lange & Sletten, 1995). Raywid (1994) also acknowledges this mixed program. She states that if one is to assume that a school and a student do not represent a good educational match, then student failure may be the result. Thus, the innovative alternative program with a remedial focus would be the best response for that student (Raywid, 1994).

As discussed in the Introduction, Aron (2003) reports on a more recent typology of alternative schools. Based on the educational needs of the students who are served by the school, this typology was proposed by Melissa Roderick of the University of Chicago during a roundtable discussion held at the Urban Institute in Washington, D.C.³ In this discussion, Roderick proposed this typology of alternative educational schools and programs:

1) Students who have behavioral issues that have caused them to become sidetracked in their educational progress;

2) Students who have special educational needs due to unstable home situations (homelessness), pregnancy, recent incarcerations, etc;

³ This typology is unpublished. The roundtable discussion on alternative education was funded by the C.S. Mott Foundation and held at the Urban Institute in Washington, D.C. on April 16, 2006 (Aron, 2003, p. 13).
3) Students who have already left the system or much older than their grade-peers who need high school credit recovery in order to be able to enter adult vocational training or community colleges, and

4) Students who have not yet been able to transition to high school due to grade retention and are substantially older than their grade peers. Some of these students might have already gone to high school, but have been able to obtain only a few credits (Aron, 2003).

The fourth type of school that serves the students described above coupled with the Lange and Sletten (1995) “fourth type” of school is the best representation of the second chance middle school that was the focus of study in this project. The mission of these middle schools is to intervene in the academic life of these students and then return them to a traditional school environment.

Three recent research syntheses of alternative education (Aron, 2006; Lange & Sletton, 2002; Lehr, et al., 2009) have all described these second chance schools using the following characteristics:

- Small school/class size
- Emphasis on one-on-one interactions with students
- Creating a supportive environment
- Allowing opportunities for student success relevant to the student’s future
- Allowing flexibility in structure and program
- Teacher and student/parental choice to participate
- District support for some administrative autonomy
- Excellence in teaching and learning
2.3.3 Current Issues and Trends in Alternative Education

In their 2003 report of interviews of state directors of special education, Lehr and Lange discussed some of the concerns that were brought out in their research. The important need to strike a balance between the autonomy of the alternative school at the local level and a lack of public policy often leading to a lack of funding was identified. How is the purpose of the alternative school determined? Is the program one in which the student volunteers attendance, or is the program a “forced choice” (C. A. Lehr & C. M. Lange, 2003, p. 61) in which the student is re-routed to a non-traditional school within the district in order to avoid addressing some systemic problems? The answers to these questions would be a determining factor in the design of the alternative program.

Other issues identified by Lehr and Lange (2003) are the identification of student needs and services to meet those needs within the alternative program. This is especially important as indicated by the authors since research shows that there are a high percentage of students with disabilities who attend alternative schools. The quality and availability of properly trained teachers is a concern since it has been found that students in alternative schools typically have more discipline and academic issues (C. A. Lehr & C. M. Lange, 2003). The authors also cite the need for more teacher training to deal with this more difficult and/or disabled student population. Teachers need to be aware that high academic standards should be implemented in these schools since the students who attend such a program are not necessarily lacking intellectually (C.A. Lehr & C.M. Lange, 2003).

The creation of a supportive and caring environment is often cited as a characteristic of an alternative school (Aron, 2006; Lange & Sletton, 2002; Lehr, et al., 2009). As discussed by other authors, (Noddings, 2003b; te Riele, 2006) teachers of at risk students need to be aware that the formation of caring relationships with these students has an important effect on their
learning. The presence of this type of environment within an alternative school was also cited as a positive benefit to students in Kim and Taylor (2008), but, according to the authors, did not “guarantee an equal and equitable education” (p. 217).

Finally, there are accountability issues that must be addressed (C. A. Lehr & C. M. Lange, 2003). Typically, students in an alternative program are low performing on standardized tests. Often, however, they outperform traditional school students when one measures growth in test scores over time. Just as alternative assessments of students are appropriate in a classroom setting, alternative assessments of alternative schools need to be examined (C. A. Lehr & C. M. Lange, 2003).

Raywid (1999) supplies the reader with a list of ten “formative policy decisions” (p. 50) that must be addressed in the design phase of alternative programs. The author groups these questions in the following ways:

1. What is the purpose of the school and for whom is it intended?
2. Are the students the primary focus for the program or is the intent their removal from traditional classrooms, thereby allowing a district to maintain status quo?
3. Are students and teachers assigned to the program, or are they part of the program by choice?
4. How does the alternative program balance its need for autonomy with the district’s need for accountability?

In the 2001 article, Raywid again discusses some of these issues. One is the need for school assessments other than tests. Raywid (2001) terms the current use of standardized testing to implement of school accountability measures “the revenge of the psychometricians” (p. 583). According to the author, it is a simple matter to push failing or disruptive students into an alternative school in order to remove low-scoring individuals from the traditional educational
setting. Her advocacy of choice in placement of students in an alternative school, the variety of academic programs intended to best serve students in need of academic success, and the atmosphere of success in such schools is a hallmark of Raywid’s work over two decades (Raywid, 1983, 1984, 1994, 1997, 1999, 2001, 2002).

In an article from 2006, Foley and Pang discuss implications of their research that duplicates many of the same concerns as the authors previously cited in this section. They cite the need for access to academic resources such as libraries, computer labs, science labs, etc. The authors also discuss the need for specialized training of teachers to meet the needs of the alternative school student population. Foley and Pang (R. M. Foley & L.-S. Pang, 2006) discuss the need for research on student outcomes, success rate of students returned to traditional school environments, and eventual rate of graduation among alternative students. The authors call for community-based programs to support the students and parents as a way of meeting the diverse needs of this specialized school population (R. M. Foley & L.-S. Pang, 2006).

2.3.4 Social Justice and Policies Affecting Students at Risk of Academic Failure

The District Composite Report for East Baton Rouge Parish (Louisiana Department of Education, 2009a), the largest urban school district in the state, remarks that Louisiana was the first among the states in the 1999 – 2000 academic year to implement a policy of student retention in 4th grade and in 8th grade for students who failed to meet minimum standards on the state mandated LEAP test. In the same report, it is stated that the promotion standard for 4th grade students was raised in 2004, and after a year delay due to the effects of Hurricane Katrina on the state, the standards were raised again in 2007 for both 4th grade and 8th grade students. Figure 2.2 shows the parallel trends for student retention and student dropout rates for the years 2002 through 2008 for 8th and 9th grade students. State policies related to high stakes testing, student retention and student dropouts might represent a problem in this school district.
Figure 2.1  Grade Retention and Dropout rates (%) for 8th grade and 9th grade students in East Baton Rouge Parish for the years 2002 through 2008

Alternative schools seek to restore students who have been retained for any reason to a regular educational setting. Wishart, Taylor, and Schultz (2006) report that mainstream educational systems seek to “normalize ‘deviant’ youth by constructing success as completing high school and moving on to further education or employment” (p. 295). They also contend that it is the same policies that has helped to produce these youth, and that those educators who wish to help the students as a matter of social justice are hindered by the effects of the system of policy decisions.

Bali, Anagnostopoulos, and Roberts (2005) studied the political determinants of grade retention in schools. They found that large districts with more funding, a description of typical urban districts, more easily absorb the high cost of grade retention. Smaller class sizes, especially in lower grades, greatly reduced grade retention in students particularly those of color and in high poverty situations. Bali, et al. (2005), strongly recommended placing struggling students in smaller classes such as those in alternative schools as a viable option to grade retention. The authors made other recommendations to mediate the effects of racial politics on
grade retention that are not related to alternative schools. Sadly, it is shown by this study, that the policy decisions of school districts either by design or through inaction affect poor African-American and Hispanic students disproportionately to the overall demographic makeup of school districts (Bali, et al., 2005).

2.3.5 Effects of Alternative Schools on Student Success

What can be learned from alternative schools concerning their effectiveness, and can these factors be used in other schools successfully? Many alternative schools have been identified as excellent programs and have been used as models for traditional schools in an effort to improve the education of all inner city students within a district (Raywid, 1994). Raywid points to three factors that are common to effective alternative programs: (1) a sense of community, (2) engaging instruction, and (3) a system of support for the first two factors. The characteristics of these programs that support the learning community are small size, strong sense of choice by students and teachers, and autonomy of both the school and the teachers in program and curriculum choice (Raywid, 1994). Lehr, et al. (2009), indicated that there was evidence that alternative schools of choice were the most effective on student success. The same authors also noted that more students presently attended alternative schools as a result of suspension or expulsion from a regular school.

2.4 Summary

The review of literature has highlighted three important issues that serve as a scaffold for the current research project. First, the mandates from current accountability policies at both the federal and state levels have been created by Boards of Education to satisfy a real or perceived threat to their credibility to taxpayers. Second, the use of high-stakes consequences for students and schools has been shown by research to produce results that often run counter to the stated goals of the states that impose these consequences. Third, alternative schools can be beneficial
to the overage students that they serve by restoring positive beliefs in their academic and social abilities.

The current school accountability system is based on a between-cohort model of achievement and student growth. This model has been criticized as a valid and reliable measure of school performance. It was shown by Zvoch and Stevens (2008) that within cohort measures of student achievement and growth were much more reliable and stable measures of school performance, and would represent a better model of school accountability. Other researchers have questioned the equity of this system of accountability that often affects the jobs of educational professionals who happen to serve the lowest-performing students (Berliner, 2008).

High-stakes consequences such as grade retention and school takeovers have led some districts to encourage retention of low-performing students before the testing grade and reclassification of these same types of students into various categories of learning disabilities in order to boost overall test scores (Darling-Hammond, 2007; McGill-Franzen & Allington, 1993). Teachers are encouraged to teach the test, a strategy that has been found to significantly narrow the curriculum to essentially include only English/Language arts and mathematics (Au, 2007; Hursh, 2005). High-stakes consequences have been shown to significantly impact minority students at a higher rate (Darling-Hammond, 2007). Retention of students due to failure on high-stakes standardized tests creates a population of overage students who have been shown to exit the educational system prior to graduation at a much higher rate, especially for students of color (Clarke, et al., 2000).

Alternative schools of choice have been shown to be successful in the remediation of students who are overage in grade compared to their age-peers (Lehr, et al., 2009). The characteristics of these schools include small size, caring relationships, curriculum modification that better serves the student who is in need of remediation, providing multiple opportunities for
relevant academic success, supportive environment, teacher and student choice to participate, and district support leading to some administrative autonomy (Lehr, et al., 2009). Alternative schools can be centers of excellence in teaching and learning (Aron, 2006).

This research has the potential for both theoretical merit and implications for affecting educational policy. It adds to the limited body of literature of quantitative studies of the effects of alternative schools on student performance (Friedrich, 1997). In addition, a more sophisticated statistical model for school effect size using student performance measures could become part of a larger accountability model not only for alternative schools, but also for any small school in which a standard of accountability based on student proficiency on standardized tests is volatile (Raudenbush, 2004b).

If alternative schools have a place in the educational system to remediate a student and return him or her back to a regular school or program that will ultimately benefit that student, then it is necessary that they be judged using parameters that are clearly defined by their purpose. It is not the argument of this research that alternative schools be free of accountability. It is the hope that a more sophisticated model can be found that will serve and a more reliable measure of school performance in order to investigate the educational context that will best serve the overage student.
CHAPTER 3. METHODOLOGY

This chapter provides an overview of the mixed methods research strategies that were used to answer the research questions outlined in Chapter 1. The research problem that led to these questions is two-fold. First, students in the state of Louisiana are subject to high stakes consequences of grade retention in both 4th and 8th grades. This policy creates a population of public school students who are two to three years behind their age-peers in grade. Second, the alternative schools whose intended purpose is to intervene in the education of this population of students and return them to their age-appropriate grade may be subject to sanctions including closure through the current accountability program applied to failing schools. Low student achievement of the individual or the collection of students in the alternative school triggers both of these consequences by the failure to meet state proficiency standards on the standardized test administered by the state.

The quantitative portion of this study investigated the use of three models of school success that could potentially be applied to alternative schools to enhance the existing school accountability measure, that consisting of indices of assessment, attendance and dropout (Louisiana Department of Education, 2009e), in order to give policy-makers an improved model of accountability that can be applied to these schools. The first two models employed multilevel analysis and are described as the student achievement model and growth model. The third model was a logistic regression analysis intended to estimate the odds ratio of successful student transition to high school and was labeled the transition model. In an informal pilot study of students in an alternative middle school in East Baton Rouge Parish Schools located in Louisiana, this researcher found that these students showed both higher growths in standardized test scores in English/Language arts (ELA) and math and a higher rate of transition to high school than similar students in regular middle schools in the same district. The three models
used in this research study were designed to investigate these alternative measures of student success using existing standardized test data along with student demographics data. These proposed statistical models were tested against the null hypotheses that there is no statistical difference between:

- the school effects of alternative schools and the effects of regular schools on overage students to predict the standardized ELA and math scores (student achievement model),
- the growth in standardized scores in ELA and math of students attending an alternative middle school and the growth in ELA and math of overage students attending a regular middle school (growth model), and
- the rate of transition to high school of students attending an alternative middle school and the rate of transition to high school of overage students attending a regular middle school (transition model).

The use of hierarchical linear modeling (HLM) to study organizational effects on students within schools has been described extensively by Raudenbush (1988, 2001, 2004a, 2004b) and Raudenbush and Bryk (1986, 2002). The organizational structure of a school makes the use of HLM to analyze its effects on students a natural choice (Raudenbush & Bryk, 2002). The students within a school have a unique collection of characteristics. School principals, for instance, may have an influence the quality of teachers working at the school. The interactions of the groups within a school are unique. The use of HLM allows a researcher to account for these structural differences in schools with the implication that in schools with similar characteristics, an estimate exists of a characteristic value that a particular school adds to a student’s achievement using the measure under study (Raudenbush & Bryk, 1986). The multilevel structure of HLM allows the study of the longitudinal growth of students over time as
an estimate of the growth trajectory of students within a school (Singer, 1998). The application of a logistical model facilitated the study of the dichotomous outcome of transition of students to high school. These three statistical methods were intended to estimate of the effects of alternative schools on the overage student.

This chapter will begin with an overview of the pilot study of alternative students’ achievement and will continue with an overview of the mixed methods design of the current study. A description of the quantitative and qualitative methods used in the study along with strategies for sampling and data collection will then be presented. The chapter will conclude with a summary of the methods used to answer the research questions.

3.1 The Pilot Study

In 2008, I was employed in an alternative middle school as an instructor. In a conversation with the administration of the school, the question of student progress came into the discussion. The students’ test scores had greatly improved that year, but remained miserably low as was expected of the population of students who were two to three years behind in school. What surprised us was that the students at this school had shown more growth in test scores from one year to the next than the students in regular middle schools aggregated within the district.

It was decided at the time that if the district was to have a clearer picture of the progress these students were making, that it would be up to us to supply alternate measures of success, that of average individual growth and successful transition to 9th grade. Because I was actively taking graduate classes in Experimental Statistics, I was asked to do a pilot study of this measure of success using the test history of the students attending the school.

The alternative school was small with approximately 120 students in 6th, 7th, and 8th grades. Students in the school were eligible for promotion in grade twice during the year based on grades, attendance, behavior, and teacher recommendation. The number of students in any
class in the school was limited to approximately 21 due to the constraints of the READ 180 program that was in place at the time. Due to the small number of 8th graders available for study in any one year, it was decided to include in the sample all of the students who met three criteria: (1) 8th grade students, tested in the spring of 2008 or 2007, (2) attended the school in all three grades, 6th through 8th, and (3) had a complete test history on file consisting of a 4th grade LEAP and 8th grade LEAP. The sampling yielded 60 students. Students with missing data were eliminated from the study.

The decision was made to use the scale scores in ELA and Math as data points since it was known that the 4th grade LEAP and 8th grade LEAP had been identically scaled by the state and the results of the tests from these two content areas determined student promotion. These identically scaled scores imply that if a student posts identical scores for a content area for both the 4th grade LEAP and the 8th grade LEAP tests, then the student has grown in achievement at an expected rate for the increase in grade level. A simple two-wave repeated measures test was performed on the data using SPSS 17.0® statistical software to determine whether a difference at a 0.05 level of significance existed in the growth in test scores of the students in the sample using a null hypothesis of no growth (coefficient as slope) as a standard of comparison.

It was found that the overall growth trajectory for the within subject effect of scores over time was significantly different from zero (F = 25.77, df = 59, p < 0.001). Post-hoc paired t-tests were done on each of the two subject areas to suggest the amount of growth in each of the two subject areas over time. It was found that the students in the sample grew 2.2 standard deviations in ELA and 7.2 standard deviations in math. The results of these t-tests are summarized in Table 3.1.

There are many threats to the validity of this study with the greatest of them being a small sample size, lack of random selection, and the elimination of cases with missing data.
Nevertheless, the results of this simple comparison of student achievement before student entry into the alternative school and again at the terminal grade were very encouraging to the administration and faculty, and it led this researcher to begin the current research project.

Table 3.1
Results of post-hoc paired samples t-tests on scaled ELA and math scores from the pilot study

<table>
<thead>
<tr>
<th>Paired Differences</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error</th>
<th>Lower C.I. (95%)</th>
<th>Upper C.I. (95%)</th>
<th>t</th>
<th>df</th>
<th>2-tailed sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELA8 – ELA4</td>
<td>11.20</td>
<td>39.71</td>
<td>5.13</td>
<td>0.94</td>
<td>21.46</td>
<td>2.185</td>
<td>59</td>
<td>p = 0.033</td>
</tr>
<tr>
<td>Math8 – Math4</td>
<td>38</td>
<td>40.97</td>
<td>5.33</td>
<td>27.95</td>
<td>40.30</td>
<td>7.242</td>
<td>58</td>
<td>p &lt; 0.001</td>
</tr>
</tbody>
</table>

3.2 Overview of Research Design

This research study was conducted using a sequential mixed-methods explanatory design (QUAN → qual). This type of study is discussed extensively in Creswell and Clark (2007), Tashakkori and Teddlie (2003), Ivankova, Creswell and Stick (2006), and also in Teddlie and Tashakkori (2006). The research was conducted in two distinct phases. The more heavily weighted quantitative phase (QUAN) preceded the qualitative case studies (qual) of three alternative schools with the purpose of shedding light on the outcomes of the statistical models. A visual model of the research design used in this study is found in Table 3.2.

The key steps of the research plan were (in order):

1) Using the student achievement data gathered from overage students in regular middle schools as a comparison with similar data gathered from students attending alternative middle schools, the quantitative analysis of three statistical models was completed.

2) The results of the quantitative phase were used to identify the schools in the top one-third of the alternative schools that were included in the first phase to serve as cases in the second phase, thereby integrating the two phases of research.
Table 3.2
Research Design: Sequential Explanatory (QUAN → qual).\(^4\)

<table>
<thead>
<tr>
<th>PHASE</th>
<th>PROCEDURE</th>
<th>PRODUCT</th>
</tr>
</thead>
</table>
| QUANTITATIVE Data Collection | Clustered Random Sample: \(n \approx 720\) alternative middle school students against a comparison group of 720 overage students in regular schools | • Test history (LEAP: ELA and Math, iLEAP: ELA and Math)  
• Demographic Data (gender, ethnicity, SES, ESS, LEP)  
• School data: District and type of school (alternative or regular) |
| QUANTITATIVE Data Analysis | • Data screening  
• HLM (2 models) and logistic regression  
• School effects on achievement  
• School effects on growth  
• School effects on transition to 9\(^{th}\) grade | • Descriptive statistics, missing data, HOV, normality, outliers  
• School effects sizes, significant differences between groups, significance of model as a predictor |
| QUANTITATIVE Results       | Identify significant results: school effects and group differences       | Draw conclusions based on results of QUAN analysis                       |
| INTEGRATE Quantitative and Qualitative Phases | • Determine schools in the upper third of the measured school effects  
• Purposefully choose schools based on type, student population, and purpose  
• Contact school/district to get permission to study  
• Develop protocols for parents, students, staff | Schools to be studied in the qualitative phase finalized |
| Qualitative Data Collection | • Conduct student, parent, and staff focus groups, principal interview  
• Collect relevant documents | • Transcripts: Interview and Focus groups  
• Documents: School Improvement Plan, student and faculty handbooks |
| Qualitative Data Analysis  | • Coding and thematic analysis  
• Content analysis of documents | • Codes and themes  
• Results of analysis |
| INTEGRATE                  | Explanation of quantitative and qualitative results                    | • Discussion  
• Implications  
• Future research |

\(^4\)Adapted from Creswell and Clark, 2007, p. 73).
3) The qualitative data was collected and analyzed. These data were intended to enhance the quantitative results by providing a context for alternative schools in the study and informing the proposed model of accountability for alternative schools by illustrating the ways that a successful alternative school serves its clients: students, parents and community.

4) Results from both phases were interpreted to provide a basis for the in depth discussion of the findings.

In order to make the best use of this sequential explanatory mixed methods research plan, it is necessary to integrate the data from the quantitative and qualitative phases. In this study, data gathered from the quantitative phase was used to choose the schools included in the qualitative phase as previously described. Subsequently, the findings of the qualitative phase were carried back to the quantitative phase to support those findings. Data to evaluate the success of alternative middle schools in educating overage students was collected in both phases of the research. The availability of both types of data collected separately and mixed in a transition between the two phases allowed a complete and clear picture of a unique educational setting that fills a specific educational need. The information that resulted can then be used to suggest a valid and reliable accountability model for alternative schools in this state.

Creswell and Clark (2007, p. 148) present a list of potential threats to the validity of mixed methods designs specifically targeted at sequential designs. The sequential design of this study requires that inference quality for the entire project be addressed. Some of the strategies they suggest were incorporated into this research plan to minimize the threats to validity of this study are:

- Use of multiple data sources in the qualitative phase: interview transcript, focus group transcripts, and documents (school improvement plan, faculty and student handbooks)
• The same units of study brought to the qualitative phase by identification in the quantitative phase: the schools chosen for study in the qualitative phase were chosen using the results of the quantitative phase.

• Large quantitative sample with a small qualitative sample

• Use of a valid and reliable instrument in the quantitative phase: the standardized tests administered by the Louisiana School Accountability program

• Choice of a significant result from the quantitative phase for follow-up into the qualitative phase: the schools chosen in the qualitative phase were found to have a school effect size in the upper third of all schools.

Ethical considerations were addressed prior to beginning the research. Institutional Review Board (IRB) approval of the proposed research was granted oversight exception status in June 2010. The research proposal was then submitted to the Accountability Division of the Louisiana State Department of Education for approval to use student demographic and testing data. These data were supplied using individual identification numbers that could not be used to obtain the names, social security numbers, or state identification numbers of any student. The researcher sought and obtained permission from the principal or the district superintendent to visit the schools and conduct interviews and focus groups. Adult participants in the qualitative phase of the study signed a letter of consent prior to being interviewed. Students under the age of 18 were required to obtain signed consent from a parent in order to participate in the focus groups, and in addition, gave their assent to participate in front of an adult witness.

3.3 Quantitative Phase

The purpose of the quantitative phase of the research was to supply school effects estimations for 24 alternative schools using a statistical model that was chosen to best represent the sample data using fit statistics supplied by SAS® statistical software. The school effects of
the regular schools in the sample were also computed and could be used as a comparison to the alternative schools in the same district. The data collection and sampling strategies are outlined in the following sections.

3.3.1 Data Collection

The Accountability Division of the Louisiana Department of Education supplied all data used in the quantitative phase. The data file included approximately 5.7 million observations of standardized tests administered in the state’s program from its inception in 1999 to 2009. This file was organized by student using a unique historical identification number, and included such demographic data for all students in the state such as age, gender, ethnicity, socioeconomic status, and Exceptional Student Services (ESS) status, migrant status, and Limited English Proficiency (LEP) status.

The instruments that provided the student achievement data used in this study were the existing criterion-referenced tests, the Louisiana Education Assessment Program (LEAP) administered to all 4th and 8th graders in the state and the Integrated Louisiana Education Assessment Program (iLEAP) administered to all 3rd, 5th, 6th, 7th, and 9th grade students since 2005. These tests are similarly scaled each year, and make an ideal choice of pretest and posttest (Louisiana Department of Education, 2008a) for this study. For the growth model in this study, the scaled score for English/language arts (ELA) and math for the student’s initial test observation was used as a pretest, and the scaled scores for the student’s final recorded test observation will be used as the posttest.

A list of schools in the state registered as alternative schools or programs was also obtained from the Louisiana Department of Education (2009d). For the 2009 – 2010 academic year, because the institution of the iLEAP assessment began in 2005, test observations prior to that year were eliminated from the sample.
year, there were 139 schools registered as alternative schools having a student capacity of 16,834 students. The number of students served in this year was 21,606. This fact demonstrates the high rate of student turnover in programs serving suspended and expelled students. Of the categories reported to the type of program (not mutually exclusive), 97 of these schools served students in short-term suspension, 81 schools and programs served students in long-term expulsion, 38 served academically behind, 24 schools had a dropout retrieval program, 26 had a GED Options program, 21 served adjudicated students, and 8 schools served the gifted and talented.

This list guided the choice of students in this study. Some of these schools had been issued a Louisiana school code used to collect standardized test results, and some had not. The school code was essential to identify the test results of individual students, and only schools having test codes could be included in the study.

3.3.2 Sampling

The sample of schools was the first level of sampling that was completed, and then students attending those schools comprised the second level of sampling. Due to the nature of this study as a potential model of school accountability, the decision was made to include all alternative schools meeting the criteria of inclusion in the study. According to these data records (Louisiana State Department of Education, 2009d), there are approximately 24 of these schools serving approximately 4,100 students in the state who are academically behind their age peers. These alternative schools were identified for inclusion in the study according to the following criteria:

- The school has a middle school program for grades 5 through 8 or a portion of this grade range.
• The school is either a stand-alone facility or a program with a Louisiana testing code number.

• The school serves students who are at least two years behind in grade compared their age-peers.

• The school does not serve only those students who have been suspended or expelled from a regular school setting.

• The school has an active program that will allow students to accelerate in grade and transition to high school or to a regular middle school or a dropout remediation program.

Twenty-four regular middle schools in the same districts as the 24 alternative schools were chosen as the source for a comparison group of students. The additional criteria for being chosen as a comparison school included both geographical proximity and similar grade configuration. These 48 schools supplied the clusters of students who made up the data sample for the quantitative analysis.

In an effort to enlarge the sample used in this study, the students who have attended these alternative schools and the comparison schools as 8th graders in the past three years, testing in 2007 – 2009, were included in the sample of alternative students. A sample size calculation based on a population size of the 4205 students attending participating alternative schools during this period at a 95% confidence interval yielded a theoretical sample size of 353 students. To ensure an adequate sample for this study, the decision was made to include 30 randomly selected students from each of the 24 schools for a total of 720 students attending alternative schools. A similar comparison group of 720 students (30 randomly selected students from each of the 24 comparison schools) was drawn from a group of students who were at least two years older in grade than their age-peers testing in 8th grade in the same time period. These 1440 students along with their historical test data made up the data sample.
3.4 Qualitative Phase

The purpose of the qualitative phase was to illustrate the ways that the alternative school is best able to serve its clients: the students, parents, and community. Three successful alternative schools as identified by the results of the quantitative phase of the study were visited in order to provide the insights of those directly involved in alternative education. Transcripts of interviews with the principals and focus groups comprised of students, parents, teachers were the primary sources of data for this phase.

3.4.1 Sampling Strategies

The strategy used to choose the schools for the qualitative portion of the study was purposeful. From the list of the schools having the top one-third of school effects estimated in the quantitative phase, three schools were screened and chosen to participate. Some of the factors that influenced this choice were:

• Availability to the researcher.

• Identification as the primary focus of the school program to accelerate its students in grade and return them to a regular school program.

• The presence of an active dropout prevention program or focus.

• The presence of academic interventions in the instructional program.

• The active choice of students and parents to be in the school program rather than being “sentenced” to attend the school due to suspension or expulsion.

• The program serves students who typically attend for a full school year or more.

Of the eight schools identified in the top one-third of estimated school effects, two schools declined to participate. Two schools had been reconfigured to serve only expelled students and/or adjudicated students and no longer fit the inclusion criteria. The researcher was granted
access by the principals to two of the schools and the district superintendent granted access to the third school included in the qualitative phase.

Each of the three principals received a summary proposal in order to help them determine which members among their groups of parents, teachers, and students would be asked by them to participate in the focus groups. The researcher asked each administrator to find willing participants and also as much of a representative sample of members of each group as possible. In addition, the principals sent a packet of information provided by the researcher to chosen parents and students with the required consent and student assent forms. The principals included in the focus group the students who returned the parent consent forms. The parent focus groups proved to be the most difficult to populate. Two principals had to recruit parents by phone after sending the information packet home with students with no response.

At Westlake, there were five participating teachers, all female, and one who was African-American. Among the seven students participating in the focus group, four were male. One male student was of Hispanic origin, and two others were African-American. Of the three female students, one was African-American. Four of the students were 8th graders, and the rest were 7th grade students. The parents’ group had originally been planned with four participants, but after one called to cancel her participation, the final group consisted of three females, two of whom were African-American.

At Northgate, the student group consisted of five students, one African-American male, one white male, and three African-American females. All of the students were classified as 8th graders as are most of the alternative middle school students at this school. The teacher focus group consisted of five teachers, all of whom were females, one being African-American. The parents group was formed from four members, one grandmother, two mothers, and one male
significant other. One of the mothers was African-American and the rest of the participants were white.

At HPAC, all of the teacher focus group were white consisting of five females and one male. The five-member student focus group was all male with one of them African-American. All of these students were enrolled in the Options GED program, and all were over the age of 18. At this school, after no parents responded to packets sent home with students and no parent who was called by the assistant principal would agree to come to the school for the focus group due to transportation issues and work, three parents responded to a request for a phone interview along with a signed consent form. Two of these parents were successfully contacted and interviewed. One failed to respond to multiple phone calls and was not interviewed.

3.4.2 Data Collection

The data that was collected in the qualitative phase consisted primarily of transcripts of interviews with the principals of three chosen alternative middle schools and the transcripts from three focus groups in each school consisting of a sample of students, parents, and teachers. These focus groups were composed of three to seven participants, and took place on the school campuses during times set by the administration and provided the researcher with information about how the alternative school serves each type of its stakeholders. The principal interviews were an hour to an hour and fifteen minutes in duration. The teacher focus groups were approximately 45 minutes long as were the two parent focus groups. The two parent phone interviews both took about 10 to 15 minutes to complete. The student focus groups were about 30 minutes long. The interview and focus group protocols can be found in their entirety in Appendix B. A summary of the protocols can be found in Table 3.3.
### Table 3.3
Summary of principal, teacher, student and parent interview and focus group protocols

<table>
<thead>
<tr>
<th>Participant</th>
<th>Topic</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principal</td>
<td>School program</td>
<td>What resources, successes, challenges, and data use are there?</td>
</tr>
<tr>
<td>Principal</td>
<td>Student opportunity to learn</td>
<td>What school programs support learning, accommodations for learning styles, and diversions from district curriculum?</td>
</tr>
<tr>
<td>Principal</td>
<td>Responsiveness to stakeholders</td>
<td>How are parents involved? Community partners? District support? Benefits to the community?</td>
</tr>
<tr>
<td>Principal</td>
<td>Organizational Capacity</td>
<td>How is communication of school purpose to students and faculty? What types of staff development, leadership structure, internal accountability?</td>
</tr>
<tr>
<td>Teachers</td>
<td>School Program</td>
<td>What helps students learn? Special programs? How do you communicate to the students?</td>
</tr>
<tr>
<td>Teachers</td>
<td>Choice to teach here</td>
<td>How did you come to this school? What do you hope to accomplish? How do you help students succeed?</td>
</tr>
<tr>
<td>Teachers</td>
<td>Teacher needs</td>
<td>What would you change? How safe do you feel here? Is there any outside help for you and the students?</td>
</tr>
<tr>
<td>Students</td>
<td>School Program</td>
<td>What does this school have that helps you learn? Tell me about the teachers and principal, and special programs.</td>
</tr>
<tr>
<td>Students</td>
<td>Choice to be here</td>
<td>How did you come to be here? What do you hope to accomplish? How do your parents feel about the school? What are our plans when you leave school?</td>
</tr>
<tr>
<td>Students</td>
<td>Student needs</td>
<td>What would you change about the school if you could? Would you rather be at a different school?</td>
</tr>
<tr>
<td>Parents</td>
<td>School Program</td>
<td>How do the adults show your child they care about how they learn? What special programs are here that your child enjoys?</td>
</tr>
<tr>
<td>Parents</td>
<td>Choice to be here</td>
<td>What do you hope your child will accomplish here? Are you pleased with how your child is doing here? What plans do you have for your child once they leave?</td>
</tr>
<tr>
<td>Parents</td>
<td>Parent needs</td>
<td>What would you change if you could? Who do you see from outside the school that helps your child?</td>
</tr>
</tbody>
</table>

The interviews and focus groups were conducted in the administrators’ offices and the focus groups were all located in a conference room at the three schools. These interviews were recorded using a laptop microphone and Garage Band® software. At the request of the two
parents who participated in the phone interviews, the researcher did not record the conversations, and instead typed the parents’ responses to the questions. The recorded transcripts comprised the primary qualitative data that was collected and analyzed. Other data included documents such as its School Improvement Plan, the student/parent and faculty handbooks and school websites that supplied additional information on the context and intent of the academic program at the school.

3.5 Summary

This mixed methods study of the effects of alternative schools on student achievement and learning began with a quantitative phase designed to investigate three models of school effects using student demographic and student achievement in both English language arts and mathematics. Data for the first phase was supplied by the Louisiana Department of Education. This data was sampled using a clustered random sample of 30 students in 24 alternative schools meeting inclusion criteria and a similarly sampled comparison group of 30 students two to three years behind their age peer in grade attending regular schools in the same districts. A model that best fit the data sample was identified and school effects using this model were estimated. Three schools having school effects the top one-third of alternative schools in the quantitative phase were carried into the qualitative phase. These schools were visited, and qualitative data consisting of the transcripts of interviews and focus groups with parents, teachers, and students was collected for analysis.

Chapter 4 contains information concerning the quantitative data analysis that was undertaken, a discussion of the quality of inferences for the analysis, the results of the analysis, and a summary of the findings. Chapter 5 outlines the qualitative analysis used in this phase of the study and continues with a discussion of the themes that were found in the data. The chapter concludes with a discussion of the overall qualitative findings.
CHAPTER 4. QUANTITATIVE RESULTS

With the goal of testing an accountability model for alternative schools, the quantitative analyses for this study were designed to answer the first two research questions:

1. Are there significant differences in student achievement in mathematics and ELA in students attending alternative middle schools and a comparison group of overage students attending regular schools?

2. What are the differences in the measurable school effects on overage students attending alternative middle schools as calculated using hierarchical linear (HLM) or logistic models of:
   a. Student achievement in mathematics and ELA;
   b. Growth of student achievement in mathematics and ELA; and
   c. Transition to high school?

The statistical method used for the quantitative study was a quasi-experimental method employing a group of students attending alternative middle schools and a comparison group of students two to three years older than their grade-peers attending regular middle schools within the same districts. Using SAS® statistical software, the data was analyzed using procedures that would best answer each of the research questions. For the HLM and logistic models, the fit statistics provided by the software were used to design the version of the model that was found to be the most compatible with the available data.

This chapter will begin with a description of the types of analyses undertaken and parts of the design intended to improve the quality of inferences made in this study. It will continue with a summary of the demographic information that was gathered from the two groups of students. Detailed results from the descriptive analysis, comparative analysis and the process of building the three models under consideration will then be presented. The chapter will conclude with a
discussion of the overall results of the quantitative analyses of the data and recommendations for
the use of these models in an alternate accountability system that may be applied to alternative
schools.

4.1 Description of the Analysis and Variables

Accountability models by nature are organizational studies with a minimum of two
levels, that of the student and of the school. Other levels, i.e. class or teacher, may be included
in an accountability model, but for the quantitative research question posed in this study, two
levels of analysis (students within schools) were found to be sufficient since the measurement of
differences of students within classes within schools was not part of the research problem. This
hierarchical data structure and analysis is discussed extensively in Raudenbush and Bryk (2002)
and has been used in school effects studies such as those by Lee (2000), D’Agostino (2000), Ma
and Wilkins (2002), Konstantopoulos (2006), and Dumay (2009).

As noted in Raudenbush and Bryk (2002), the structure of hierarchical linear modeling
(HLM) and the present tools for analysis of these models has mitigated three difficulties that
have plagued the accurate determination of school effects on individual students. These are
aggregation bias, misestimating standard errors, and heterogeneity of regressions across
organizations (Raudenbush & Bryk, 2002). All three of these issues are tied to a very simple
condition, the codependence of the performance of an individual student and the school.

Aggregation bias occurs when a variable can be assigned or have imposed upon it
different meanings and effects at different levels (Raudenbush & Bryk, 2002). Students’ test
scores affect the performance of a school, and the school characteristics affect the students’
performance. Simply stated, a random group of students would likely perform differently in
different school environments. Since students are not randomly assigned to schools, the
assumption of independence of these factors cannot be made. HLM, however, can assign these
effects to different levels allowing a more complete analysis (Raudenbush & Bryk, 2002).

Furthermore, the variance and covariance for each level can be estimated and individually assigned, effectively separating the units of analysis (Lee, 2000). Misestimating standard errors can occur in multiple regression analyses of school effects due to the same state of dependence of student and school. Using HLM, a unique random effect is assigned to each organization that allows for a more accurate calculation of standard error (Raudenbush & Bryk, 2002; Roberts, 2004). Individual regression coefficients can be calculated for each organization, thereby mitigating the effects of heterogeneity of growth trajectories on the overall analysis, for example.

In longitudinal student achievement studies, the structure of the data often poses problems to its assessment. The realities of student testing do not often fit the assumptions of equal numbers of observations for each individual at equal time intervals required for repeated measures analysis. Student test results are often “time-unstructured” (i.e., different data schedules for different individuals) and unbalanced (i.e., different numbers of observations for each individual)” (Holt, 2008, p. 112). The use of HLM for the analysis of student test data accepts a more flexible data structure since the person-level data “can be person-specific” (Holt, 2008, p. 112). Both conditions of unbalanced and unstructured data were found in the student test results collected for this study. In addition, some student observations (10.2%) were found to be incomplete (missing values). Holt (2008) stated that the analysis of these data is allowed in HLM as long as it is assumed that the condition that caused the missing data is not systematic. In addition, SAS® PROC MIXED uses a special algorithm that will mitigate the effects of missing data for HLM analysis (Singer, 1998). Since the missing values were primarily student demographic data, this assumption was made.

The HLM models were analyzed using the SAS® statistical software, PROC MIXED, developed by SAS Institute in 1992 (Singer, 1998). Although originally developed for uses in
agricultural and physical sciences, Singer reports that it is a software package well-suited to use in social sciences and, in particular, fitting hierarchical linear models to student achievement data. The ease of use of SAS® 9.2 for this study extends to the ability of the researcher to easily input, manage and analyze within the same software package large data sets such as those supplied by the Louisiana State Department of Education.

The variables used in the quantitative phase of the study describe both the overage student and the school type. To best answer the quantitative research question, these variables will be appropriately included in the models for each analysis. Table 4.1 provides a summary of the variables used in the three models tested in this study along with their operational definitions.

Table 4.1
Description of variables used in the study of accountability models for alternative schools

<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELA</td>
<td>The scaled score of the English/Language Arts section of the LEAP or iLEAP tests administered in Louisiana to all students in 3rd through 9th grades.</td>
</tr>
<tr>
<td>MATH</td>
<td>The scaled score of the mathematics section of the LEAP or iLEAP tests administered in Louisiana to all students in 3rd through 9th grades.</td>
</tr>
<tr>
<td>TRANSITION</td>
<td>A variable used to indicate if the student has successfully entered the 9th grade (1 = yes, 0 = no) as indicated by the presence of a 9th grade iLEAP test score in the student test history.</td>
</tr>
<tr>
<td>TIME</td>
<td>An ordinal variable indicating the number of standardized testing cycles in which a student has participated after an initial observation.</td>
</tr>
<tr>
<td>GENDER</td>
<td>A nominal variable that indicates the self-identified gender of the student (F = female, M = male, U = Unidentified).</td>
</tr>
<tr>
<td>ETHNICITY</td>
<td>A nominal variable indicating the self-identified ethnicity of the student (A = Asian, B = African American, H = Hispanic, W = White)</td>
</tr>
<tr>
<td>SES</td>
<td>A nominal variable indicating the socioeconomic status using eligibility for Free/Reduced price lunches (N = No, U = Unknown, Y = Yes)</td>
</tr>
<tr>
<td>ESS</td>
<td>A nominal variable indicating the educational status of the student, either regular or receiving Exceptional Student Services</td>
</tr>
<tr>
<td>LEP</td>
<td>A nominal variable indicating the language status of the student, either Limited English Proficiency or not.</td>
</tr>
<tr>
<td>TYPE</td>
<td>A nominal variable indicating the type of school the student attended, either regular or alternative as described in the Definitions</td>
</tr>
</tbody>
</table>

The choice to use multilevel models in this research relates to a problem concerning the unit of analysis in this use of student test scores. Traditional accountability models similar to
the one applied in this state, apply test scores measured at the student level as predictors of success at the school level. Studies that predict student scores while ignoring school effects can produce incorrect standard errors and can inflate Type I errors (Raudenbush & Bryk, 2002; Roberts, 2004). The suggested model that allows the description of structural effects on both the student and school level is the random-intercept model in which only the parameter for the intercept representing school effects in Level 1 is carried to the Level 2 regression equations and predictor variables in Level 1 are used as control factors (Raudenbush & Bryk, 2002; Singer, 1998).

The growth model tested in this study was structured with a random-intercept to estimate a value-added school effect. In addition, a time-structured random coefficient estimated the growth trajectory for each school. The growth model was structured using suggestions in Singer (1998) that takes TIME as a random effect into the second level.

The transition model tested in this study was a logistic regression model used to analyze the effects of alternative schools on the student’s transition to high school. The outcome variable was the probability ratio of success to failure using the dichotomous indictor of the student’s successful transition to 9th grade as indicated by the presence of a 9th grade test result in the longitudinal data set. Along with student demographic information, ELA and mathematics scale scores were tested as predictor variables.

In the application of this study, the process of fitting a multilevel model to student data was iterative. As described in Singer (1998), this procedure began with the analysis of a null model having no student level information and only the random intercept estimating school effect being carried to Level 2 as an outcome variable. The fit statistics and variance estimates were then used as a basis of comparison for the subsequent iterations of the model being fit. The procedure continued with the addition of various fixed effects such as school type and student
demographic information, then testing the interactions of school type with the student characteristics. At each step, the fit statistics provided by PROC MIXED were compared. At the step where the fit statistics (-2 Res Log Likelihood) were the smallest, that model was declared to be the best fit of the sample of data. As suggested in Singer (1998), an unstructured covariance matrix was specified in all the model analyses.

4.2 Inference Quality

In the quantitative phase of the study, threats to internal validity, external validity, and reliability that were addressed in the research design (Creswell & Clark, 2007). The use of a large clustered, random sample of students in alternative schools and an approximately equal number of overage students in regular schools as a matched comparison group increased the quality of inferences made in this first phase. The size of the sample was determined by using classic sample-size calculations based on the total number of 8th grade students in alternative schools in 2009, 2008, and 2007. Using the test data from groups of students over three years increased the overall size of the sample and decreased bias due to small sample sizes. A potential limiting factor in the research was the relatively small number of schools (24) in the state that met the criteria of schools to be included in the study.

The variables in the Level 1 structural model are all independent, random variables and the observations of the posttest scores (8th grade LEAP) are all independent. In addition, the growth in scaled score between the initial and final test observations for each student are independent. School assignment is inherently not a random variable. In a completely experimental design, a random assignment of student to school would be an ideal way to study the effects of the alternative school on student achievement. The use of HLM and of a matched comparison group greatly enhanced the quality of inferences made in this study and valid comparisons between schools and school types can be made.
Internal validity issues have been addressed by the state in the design and implementation of the standardized testing program in Louisiana. Both the content validity of the test and criterion validity are discussed in the yearly Technical Summary: LEAP and GEE (Louisiana Department of Education, 2008a). The decision to use only this instrument for the student achievement and growth measurements in this research was made not only for convenience, but because this test is widely recognized as being a quality instrument.

External validity has to do with the generalizability of the results to other populations, in other settings, and times (Creswell & Clark, 2007). For this study, careful sampling techniques with as much random chance for inclusion in the study as possible have been used. Only the school of attendance cannot be randomly assigned. The use of a mixed methods approach in this study enhanced generalizability of the results to other alternative schools by the inclusion of a study of three schools aimed at determining how well (or poorly) these schools serve its stakeholders.

Reliability issues in the quantitative phase of a sequential study are placed in the reliability of the instrument(s) used and selection bias (Creswell & Clark, 2007). Both the LEAP and iLEAP tests have been found to be very reliable according to the 2008 Technical Report (Louisiana Department of Education, 2008a). Using a large, clustered random sample of students to be included in the study minimized selection bias.

4.3 Descriptive Statistics

Historical test data were obtained from the Accountability Division of the Louisiana State Department of Education consisting of 5,753,099 test results collected from the state standardized testing program in the years 1999 – 2009. The test results for 2010 were not yet available at the time the study began. In the years prior to 2006, only test results from 4th and 8th grade students were mandated. In 2006, the state began standardized testing (iLEAP) for
students in 5th – 7th grades and 9th grade. For this reason, observations for 4th grade students prior to 2005 were eliminated from the data set. The historical test data of students who tested in the 8th grade during the years 2007 – 2009 were included in the data set as described in the methods section. This decision was made in an effort to minimize the effects of lost schooling and variations from the normal testing schedule during the recovery of the state from Hurricane Katrina in 2005. This filtered data set consisted of 241,235 test observations of 124,079 students taking standardized tests in the years between 2005 and 2009 who were two or more years older than their grade peers.

Frequency data provided a demographic profile of the overage students in the state. It was found that the high stakes testing grades (4th grade and 8th grade) were the most frequent standardized tests taken by these students. Of the total test observations, 4th graders posted 17.5% of them and 8th graders 48.1%. This result is not completely unexpected for two reasons. In these grades, students are allowed to retake the test after remediation during summer school resulting in two test observations within the same calendar year, and if they are unsuccessful in posting a satisfactory score on the retake test, they must repeat the grade at least once thus repeating the testing cycle. Transition to 9th grade without satisfactory scores on the 8th grade LEAP test is more highly regulated than in 4th grade and may account for the higher percentage of 8th grade test results in this overage population. Students in 5th grade through 7th grade and 9th graders do not repeat a grade based solely on the results of state standardized tests. This was reflected in the lower percentages of test results seen in these grade levels ranging from the lowest value of 7.3% of tests taken by 5th graders and the highest of 9.7% of test results from 7th graders.

Other demographic information resulted from examining the frequency data of the sample overage students resulting in further filtering of the data set. It was found that only 0.8%
of student results were coded with “Yes” for Migrant status. However, in this category, over 50% of the test observations had no recorded value. For this reason, migrant status was not included in the data set for analysis. Other data eliminated from the data set included the coding for indeterminate ethnicity, occurring 0.3% of the time, and indeterminate gender, occurring 0.2% of the time.

The set of test observations of overage students was narrowed through the inclusion of only those that were made in the 24 participating alternative middle schools and the 24 comparison middle schools within the same districts. These schools were matched as closely as possible using criteria of geographic proximity and similarity in grade configurations. This process resulted in a group of 4,205 students attending the alternative middle schools in the study and the comparison group of 3,885 overage students attending regular middle schools. It is from these two groups that the sample of 30 students from each of the 48 schools was randomly selected. Table 4.2 summarizes the demographic information for all overage students taking standardized tests in Louisiana between 2005 and 2009, and for all students attending the 24 alternative middle schools in the state as well as the comparison group of overage students attending regular middle schools during the same time period.

Descriptive statistics for the continuous outcome variables of the scaled scores on 4th and 8th grade LEAP tests and for 5th, 6th, 7th, and 9th grade iLEAP tests for the content areas of mathematics and English/language arts (ELA) were calculated using SAS® PROC MEANS. These observations are important to this study since the student’s scores on these two subtests determine the whether the student transitions to the next grade in these high stakes testing grades of 4th and 8th. According to the 2008 Technical Summary (Louisiana Department of Education, 2008b), the scaled scores on these subtests range from 100 to 500 with an approximate mean of 300 and standard deviation of 100 for the set of all test observations within a particular year.
Table 4.2
Demographic information for all overage students taking standardized tests in Louisiana during 2005–2009 by group

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>All overage students (n = 124,079)</th>
<th>Alternative middle school students (n = 4,205)</th>
<th>Comparison school’s overage students (n = 3,881)</th>
</tr>
</thead>
<tbody>
<tr>
<td>African American</td>
<td>66.2%</td>
<td>74.9%</td>
<td>68.6%</td>
</tr>
<tr>
<td>Asian</td>
<td>1.3%</td>
<td>0.9%</td>
<td>3.8%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>1.9%</td>
<td>0.8%</td>
<td>1.3%</td>
</tr>
<tr>
<td>White</td>
<td>30.6%</td>
<td>23.4%</td>
<td>26.2%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Limited English Proficiency</th>
<th>All overage students</th>
<th>Alternative middle school students</th>
<th>Comparison school’s overage students</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>91.2%</td>
<td>91.7%</td>
<td>91.7%</td>
</tr>
<tr>
<td>Yes</td>
<td>8.8%</td>
<td>8.3%</td>
<td>8.3%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Socioeconomic Status (free or reduced lunch)</th>
<th>All overage students</th>
<th>Alternative middle school students</th>
<th>Comparison school’s overage students</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>27.2%</td>
<td>23.0%</td>
<td>24.9%</td>
</tr>
<tr>
<td>Undetermined</td>
<td>2.1%</td>
<td>2.7%</td>
<td>2.0%</td>
</tr>
<tr>
<td>Yes</td>
<td>70.8%</td>
<td>74.3%</td>
<td>73.1%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gender</th>
<th>All overage students</th>
<th>Alternative middle school students</th>
<th>Comparison school’s overage students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>38.1%</td>
<td>32.0%</td>
<td>40.6%</td>
</tr>
<tr>
<td>Male</td>
<td>61.9%</td>
<td>68.0%</td>
<td>59.4%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Education Classification</th>
<th>All overage students</th>
<th>Alternative middle school students</th>
<th>Comparison school’s overage students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regular Education</td>
<td>69.7%</td>
<td>70.3%</td>
<td>67.2%</td>
</tr>
<tr>
<td>Special Education</td>
<td>30.3%</td>
<td>29.7%</td>
<td>32.8%</td>
</tr>
</tbody>
</table>

The mean scaled score on the ELA and mathematics subtests was calculated for each grade, 4<sup>th</sup> through 8<sup>th</sup>, for the set of overage students in the state of Louisiana. These mean scaled scores in ELA ranged from a low of 231.05 in the 9<sup>th</sup> grade to a high of 270.02 in the 4<sup>th</sup> grade, while for mathematics, the mean scaled score was recorded with a low of 241.85 in 6<sup>th</sup> grade and a high of 289.09 in 4<sup>th</sup> grade. It is worth noting that for each grade, the mean score in
ELA is consistently less than the mean score in mathematics. Also a notable result of this analysis is that the standard deviations are relatively low compared to that of the state standard of 100. A summary of the scaled scores for these students is found in Table 4.3. The overall means for ELA and mathematics scaled scores were tested for statistical differences using SAS® PROC GLM by school type (alternative or regular) and by school using the 48 schools in the study.

The 8,090 students in the 48 selected schools posted 16,772 test observations in the years 2005 – 2009. Of these observations, 1,202 had missing data and were not used in the means comparison.

Table 4.3
Mean scaled scores in ELA and math for overage students in Louisiana 2005-2009 by grade

<table>
<thead>
<tr>
<th>Grade</th>
<th>N</th>
<th>Subtest</th>
<th>Mean</th>
<th>Std Dev</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>4th</td>
<td>40845</td>
<td>ELA</td>
<td>270.02</td>
<td>54.55</td>
<td>100</td>
<td>489</td>
</tr>
<tr>
<td>4th</td>
<td>41045</td>
<td>Math</td>
<td>289.09</td>
<td>48.42</td>
<td>100</td>
<td>500</td>
</tr>
<tr>
<td>5th</td>
<td>17474</td>
<td>ELA</td>
<td>245.35</td>
<td>55.49</td>
<td>100</td>
<td>420</td>
</tr>
<tr>
<td>5th</td>
<td>17469</td>
<td>Math</td>
<td>248.85</td>
<td>56.03</td>
<td>100</td>
<td>500</td>
</tr>
<tr>
<td>6th</td>
<td>21737</td>
<td>ELA</td>
<td>241.26</td>
<td>57.52</td>
<td>100</td>
<td>459</td>
</tr>
<tr>
<td>6th</td>
<td>21723</td>
<td>Math</td>
<td>241.68</td>
<td>61.74</td>
<td>100</td>
<td>500</td>
</tr>
<tr>
<td>7th</td>
<td>23385</td>
<td>ELA</td>
<td>242.62</td>
<td>58.99</td>
<td>100</td>
<td>433</td>
</tr>
<tr>
<td>7th</td>
<td>23355</td>
<td>Math</td>
<td>249.22</td>
<td>59.40</td>
<td>100</td>
<td>500</td>
</tr>
<tr>
<td>8th</td>
<td>88289</td>
<td>ELA</td>
<td>266.56</td>
<td>51.44</td>
<td>100</td>
<td>458</td>
</tr>
<tr>
<td>8th</td>
<td>109635</td>
<td>Math</td>
<td>278.52</td>
<td>47.03</td>
<td>100</td>
<td>500</td>
</tr>
<tr>
<td>9th</td>
<td>20138</td>
<td>ELA</td>
<td>231.05</td>
<td>75.20</td>
<td>100</td>
<td>500</td>
</tr>
<tr>
<td>9th</td>
<td>20003</td>
<td>Math</td>
<td>248.65</td>
<td>60.47</td>
<td>100</td>
<td>500</td>
</tr>
</tbody>
</table>

The data were plotted to test for normality. A histogram plot of the data indicated that for the most part, these data were normally distributed. There was a slight irregularity at the lower end of the observations due to the manner in which the tests are scored. If a student fails to complete the test, i.e. leaves the answer document blank, it is scored as a 100. There were 9,942
observations that were scored at 110 or below indicating that these students probably failed to complete the test. The remaining portion of the histogram was slightly skewed to the right, but in general, the data were normally distributed.

The clustered random sample of 30 students from each of the 24 alternative middle schools and the 24 comparison schools was taken from the previous sample of all overage students in these 48 schools. This sample consisted of a total of 1,440 students and 3,293 test observations. In addition to these descriptive statistics, the frequencies of student classification of gender by type of the clustered random sample (n =  ) used for both the comparative analysis and modeling were then calculated. Table 4.3 contains these data.

Table 4.4
Gender by type frequencies of alternative middle school students and comparison group in clustered random sample

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
<th>Row Percent</th>
<th>Col. Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>African-American</td>
<td>Asian</td>
<td>Hispanic</td>
</tr>
<tr>
<td>Female</td>
<td>366</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>25.4%</td>
<td>0.1%</td>
<td>0.4%</td>
</tr>
<tr>
<td></td>
<td>73.8%</td>
<td>0.4%</td>
<td>1.0%</td>
</tr>
<tr>
<td></td>
<td>34.5%</td>
<td>15.4%</td>
<td>27.8%</td>
</tr>
<tr>
<td>Male</td>
<td>696</td>
<td>11</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>48.3%</td>
<td>0.8%</td>
<td>0.9%</td>
</tr>
<tr>
<td></td>
<td>73.7%</td>
<td>1.2%</td>
<td>1.4%</td>
</tr>
<tr>
<td></td>
<td>65.5%</td>
<td>84.6%</td>
<td>72.2%</td>
</tr>
<tr>
<td>Totals</td>
<td>13</td>
<td>1062</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>0.9%</td>
<td>1.2%</td>
<td>24.1%</td>
</tr>
</tbody>
</table>

4.4 Comparative Analysis

The means comparisons by school type indicated that there was a significant difference $(F = 13.14, df = 1, p = 0.0003)$ in the means for ELA scaled score between students attending
alternative middle schools and those in the comparison group of overage students attending regular schools in the sample. The assumption of homogeneity of variance between the two groups was demonstrated by Levene’s test ($F = 0.49$, $df = 1$, $p = 0.49$). In this analysis, the comparison group of overage students posted a mean of 251.11 ($n = 1682$, $SD = 58.63$) while the group of middle school students in alternative schools posted a mean of 243.63 ($n = 1611$, $SD = 59.70$).

In a similar means comparison for mathematics achievement by school type, the data demonstrated that there were no significant differences between regular and alternative schools ($F = 3.17$, $df = 1$, $p = 0.075$). The assumption of homogeneity of variance between these groups was demonstrated by Levene’s test ($F = 0.92$, $df = 1$, $p = 0.339$). The mean achievement in mathematics of the comparison group was demonstrated to be 261.59 ($n = 1735$, $SD = 56.84$), while for the group of alternative middle school students, the mean value was found to be 258.15 ($n = 1658$, $SD = 55.33$).

To further investigate the effects of alternative schools on student achievement, an analysis of a general linear model using school type and school nested within type was undertaken. This analysis of indicated no significant differences in the effects of type on ELA or math achievement, but significant differences were demonstrated for school within type on both content areas. Tables 4.4 and 4.5 summarize these results. The results of these comparative analyses provide some evidence that encourages a closer examination of the schools included in this study. The effect of schools was demonstrated to be a much stronger influence on both mathematics and ELA achievement than school type. This result makes the use of HLM a natural choice to continue the study in order to further isolate some of the effects of the schools in the study on its overage students.
Table 4.5
Source table for ELA scaled scores by type and school within type

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>Sum of Squares</th>
<th>Mean square</th>
<th>F</th>
<th>P r &gt; F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>47</td>
<td>1239283.42</td>
<td>26367.73</td>
<td>8.29</td>
<td>&lt; 0.0001</td>
</tr>
<tr>
<td>Error</td>
<td>3345</td>
<td>10322475.61</td>
<td>2971.87</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>3392</td>
<td>11561759.03</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>Type I SS</th>
<th>Mean Square</th>
<th>F</th>
<th>Pr &gt; F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>1</td>
<td>45979.58</td>
<td>45979.58</td>
<td>14.15</td>
<td>0.0001</td>
</tr>
<tr>
<td>School (type)</td>
<td>46</td>
<td>1193303.84</td>
<td>25941.39</td>
<td>8.16</td>
<td>&lt; 0.0001</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>Type III SS</th>
<th>Mean Square</th>
<th>F</th>
<th>Pr &gt; F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>1</td>
<td>57538.11</td>
<td>57538.11</td>
<td>18.09</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>School (type)</td>
<td>46</td>
<td>1193303.84</td>
<td>25941.39</td>
<td>8.16</td>
<td>&lt; 0.0001</td>
</tr>
</tbody>
</table>

Tests of Hypothesis for Mixed Model ANOVA

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>Type III SS</th>
<th>Mean Square</th>
<th>F</th>
<th>Pr &gt; F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>1</td>
<td>57538</td>
<td>57538</td>
<td>2.31</td>
<td>0.135</td>
</tr>
<tr>
<td>Error</td>
<td>46.53</td>
<td>1159748</td>
<td>24926</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>Type III SS</th>
<th>Mean Square</th>
<th>F</th>
<th>Pr &gt; F</th>
</tr>
</thead>
<tbody>
<tr>
<td>School (type)</td>
<td>46</td>
<td>1193304</td>
<td>25941</td>
<td>8.16</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>MS Error</td>
<td>3245</td>
<td>10322476</td>
<td>3181.04</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Tests of Hypothesis using the Type III MS for School (type) as an error term

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>Type III SS</th>
<th>Mean Square</th>
<th>F</th>
<th>Pr &gt; F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>1</td>
<td>57538.11</td>
<td>57538.11</td>
<td>2.22</td>
<td>0.143</td>
</tr>
</tbody>
</table>

Table 4.6
Source table for mathematics scaled scores by type and school within type

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>Sum of Squares</th>
<th>Mean square</th>
<th>F</th>
<th>Pr &gt; F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>47</td>
<td>743909.41</td>
<td>15827.86</td>
<td>5.33</td>
<td>&lt; 0.0001</td>
</tr>
<tr>
<td>Error</td>
<td>3345</td>
<td>9940894.63</td>
<td>2971.87</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>3392</td>
<td>10684804.04</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>Type I SS</th>
<th>Mean Square</th>
<th>F</th>
<th>Pr &gt; F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>1</td>
<td>9991.56</td>
<td>9991.57</td>
<td>3.36</td>
<td>0.067</td>
</tr>
<tr>
<td>School (type)</td>
<td>46</td>
<td>733917.84</td>
<td>15954.74</td>
<td>5.37</td>
<td>&lt; 0.0001</td>
</tr>
</tbody>
</table>
(table 4.6 con’t)

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>Type III SS</th>
<th>Mean Square</th>
<th>F</th>
<th>Pr &gt; F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>1</td>
<td>21170.30</td>
<td>21170.30</td>
<td>7.12</td>
<td>0.0076</td>
</tr>
<tr>
<td>School (type)</td>
<td>46</td>
<td>733917.84</td>
<td>15954.74</td>
<td>5.37</td>
<td>&lt;0.0001</td>
</tr>
</tbody>
</table>

Tests of Hypothesis for Mixed Model ANOVA

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>Type III SS</th>
<th>Mean Square</th>
<th>F</th>
<th>Pr &gt; F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>1</td>
<td>21170</td>
<td>21170</td>
<td>1.37</td>
<td>0.245</td>
</tr>
<tr>
<td>Error</td>
<td>46.65</td>
<td>722267</td>
<td>15483</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>Type III SS</th>
<th>Mean Square</th>
<th>F</th>
<th>Pr &gt; F</th>
</tr>
</thead>
<tbody>
<tr>
<td>School (type)</td>
<td>46</td>
<td>733918</td>
<td>15955</td>
<td>5.37</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Error</td>
<td>3345</td>
<td>9940895</td>
<td>2971.87</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Tests of Hypothesis using the Type III MS for School (type) as an error term

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>Type III SS</th>
<th>Mean Square</th>
<th>F</th>
<th>Pr &gt; F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>1</td>
<td>21170.30</td>
<td>21170.30</td>
<td>1.33</td>
<td>0.255</td>
</tr>
</tbody>
</table>

4.5 Student Achievement Model

The process of testing a model that best fits a dataset is a step-wise procedure. First, a null case having no student-level or school-level covariates is fit to the data to determine the overall mean of the data, the value added to this mean by the attendance of a student at a particular school (school effect) and an error term of the general regression equation. The fit statistics and variances reported (within-schools and between-schools) in the null case also serve as a basis of comparison for the successive cases used to fit the data. In subsequent steps, fixed and random effects are added to the null case. Fit statistics provided by the statistical software can then be examined at their lowest value to determine a point of saturation. This process will determine the final model that can be characterized as the “best fit” for the data. In all cases, the notations and subscripting used for the regression equations that are displayed for these cases was taken from Singer (1998).
4.5.1 Step 1: The Null Model

The null model (unconditional) regression equations for student achievement as taken from the generalized version discussed in Chapter 3 is:

\[ \begin{align*}
\text{Level 1: } Y_{ij} (ELA or MATH) &= \beta_{0j} + r_{ij}, \text{where } r_{ij} \sim N(0, \sigma^2). \\
\text{Level 2: } \beta_{0j} &= y_{00} + u_{0j}, \text{where } u_{0j} \sim N(0, \tau_{00}).
\end{align*} \]

Using substitution, these equations can be combined to yield the mixed model equation:

\[ Y_{ij} = y_{00} + u_{0j} + r_{ij}, \]

where \( Y_{ij} \) is either the ELA or mathematics scaled score of student \( i \) attending school \( j \), \( y_{00} \) is the overall mean of the scaled score (unconditional) under investigation, \( u_{0j} \) is the normally distributed school effect with mean of 0 and between-school variance of \( \tau_{00} \), and \( r_{ij} \) is the indicator of within-school effects having a mean of 0 and variance of \( \sigma^2 \). These parameters were estimated using SAS® PROC MIXED, and the results of this analysis are found in Table 4.6.

In addition to the fit statistics reported in Table 4.6, Roberts and Monaco (2006) suggested the use of the intraclass correlation coefficient (ICC) as a measure of the “degree of dependence of individuals upon a higher structure to which they belong,” (p. 4). The ICC can also be characterized in this study as the proportion of the variance that can be attributed to between-school effects. The values for the ICC for the null case can be found in Table 4.6 and is calculated in a 2-level model using the equation:

\[ ICC = 1 - \frac{\sigma_{residuals}^2}{\sigma_{total}^2} \]
Table 4.7
Parameter estimates of the analysis of the null case on ELA and mathematics achievement

<table>
<thead>
<tr>
<th>Fixed Effects</th>
<th>Math</th>
<th>ELA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept $\gamma_{00}$</td>
<td>261.25*** (2.24)</td>
<td>249.25*** (2.89)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Random Effects</th>
<th>Math</th>
<th>ELA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept $\tau_{00}$</td>
<td>197.47*** (50.82)</td>
<td>352.96*** (83.33)</td>
</tr>
<tr>
<td>Residual $\sigma^2$</td>
<td>2972.86*** (72.72)</td>
<td>3181.39*** (78.99)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Model Fit Statistics</th>
<th>Math</th>
<th>ELA</th>
</tr>
</thead>
<tbody>
<tr>
<td>-2LL</td>
<td>36842.1</td>
<td>36000.9</td>
</tr>
<tr>
<td>AIC</td>
<td>36846.1</td>
<td>36004.9</td>
</tr>
<tr>
<td>ICC</td>
<td>0.062</td>
<td>0.010</td>
</tr>
</tbody>
</table>

Note: $\sim p < 0.10, * p < 0.05, ** p < 0.01, *** p < 0.001$

4.5.2 Step 2: Add School-level Effect of Type to Null Model

In this step, the effect of school type (TYPE) was added as a Level-2 effect on both mathematics and ELA achievement. The regression equations for this step are:

$Level 1: Y_{ij} (ELA or MATH) = \beta_{0j} + r_{ij},$ where $r_{ij} \sim N(0, \sigma^2).$

$Level 2: \beta_{0j} = \gamma_{00} + \gamma_{01} TYPE_j + u_{0j},$ where $u_{0j} \sim N(0, \tau_{00}).$

$Mixed Model: Y_{ij} (ELA or MATH) = \gamma_{00} + \gamma_{01} TYPE_j + u_{0j} + r_{ij}.$

The analysis demonstrated no significant effects using Type III sums of squares tests of school type on either mathematics achievement ($F = 1.15$, numerator $df = 1$, denominator $df = 46$, $p = 0.290$) or ELA ($F = 2.16$, numerator $df = 1$, denominator $df = 46$, $p = 0.148$).

4.5.3 Step 3: Add Student-level Fixed Effects to Null Model

In this step, five fixed effect student-level predictors of student achievement are added to the null model. These effects are characterized through the variables $GENDER, ETHNICITY, SES, ESS,$ and $LEP.$ One assumption made in this case is that as fixed effects, the influence of these variables, for example the experience of being female, are the same within schools. The
parameter estimates for Case 2 are found in Table 4.7. Only the significant results of the effects have been reported. The regression equations for this case are:

\[ Level\ 1: Y_{ij} (ELA\ or\ MATH) = \beta_{0j} + \beta_{1j}GENDER_{ij} + \beta_{2j}ETHNICITY_{ij} + \beta_{3j}SES_{ij} + \beta_{4j}ESS_{ij} + \beta_{5j}LEP_{ij} + r_{ij}, \] where \( r_{ij} \sim N(0, \sigma^2) \).

\[ Level\ 2: \beta_{0j} = \gamma_{00} + u_{0j}, \] where \( u_{0j} \sim N(0, \tau_{00}) \)

\[ \begin{align*} 
\beta_{1j} &= \gamma_{10} \\
\beta_{2j} &= \gamma_{20} \\
\beta_{3j} &= \gamma_{30} \\
\beta_{4j} &= \gamma_{40} \\
\beta_{5j} &= \gamma_{50} 
\end{align*} \]

\[ Mixed\ Model: Y_{ij} (ELA\ or\ MATH) = \gamma_{00} + \gamma_{10}GENDER_{ij} + \gamma_{20}ETHNICITY_{ij} + \gamma_{30}SES_{ij} + \gamma_{40}ESS_{ij} + \gamma_{50}LEP_{ij} + u_{0j} + r_{ij}. \]

The results table contains two additional fit estimates. The p-value of a null model likelihood ratio test is estimated by SAS® and is calculated with a \( \chi^2 \) distribution of the differences in the -2LL estimates between the null model and the model under analysis (SAS Institute Inc., 2011) using \( q - I \) degrees of freedom in which \( q \) is the number of covariance parameters estimated in the full model. The second indicator of fit is a calculation of the proportion of variance explained by the model. This estimate is calculated using the equation in Roberts and Monaco (2006):

\[
\text{Fraction explained} = \frac{\tau_{00}(null) - \tau_{00}(full)}{\tau_{00}(null)}
\]

Table 4.8
Parameter estimates of Step 2 regression on ELA and mathematics achievement data

<table>
<thead>
<tr>
<th>Fixed Effects</th>
<th>Effect</th>
<th>Math</th>
<th>ELA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept, ( \gamma_{00} )</td>
<td></td>
<td>254.06*** (4.65)</td>
<td>234.93*** (4.91)</td>
</tr>
<tr>
<td>GENDER, ( \gamma_{10} )</td>
<td>Female</td>
<td>-8.24*** (2.01)</td>
<td>11.43*** (2.01)</td>
</tr>
<tr>
<td>ETHNICITY, ( \gamma_{20} )</td>
<td>African-American</td>
<td>-19.45*** (2.67)</td>
<td>-15.45*** (2.72)</td>
</tr>
<tr>
<td>ESS, ( \gamma_{40} )</td>
<td>Yes</td>
<td>-19.60*** (2.13)</td>
<td>27.83*** (2.11)</td>
</tr>
<tr>
<td>LEP, ( \gamma_{50} )</td>
<td>Yes</td>
<td>-5.36 (3.39)</td>
<td>9.08* (3.36)</td>
</tr>
</tbody>
</table>
Random Effects | Math | ELA
--- | --- | ---
Intercept, $\tau_{00}$ | 132.07*** (37.12) | 261.30*** (64.55)
Residual, $\sigma^2$ | 2704.33*** (69.40) | 2581.28*** (67.38)

Model Fit Statistics | Math | ELA
--- | --- | ---
-2LL | 33270.9 | 32051.5
AIC | 33274.9 | 32055.5
ICC | 0.047 | 0.092
Fraction of variance explained by the model | 0.331 | 0.260
Null Model Likelihood Ratio Test ($X^2, df, p$-value) | (60.02, 1, < 0.0001) | (161.18, 1, < 0.0001)

Note: ~ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

### 4.5.4 Step 4: Add Interactions with TYPE to Step 2 Model

In this step, interactions of the variable TYPE as a school-level variable with other fixed effect student-level predictors of GENDER, ETHNICITY, SES, ESS, and LEP were added to the model. The results of this analysis can be found in Table 4.8. The mixed model regression equation used in this step is:

$$ Y_{ij} (ELA \text{ or } MATH) = \gamma_{00} + \gamma_{10} \text{TYPE}_{ij} + \gamma_{10} \text{GENDER}_{ij} + \gamma_{20} \text{ETHNICITY}_{ij} + \gamma_{30} \text{SES}_{ij} + \gamma_{40} \text{ESS}_{ij} + \gamma_{50} \text{LEP}_{ij} + \gamma_{11} \text{GENDER}_{ij} \times \text{TYPE}_{ij} + \gamma_{12} \text{ETHNICITY}_{ij} \times \text{TYPE}_{ij} + \gamma_{13} \text{SES}_{ij} \times \text{TYPE}_{ij} + \gamma_{14} \text{ESS}_{ij} \times \text{TYPE}_{ij} + \gamma_{15} \text{LEP}_{ij} \times \text{TYPE}_{ij} + u_{0j} + r_{ij}. $$

Table 4.9
Results of Student Achievement Model

<table>
<thead>
<tr>
<th>Fixed Effects</th>
<th>Effect</th>
<th>Math</th>
<th>ELA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>$\gamma_{00}$</td>
<td></td>
<td>266.87*** (6.65)</td>
</tr>
<tr>
<td>GENDER</td>
<td>$\gamma_{10}$</td>
<td>Female</td>
<td>-11.06*** (2.76)</td>
</tr>
<tr>
<td>ETHNICITY</td>
<td>$\gamma_{20}$</td>
<td>African-American</td>
<td>-20.06*** (3.78)</td>
</tr>
<tr>
<td>ESS</td>
<td>$\gamma_{30}$</td>
<td>Yes</td>
<td>-16.46*** (2.96)</td>
</tr>
<tr>
<td>LEP</td>
<td>$\gamma_{50}$</td>
<td>Yes</td>
<td>-9.66* (4.91)</td>
</tr>
</tbody>
</table>
Random Effects

<table>
<thead>
<tr>
<th></th>
<th>Math</th>
<th>ELA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept $\tau_{00}$</td>
<td>$120.73^{***}$</td>
<td>$240.35^{***}$</td>
</tr>
<tr>
<td>Residual $\sigma^2$</td>
<td>$2704.32^{***}$</td>
<td>$2585.62^{***}$</td>
</tr>
</tbody>
</table>

Model Fit Statistics

<table>
<thead>
<tr>
<th></th>
<th>Math</th>
<th>ELA</th>
</tr>
</thead>
<tbody>
<tr>
<td>$-2\text{LL}$</td>
<td>33205.8</td>
<td>31990.7</td>
</tr>
<tr>
<td>AIC</td>
<td>33209.8</td>
<td>31994.7</td>
</tr>
<tr>
<td>ICC</td>
<td>0.043</td>
<td>0.085</td>
</tr>
<tr>
<td>Fraction of variance explained by the model</td>
<td>0.389</td>
<td>0.319</td>
</tr>
</tbody>
</table>

Null Model Likelihood Ratio Test

$\chi^2, df, p-value$  

<table>
<thead>
<tr>
<th></th>
<th>Math</th>
<th>ELA</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\chi^2, df, p-value$</td>
<td>(52.89, 1, &lt; 0.0001)</td>
<td>(142.39, 1, &lt; 0.0001)</td>
</tr>
</tbody>
</table>

Linear Model Likelihood Ratio Test

$\chi^2, df, p-value$  

<table>
<thead>
<tr>
<th></th>
<th>Math</th>
<th>ELA</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\chi^2, df, p-value$</td>
<td>(65.1, 1, &lt; 0.0001)</td>
<td>(60.8, 1, &lt; 0.0001)</td>
</tr>
</tbody>
</table>

Note: $\sim p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

The results from this case in which the student-level indicators (gender, ethnicity, socio-economic status, limited English proficiency, and exceptional student services) were allowed to interact with the school-level predictor of type of school (alternative or regular) demonstrate that this model produced both the best fit statistics (lowest values) and accounted for the most variance explained by the model (38.9% for mathematics and 31.9% for ELA) up to this point.

Residual plots indicated a relatively normal distribution for the analysis of both ELA and mathematics scaled scores. No significant interactions were verified, and these interactions have not been reported in the results table. In addition to the Null Model Likelihood Ratio Test, a similar Linear Model Likelihood Ratio Test has been reported to test the significance of the full model with the previous reduced model. In subsequent references, the results of the analysis of this case will be labeled the Student Achievement Model.

Using the Student Achievement Model, the individual school results were examined. The analysis produced a value-added estimate for each of the 48 schools in the sample. Table 4.9 summarizes these results for the 24 alternative middle schools along with the results from the
Table 4.10
School-level results for value-added to grand mean for alternative schools with comparison schools.

<table>
<thead>
<tr>
<th>School</th>
<th>Math Achievement: Value Added to Grand Mean (266.87***, 6.65)</th>
<th>ELA Achievement: Value Added to Grand Mean (241.24***, 7.02)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Alternative</td>
<td>Comparison School</td>
</tr>
<tr>
<td>B</td>
<td>11.60*</td>
<td>2.50</td>
</tr>
<tr>
<td>C</td>
<td>-6.09</td>
<td>-2.59</td>
</tr>
<tr>
<td>D</td>
<td>-2.45</td>
<td>2.95</td>
</tr>
<tr>
<td>F</td>
<td>9.37</td>
<td>11.91*</td>
</tr>
<tr>
<td>G</td>
<td>5.46</td>
<td>-4.26</td>
</tr>
<tr>
<td>H</td>
<td>-0.48</td>
<td>6.30</td>
</tr>
<tr>
<td>I</td>
<td>5.05</td>
<td>-13.11*</td>
</tr>
<tr>
<td>J</td>
<td>3.03</td>
<td>11.59</td>
</tr>
<tr>
<td>K</td>
<td>-7.69</td>
<td>-12.62*</td>
</tr>
<tr>
<td>L</td>
<td>11.38*</td>
<td>22.34***</td>
</tr>
<tr>
<td>M</td>
<td>-5.24</td>
<td>-1.80</td>
</tr>
<tr>
<td>N</td>
<td>-1.33</td>
<td>-6.08</td>
</tr>
<tr>
<td>O</td>
<td>15.06*</td>
<td>3.03</td>
</tr>
<tr>
<td>P</td>
<td>1.25</td>
<td>6.05</td>
</tr>
<tr>
<td>R</td>
<td>-7.11</td>
<td>8.78</td>
</tr>
<tr>
<td>S</td>
<td>-10.11~</td>
<td>3.46</td>
</tr>
<tr>
<td>W</td>
<td>4.16</td>
<td>-1.55</td>
</tr>
<tr>
<td>U</td>
<td>-14.57*</td>
<td>-8.96</td>
</tr>
<tr>
<td>V</td>
<td>2.68</td>
<td>-11.47*</td>
</tr>
<tr>
<td>X</td>
<td>-3.51</td>
<td>-14.90*</td>
</tr>
<tr>
<td>Y</td>
<td>-2.01</td>
<td>8.58</td>
</tr>
<tr>
<td>Z</td>
<td>5.08</td>
<td>19.86**</td>
</tr>
</tbody>
</table>

Note: ~ p < 0.10, * p < 0.05, ** p < 0.01, *** p < 0.001
paired regular middle school within the same school district. The alternative schools have been randomly assigned an identifier and are then arranged alphabetically. Alternative schools in the top one-third of the group by value-added result have been shaded.

4.6 The Growth Model

The process of building the growth model began with the Student Achievement Model discussed in the previous section. The principal difference in the two models is the addition of the continuous variable \( TIME \), which is defined as the elapsed time between an initial test observation for a particular student and the current observation. Including this variable allows the multilevel analysis to estimate for each school an overall value-added to the grand mean of the data sample in addition to the estimate of added growth unique to each school.

A slight difference in the growth analysis is also found in the treatment of the variable \( TIME \) as a random school-level effect. This treatment results in a symmetrical block diagonal variance-covariance matrix for the estimation of the variation in initial school status of the value-added estimate \( (\tau_{00}) \), growth trajectory \( (\tau_{11}) \), and covariance between schools over time \( (\tau_{01} = \tau_{10}) \) that result from the level-2 residuals. This matrix will be generated in the analysis by using an unstructured specification in the SAS® code. As in the previous section, the notations and subscripting used in the regression equations are similar to those found in Singer (1998).

In order to simplify the understanding of how the addition of \( TIME \) to the Student Achievement Model affects the analysis, an examination of an unconditional growth model is helpful. By specifying in the SAS® code that the subject of analysis is schools, the individual growth model found in Singer (1998) can be altered to fit the research question to yield a growth trajectory that will estimate the growth of student achievement over time in each school:

\[
\text{Level 1: } Y_{ij} \text{ (ELA or MATH) } = \beta_{0j} + \beta_{1j}TIME_j + r_{ij}, \text{ where } r_{ij} \sim N(0, \sigma^2),
\]
Level 2:  
\[ \beta_{0j} = \gamma_{00} + u_{0j}, \quad \beta_{1j} = \gamma_{10} + u_{1j}, \]
where \( (u_{1j}) \sim N \left( (0, \tau_{00}), (\tau_{10}, \tau_{11}) \right) \).

These two regression equations can be combined using substitution to yield the mixed model form:

\[ Y_{ij} = [\gamma_{00} + \gamma_{10}TIME_{ij}] + [u_{0j} + u_{1j}TIME_{ij} + r_{ij}]. \]

The combination of the terms \( \gamma_{00} + \gamma_{10}TIME_{ij} \) give an estimate of the initial status of the overall mean student achievement for all schools in the sample. The terms \( u_{0j} + u_{1j}TIME_{ij} \) estimate the value-added plus an estimate of the growth over time exhibited by the students in each of the schools.

4.6.1 Addition of TIME to Student Achievement Model

Combining the Unconditional Growth Model with the student-level and school-level predictors from the Student Achievement Model results in the following mixed model regression equation:

\[ Y_{ij} \text{ (ELA or MATH)} = \gamma_{00} + \gamma_{01}TYPE_{ij} + \gamma_{16}GENDER_{ij} + \gamma_{20}ETHNICITY_{ij} + \gamma_{30}SES_{ij} + \gamma_{40}ESS_{ij} + \gamma_{50}LEP_{ij} + \gamma_{60}TIME_{ij} + \gamma_{11}GENDER_{ij} \ast TYPE_{ij} + \gamma_{12}ETHNICITY_{ij} \ast TYPE_{ij} + \gamma_{13}SES_{ij} \ast TYPE_{ij} + \gamma_{14}ESS_{ij} \ast TYPE_{ij} + \gamma_{15}LEP_{ij} \ast TYPE_{ij} + \gamma_{16}TIME_{ij} \ast TYPE_{ij} + u_{0j} + u_{1j}TIME + r_{ij} \]

where \( (u_{1j}) \sim N \left( (0), (\tau_{00}, \tau_{10}, \tau_{11}) \right) \).

In future discussions, this model will be referenced as the Growth Model. The results of this analysis produced the best-fit statistics, the largest fraction of the variance accounted for by the model, and the largest fraction of the variance available for between-school effects (ICC). Graphical analysis of the residuals indicated a tight cluster of observations on a scatter plot of residuals vs. predicted values. The parameter estimates for this model are found in Table 4.10 including only the significant effects and interactions that resulted.
Table 4.1
Results of Growth Model

<table>
<thead>
<tr>
<th>Fixed Effect</th>
<th>Effect</th>
<th>Math</th>
<th>ELA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>$\gamma_{00}$</td>
<td>273.37*** (6.51)</td>
<td>246.47*** (6.68)</td>
</tr>
<tr>
<td>$TIME$</td>
<td>$\gamma_{60}$</td>
<td>-6.53*** (1.46)</td>
<td>-5.15*** (1.39)</td>
</tr>
<tr>
<td>$GENDER$</td>
<td>$\gamma_{10}$</td>
<td>-10.03*** (2.70)</td>
<td>11.73*** (2.72)</td>
</tr>
<tr>
<td>$ETHNICITY$</td>
<td>$\gamma_{20}$</td>
<td>-19.99*** (3.69)</td>
<td>-18.55*** (3.80)</td>
</tr>
<tr>
<td>$ESS$</td>
<td>$\gamma_{40}$</td>
<td>16.91*** (2.90)</td>
<td>27.83*** (2.89)</td>
</tr>
<tr>
<td>$LEP$</td>
<td>$\gamma_{50}$</td>
<td>9.49 (4.80)</td>
<td>10.16* (4.77)</td>
</tr>
<tr>
<td>$TIME*TYPE$</td>
<td>$\gamma_{16}$</td>
<td>-5.88** (2.10)</td>
<td>-5.15*** (1.39)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Random Effects</th>
<th>Math</th>
<th>ELA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>$\tau_{00}$</td>
<td>96.57** (37.46)</td>
</tr>
<tr>
<td>$\tau_{01}$</td>
<td>-0.80 (15.27)</td>
<td>36.59* (15.19)</td>
</tr>
<tr>
<td>$\tau_{11}$</td>
<td>16.66 (10.18)</td>
<td>13.48 (9.30)</td>
</tr>
<tr>
<td>Residual $\sigma^2$</td>
<td>2573.65*** (66.60)</td>
<td>2489.59*** (65.47)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Model Fit Statistics</th>
<th>Math</th>
<th>ELA</th>
</tr>
</thead>
<tbody>
<tr>
<td>-2LL</td>
<td>33062.3</td>
<td>31876.5</td>
</tr>
<tr>
<td>AIC</td>
<td>33070.3</td>
<td>31884.5</td>
</tr>
<tr>
<td>Fraction of variance explained by the model</td>
<td>0.511</td>
<td>0.593</td>
</tr>
<tr>
<td>ICC</td>
<td>0.042</td>
<td>0.059</td>
</tr>
<tr>
<td>Null model likelihood ratio test &amp; $(\chi^2, df, p-value)$</td>
<td>$(57.47, 3, &lt; 0.0001)$</td>
<td>$(145.68, 3, &lt; 0.0001)$</td>
</tr>
</tbody>
</table>

Note: ~ p < 0.10, * p < 0.05, ** p < 0.01, *** p < 0.001

The school effects in terms of both value-added to a grand mean and the growth trajectories are found in Table 4.11. The term, $\gamma_{00}$, is the grand mean, reported at the top of the table for both mathematics and ELA achievement for participating alternative school students.

The term $u_{0j}$ is a value-added estimate to the grand mean reported at the top of the table. The individual means for each school can be calculated by addition of the grand mean and value-added. The growth trajectory, $u_{1j}$, demonstrates the additional growth (or decline) in these scores for each school over a year added to the growth trajectory reported at the top of the table.
Table 4.12
Results of school effects for alternative schools from the Growth Model

<table>
<thead>
<tr>
<th>School</th>
<th>Math Achievement: Value Added to Grand Mean and Growth (273.377***, -6.52***)</th>
<th>ELA Achievement: Value Added to Grand Mean and Growth (246.47***, 6.68)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Average growth over study</td>
<td>Value-Added</td>
</tr>
<tr>
<td>A</td>
<td>8.53</td>
<td>-0.96</td>
</tr>
<tr>
<td>B</td>
<td>8.61</td>
<td>1.15</td>
</tr>
<tr>
<td>C</td>
<td>6.77</td>
<td>-1.13</td>
</tr>
<tr>
<td>D</td>
<td>-3.59</td>
<td>2.72</td>
</tr>
<tr>
<td>E</td>
<td>-3.92</td>
<td>-1.27</td>
</tr>
<tr>
<td>F</td>
<td>11.05~</td>
<td>-1.62</td>
</tr>
<tr>
<td>G</td>
<td>3.74</td>
<td>3.42</td>
</tr>
<tr>
<td>H</td>
<td>3.27</td>
<td>-1.18</td>
</tr>
<tr>
<td>I</td>
<td>2.60</td>
<td>-0.07</td>
</tr>
<tr>
<td>J</td>
<td>6.24</td>
<td>-0.27</td>
</tr>
<tr>
<td>K</td>
<td>5.91</td>
<td>0.98</td>
</tr>
<tr>
<td>L</td>
<td>7.67</td>
<td>1.91</td>
</tr>
<tr>
<td>M</td>
<td>-3.37</td>
<td>-3.03</td>
</tr>
<tr>
<td>N</td>
<td>0.47</td>
<td>-1.28</td>
</tr>
<tr>
<td>O</td>
<td>11.05~</td>
<td>0.00</td>
</tr>
<tr>
<td>P</td>
<td>0.30</td>
<td>-1.22</td>
</tr>
<tr>
<td>R</td>
<td>-5.15</td>
<td>1.02</td>
</tr>
<tr>
<td>S</td>
<td>-10.42~</td>
<td>-2.16</td>
</tr>
<tr>
<td>W</td>
<td>0.69</td>
<td>0.84</td>
</tr>
<tr>
<td>Y</td>
<td>-11.29*</td>
<td>0.00</td>
</tr>
<tr>
<td>Z</td>
<td>5.11</td>
<td>0.93</td>
</tr>
<tr>
<td>V</td>
<td>-2.60</td>
<td>-1.59</td>
</tr>
<tr>
<td>Y</td>
<td>-1.93</td>
<td>0.91</td>
</tr>
</tbody>
</table>

Note: ~ p < 0.10, * p < 0.05, ** p < 0.01, *** p < 0.001
4.7 Transition Model

The Transition Model was designed to analyze the odds of success of overage students to transition to high school using SAS® PROC LOGISTIC. This model is a single-level regression using the outcome variable *TRANSITION*, coded as a “1” when successful transition to high school was found using the presence of a 9th grade test result as an indicator, and with a “0” otherwise. Only 231 students in the sample of 3,409 had indicators of 9th grade test results.

The predictor variables of *TYPE, ELA, MATH, GENDER, ETHNICITY, SES, ESS,* and *LEP* were added stepwise to the model in an effort to determine the best indicator for this outcome. The initial case that was analyzed was:

\[
\text{logit } \pi_{ij} = \log(\pi/1-\pi) = \beta_{0j} + \beta_{1j} \text{TYPE} + r_{ij}, \text{ where } r_{ij} \sim N(0, \sigma^2).
\]

The term \( \log(\pi/1-\pi) \) produced the odds ratio for successful *TRANSITION* by *TYPE* (alternative vs. regular schools). The results of this analysis did not demonstrate significant results with the reported odds ratio of 0.830 (\( \chi^2 = 1.49, df = 1, p = 0.22 \)) with a 95% Wald confidence interval of 0.62 to 1.12.

The addition of predictor variables of *ELA and MATH* were added to *TYPE* also with results that were not found to be significant. The odds ratio for this analysis was estimated to 1.15 (\( \chi^2 = 0.87, df = 1, p = 0.35 \)) with 95% Wald confidence interval of 0.85 to 1.56.

The nominal variables (*GENDER, ETHNICITY, ESS, AND LEP*) that were shown to have significant effects in the student achievement and growth models were added in a third analysis. This case was reported to have questionable validity due to the presence of multiple possible solutions. Other attempts to analyze these data any further produced similar results. For this reason, any further work with this model was suspended.
4.8 Summary

The results of the quantitative analysis of the sample of overage students attending 24 alternative middle schools in Louisiana against a comparison group of overage students attending 24 regular middle schools in the state demonstrated that of the three models tested, the growth model based on longitudinal student test data accounted for more of the between school variance (over 50% in both mathematics and ELA) available for explanation than the student achievement model. Although the total variance that could be attributed to the school itself is small (4.2% in mathematics and 5.9% in ELA), the growth model successfully produced two unique school effects that are best characterized as a value-added to the grand mean of student achievement scores and a mean growth trajectory of students attending these schools. Some results of the individual school effects demonstrated significant results, both positive and negative (see Table 4.11). These estimates of school performance may be helpful in the evaluation of alternative schools. The third model used to estimate the odds ratio of successful transition of students in alternative schools produced inconclusive results probably due to the incomplete student promotion data available to the research study.

The quantitative study yielded some important information as demonstrated by the results. First, school type was not a significant effect alone on student achievement in mathematics and ELA. School type was only a factor in interactions over time but with a negative result indicating that, in general, over time, alternative schools have a negative effect on student achievement. The estimated growth trajectory of an overage student in a regular school was a significant result of −6.53 points per year in math and −5.15 points per year in ELA. Using Table 4.10, alternative school students posted an overall growth trajectory of −12.41 (−6.53 + −5.88) points per year in math and −10.30 (−5.15 + −5.15). Overall, both groups of students, in
regular and alternative schools, demonstrated significantly negative growth trajectories. Individual schools mitigated some of these negative effects as reported in Table 4.11.

The comparative analyses demonstrated the strength of the effect of the school on the achievement of overage students. The school effects of value-added and growth displayed in the results of the growth model (Table 4.11) indicated that there are significantly positive effects of some alternative schools as well as regular schools on the achievement of the students in the study. It appears that for overage students, there are two viable options for improvement in both alternative and in regular schools, but the size of the effect depends on the school itself and not strictly by school type. In some districts, as displayed in Table 4.9, the alternative school significantly outperformed the overage students in the matched comparison school while the opposite was true in others. Also looking at Table 4.9, the alternative school students may outperform the comparison group in its matched school in one content area, but not in the other. Again, it appears that it is the school and its characteristics that have more of an effect on the achievement of the overage student than strictly school type.
CHAPTER 5. QUALITATIVE RESULTS

Using the client-centered model of evaluation (Jones, 2004) discussed in Chapter 3, this phase of the study was designed to investigate the second research question, “In what ways do successful (as defined by a school effect size in the top one-third of participating schools) alternative middle schools support student learning through:

- Providing equitable opportunities for students to learn?
- Demonstrating responsiveness to the needs of students, parents, and the community?
- Developing and prioritizing instructional goals, monitoring those goals, and reporting its findings to its primary clients (students, parents and community)?”

Three alternative schools in the upper third of results of school effects estimated in the quantitative phase were chosen for inclusion in the qualitative phase. The stakeholders of the program, administrators, teachers, students, and parents of the schools, were asked to participate in interviews and focus groups and provided the data used in this analysis.

This chapter begins with a discussion of the qualitative analysis of the data that was gathered in the school visits followed by the details of the strategies used to improve the quality of inferences in this phase of the study. The chapter continues with the descriptions of each of the three schools that participated in the qualitative portion of the study. The discussion of the findings of the data analysis will begin with the results of the analysis of the transcripts of the interviews and focus groups. The chapter will include with a discussion of the results of the qualitative analysis.

5.1 Data Analysis

According to Jones (2004), in order to properly assess the success or failure of a school, one must ask and answer these basic questions: “for what, to whom, and by what means should schools be held accountable (p. 585)? In order to answer these questions, unitary coding of the
transcripts of interviews and focus groups followed by an analysis of the results was undertaken by the researcher to determine the content of the transcripts (Krippendorff, 2004).

Using Atlas TI® software, the transcripts gathered from the administrator interviews and the focus groups composed of teachers, students, and parents were coded. This unitizing process consists of marking a block of text and associating it with a code related to its content. Similar codes were then grouped into factors of school success that came from two sources: first, the a priori characteristics of alternative schools found in the research literature and, second, the emergent factors revealed in the text as subjects of discussion by the participants.

Some a priori factors were established prior to the process of data analysis and were derived from the common characteristics of alternative schools found in Chapter 2 (Aron, 2006; Lange and Sletton, 2002; Lehr, et al., 2009; and Raywid, 1984). These are discussed in detail in Section 5.4. The second group of factors, the emergent, is composed of insights that can be especially intriguing since they are the ones that the researcher was not initially focused upon. These factors are also discussed in detail in Section 5.4.

After coding of the transcripts and resulting analysis was completed, peer review of the additional factors that emerged as well member checking for accuracy of interpretation of the transcriptions was done to increase the credibility of the analysis. Summary analysis using both the a priori and emergent factors of alternative schools was undertaken to answer the qualitative research question.

5.2 Quality of Inferences

The threats to inference quality in the qualitative phase of the study are trustworthiness, credibility of data, and transferability of the results (Creswell & Clark, 2007). The use of multiple sources of data (interviews, multiple focus groups and documents) enhanced the quality of inferences in this phase. The use of in-depth narratives derived from observations and
transcripts of interviews and focus groups during the study of three schools illuminated elements of successful alternative schools and the academic and personal issues faced by its students. A member checking process was applied to the transcript data that enhances credibility of the data. Since there will be only one coder of the qualitative data, there will not be any inter-coder bias introduced into the analysis. Peer review of the school factors that resulted from the analysis was undertaken to improve the trustworthiness of this phase.

The sampling plan for the qualitative phase is one of the most important parts of the research design, and it has a significant impact on the transferability of the qualitative results. Careful attention to the quantitative results in the choice of the schools included in the qualitative phase of the study was made to choose not only three of the successful schools as measured by school effect estimations, but also schools that are, according to the typology of alternative schools presented in Chapter 1, typical second chance schools (Lange & Sletton, 1995; C. Lehr & C. M. Lange, 2003; Raywid, 1994). These specific inclusion criteria have been outlined in Chapter 3. By adhering to the selection criteria, the results of the qualitative study could be more easily transferred to similar alternative schools in other localities.

5.3 Descriptions of the Schools

Three schools participating in this evaluative study were chosen purposefully using the results of the quantitative phase. In the group of eight schools that were in the top one-third of schools identified as successful, two schools declined to participate, and two schools, initially reported by the state as having an academic recovery program, did not fit the criteria for inclusion in the study. After screening, the three alternative schools from different areas of the state were contacted and agreed to a visit by the researcher for the purpose of data collection. The names of these schools have been changed. The purpose of the descriptions in this section is
to capture the unique qualities of each school and its programs providing the context information that will support the coding and analysis that follows.

5.3.1 Westlake Acceleration Academy

This alternative school located in a large urban area is nestled in the back of a working class neighborhood of small, but neatly kept, homes suggesting that the building previously served the children who lived there. The outer structure of the building is gray concrete, appearing indestructible, but bleak. There are covered outside corridors between the classroom buildings, and many of the individual classrooms open into these corridors, a structural feature typical of older elementary school buildings.

After overlooking the sign directing visitors to the school office, the researcher was greeted by a student who when asked its location just smiled and said, “This way,” and lead the way to the office. It was a simple act that spoke volumes about the students at this school and the lessons in social skills that are emphasized by the faculty. In stark contrast to the outside appearance of the building, the office area was bright and modern. The visit took place during the winter holiday season, and the area was cheerfully decorated.

The principal, who will be called Ms. J, is a vibrant business-like person who appeared to be very comfortable performing many tasks at once. After a quick greeting, she returned to her tasks of taking care of tardy students checking into school and parent concerns. Ms. J firmly, but gently, reminded students to get to school on time, put on their belts and tuck their shirts into their pants, to be sure to get a note from the doctor concerning an absence and listened intently to a parent’s transportation woes. After about five minutes, she had cleared the office or passed the tasks to her assistant principal, Mr. R who was also busy but with student behavior issues. It became apparent during these proceedings that the students and parents know that Ms. J will listen to what they have to say, but she is no-nonsense when it comes to following the rules.
In an initial conversation, Ms. J related some facts about the school. There are 147 students placed in the 5th through the 8th grades. On the faculty are six ELA teachers (five in 8th grade and one in 5th-6th grades), two of which focus on reading in a special intervention program called READ 180, and an additional teacher for English as a second language (ESL). The math faculty is also weighted heavily towards the 8th grade program having four teachers and one additional math teacher for 5th - 6th grades. There is a physical education teacher, librarian, social worker, a teacher for Exceptional Student Services that is shared with another school, and three teachers who visit once a week to bring art, music and theater classes to the students. Science and social studies lessons are incorporated into ELA and math and are not taught as independent classes. The students are placed in ELA and math classes for a total of six hours each day. This emphasis on ELA and math is designed to increase success on the 8th grade LEAP test for the students who must score high enough on these two test areas in order to transition to high school. Ms. J clearly articulated the rationale for this practice, “We need to teach skills for ELA and math so they can pass the LEAP…PERIOD! And that’s what we do.”

Ms. J explains that the majority of the students are placed in an 8th grade curriculum. This serves a practical purpose. Since the goal of the school is to academically remediate these overage students so that they can pass the LEAP test and transition to high school, it would seem impractical to teach them the curriculum of a lower grade, she states. There are a smaller number of students often those new to the school that are placed in a combined 5th – 6th grade curriculum. These students are generally those in need of the most remediation.

More of what Westlake is all about can be found on its website on a page titled, “About Us.” The school mascot is an eagle, and its motto is “We’re Soaring to Success.” Its Mission Statement is “Increasing Successes & Decreasing Failures,” a simple statement, but one at the heart of everything they do there. The part of the webpage that perhaps best describes the
program at the school is found in the first of its belief statements, “We believe we must first capture hearts before we can capture minds.”

This belief was found to be an integrated part of the program that was mentioned by all of the groups that were interviewed at Westlake. The teachers discussed how they foster relationships with their students and show them that they care about them. The students unanimously agreed that the best part of the school program was the teachers. They expressed their beliefs that the teachers care about them and how well they are doing in school. The parents were very supportive of the teachers and related stories of teachers having a positive effect on their children. The principal discussed how she hires teachers based not only on their teaching qualifications, but also on her perception of how caring an individual the applicant may be. She stated, “So very bluntly honest is what we have to be, and we tell them that what you’re going to be more often is a cheerleader rather than a teacher…I’ve had to have conversations with (some of) them that this is possibly not the school where you need to be working.”

Two of the teachers spoke candidly about the joys and challenges of working with these students. Ms. M talked about how the teachers simply “love on the kids. We hug them and tell them we love them. We spend a lot of time listening to their stories…it’s like they have imprinted on you.” Ms. T expressed an opinion on a different type of caring that is often demonstrated by the teachers at Westlake, the understanding that these students need to remain in an instructional setting despite some unusual behaviors that might lead to disciplinary action in other schools. She stated, “We don’t quite fit the mold. I don’t know of many teachers who after a student giving them the double bird (an offensive gesture) she would bust out laughing and say, ‘That’s it? That’s all you’ve got?’ and continues teaching. They (the students) expect us to fall apart so they can escape (the lesson) and it just doesn’t happen!”
Another striking component of the program at Westlake is its high level of program structure. The second belief statement found on the school website includes a reference to this stating, “We believe in our school having a unified focus that attends to the needs of each individual student.” Ms. J reiterated this belief saying “kids at the middle school (level), and especially our kids need uniformity in EVERYTHING!” As observed in the first few minutes on campus, the dress code is actively enforced along with the practice of using certain stairways to go up to the second floor and others to go down to the first. Behavior expectations in the classrooms have been standardized, and a program called “Since You’ve Been Gone” was implemented in all classes to assist students who have been absent. The principal expressed the rationale behind these practices, “…our kids need that. They don’t transfer. They don’t generalize.”

Additional evidence of the high level of structure and uniformity in this school’s program is found in the various academic programs that are implemented with all students. This school requires attendance at a monthly Saturday School. This extra instructional time is creatively designed to engage the students in cross-curricular activities. For example, at the upcoming Saturday School, Ms. J explained that since literacy was the focus on this particular day, the math teachers had chosen several children’s books to lead into math activities. One of the books will lead the students to learn about probability.

Other academic programs that were mentioned by Ms. J included Read 180, a literacy intervention in which all students in the school participate along with Six Plus One Traits of writing found in all classrooms. The mathematics department chose Deep Into Math as their school-wide instructional program. She explained that these programs are chosen cooperatively with the faculty after researching the best programs to remediate the overage student population, and many of these programs are funded with Title I (federal funding) or an 8g grant (state
funding). In addition, teachers meet and plan their lessons within a professional learning community environment. In this way, the teachers are able to work together to maximize student learning in the classroom.

5.3.2 Northgate Learning Center

Northgate is located in the older section of a large urban city in Louisiana. The building is one of the classic 1940’s style of schools, and like Westlake, is located in an older working class neighborhood, but in contrast to Westlake, the campus has no security fence. Instead, the friendly bear of a man who is one of security monitors greeted the researcher upon parking on the street in front of the school. He made a joke while leading the way to the office to meet Ms. D the principal, and then took his seat on a bench in the hall.

Similar to Westlake Academy, the older exterior of the building belies the updated and more cheerful interior. Unexpectedly, this school shares a mascot with the first school; they are the Eagles, and a large mural in the hall announces the fact. Ms. D shares some facts about the school. It houses approximately 150 students and 27 faculty and staff including four administrators. There are three different academic programs within the school: the first is an accelerated program of about 112 students in grades 2nd through 8th. There is an elementary expulsion program that varies in number of students for those in kindergarten through 5th grade. In addition there is a special education program for classes of students with severe learning and emotional disabilities. She is also the administrator for an off-campus residential program for students with severe physical and mental handicaps.

The alternative programs began at the school about seven years ago. A district administrator and the current assistant principal, Mr. C, planned the overall program. The students in this school are admitted by a combined recommendation and interview process, and come primarily from elementary school settings. The goal of the acceleration program is to
mediate the overage students and move them up to their age-appropriate grade and then return them to a regular elementary school. If the students reach age 14 and have not yet returned to a regular setting, they will transition from this school to another alternative school for older students within the district. The second alternative school has more of a high school-based program in concert with vocational and GED opportunities.

Ms. D states that many of the students at Northgate accelerate at least two grade levels within one year. If a student were only two grades behind upon admission to the school, he or she would be returned to a regular school after only one year at the school. If admitted more than two years behind their age-peers in grade, the student would remain at Northgate for a longer period of time.

She shares some of the school’s success stories. After the previous year, all of the 8th grade students transitioned to regular high schools by passing the state LEAP test, one-third of the alternative students accelerated two grades, and one student was able to accelerate three grade levels. These students are allowed to accelerate in grade using a unique strategy. The school enrolls students into an age-appropriate grade level as if they had never failed any grades, but they are also enrolled in a computer-based and self-paced program for remediation using Odyssey software.

All of the students take the four core classes in the morning using the district curriculum (120 minutes for ELA, 65 minutes for math and the remaining time split between science and social studies) but concentrating on building academic skills. In the afternoon the students go to the Odyssey lab for acceleration activities. Using the software for assessments, when the student demonstrates proficiency in a set of academic skills set at a particular grade level, the student is able to move forward in the program. In this manner, the student is able to catch up one or more grades while still receiving credit in their “right grade” as stated by the students. When the
student has completed the acceleration work and passes his or her work in the age-appropriate grade, then the student will return to a regular school program for the subsequent academic year. Ms. D sees this acceleration program as being very successful, and so do the students. One of them, Ellie, said, “We have to do Odyssey to get up a grade…(it) help(s) you get where you need to be and get your grades up and get you ready when you leave the school.”

Other school activities seek to support the academic program. One in particular serves two needs, one for positive behavior support for the students and one for parental communication and involvement. Students have a STAR card that they must keep with them at all times during the school week. The card contains a checklist for daily recording by each of five teachers of five positive behaviors, respectful to self and others, responsible, follows directions, remains on task, and completes all assignments. The card must go home each evening with the student for review and signature by the parent. Students who have recorded 118 “points” for the week are rewarded on Friday afternoons with activities such as popcorn and a movie, a sock hop in the gym, or a special field trip. Ms. D explains that the use of this card also supports the highly structured atmosphere at the school and gives the students an opportunity to become more responsible, a trait that is lacking in many overage students.

Some community support for the school is available. There is a grocery chain that provides refreshments for the faculty and staff once a month. A soft drink company regularly provides free sodas for the students, and a large discount store donates socks and underwear for the students who need them. In addition, there is a neighborhood church that provides many of the needs for the student incentives such as the popcorn, and the church of one of the teachers adopts a class. The school even has an adopted “grandmother” nicknamed Moo-Moo. She provides food for teacher appreciation week, and will, on occasion, pull her snow cone trailer to the school and treat the students and faculty.
Parents are invited to participate in many special programs such as honors programs after each grading period, ELA and math programs, student concerts, and other activities although few programs are held at night due to the presence of an active criminal element in the neighborhood. Ms. D stated that although some parents attend, many are unable to do so because of their work hours or transportation issues. For those parents who are unable or unwilling to come to these programs, the STAR card is a daily communication with the school on the progress of their student, and teachers do not hesitate to call the parent to update them on their children.

Similar to the atmosphere at Westlake, there is a strong sense of purpose and high expectations of the teachers at Northgate. The principal is able to not only hire the teachers at the school, but also “to relocate teachers if needed.” There have been a few times when Ms. D felt the need “to tell them this may not be the place for them.” Like Ms. J, she also looks for teachers who “understand that the goal here is to give the kids success and not to fail them. We tell them to find a way to make them have success.”

The teachers at Northgate are also a close-knit group as described by their principal, “they are supporting and loving to the kids and to each other. The teachers support each other and love on the kids.” Ms. D also indicated that the teachers become aware of the challenges that many students have at home including hunger. Some of the teachers in the focus group indicated that they have spent their own money in some cases to help a student in great need.

In a discussion of the benefits this school offers to the community, Ms. D also declared that supporting the students to become “self-sufficient adults and reduce the dropout rate” was its primary value to society. Much of this belief was summarized in her statement, “We try to give them an alternative to the bad choices offered by the street. People in a regular setting just don’t want to deal with it.”
5.3.3 Harrison Parish Alternative Center (HPAC)

HPAC is located in a suburban community of a medium-sized metropolitan area of the state. The former middle school building shares a site with one of the large high schools in the district along a main road through the area. According to its principal, Mr. A, the building and grounds have had recent renovations, and the interior indeed appears bright and freshly painted. Like many other alternative schools in the state, this school houses more than one program within this building. The elementary, middle school, and high school expulsion programs, and a GED Options program for overage students seeking an alternative diploma all share an administration team. The school has an enrollment of 60 students in pre-kindergarten through 8th grade and 210 students in grades 9 – 12. A faculty of 32 teachers serves the student population.

When asked the mission and purpose for the school, Mr. A first stated, “To make sure our kids when they leave are productive citizens.” He added, “Our function and focus is to get them back on their regular…campus as quickly as possible, or if they’re in the GED program, to have them graduate with a GED as soon as they possibly can.” To accomplish these goals, the principal reported that he had nearly unlimited support from the district. “They’ve done everything we’ve asked for in the form of academics, in the form of materials, and they’ve provided (support) in the form of people.” He related the example of when the expulsion program class sizes get over 15 students, the district will allow him to add teachers to the faculty to relieve those larger classes.

Unlike the other two schools, HPAC did not report any school-wide academic programs for remediation except for READ 180 that is used in the state for all students who test below grade level in reading skills. Instead, they have a curriculum coordinator who works closely with the teachers to monitor their instruction and keep them on track with the district curriculum along with efforts to remediate the students. This is done so that students can more successfully
return to a regular educational setting. Some computer programs such as Compass for remediation are available in a computer lab for teachers who wish to use them, and wider use is made of this software in the GED program.

The lack of school-wide educational intervention programs does not equate to a lack of instructional creativity at this school. One teacher reported that she “totally lied to them (her students) and told them that if you couldn’t stand up in front of the class and read to me eventually, you wouldn’t be able to pass…which wasn’t true, but that’s what I told them. And everybody does!” She expressed her pride in the fact that her students were able to gain the confidence to accomplish this seemingly simple task. Other teachers stated that for them, the improvements in the social skills of the students meant as much as academic success. Donna, one of the teachers said, “I call them ladies and gentlemen when they walk in, and…say ‘Yes, sir’ or ‘No, sir.’…You may not know even realize you’re doing it, but you’re teaching social skills.” The high school ELA teacher explained that she had given the students a writing assignment that revealed the struggles one student had to keep from hurting some of the other students. She was grateful that she had been able to know of his problems so that she could focus on him and be able to determine how to help him.

Other than the teachers, the students have other resource personnel on campus. The principal reported that they not only have a full-time guidance counselor, they have the services of a social worker, a support person unique to their school, and a full-time psychologist. They also have an officer from the sheriff’s department whose services are available as a result of a special tax vote of the parish. The principal reported that some students see the counselors more than once a week. In addition to these ancillary personnel, the school employs special education resource teachers and paraprofessionals to assist the teachers.
When asked why this school seems to have so many resources from the district while other alternative schools struggle, Mr. A explains that he has been an administrator in many schools in the district over the years, and that, “Honestly? I’m a pretty good charmer.” He fostered relationships with the district administrators over the years, rode with them to conferences all over the state, and made all of those contacts that can make the difference between students at this school having the textbooks they need or not. This factor, he believes, extends to the faculty. “I think my personality, and the people I’ve surrounded myself with, their personalities, lend the faculty to liking us and buying into what we’re doing, and us making them think that the things that we’re doing were their ideas. I make the comment to them (the faculty) quite often that I love you and there ain’t nothing you can do about it.”

Parent involvement in the instructional program at this school is very limited as reported by Mr. A. One problem according to him is that this school is the only alternative school in a district that spans a broad area. Not only are there challenges with parents related to jobs and transportation, Mr. A stated that in many families of “the students that we normally get, education and academics are not priorities.” High poverty is prevalent in this area for both white and African-American families. A student may tell him, “I’m coming over here and getting into a GED program because I’ve got to get a job and help my mama pay the bills.” Many parents, the principal believes, are ashamed that their child attends an alternative school because they “have that stereotypical view of the alternative school being the school with the bad kids, and who wants to tell…the boss or whoever, that their child goes to the alternative school?”

In direct contrast to the level of parental involvement is the amount of community involvement reported by the principal of HPAC. The local Chamber of Commerce, a large insurance company based in the area, and three banks all sponsored special programs at the school. Some were directly involved with mentoring the students, teaching them how to manage
their finances, and others were engaged in supplying food, school supplies, and incentives to the students. Some churches and grocery chains provide funds or materials to help with some of the more needy children. One church in the area runs a tutoring program for the students in the Jobs for American Graduates (JAG) program for the Options students.

The GED Options program is a voluntary program that is populated with older students, mostly 17 and older and entering the program from grades 8 and higher. It is open to students who instead of dropping out of school chose instead to attend classes to prepare them to take the GED test for alternative high school diplomas. At HPAC, these students have separate classes and teachers, and most participate in JAG. As part of this vocational program, the students are required to research careers, do community service, and may have the chance to go to afternoon jobs or vocational training thanks to one of their teachers who goes into the community to find jobs for them. Other students are offered after-school jobs from some of the business-owners who are members of the community organizations that partner with the school. The students at who participated in the focus group were from this program, and all were over the age of 18.

The programs at this school were very different from the other two schools. Whereas, this school has the active program for dropout prevention, the GED Options, the majority of the students attend this school due to behavior issues resulting in expulsion from their regular schools. The faculty recognized the differences in “alternative students” and “expulsion students,” and expressed the desire to have the programs separated. Another difference in this school that was brought to light by the teachers was that many of the expulsion students are actually honors students at their regular schools. The principal reiterated this fact by saying, “they lose something when they come here, and quite possibly they lose a TOPS scholarship,” referring to a state scholarship program that awards free tuition to students with high academic
performance. The differences in this school and the others made for interesting contrasts that will be points of discussion in the summary of this chapter.

5.4 Analysis

After analyzing the codes, the resulting alternative school factors came from two sources, the *a priori* characteristics (Class size, Teacher and Student choice, Building relationships, Psycho-social support, Opportunities for success, Flexible curriculum, Community interaction and District support) based on the literature of second chance schools (Lange & Sletton, 1995; C. Lehr & C. M. Lange, 2003; Raywid, 1994) found in Section 2.3.2, and the emergent factors (Teacher qualities, Administrator qualities, Safety (physical and emotional), and Awareness of student circumstance). Summary descriptions of *a priori* and emergent school factors can be found in Tables 5.1 to 5.5 along with example quotations and supporting sources. The discussion of the school factors including exemplar quotations is structured by grouping them into dimensions of Faculty Factors, Leadership, Connections, Environment-Structural, and Environment-Personal.

5.4.1 Faculty Factors

Table 5.1
Faculty factors resulting from the qualitative analysis

<table>
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<th>Faculty Factors</th>
<th>Definition</th>
<th>Examples</th>
<th>Supporting sources</th>
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<tr>
<td>Choice-Teacher</td>
<td>Membership in the faculty is made by choice rather than assignment by the district</td>
<td><em>You’ve got to have the right people. We were DRAFTED! I felt like this is where I’m supposed to be.</em></td>
<td>Raywid (1999); Aron (2006)</td>
</tr>
<tr>
<td>Teacher qualities</td>
<td>Evidence is found of a high level of teacher confidence, caring, competence and ability</td>
<td><em>She takes on each child as her own. They (the students) have a meltdown sometimes, but the teachers know what to do. We know that teaching is a performing art.</em></td>
<td>Aron (2006); Lange &amp; Sletton (2003); Lehr, et al., (2009); Rayvid (1994);</td>
</tr>
<tr>
<td>Awareness of student circumstance</td>
<td>Evidence exists that teachers are sensitive to student needs</td>
<td><em>We spend our money on them all the time. Some of us cook an entire dinner for the kids.</em></td>
<td>Emergent</td>
</tr>
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</table>
Choice-Teacher. The personal and instructional qualities of teachers at the three schools appeared to be affected by a recruiting process controlled by the administration of the school rather than district assignment of teaching positions. The principals at Westlake and Northgate both said that they are able to choose the teachers they have on the faculty and are also able to recommend their relocation if they aren’t a good fit for the program. Ms. J, the principal of Westlake revealed, “The best advantage I have is that I have a Memorandum of Understanding with the district. I can actually interview and hire my teachers and they’re not just placed here…through the Human Resources Department.” Ms. D of Northgate declared the importance of being able to choose her faculty members, “you’ve got to have the right people. You have to know that you will be cussed out, and I tell the teachers that it’s going to happen, and if they don’t react, the behavior goes away.” A teacher at Westlake communicated the same belief with the story of a similar incident.

The teachers at Westlake reported that, in some cases, they recruited their friends who they considered a perfect fit for the job to apply for positions at the school. Ms. M told the story of her friend and colleague Ms. T, “she said, ‘you need to be sure to come talk to my principal. Give her your resume…get your foot in the door,’” and Ms. M was hired for the following semester. Ms. N at Northgate declared simply, “We were drafted!” More than one teacher expressed her belief that their work at the alternative school was a calling or a mission. Ms. N said, “I went to the job fair, and I felt like this is where I was supposed to be,” and Ms. T, “We’re here because God called us here and we love these kids.”

At HPAC, the principal, Mr. A, had been at the school for only a short time. Consequently, he had not yet been able to influence the quality of the faculty to the degree that he wished. However, he expressed this belief, “Some of the people that have now retired or resigned or left here, the other teachers appreciate us doing that,” indicating that he had
encouraged some of the faculty that had been there prior to his appointment as principal to seek other employment. As related by both a teacher at HPAC and at Westlake, they were placed at the school as a result of the Human Resources Department’s suggestion that they consider the job placement adding the caveat, “but you don’t have to do this,” indicating that turning down the position would not be held against them in their job search.

**Teacher qualities.** The outcome of using recruiting to improve faculty appears to be working if one is to believe the comments of the participants. A teacher at Westlake, Ms. M, said, “Everyone on this faculty, across the board and toe to toe, is just phenomenally intelligent…we are smart enough to not just follow, and we know enough about our kids to not just follow the norm.” Ms. T chimed in, “No we’re all a little theatrical. We know that teaching is a performing art…the louder I can sing, or me standing on a chair, or wearing striped socks on Halloween to throw them off.” There were more stories of the unusual things these teachers have done to make learning more fun for the students including cartwheels and backwards chair races. The belief by these teachers is that for these particular students, “pen and pencil lecture and overhead projector would not work,” as related by Ms. T. The indication of the use of unusual teaching methods extended to the Northgate faculty as well as evidenced by Ms. M’s comment, “we are always trying to come up with something that makes them want to learn.”

Northgate parents were whole-heartedly supportive of the teachers at the school and related some of the qualities they value in the teachers of their children. Ms. MM said, “The teachers here, you walk into the classroom and they have control of the classroom. They (the students) have a meltdown sometimes, but the teachers know what to do. The patience that these teachers have is totally remarkable. There’s nothing bad about them.”

Ms. CC agreed, “She takes on each child as her own. You would think the teachers here are more like family.” Ms. T echoed, “I can’t say enough (good) about them.” The parent of a
special needs child at HPAC related an incident outside of school that she witnessed in a store parking lot that made an impression on her.

“Just yesterday, we were going to a store and he (her child) saw one of the teachers and they stood and hugged and talked for the longest time. He has a couple of teachers that he feels have really helped him.”

**Awareness of student circumstance.** Many students in these alternative schools live in lower socioeconomic households as evidenced by the high percentage of students who received free or reduced school meals. Both teachers and principals indicated an awareness of the circumstances related to the living conditions of many of the students in their schools. Whereas, the conditions of poverty for students is a much larger problem than schools can hope to solve, many individuals told stories of how they try to help the students even in small ways.

The Northgate principal made the statement that “the teachers are sensitive to the kids’ home life and not being fed.” Many teachers and the administrators related instances where some of the more needy students have received help from school staff. Ms. M of Northgate stated, “We spend our own money all the time for them. Some of us cook an entire dinner for the kids and invite others down.” Mr. A of HPAC related the incident when a church wrote the school a check for $1000 at holiday time, and the staff made sure that the more needy students had a good Christmas that year. A Ms. J, principal at Westlake explained the importance of asking the students, “did you even have breakfast?” Sometimes they’re just hungry. And we give them food. It’s just a matter of having more time and fewer students.”

Mr. A of HPAC who reiterated this belief related a story about their Positive Behavior program that came as a surprise to some,

“Understand that some of our kids come to school to eat. They’re hungry. They don’t have a decent place to live let alone a decent meal. And a lot of them look forward to their Fridays because they know they behaved and now they’re going to get that McDonald’s or Burger King or Chick-Fil-A meal card for the weekend.”
Many of the students in the GED Options program came to the school as a result of living in circumstances of poverty. The principal related one student’s comments when he came into the program, “I’ve got to have something to eat. I’m coming over here and getting into the GED program because I’ve got to get a job and help my mama pay the bills.” A teacher at HPAC told a story about another student,

“We had a student that hadn’t been to school in four years. She came to us and she was in the 3rd grade, and she tested maybe 6th grade, which was really amazing. And she worked and she worked…and she got her GED at 16. That was just amazing to me. We took her stuff (gifts) at Christmas and we went to see where she lived. And she lived in a trailer that had roaches everywhere. Seven people lived in her living room, beer bottles everywhere, Mama’s passed out. But you overcome that, and she got her GED and now she’s working and she wants to go to college.”

One of the HPAC teachers summed up the awareness of poverty by the adults working in the alternative schools in the study by saying,

“There were times…you just don’t notice. You don’t have time to notice in regular schools with so many kids and moving so quickly (through the curriculum). Where even if you try, there’s no way you can pick up on those things. And here, something’s wrong if you don’t pick up.”

5.4.2 Leadership

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<th>Leadership</th>
<th>Definition</th>
<th>Examples</th>
<th>Supporting sources</th>
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<tr>
<td>Administrator qualities</td>
<td>Administrators have a clear vision of all aspects of the program maintaining a high level of structure, oversight and passion</td>
<td><em>I love it when you can focus on the child. We get their emotions under control before we can teach them. I love to see the change.</em></td>
<td>Emergent</td>
</tr>
<tr>
<td>District Support</td>
<td>There is evidence of at least one administrator at the district level who is an advocate for the program, and was active in its creation and/or maintenance</td>
<td><em>I got involved with MR and made a plan for the school. We melded our ideas together and she presented it to the state</em></td>
<td>Aron, 2006</td>
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Administrator qualities. Some interesting observations about the administrators of these schools were made during the site visits. Primarily, and probably not unlike administrators of other schools, these men and women are incredibly busy and hands-on managers of their school programs. After making three visits to Westlake, it was evident that Ms. J knows the names of the students who attend the school, and also many of the parents who came to the office for various reasons. Unless she was in conference, she was observed taking care of students who had lost their identification badges, taking doctor’s excuses, chiding students for being habitually late, and speaking with parents whose child might need to leave school early for a doctor’s appointment. The same could be said for Ms. D of Northgate. After completing a focus group with students, for example, she and her assistant principal, Mr. S, were found in the school cafeteria eating popcorn with students who had earned a Fabulous Friday treat of a movie and snacks. Mr. A of HPAC was observed in the hallway speaking to the students as they changed classes.

A second impression resulting from observation was the passion for the job and for the students that they conveyed during the interviews. Ms. D, before her interview, shared with me how she came to be the principal at Northgate. She had been an assistant principal at a regular elementary school. When the position at Northgate came open, and she was asked to take it, she indicated that she had prayed a lot about what to do and whether she was up to the challenge. She also said that she was very glad she had taken the job and wouldn’t want to work anywhere else. She provided a glimpse of the reasoning behind her strong commitment to this school by saying, “I love it when you can focus on the child. We get their emotions under control before we can teach them. I love to see the change.”

Parents expressed gratitude for the amount and quality of communication initiated by the administration that to them expressed caring for their child. Ms. T said, “When we first came
over here, Mr. S (the assistant principal) went out of his way to talk to me. He explained what they were going to do to help (my child).” Another parent expressed gratitude for the caring administration and that her son told her “the principal comes in and checks on me.”

Whereas, Ms. J at Westlake had reported telling her faculty members that they would be cheerleaders for their students, it was obvious that Ms. J herself was a cheerleader for the school. She indicated that she finds every opportunity to get the school’s name in the local newspaper and “any avenue that we can to put our name out there.” She smiled with great pride when she related stories of the students and parents who had been “the biggest cheerleaders” for the program. She expressed her beliefs in her mission at the school by saying, “I’ll tell parents that I’m not going to take a child and set them up for failure. I won’t do it!”

Westlake students were very positive in their comments about Ms. J. One said that she’s the “nicest principal in Louisiana,” and another, “the best principal ever.” One student chimed in to say, “If you get in trouble, she’ll give you another chance.” The parents agreed with the students about Ms. J. Ms. B said, “(she’s) a very understanding woman, not just dealing with school, but dealing with your life in general.” Ms. T commented, “I see no wrong in them (Ms. J and Mr. R). I find no fault because they really do care about those children. And not just in their education, in their life.”

Mr. A was relatively new to being the principal of an alternative school, and gave a somewhat different perspective of his job satisfaction. He had taken over the school only a year and a half ago, but he was very proud of the amount of district and community support that he felt he had attracted to the program. It appeared that Mr. A was greatly involved in the community and was the type of person who was not afraid to ask anyone who might listen for the resources that he felt would be necessary to aid the students. By self-report, he has spoken to various civic organizations, made business contacts, and district contacts as well. He summed up
his strength by saying, “Honestly? I’m a pretty good charmer!” Ego aside, it appears from the list of community partners and district supports that Mr. A has brought to the benefit of the students of HPAC, that he is, indeed, a passionate and caring administrator.

**District support.** After coding the transcripts, it was evident that the administrators of these schools relied heavily on both financial and programmatic support from the district in order to implement the school programs successfully. Comments concerning financial support for the school ranged from “I don’t have anything extra from the district,” as reported by the principal of Westlake and “We are …under general funding. We get something called alternative money from the district. It’s spent on the alternative program,” Ms. D of Northgate related. Mr. A of HPAC spoke highly of the financial support from his district saying, “Our resources, to be honest with you, are unlimited…they’ve done everything we’ve asked for in the form of academics, in the form of materials, and they’ve provided (to us) in the form of people.”

In addition to the financial resources from the district, the principals reported a high level of district support for the alternative school program. In the cases of Northgate and Westlake, both principals indicated that there was a single district administrator who had been pivotal in the creation of the program, and who was now able to lend direct support to them. The assistant principal of Northgate explained that in his case, “I got involved with MR (the district administrator) and made a plan for this school. We melded the ideas together, and MR presented it to the state.” Ms. D gave another example of district support for this school by explaining that in the previous year, the district assigned students to her school without any interview process. She continued, “We had a very high suspension rate last year. We got an OK from the director to go back to (the interview process), and now we’re back on track.” Ms. J described district support of Westlake, saying,
“This is Dr. R’s baby. She totally believes in this, and I think the statistics have shown that we’ve been successful. I think they (the district) were all expecting about 25% of the kids the first year to go on (to 9th grade), and I think we had 58% of my school, and 63% of B’s school (the other district alternative school).”

She went on to say of the support she receives from the district, “The best advantage I have is that I have a Memorandum of Understanding with the district. I can actually interview and hire my teachers.”

5.4.3 Connections

Table 5.3
Connections factors resulting from the qualitative analysis

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<th>Connections</th>
<th>Definition</th>
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<th>Supporting sources</th>
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<tbody>
<tr>
<td>Building relationships</td>
<td>Emphasis is placed on development of caring relationships between the students and the administrators, teachers, and staff of the school.</td>
<td><em>We spend a lot of time building relationships with them, and listening to them. I just hug them.</em></td>
<td>Aron (2006); Lange &amp; Sletton (2003); Lehr, et al., (2009); Noddings (1992); Rayvid (1994); te Riele (2006)</td>
</tr>
<tr>
<td>Community interaction</td>
<td>There is evidence of interaction and mutual benefit between the school and community</td>
<td><em>I think they are educating the kids...making them good citizens. Better people</em></td>
<td>Aron (2006)</td>
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**Building relationships.** Caring interactions between students and teachers appear to be valued not only by these two groups, but also by parents and administrators. The administration and faculty of Westlake made these positive interactions part of the belief system that was published on the school’s website (see Section 5.1.1). The principal expressed the strength of this belief saying,

“Our primary focus of what we try to do from the day the child steps onto our campus for the (admissions) interview is to build relationships, and I think our success is not in how we’re teaching or what we’re teaching, but it’s who the people on campus are and how they relate to the kids.”

Teachers at Westlake reinforced the presence of this belief during their focus group. Ms. T commented, “I think students who have had trouble succeeding in a regular school in the past,
if they don’t feel like the teacher cares about them or likes them, they won’t put forth the same effort as with a teacher that they think LIKES them. I think that’s a definite fact.” She continued saying, “They’re going to work harder for that teacher who they think has great expectations for them.” Ms. M, also of Westlake spoke about how these relationships are established:

“We spend a lot of time building relationships with them, and listening to them, and their stories are typically not ones you really want to hear, but once they tell you, it’s like they’ve imprinted on you. Once they have told you their story, or part of their story, you go to get into your car in the afternoon, and they (the students) come running up to your car and say, ‘Hey, bye! …(as though they are saying,) ‘You’re free to go now, and I know you’re coming back tomorrow.’ They really attach to you.”

Ms. S also commented “You get this feeling that they’ve never had anyone listen to them before, especially teachers.” She continued saying, “They were the annoying ones that the teachers didn’t want to deal with, so here they find caring adults.”

The teachers reported that the establishment of a caring atmosphere at Westlake extended to the administration. Ms. A related that during regular morning pep talks at the school, Ms. J would often tell the students that “we hold you to high expectations and that we love you and your teachers love you.” She explains to new teachers at the school, “What you’re going to be more often is a cheerleader rather than a teacher.” The students reported at the top of the list, when asked what are some of the good things about the school that they think helps them learn, “The teachers are nicer.” Ms. N, a parent of a Westlake student commented, “He loves his teachers.” She also commented about Mr. R, the assistant principal, “He’s more like a daddy to them (the students).”

Northgate participants also reported the formation of caring relationships between students and teachers. Ms. P summarized the conversation saying, “the main thing is to be attentive to who they are. We know their parents, their siblings, and their pets.” The teachers
also reported that the students respond to the caring administration. Ms. K spoke about how the principal will come by her room “to check on the kids…Are you better today?” reporting on Ms. D’s question to a student. She also talked about how the weekly positive behavior programs arranged by the administration showed the students that they care about their behavior and learning. Ms. MM, a parent of a Northgate student said, “You can feel the love here for these kids.”

HPAC teachers communicated that they build caring relationships with the students. Ms. W reported, “I feel like the majority of the teachers here love the kids, or we probably wouldn’t be here.” When asked the ways they show the students they care, Mr. T said, “Spend time with them.” Ms. J said, “I just hug them. They say not to, but I do,” followed by Ms. W, “and they come up and hug us. And I hug back. I just enjoy them.” The conversation continued with Ms. D who expressed the belief, “They need personal contact. They need to know if they say something to you, you’re going to turn and you’re going to listen.”

Caring contact with students extended to the administration of HPAC according to the teachers. Nearly all responded to the question with comments such as “They joke with them (the students. They call them by name,” “And they put their arm around them,” and “They know about them, too.” Ms. J summed up the conversation with the comment “They just seem to notice the kids.”

**Community interactions.** There is a mutually valued interaction between the community and the school that extends to the students attending those schools. The school’s benefit to the community is the same as its benefit to the students. Ms. J expressed this belief saying, “Basically, you are saving a life,” referring to the school’s focus on dropout prevention and transitioning the students to program to receive a high school diploma. She continued,
“We are going to provide a tax base to this community because they (the students) are going to get out and get a decent job. They won’t be a statistic sitting in parish prison. I think that’s the biggest benefit that we give and education as a whole is the biggest benefit”

Ms. B, a Westlake parent, with no prompting, commented,

“I want to say something about the school benefitting the community. I think they’re educating the kids…and helping them with their self-esteem, making them good citizens to move on to high school. Better people.”

The Northgate principal also expressed a strong belief concerning this benefit.

“In the long run, it would be the fact that we are trying to make them (the students) self-sufficient adults and to reduce the dropout rate. I know many of them would have dropped out. We give them hope. We intervened with at least a few of them and gave them structure. We try to give them an alternative to the bad choices offered by the street. People in a regular setting just don’t want to deal with it.”

Some school programs included service learning. At HPAC, most students in the Options program are also participants in the JAG program. A component of this program is community outreach. The students indicated that they had done some community service in a local nursing home and with the Farmer’s Market next door to the school.

The community values the school as evidenced by the many civic and church organizations that have partnered with these schools to benefit the teachers and the students. One school reported at least thirteen businesses and civic and church organizations that volunteer, provide jobs for students, tutor, or donate money to the school program. The faculty at this school especially appreciated the donations commenting, “Yes, it’s nice. It is nice, because we don’t have a parent teacher organization that will provide us anything for teacher appreciation.” A second school reported six community partners, who tutor, donate soft drinks or baked goods, or donate time and money to their students and programs.

The third school was located in one of the communities that had been hard-hit by the Hurricane Katrina. In their case, there was only one business that had made small donations of
money to the school for student incentives. Interestingly enough, however, an individual benefactor from another state contacted the school after the storm for permission to “adopt the school.” This family would regularly come to the area for two weeks during the year, and had completed two major school improvement projects. Another individual who was a former Harlem Globetrotter volunteers in the after-school program, and had arranged for the students and a group of parents to attend a professional basketball game.

5.4.4 Environment-Structural

Table 5.4
Environmental-structural factors resulting from the qualitative analysis

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<th>Environment-Structural</th>
<th>Definition</th>
<th>Examples</th>
<th>Supporting sources</th>
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<tbody>
<tr>
<td>Class size</td>
<td>The number of students in each class is less than that traditionally found within the same district.</td>
<td>We have these tiny classes and bad behavior is nipped in the bud.</td>
<td>Aron (2006); Lange &amp; Sletton (2003); Lehr, et al., (2009); Rayvid (1994);</td>
</tr>
<tr>
<td>Physical safety</td>
<td>A structured behavior program is in place with at least one employee responsible for maintaining a safe school environment.</td>
<td>Most of the guards are ex-Marines.</td>
<td>Emergent</td>
</tr>
<tr>
<td>Flexible Curriculum</td>
<td>The program is structured to meet student needs, and there is evidence that the program differs from other schools within the district</td>
<td>Our students are one a fast track program. As far as teaching the entire curriculum, we don’t.</td>
<td>Aron (2006); Lange &amp; Sletton (2003); Lehr, et al., (2009); Rayvid (1994);</td>
</tr>
<tr>
<td>Choice-Student</td>
<td>Students and parents choose to attend the program</td>
<td>But they (the administration) knew. They saw something that as a parent, you don’t see.</td>
<td>Aron (2006); Lange &amp; Sletton (2003); Lehr, et al., (2009); Rayvid (1994);</td>
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**Class size.** Participants in the interviews and focus groups at each of the schools agreed that having small class sizes was a deliberate and important part of the program instituted to best meet the needs of the students in the school. As reported by the teachers and administrators, small class sizes of about 15 or less were maintained at both Westlake and Northgate by limiting the number of students admitted to the program. In the case of HPAC, the principal stated that
faculty members were added as students entered the program throughout the year in order to reconfigure the classes so that teachers had no more than 15 students per class. Checking data available on the Louisiana Department of Education website, (Louisiana Department of Education, 2009b) it was found that the three schools had student-teacher ratios of 7.3, 6.3, and 6.8 while in their respective districts the student-teacher ratios were 12.5, 12.3, and 13.0, nearly twice that of the alternative schools in each case.

Ms. T, a teacher at HPAC best articulated the advantage of these small classes saying, “I think that’s the biggest thing. They come here and they’re more on the same level as everyone else, and if there’s only 4 or 5 in the class, I can help them individually.” Ms. S, a Westlake teacher echoed the importance of having small classes, saying, “We definitely couldn’t do what we do if we had a case load of a hundred kids (each).” The Northgate principal declared the advantage of small classes at the school, “we have these tiny classes and the bad behavior is nipped in the bud.”

Parents also mentioned small class size as a benefit to their children because of the resulting individual attention from the teachers. For Ms. K whose daughter attends Westlake, she explained that when considering enrolling her in the school, “that was my biggest concern, the student-teacher ratio.” Ms. M whose grandson attends Northgate stated that the smaller classes resulted in less “overstimulation,” a factor that she believes made a difference in his ability to learn. “My child would not have made it anywhere else,” she said. Another Northgate parent commented, “I saw a difference (in my child) in two weeks.” Ms. D, principal of Northgate, revealed a negative consequence of maintaining these small classes by saying, “We can’t grow it (the school program). There’s no room!”

**Physical Safety.** Safety concerns for students can, and did, take many forms in the schools participating in this study. Visible and outward signs of a physical safety plan were
evident in all schools. As previously reported in Section 5.1.3, the community in which HPAC is located passed a special tax to fund the presence of a uniformed sheriff’s deputy at the school. In addition, the principal reported that the district had funded the hiring of hall monitors at the school. The HPAC students all indicated that they felt safe at school, and the principal confirmed that in the fall semester, there had been only one incident of fighting there.

At Northgate, Ms. D said of her safety program, “I have two safety coordinators. We have lots of adults.” Students at Northgate were also aware of the safety measures placed at their school. Brian said, “Most of the guards were ex-Marines.” The researcher also observed the constant presence and size of these guards in the hallways both at the school entrance and in the interior passageways.

At Westlake, the assistant principal is by all accounts also an auxiliary police officer though not in uniform at school, a fact known to both parents and students at the school. The benefit to students is not only a feeling of safety as school, but also development of trust for law officers outside of school. Ms. T commented of her daughter “when she found out that Mr. R was a police officer, she really relaxed. She was just really afraid (of uniformed officers).” Getting to know Mr. R on a personal basis has helped at least one troubled male student at Westlake who said, “I sat down and talked to Mr. R and he told me how if I keep actin’ up like that I ain’t gon’ get nowhere.”

**Flexible Curriculum.** There is evidence that there are structural differences in the alternative school curriculum that support the academic needs of the student. The curricula of the acceleration programs at Westlake and Northgate schools differ from that of regular schools within the same district. At Westlake, Ms. J reported, “As far as teaching the entire curriculum, we don’t.” She explained that students are in math and ELA classes for a total of six hours per day, and that science and social studies are embedded, “where they are natural (to teach).”
reasoning for implementing this schedule is student need. “We need to teach skills for ELA and math so they (the students) can pass the LEAP…PERIOD,” she says referring to the high stakes requirement of students in 8th grade who are not allowed to transition to high school without demonstrating proficiency in ELA and math.

A second plan put into place at Westlake this year is one designed to provide academic assistance to students based on the district progress-monitoring program. The district provides common assessments for all students on an approximate monthly basis. Ms. J describes the intervention saying, “then if the child doesn’t score 80% after redelivery, we put them on an Academic Assistance Plan because that child HAS to score 80%.” She also described the success the students are experiencing through this intervention by saying, “they’re only about nine or ten points off the district (average), so I say we’re having some success.”

The aim of the program at Northgate is similar to that of Westlake’s in some respects but with one difference. The school serves students according to their age. If they are two or more years in grade behind their age peers, they are eligible for the program at the school whose purpose is to accelerate the students to their age-appropriate grade. If a student reaches the age of 14 without becoming eligible to return to a regular program, the district has provided a second alternative school for older students who need continuing academic interventions. Consequently, this school has structured its academic program differently than that of Westlake in order to meet its unique goals.

At Northgate, the students attend morning classes in all four core content areas at their age-appropriate grade level. In the afternoon, the students are placed in the Odyssey Learning® lab where they work with teachers and interventionists at their own pace to make up for deficiencies in grade-level. The current assistant principal and a district-level administrator developed this unique structure to serve the needs of the students at this school as well as the
needs of the district. The principal commented, “Our kids are on a fast-track program,” and also said about the proficiency tests associated with the lab work “if they pass 4th grade ELA, they’ll start 5th grade ELA. We recognize them regularly at the Honors Program for passing proficiencies.”

Except for the GED Options program at HPAC, there was no evidence of adaptation of the curriculum for the students. This structure is present due to the nature of the majority of students at the school who were placed there because of behavior issues. The school simply educates them until their “sentence” has expired and then they return to a regular setting. The benefits of this program to these students are related to the other characteristics found in the three schools such as small classes, additional academic and social support, and caring faculty.

The HPAC Options students attend the section of the school that is identified as “alternative.” They work at their own pace with teachers to assist them with remediation of skills they will need to pass the GED examination. The structure is a modification that was put into place to meet the needs of this group of students. However, one student commented, “I would prefer like at regular schools how they teach…instead of like give you bookwork. Then try to help you when you get something wrong on your bookwork.”

Choice-Student. Principals at all three schools reported that their students attended the school or a particular program within the school by parental and student choice. Westlake has an active recruiting plan to attract students and parents to the program. Ms. J stated, “I will actually in January go out and start visiting the middle schools, selling myself and the school. Of course, the biggest selling point are the kids that go here. They’ll go back and talk about how much they love (the school) and talk to their friends about it.” The process was described by one of the Westlake students, Hope, saying, “I failed 3rd grade and 6th grade. My principal just called certain people to the library and they talked to us about it. And I brought the papers home to my
Mom, and she’s like…you’re going!” Both Westlake and Northgate have a similar process for admitting students including an interview and a rubric for scoring applicants.

The recruiting process appeared to be not only a means to the end result of choosing students for the program, but also a mechanism by which students and parents are reminded of the unique opportunity that enrollment in the school offers. One Westlake parent explained, “But they (the administration) knew…they saw something that as a parent, you don’t see,” indicating she had gained respect for her child because she had been accepted. Another parent reported that her child valued his acceptance into the program, saying, “Oh, he was so excited. He was like, ‘Thank you, Jesus! Thank you God!’ because he really wanted to get into the (school).”

Admission of students to the GED Options program at HPAC was by choice, but there was no screening process reported. This school is the only alternative school in the district, and students are admitted as space becomes available. The expulsion program for all students in the district who are required to remain at the school for a prescribed amount of time is housed here.

### 5.4.5 Environment-Personal

Table 5.5
Environmental-personal factors resulting from the qualitative analysis

<table>
<thead>
<tr>
<th>Environment-Personal</th>
<th>Definition</th>
<th>Examples</th>
<th>Supporting sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opportunities for success</td>
<td>Creating opportunities for students to have academic or social success is part of the program</td>
<td>If we fail tests, they (the teachers) give us a second chance.</td>
<td>Aron (2006); Lange &amp; Sletton (2003); Lehr, et al., (2009); Rayvid (1994);</td>
</tr>
<tr>
<td>Emotional safety</td>
<td>Evidence exists that adults foster relationships in which students feel safe from criticism and ridicule.</td>
<td>We don’t hold grudges. Today is a new day, and just keep going.</td>
<td>Emergent</td>
</tr>
<tr>
<td>Psycho-social support</td>
<td>Support for and response to the social, academic, and behavioral needs of the student is evident</td>
<td>I think a lot of what we do is teach social skills.</td>
<td>Aron (2006); Lange &amp; Sletton (2003); Lehr, et al., (2009);</td>
</tr>
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Opportunities for Success. When asked how success is defined at Westlake, the principal commented,

“Multiple levels of success. We have, of course, academic success of the kids passing classes. We have emotional success of building self-esteem when they begin to feel good about themselves, the behavioral success which ties into the emotional, and we take kids who are just not keyed into education whatsoever, and they are excited at the prospect of going here for one year and getting to a high school campus, but they don’t realize all that entails. So we build in successes. Every little milestone, we celebrate, so it’s a multitude of things. Is it just because a child goes to high school? No. Sometimes success doesn’t come until I’ve had the child for two years and his attitude has changed, and that to me is more important than passing the LEAP test and going to high school.”

This characteristic of the alternative schools found in the literature appeared to be highly structured at Westlake with purposeful structures in place to give students multiple opportunities for success. This year, the school instituted a ZAP program, Zeros Aren’t Permitted. The principal, Ms. J explained,

“It’s real easy for these kids to take a zero if you give them a choice of making things (assignments) up or taking a zero, and that’s the easy way out. So no student can take a zero. The teacher will pull them in during PE or whatever, and help them make up the work, which does two things. It will increase their grades and their GPA, but also they aren’t missing that instruction.”

There was evidence that Westlake students were also aware of this policy as related by Paul, who commented, “If we fail tests, they (the teachers) give us a second chance.”

A parent at Westlake Ms. B indicated that her daughter in her second year at the school “have a stronger confidence about herself, and I like that.” She continued her story by relating the success her daughter has had with mathematics.

“My girl wants that top; she wants to be that top person. And she was excited because she’s the only one in pre-algebra that got 105 on her test, and I’m telling you (that) before she had F’s across the board. She would not grasp math at all. She used to be afraid to raise her hand and say ‘I don’t understand.’ Now, Mr. R will go further with her and she gets it.”

An after-school program at Westlake also gave students opportunities to excel in areas other than academics. The 21st Century program that most students attend each Tuesday afternoon allows
students to have experiences in music, woodworking, sewing, dance and sports. Students said that they enjoy the programs. Parents, especially, expressed the beliefs that their children have also gained valuable social skills and enjoyment that they attribute to the program. One parent said of her son, “He talks more, because he was kind of in his shell. But now…he’ll talk.”

Ms. D at Northgate also demonstrated the belief that building opportunities for student success was an important part of the school program. She explained her expectations of the teachers by commenting,

“We’ve had one or two who did not understand the goal here is to give the kids success and not to fail them. We tell them to find a way to make them have success. I want the teacher to do what they can to prevent student failure. It raises a red flag when the interventionist and others have success and you (the teacher) aren’t. I’ve had to tell them (in some cases) this may not be the place for them.”

Ms. D also noted that the support programs for behavior, Fabulous Fridays, and Top Eagle also give students opportunities to succeed when they earn these rewards.

**Emotional Safety.** One interesting aspect of safety came to light in the Westlake teachers’ focus group as a concern not for physical safety, but for emotional safety. More than one teacher commented on the fact that the students begin their experience at the school “with a clean slate, with every potential, every capability available to them.” Ms. S, the second teacher agreed, saying that, “because they don’t feel judged and they feel that they are getting another opportunity,” that this is a benefit to the students. A teacher at Northgate, Ms. P also commented on the support that the teachers give the students, saying, “We don’t hold grudges. Today is a new day, and keep going.” Ms. T echoed the belief that at HPAC, she can help students “without drawing attention to their lack of knowledge.”

Some parents alluded to these issues. Ms. A commented about her son, “He’s kind of shy, but he feels very comfortable with them (the teachers). My son just said a couple of days ago, that they don’t criticize him.”
Any criticisms of the school programs by parents and students were all found in this area of the transcripts. For example, at one school, the students and parents were both concerned about a specific student who was reportedly bullying others. Two of the parents had scheduled a conference with the administration to express their concerns, and the students, in their focus group at the same school expressed some anger over incidences of bullying in the school. The teachers did not mention any problems with the implementation of the discipline program. In fact, all of the teachers expressed their beliefs that the students in their classes exhibited good behavior, and that many would wonder why a particular student had been a behavior problem in a different setting.

**Psycho-social support.** Many participants remarked that there were components of the school program specifically placed to build the self-esteem of the students. Northgate Alternative Center has a unique program called Top Eagle that was described by students, parents, and teachers as being one of the biggest incentives for students in the school. A distinctive aspect of this program is that it not only supports good behavior habits by the students but also their learning. Each teacher has a particular task such as an extra writing assignment or project that they assign to the students in consideration of a Top Eagle vote. Each student must collect votes from all six teachers in order to be able to go on a particular educational field trip. The teachers expressed the belief that the students like the program, and that they regularly give their votes to “the kids who try to do the best that they can.”

Jobs for American Graduates (JAG) is school-to-work program for at-risk youth (Jobs for American Graduates, 2011). All of the students in the Options program at HPAC are given an opportunity to participate in the program that is designed to give students experiences that will benefit them once they move into the job market. These HPAC students have participated in
community service projects, visited local universities and vocational colleges, and spend their afternoons enrolled in various programs at the vocational-technical school that serves the area.

Students who participated in the focus group at HPAC were all attending the Options program and all were JAG members. They supplied evidence that the combination of lessons designed to give them the skills to pass the GED exam and JAG has been instrumental in shaping their vision of their future. One indicated that he wanted to become an electrician after a “five year apprentice program and then I’ll be traveling for work.” Another student expressed interest in a program at a privately operated technical college. It was evident that their participation in the JAG program had given them a vision for their future as working adults.

Ms. X of Northgate spoke of the importance of having clear expectations, even small ones, that build self-esteem of the students when the expectation is met, “and when we tell them something, we mean it. You’ve got to learn that I mean what I say, even when I say I love you.” Another teacher reiterated the belief, “Once you get them (to buy into the program), we have very clear expectation, and they will listen to me.”

One feature found at all three schools was the awareness by the teachers and administration of the importance of conveying positive social skills to the students as another way to develop self-esteem and confidence among the students. As mentioned in the text above, this is an important component of the JAG program at HPAC. Other students at the school are in the expulsion program, but according to their teachers, teaching social skills is an important part of what they do to help the students. Ms. J explained,

“I think a lot of what we do is teach social skills. We don’t do it deliberately. It’s not like we go in the classroom thinking, ‘Let’s teach social skills.’ But you see it in the halls, you know, I call them ladies and gentlemen when they walk in, and you say yes sir, no sir. Usually a lot of them don’t have social skills, so when they come here, we have to kind of stress to them…you may not even realize you’re doing it, but you’re teaching social skills.”
At Westlake, the principal explained their more structured awareness of teaching social skills.

“Last year one of the teachers said that they she thought the kids needed social skills, so I started doing a lot a research, and I found a book called "Inspiring the Best in Students." It is absolutely phenomenal. It lays out how to teach under the framework for teaching social skills.”

5.5 Discussion

The qualitative research question whose answer will be discussed in this section is,

“In what ways do successful (as defined by a school effect size in the top one-third of participating schools) alternative middle schools support student learning through:

a. Providing equitable opportunities for students to learn?

b. Demonstrating responsiveness to the needs of students, parents, and the community?

c. Developing and prioritizing instructional goals, monitoring those goals, and reporting its findings to its primary clients (students, parents and community)?”

After examining the transcripts and both the a priori and emergent school factors, an overall structure for the results of the study took shape. Some important outcomes emerged from the process of considering the comprehensive findings.

First, for all stakeholders, the importance of the teacher qualities could not be overlooked. All participant groups expressed a high regard for the teachers and the level of caring and competence they demonstrated. Second, the value to all groups of the presence of a caring environment within the school was evident. This belief was made especially clear with the stories of extreme student poverty that were related to the researcher. The third emergent factor of importance was the caring adult-child relationships that were highly valued by all participant groups. Statements of all three of these outcomes involve the word “care.” The ethic of care by Noddings (1992, 2003a, 2005, 2007) will be used as a theoretical structure to discuss these
results in a later section in this summary. To give them a visual structure, the model in Figure 5.1 was designed based on the deficiency needs found in the lower four levels of the hierarchy of needs (Maslow, 1954). There is an overlap among the resulting school factors when considering Maslow’s hierarchy and the dimensions of school climate (Sergiovanni, 2001; Sergiovanni & Starrat, 2006). Elements of both of these works were used in the model’s design. A discussion of the model is found in the section that follows, and it will, in future references, be called the Alternative School Framework for Success.

**Figure 5.1 Alternative School Framework for Success:** A model of the results of the comprehensive analysis using Maslow’s Hierarchy of Needs (1954) and dimensions of school climate (Sergiovanni, 2001; Sergiovanni & Starrat, 2006)
5.5.1 The Alternative School Framework for Success

Applied to educational settings in Duke (1986) and Steere (1988), the lowest four needs in Maslow’s hierarchy were identified as deficiency needs whose fulfillment is essential to learning. More recently in Noddings (2005), the author states that although there are exceptions to the use of Maslow (1954), for most students, “it is hard to imagine (a) youngster feeling a need to learn arithmetic when her basic needs for love and safety have not been met.” (p. 151).

In the same article, Noddings (2005) discusses the education of students with “overwhelming needs” (p. 151), a phrase that could easily be applied to many students in the participating schools of this study. Not only are these students in this study academically needy, it was found that many lack these basic needs. The parent of a child at Westlake made a relevant statement concerning the important things about the school that made a difference for her child. When asked, she quickly replied, “self-esteem and motivation.” The stories of students in poverty related by both principals and teachers illuminated the presence of the students with overwhelming physiological needs.

Taking Maslow’s deficiency needs as not a hierarchy, but as a group of four student needs that are essential for learning to take place, the school factors identified in the qualitative analysis have been placed as bullets beneath the related need. For example, Awareness of Student Circumstance placed in Maslow’s level of Physiological Needs (1954) contains the stories of students that teachers and principal came to know as those who were hungry, homeless, or living in conditions of extreme neglect. The Safety needs of both physical and emotional safety were addressed by all groups of participants in the interview and focus group process. The school factor of Choice, the choice to come into a group of students in similar circumstances, and Building Relationships, those important and meaningful adult-student relationships (not simply interactions) related by all groups of participants, naturally fell into the
Maslow’s level of Belonging and Love (1954). All schools had structures (some informal ones) to meet the Esteem needs by creating Opportunities for Success and a Supportive Environment with a focus on fostering self-esteem among the students.

Also essential to an effective school according to Sergiovanni (2001), is a supportive and favorable school climate. A key component of this type of climate, according to the author, is the identification and commitment of the teachers with the purpose of the school. It is the quality of leadership within the school that facilitates this process by concentrating teacher energy in the right direction (Sergiovanni, 2001). Both of these factors, identification with school purpose and high quality leadership were elements of the successful alternative schools as revealed in the data. In the Alternative School Framework for Success, the items beneath the heading “School Climate” are the factors from the transcripts that identify the programmatic elements that appear to support fulfillment of the basic needs of the students and to create a supportive school climate referenced in the works of Sergiovanni (Sergiovanni, 2001; Sergiovanni & Starratt, 2006).

In the second work cited above, the authors reference a study by the Claremont Graduate School (Institute for Education and Transformation, 1992) that contains descriptions of the dimensions of school climate in which relationship factors are embedded. The Claremont study, according to the authors, points to problems in schooling as being rooted in problems in relationships (Sergiovanni & Starratt, 2006). The dimensions in the Claremont study include: relationships; race, culture, and class; values; teaching and learning; safety; physical environment; despair, hope, and the process of change (Sergiovanni & Starratt, 2006). One can see the overlap in Maslow’s (1954) deficiency needs. These relationship dimensions that are found in a supportive school climate were also present in the alternative schools in the qualitative study, and they are incorporated into the Alternative School Framework for Success.

Summarizing the effects of a supportive school climate, the Sergiovanni and Starratt (2006) state
that this type of environment fosters an increased sense of efficacy in teachers, and the students of these teachers score higher on standardized tests.

The presence of structural and interpersonal factors related to school climate was demonstrated in the data. One of the most important factors in the school as reported by the administration, teachers, and parents and supported by the district was the creation and maintenance of small classes. All participants in these groups recognized that the academic and deficiency needs of the students could not possibly be remediated within a large class population. The factor of *flexible curriculum* in these schools was based on the academic needs of their unique student population and the district plan for the students who successfully transitioned away from the school.

Both the *teacher and administrator qualities* included caring as being an important factor in the choice of personnel to work at the school. Individuals who had a passion for what they were doing for the students were highly valued by both parents and students. A high level of *district support* was, surprisingly, a theme that ranked high on the principal’s list of factors that they believed contributed to the success of the school. And lastly, *community interaction* was important to the lives of the students whether they benefitted from a job opportunity or gave care to others in community outreach projects. The community, in return, valued the school’s programs to prevent students from prematurely exiting the educational system, a condition that only promotes crime and poverty.

**5.5.2 Theoretical Framework**

Jones (2004) provided the framework for the qualitative research question. The question addresses three points of evaluation of effectiveness of the alternative schools in the qualitative phase: equitable opportunities for students to learn; responsiveness to the needs of students, parents, and community; and developing, prioritizing and reporting instructional goals to all
stakeholders. The theoretical framework for the answer will be the ethic of care from the works of Noddings (1992, 2003a, 2005, 2007).

**Equitable Opportunities to Learn.** The question of equitable opportunities for students, on the surface, appears to be an easy one: if teachers are to teach a content standard, have all students been given an opportunity to learn it? The evaluation of this dimension has a simple answer, according to Noddings (2007), to the question, “has Johnny learned X?” (p. 5). The author poses a more equitable question, but one with no easy answer, “what has Johnny learned?” (Noddings, 2007, p. 5), or even better, as posed on the same page of text, “what does Johnny NEED to learn?”

Equity according to the ethic of care (Noddings, 1992, 2003a, 2005, 2007), takes student needs, parental needs, and community needs into account to determine what students should learn. According to the author, when that which is taught shows disregard for the needs of the student, parent or community, then the student is not being given equitable opportunities to learn. Noddings (2005) explains that when the teacher includes “lessons about life and relationships” (p. 152) then there can be successful learning that may include the standard curriculum. These teachers are described by Noddings (2005) as those who can be perceived as taking on the role of social workers or even parents. A conscious effort is made to care not only about what is taught, but also how it is taught.

Supporting these lessons are the caring and safe relationships formed between the adults and students at the school. It was demonstrated in the qualitative phase of the research that these relationships were highly valued by all participants, and at one school, was described as their “primary goal.” In Noddings *The Challenge to Care in Schools: An Alternative Approach to Education* (1992), the author recognizes the unequal but reciprocal relationships that should be formed, even encouraged, in a caring educational environment. She also comments, “It must be
acceptable to admit error, confusion, or even distaste for the subject at hand” (p. 108). This type of supportive, caring, and safe environment was found in the alternative schools in this study.

**Responsiveness to the needs of the student, parents, and community.** Attention to these needs is apparent when one examines the programs found in the alternative schools and in the beliefs of those who work there that are reported to differ from regular schools. Comments from parents and student such as, “here they show you how to do your work. I want to learn,” “the regular school doesn’t want to fool with him,” “I’ve had regular teachers be abusive to him,” “the state test tells them they are stupid,” “I used to be kicked out of school; I haven’t had any trouble at (this) school,” and from teachers who said, “why do we have to go by the same rules,” and “if we could level them by ability,” point to beliefs of the participating groups that the alternative school is truly a different learning environment compared to their previous schools. The needs of the students and parents who come into the alternative school program by choice are apparent when one reads these comments. The students want to learn, the parents want their children to learn in a caring and safe environment as described in Noddings (1992). In addition, the uniquely dedicated teachers in these schools have the need to do their work in a school that promotes care. What are the needs of the community?

In a class, a professor asked, “What do we want students to know and be able to do when they leave the school system?” The class members began to call out things such as “basic computations,” “to be able to read and comprehend a newspaper,” “the geography of the United States,” “the Constitution,” and the list went on. However, it wasn’t long before the list took a turn towards things such as “to be an honest person,” “to be able to express love for family,” “to help others,” all things that are not part of a standard curriculum. At the end of the exercise, the list of characteristics of caring and ethical individuals was much longer than the list of items that
might be in a standard school curriculum. As reported in the qualitative findings, the ethical and moral education of the students in the alternative schools was present and important to the participants who were interviewed, and one can easily see the ultimate benefit to communities and society as a whole of teaching these lessons to this population of students.

**Developing, prioritizing, and reporting instructional goals to all stakeholders.** One of the surprising results of this study came from the principals of the schools who revealed the importance of a single district administrator in two cases and a group of administrators in the other upon whose support the schools’ programs depended. In one case, the school was referred to as this administrator’s “baby.” The school program, in every case, was developed in response to the needs of the overage student as well as the needs of the district struggling with an ever-growing population of students with “overwhelming needs” (Noddings, 2005, p. 151).

Once the school’s alternative program was established, the district facilitated the process of recruiting students whose needs would best be satisfied by the program. In the case of Westlake, principal reported that the recruiting process begins with a list given to her by the district of overage students in the service area of the school. She then visits each of the students and gives them information to share with parents about the alternative program. If the parent is interested, then an application letter is sent to the home and the student is called in for an interview. The parent is not interviewed to determine admission to the school, but a detailed explanation of the school’s program is given to the parent with opportunities to ask questions. The principal of Northgate reported a similar admissions process. HPAC serves a different population of students in the district, and their GED Options students come by choice, but are accepted on a first-come, first-served basis.

All three schools have very clear instructional goals that are clearly communicated to students, parents and teachers. Any student who was asked the question, “Why are you here at
this school?” had a very clear answer such as “I want to get to the 8th grade next year,” or “make it to the 9th,” or “to get my GED and get a job.” Others said to be “better students,” “better people,” and “I’m gonna change.” Expectations of students for their futures was also high. When asked their plans, the answers were worded, not as a want, but in terms of action: “get a scholarship,” “I’m gonna be a dental hygienist,” “I’m going to be an electrician,” “I’m going to LSU and play baseball,” “I’m going to Florida State and play football,” and “go to college and be a teacher.” These students did not have diminished expectations for themselves, a testament to the successful communication of the goals of the school and the success in finding students whose needs best fit the goals.

Communication of the goals of the school was an important part of the conversations with two principals. Mr. A of HPAC made it a point to go to the community organizations to speak about the school and its benefits to the community and to solicit community resources to benefit the school and its students. Ms. J of Westlake spoke of how she used every avenue available to her to get the word out to the community that her school was not the same, even though it was “housed on the campus of the worst school reputation-wise.” She continued that “the community as a whole had the same feeling so that was what we had to change…to get people to trust us to allow their kids to come here.”

5.6 Summary

In The Challenge to Care in Schools (Noddings, 1992), the author introduces a thought experiment. “Suppose we were raising a very large family of heterogeneous children -- children with different biological parents, of mixed races, and wildly different talents. How would we want them to turn out? What kind of education would we want for them” (p. 45)? If society is to show care for the education of ALL of its children, even those who are known to have overwhelming academic and social needs, then surely this is a worthy exercise.
The evidence gathered in this research points to a type of school that was founded on beliefs that education cannot take place until some basic needs of safety, belonging, love, self-esteem, and even food are met. Each of the three alternative schools in the qualitative phase of the study were shown to have needs-responsive, safe and caring environments in which students were given multiple opportunities to gain sufficient self-esteem and confidence to learn. Supporting this learning environment were important school factors that included small class size, excellence in teaching, flexible curricula, district support for the program and for a strong administration. Whereas, these factors were present in three successful alternative schools (as measured by a school effect size in the upper third of those schools participating), the scope of this investigation is not sufficient to determine whether these factors are present in all alternative schools serving students who are academically behind or whether the same factors are present in a regular school with the same school effect size for overage students.
6.1 Summary

Demographic information on overage students indicates that in Louisiana, roughly two-thirds of these at-risk students are African-American, nearly two-thirds are male, and nearly half are African-American males. Nearly three-fourths of overage students in middle schools in Louisiana are living in conditions of low socio-economic status as demonstrated by their participation in the federal free or reduced lunch program. This group of overage students, mostly of color, living in poverty, and retained in grade when they fail to show proficiency on a high stakes standardized test, are indeed similar to the at-risk students described in the literature (Amrein & Berliner, 2002; Au, 2007; Bali, et al., 2005; Clarke, et al., 2000; Darling-Hammond, 2007; Frattura & Topinka, 2006; Louisiana Department of Education, 2008b; McGill-Franzen & Allington, 1993; Schrag, 2004).

A comparative analysis of the achievement of overage students attending alternative schools and regular schools failed to demonstrate any statistical differences in the effect of school type. However, the data strongly suggested that the effect of individual schools was an important factor in the success of these students in mathematics and ELA. Further investigation of the effects of the 48 middle schools included in the study was made using hierarchical linear modeling.

The results of additional analysis demonstrated that of the three models tested, the growth model based on longitudinal student test data accounted for more of the variance (over 51% in mathematics and 59% in ELA) available for explanation than the student achievement model. Although the total variance that could be attributed to the school itself is small (4.2% in mathematics and 5.9% in ELA), the growth model successfully produced two unique school effects that are best characterized as a school effect size (value-added) based on student
achievement scores and a mean growth trajectory of students attending these schools. Some results of the individual school effects demonstrated significant results, both positive and negative. However, these estimates of school performance can be suitable measures of success for the evaluation of alternative schools. Darling-Hammond (2007), Ho (2008), Raudenbush and Bryk (1998), and Zvoch and Stevens (2008) have all suggested the use of this type of accountability model.

The results of the HLM analyses also supported the finding that the effect of individual schools on student achievement was a larger consideration than school type alone. The overall growth trajectory for all participating overage students in both alternative and regular schools was negative, meaning that over time, these students tend to perform increasingly poorly on measures of student achievement. Students in alternative schools demonstrated a more negative growth trajectory than those in regular schools. There was a wide variation in the growth trajectory among the alternative schools and regular schools that often mitigated this negative result for students. Three alternative schools shown to be successful, i.e., having results in the upper third of schools for both measures of school effects in the quantitative phase that of value-added and growth trajectory were chosen for inclusion in the qualitative phase.

The qualitative findings consisting of twelve principle factors were summarized in the Alternative School Framework for Success that was detailed in Figure 5.1. Some of these factors were established a priori from the common characteristics of alternative schools found in the literature (Aron, 2006; Lange and Sletton, 2002; Lehr, et al., 2009; and Raywid, 1994). Some factors were emergent, but had bases in Maslow’s Hierarchy of Needs (1954) and Sergiovanni and Starratt’s work on school climate (2006).

Some factors related to Maslow’s (1954) deficiency needs (i.e., esteem, belonging and love, safety, physiological) emerged from the interviews with students, parents, teachers and
administrators of alternative schools. *Awareness of student circumstance* related to Maslow’s (1954) physiological needs demonstrated that teachers and administrators know of the personal situation of students in poverty or extreme circumstances and take some action to mitigate the adverse effects on the student’s ability to learn. *Safety* needs referenced by the same work by Maslow (1954) were satisfied in both physical and emotional domains. There was a highly structured behavior program in place with at least one employee whose primary job is to maintain an environment in which students feel physically safe in all areas of the school. There was also evidence that adults foster a climate in which students feel safe from criticism and ridicule.

Higher on Maslow’s *hierarchy of needs* (1954), were the factors related to belonging and love and esteem. The factor of *student choice* to enroll in the program rather than by assignment by the district and found in alternative school literature (Aron, 2006; Lange & Sletton, 2003; Lehr, et al., 2009; Rayvid, 1994) facilitated a sense of belonging. Value was placed on development of caring relationships (*relationship building*) between the students and the administrators, teachers, and staff of the school (Aron, 2006; Lange & Sletton, 2003; Lehr, et al., 2009; Noddings, 1992; Rayvid, 1994; te Riele, 2006). Esteem needs (Maslow, 1954) were addressed in the factors of *psycho-social support* in which there is evidence for support and response to the social, academic, and behavioral needs of the student, and in *opportunities for success* (Aron, 2006; Lange & Sletton, 2003; Lehr, et al., 2009; Rayvid, 1994) in which opportunities are created in which students are able to have academic or social success relevant to their future.

Other factors were compatible with dimensions of school climate (i.e. teaching and learning, leadership, interpersonal relationships, institutional environment, and safety) as discussed in Sergiovanni and Starratt (2006). The factor of *class size* (Aron, 2006; Lange &
Sletton, 2003; Lehr, et al., 2009; Raywid, 1994) in which the school size is limited or faculty size is increased so that the number of students in each class is less than that traditionally found within the same district was placed in the dimension of teaching and learning. Also in this dimension of school climate was flexible curriculum (Aron, 2006; Lange & Sletton, 2003; Lehr, et al., 2009; Raywid, 1994) in which the school curriculum is structured to meet student needs, and there is evidence that the school program differs significantly from other schools within the district. There is also evidence of a high level of teacher confidence, caring, competence and ability (Aron, 2006; Lange & Sletton, 2003; Lehr, et al., 2009; Raywid, 1994), and teachers chose to be a member of the faculty rather than being assigned by the district (Raywid, 1999).

In the dimensions of leadership, interpersonal relationships, institutional environment, and safety (Sergiovanni & Starratt, 2006), evidence emerged of the importance of administrators having a clear vision of all aspects of the program and maintaining a high level of structure, oversight and passion. The factor of community interaction demonstrated the interconnectedness and mutual benefit between the school and community. There was strong evidence of district support, and in particular, it appears that there was at least one district administrator who is an advocate for the program and was active in its creation and/or maintenance. Elements of personal and physical safety overlapped with Maslow’s deficiency needs (1954).

Of the factors identifying these programmatic and structural factors that appear to support fulfillment of the basic needs of the students, one of the most important to the administration, teachers, and parents was the creation and maintenance by the district of small classes. Participants in these groups recognized that the academic and deficiency needs of the students could not possibly be remediated within a large class or school population. The flexible curricula of these schools were based on the academic needs of their unique student population and the district plan for the students who successfully transitioned away from the school.
Both teacher and administrator qualities included caring as being an important factor in the choice of school personnel. Individuals who had a passion for what they were doing for the students were highly valued by parents and students alike. A high level of district support was a factor that ranked high on the principals’ lists of factors that they believed contributed to the success of their school. And lastly, community interaction was important to the lives of the students whether they benefited from a job opportunity or gave care to others in community outreach projects. The community, in return, valued the school’s programs to prevent students from prematurely exiting the educational system, a condition that only promotes crime and poverty.

Considering the overall qualitative findings, some important outcomes emerged. First, the importance of the teacher qualities was emphasized by all those interviewed. Parents, administrators, and students expressed a high regard for the teachers and the level of caring and competence they demonstrated. Second, the value of the presence of a caring environment within the school was evident. This was made especially clear with the stories of extreme student poverty that were related to the researcher. The third emergent factor of importance was the caring adult-child relationships that were highly valued by all participant groups. Statements relevant to all three of these outcomes involved the word “care.” The ethic of care by Noddings (1992, 2003a, 2005, 2007) suggests a theoretical underpinning for these qualitative findings.

In Noddings (2005), the author states that although there are exceptions to the use of Maslow (1954), for most students, “it is hard to imagine a youngster feeling a need to learn arithmetic when her basic needs for love and safety have not been met.” (p. 151). In the same article, Noddings (2005) discusses the education of students with “overwhelming needs” (p. 151), a phrase that could easily be applied to many students in the participating schools of this study. Not only are these students academically needy, it was found that many lack basic needs.
The parent of a child at one school made a very relevant statement concerning the important things about the school that made a difference for her child. She quickly replied, “self-esteem and motivation.” The stories of students in poverty related to the researcher by both principals and teachers illuminated the presence of the students with overwhelming physiological needs. The evidence gathered in this research points to a type of school that was founded on principals of caring and beliefs that education cannot take place until some basic needs of safety, belonging, love, self-esteem, and even food are met.

### 6.2 Implications

Implications for practice include: (1) A statistical framework for estimating individual school effects based on a growth model that could be applied not only to alternative schools but also to regular schools, and (2) a self-evaluation model for alternative schools based on caring for those students who generally face “overwhelming needs.” (Noddings, 2005, p. 151). The suggested accountability program for alternative schools is a multi-dimensional one based on the findings of this research, and is summarized in Table 6.1

**Table 6.1**

An accountability program for alternative schools

<table>
<thead>
<tr>
<th>Quantitative Evidence</th>
<th>Qualitative Self-evaluation</th>
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</thead>
<tbody>
<tr>
<td>• Process: Study the data</td>
<td>• Process: Ask the questions; Pay attention to the answers</td>
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<tr>
<td>• Product: Measures of school success</td>
<td>• Product: Plans for a needs-responsive, caring school environment</td>
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<tr>
<td>• Currently applied accountability score based on assessment, attendance, and dropout indices (Louisiana Department of Education, 2009e)</td>
<td>• Assessment of the needs of the students, parents, and community and evidence of the capacity of personnel to meet those needs (psycho-social support, opportunities for success, relationship building, choice to belong, physical and emotional safety, awareness of student circumstance)</td>
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<tr>
<td>• Estimate of the school’s value-added to student achievement in required content areas</td>
<td>• Elements of school climate support a caring environment (class size, flexible curriculum, excellence in teaching and administration, district support, community interaction, and safety)</td>
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<tr>
<td>• Average growth trajectory for the school</td>
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</table>
Based on the growth model that resulted from this study, in-depth quantitative evidence of a school’s effectiveness is provided by three measures that greatly enhance the ability of all educators to evaluate the success of a particular school program. The current accountability information currently supplied by the state’s standardized testing program should not be ignored and is included in this model of accountability. However, additional information concerning student success within a school is needed. A growth model similar to the one discussed in Chapter 4 that includes both a value-added school effect size and a growth trajectory supplies important information on the academic health of a school. It is suggested that the accountability model for alternative schools includes all three of these quantitative measures.

In addition to quantitative evidence of success, a qualitative self-evaluation based on the Alternative School Framework for Success presented in Figure 5.1 should be undertaken. This process begins with a school-level assessment to identify the particular needs of the school’s students, parents, and community. In response, the school will identify ways in which it can make changes in the school climate and the staff to meet those needs using the dimensions of successful alternative schools identified in this study with the goal of creating a caring school environment that is responsive to the needs of its students, parents and community.

The researcher suggests that the existing School Improvement Team within each alternative school have an expanded role in the school to assess the needs of the students, parents, and community (to ask the questions, perhaps guided by the ones used in this research) not only to decide how best to raise student achievement scores, but also to decide how to foster a more caring and needs-responsive school environment (to pay attention to the answers). They also will work closely with the Leadership team to implement their plans. This process is both organizational, shaping the school climate with elements found in the Alternative School Framework for Success in Figure 5.1 (teaching and learning, leadership, relationships, support
and safety), and administrative, finding the right personnel to work with the students who will seek to mitigate their deficiency needs (self-esteem, belonging and love, safety, and physiological).

One of the principle findings of this study was that a caring school environment is important to the students, parents and teachers in alternative schools that are populated by students with overwhelming academic and personal needs. As presented in Chapter 5 and summarized in the *Alternative School Framework for Success*, the participants in the interviews and focus groups identified as important some of the caring qualities they recognized as being part of the school’s organization or in the adults who work there. The administration and faculty outwardly encouraged some of these elements, and others are part of the personalities of the individuals in these groups. As an example, students praised caring teachers who didn’t judge them on their failures and gave them a second chance when they did. One principal reported that she had more than once encouraged a teacher who did not find a way for students to succeed to find employment elsewhere. In this example, the caring demonstrated by the teachers was both an innate quality and an administrative choice. Someone in the school had asked the questions and paid attention to the answers.

Other answers to the needs of the students, parents, and communities corresponded to elements of the alternative school climate identified in this study. These elements were small class sizes, roughly 40% - 60% of that reported in the overall district, flexible curriculum to meet the academic needs of the students, special qualities of caring and competence found in both teachers and administrators, enthusiastic district support, and attention to safety. Awareness of the elements of a successful alternative school program easily transfers to the ability of the school to implement them.
According to the findings of this research, the process of creating a needs-responsive and caring school environment is then two-fold. Ask the questions, and pay attention to the answers. What might result from educators working in a caring environment who become aware of student’s needs and then take mitigating actions? One example comes from the story of Kayla Brown and Backpack Buddies (Hayes, 2006). Ms. Brown was a kindergarten teacher in Texas who in 2006 observed one of her more challenging students licking his plate at lunch. When she asked why, the child replied that he was hungry. After checking further into the home situation of the child, she discovered that there was inadequate food in the house on weekends when school breakfasts and lunches were unavailable. She found help for the student’s family through her church, and slipped food into his backpack for him to eat at home. It wasn’t long before other children in the class, then the school, then in the district were identified with the same needs. This simple act of caring of a teacher for a student grew into the Backpack Buddies program that has spread nationwide. Each Friday, the students in the program receive a special backpack containing non-perishable food to help feed the family over the weekend. Test scores in the school rose that year as much as 20%. How did she identify the need? She asked; she paid attention.

In another implication for practice, one should ask what should result when an educator identifies not only the social and psychological needs of a student, but also the academic. In a caring environment, if a student such as the one who was interviewed at one of the schools discussed in Chapter 5, said, “I’m going to be an electrician,” that knowledge would help his teachers understand that he needs to be able to read on at least a seventh grade level, and to do basic math up to and including algebra. This information should never be used to limit student opportunities or to address self-expectations that are subject to change, but it may be helpful for a teacher to understand where a student needs to be. When the student from another school says...
that she plans to become a dental hygienist, this knowledge can be used to design learning experiences, perhaps project-based, in life sciences, an area often neglected in a school curriculum. This information is merely a moving target at which the teacher might aim, but all that educators need to do to know the location of the bull’s eye are to ask the questions and pay attention to the answers.

Upon reviewing the results of this study, it appears that the faculties and administrators of the successful alternative schools have indeed asked students and parents what are their needs and have paid attention to the answers. They have responded by creating schools that all stakeholders have identified and valued as caring places for students to learn. These schools have taken on this task not as a measure of accountability to students and parents but as a responsibility to them and in the best interest of the children they serve. By serving the students, these teachers and administrators best serve the interests of their parents and communities, and society as a whole.

6.3 Future Research

Some questions emerged during the research that could lead to further investigations. It would be informative to examine the results of the growth model that includes the school-level data of the percentage of 8th graders who transition to high school the next year. Transition to high school is especially important for overage students who might wish to enter into vocational-technical schools or into GED programs rather than seeking a traditional diploma. Entry criteria for these programs often include enrollment in high school and may be inaccessible to an 18-year old 8th grader. For alternative schools, this factor would seem a logical measure of school effectiveness, and could easily be included in the accountability report filed by the school.

A second possibility for future research would be to conduct a study of overage students in the regular school programs that have shown success using the school effect size calculated
with the growth model. This study could serve to determine the ways in which the mainstream educational system aids overage students. Further research in this area could determine which environment may be the more supportive for overage students in general or may be used to identify which context may best serve which students, providing parents with an informed choice of program.

Also as an extension of this research, a qualitative study of a group of alternative schools in the lower third of school effects should be undertaken to illuminate any contrasts in those schools and the successful ones. Alternative schools in other states may be investigated with the same methods as those used in this study. Finally, Noddings (1992) suggested a model for a school that includes community services such as a medical, dental and social services that would serve the needs of the school’s students and their families. If a program adopting a model of this type could be implemented in an alternative school environment, it would give researchers the opportunity to study the benefits of this type of caring environment on the learning and educational outcomes of overage students and their families.
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APPENDIX A

BELIEFS SURROUNDING HIGH STAKES TESTING

Table A.1: Beliefs held by proponents of high stakes testing

Table A.2: Beliefs held by opponents of high stakes testing
Table A.1
Beliefs held by proponents of high stakes testing as reported in the cited sources

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<td>Inspire greater student effort</td>
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<td>Direct public attention to educational disparities between schools and districts</td>
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<td>Charter schools as solutions to failing public schools</td>
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<td>Improve educational productivity</td>
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<td>Decrease educational ineqities</td>
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<td>Improve curricula</td>
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<td>Improve teacher quality</td>
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<td>Increase external control</td>
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<td>MCT for graduation increased dropout rate</td>
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<td>Greater effect on poor/minority students</td>
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<td>Teachers blamed/punished for poor performance</td>
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<td>Distorted curriculum</td>
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<td>Social stigma applied to students</td>
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<td>Students from testing pool by retention</td>
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<td>Misapplied focus on testing</td>
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APPENDIX B

INTERVIEW AND FOCUS GROUP PROTOCOLS

B.1 Principal Interview Protocol

B.2 Student Focus Group Questions

B.3 Parent Focus Group Questions

B.4 Teacher Focus Group Questions
Introduction: the interviewer will schedule the on-site visit and the interview at the convenience of the school principal. A business card providing the interviewer contact information will be given to the principal as part of the informal introductions.

Thank you for agreeing to this interview. Your interview will take approximately 45 minutes to complete and is designed to gather feedback relative to your school program. This interview is only one component of the qualitative portion of the data collection plan for a research project leading to a degree in Educational Research.

Your responses will remain confidential and will only be used as part of the study of the effects that alternative schools have on its students and other stakeholders. This is a study of the alternative school program itself and presents no risk to you, as your answers are not reported individually, nor used to evaluate you or your school. Every effort will be made to maintain the confidentiality of your answers and neither your name, the name of the school nor the district will be used. The information you provide will only be reported in aggregate form to maintain confidentiality. Your original transcript recording will be stored in a locked, secure location and your responses will be entered and maintained in a secure, password-protected database accessible only to the evaluators. You may choose not to participate at any time without penalty.

The benefit to you is that the results of this study may be presented to policy makers to help them make informed future decisions concerning alternative schools. If you have any questions, please feel free to contact me or to call my advisor, Dr. Kim MacGregor at 225-578-6900 or Robert C. Mathews, Chairman, Institutional Review Board, (225) 578-8692, irb@lsu.edu, www.lsu.edu/irb.

Section 1: The school program (adapted from Wholey, 2004, p. 38).

1. From the perspective of an administrator, what is this school trying to accomplish? What resources are at your disposal to make this happen?

2. Tell me about your successes.

3. What plans do you have for the school for the next year or two that might lead to further success?

4. What are the main challenges faced by this alternative school program?

5. How are you planning to meet these challenges? How long do you think it will take to overcome them?

6. What types of student achievement data do you have available, and how is this data used? What other sort of data would you like to have and how would you use that data?

Section 2: Student learning and opportunity to learn (adapted from Jones, 2004)

1. Tell me please the parts of the school program that support student learning. How are students given interventions for weaknesses in their academic backgrounds?
2. What accommodations are given for differences in learning styles, cultural diversity, and exceptional learners?

3. Are there any diversions from the district curriculum? Why or why not?

Section 3: Responsiveness to stakeholders (adapted from Jones, 2004).

1) How are parents involved in the school program? What improvements would you like to see in this area?

2) Are there any community partners in the school program? If so, how are they involved? What improvements would you like to see in this area?

3) What support do you receive from the district for this program?

4) What benefits to the community as a whole do you see as a result of your program?

Section 4: Organizational capacity (adapted from Jones, 2004).

1) How do you communicate the purpose of the school to your faculty? Please comment on the level of faculty “buy-in” for this special educational program.

2) How is the commitment to the students and parents of this school sustained?

3) What types of professional development do your teachers participate in?

4) What is the leadership structure at the school?

5) Please describe the internal system of accountability here at the school.

Thank you for your comments, and I appreciate you allowing me to conduct this study at your school. Your assistance is extremely valuable to me.
B.2 Students’ Focus Group Questions

Introduction: The interviewer will schedule the focus group at the convenience of the school principal and the students. A business card providing the interviewer contact information will be given to each student as part of the informal introductions.

Thank you for agreeing to participate in this discussion. It will take approximately 45 minutes to an hour complete and is designed to gather feedback relative to your school program. This is only one component of the qualitative portion of the data collection plan for a research project leading to a degree in Educational Research.

Your responses will remain confidential and will only be used as part of the study of the effects that alternative schools have on its students and other stakeholders. This is a study of the alternative school program itself and presents no risk to you, as your answers are not reported individually, nor used to evaluate you or your school. Every effort will be made to maintain the confidentiality of your answers and neither your name, the name of the school nor the district will be used. The information you provide will only be reported in aggregate form to maintain confidentiality. Your original transcript recording will be stored in a locked, secure location and your responses will be entered and maintained in a secure, password-protected database accessible only to the evaluators. You may choose not to participate at any time without penalty.

The benefit to you is that the results of this study may be presented to policy makers to help them make informed future decisions concerning alternative schools. If you have any questions, please feel free to contact me or to call my advisor, Dr. Kim MacGregor at 225-578-6900 or Robert C. Mathews, Chairman, Institutional Review Board, (225) 578-8692, irb@lsu.edu, www.lsu.edu/irb

Topic 1: The school program

1) What are some of the good things about this school that you think helps you learn?
   a. What about the teachers? Do they care about you? Do they care about how you are doing in school?
   b. How about the principal? Does he/she care about how you are doing? Do you think that the principal is fair to you as a person?
   c. Tell me about some of the special programs that are here that you enjoy. (clubs, vocational programs, field trips, etc)

2) How did you all get to come to this school?
   a. What do you hope to accomplish at the school?
   b. How do your parents feel about the school? Are they pleased with how you are doing in school?
   c. What do are your plans once you leave this school?
Topic 2: Student needs

1) Let’s talk about some things you don’t like about the school. What would you change about it if you could?
   
a. Would you rather be at this school or a different school? Why?

2) What are some changes you might make in yourself to make things better for you at this school?

3) Do you feel safe here?

4) Do you see anybody from outside the school who does anything to help you or to help the school?

Summary:

Please tell me the three best things (or adults) that you think make the most difference to you at this school.

Thank you for participating in this discussion. I really appreciate your honesty and your comments.
B.3 Parents’ Focus Group Questions:

Introduction: The interviewer will schedule the focus group at the convenience of the school principal and the parents. A business card providing the interviewer contact information will be given to each student as part of the informal introductions.

Thank you for agreeing to participate in this discussion. It will take approximately 45 minutes to an hour complete and is designed to gather feedback relative to your school program. This is only one component of the qualitative portion of the data collection plan for a research project leading to a degree in Educational Research.

Your responses will remain confidential and will only be used as part of the study of the effects that alternative schools have on its students and other stakeholders. This is a study of the alternative school program itself and presents no risk to you, as your answers are not reported individually, nor used to evaluate you or your school. Every effort will be made to maintain the confidentiality of your answers and neither your name, the name of the school nor the district will be used. The information you provide will only be reported in aggregate form to maintain confidentiality. Your original transcript recording will be stored in a locked, secure location and your responses will be entered and maintained in a secure, password-protected database accessible only to the evaluators. You may choose not to participate at any time without penalty.

The benefit to you is that the results of this study may be presented to policy makers to help them make informed future decisions concerning alternative schools. If you have any questions, please feel free to contact me or to call my advisor, Dr. Kim MacGregor at 225-578-6900 or Robert C. Mathews, Chairman, Institutional Review Board, (225) 578-8692, irb@lsu.edu, www.lsu.edu/irb

Topic 1: The school program

2) What are some of the good things about this school that you think helps your child learn?
   
   d. What about the teachers? Do they care about your child? Do they care about how your child is doing in school?
   
   e. How about the principal? Does he/she care about how your child is doing? Do you think that the principal is fair to your child as a person?
   
   f. Tell me about some of the special programs that are here that your child enjoys. (clubs, vocational programs, field trips, etc)

3) How did your child get to come to this school?

   a. What do you hope your child to accomplish at the school?
   
   b. How does your child feel about the school? Are they pleased with how they are doing in school?
   
   c. What do are your child’s plans once he or she leaves this school?

Topic 2: Parent needs
5) Let’s talk about some things you don’t like about the school. What would you change about it if you could?
   a. Would you rather your child be at this school or a different school? Why?
   b. Would your child rather be at this school or at a different school? Why?

6) What are some changes you might make in yourself to make things better for your child at this school?

7) Does your child feel safe here?

8) Do you see anybody from outside the school that does anything to help you, your child, or the school?

Summary:

Please tell me the three best things that you think make the most difference to you and your child at this school.

*Thank you for participating in this discussion. I really appreciate your honesty and your comments.*
B.4 Teacher Focus Group Questions

Introduction: The interviewer will schedule the focus group at the convenience of the school principal and the parents. A business card providing the interviewer contact information will be given to each student as part of the informal introductions.

Thank you for agreeing to participate in this discussion. It will take approximately 45 minutes to an hour complete and is designed to gather feedback relative to your school program. This is only one component of the qualitative portion of the data collection plan for a research project leading to a degree in Educational Research.

Your responses will remain confidential and will only be used as part of the study of the effects that alternative schools have on its students and other stakeholders. This is a study of the alternative school program itself and presents no risk to you, as your answers are not reported individually, nor used to evaluate you or your school. Every effort will be made to maintain the confidentiality of your answers and neither your name, the name of the school nor the district will be used. The information you provide will only be reported in aggregate form to maintain confidentiality. Your original transcript recording will be stored in a locked, secure location and your responses will be entered and maintained in a secure, password-protected database accessible only to the evaluators. You may choose not to participate at any time without penalty.

The benefit to you is that the results of this study may be presented to policy makers to help them make informed future decisions concerning alternative schools. If you have any questions, please feel free to contact me or to call my advisor, Dr. Kim MacGregor at 225-578-6900 or Robert C. Mathews, Chairman, Institutional Review Board, (225) 578-8692, irb@lsu.edu, www.lsu.edu/irb

Topic 1: The school program

1. What are some of the good things about this school that you think helps the students learn?

1) How do you communicate to the students that you care about how they are learning, or that you care about them as a person?

2) How about the principal? How does he or she communicate to the students that he/she cares about the students’ learning or about them as a person?

3) Tell me about some of the special programs that are here that the students enjoy. (clubs, vocational programs, field trips, etc)

2. How did you get to come to this school?

   d. What do you hope to accomplish at the school?

   e. Are you pleased with how the students are doing in school?

   f. What student successes have you seen?
3. Let’s talk about some things you don’t like about the school. What would you change about it if you could?
   a. Would you rather your at this school or a different school? Why?
   b. Do you think that these improvements are possible to make at this school? What would it take to change things?

4. Do you and the students feel safe here?

5. Do you see anybody from outside the school that does anything to help you, the students, or the school?

Summary:

Please tell me the three best things that you think make the most difference to you and to the students at this school.

*Thank you for participating in this discussion. I really appreciate your honesty and your comments.*
VITA

Belinda Brand was born in 1951 in Clifton, Texas, and spent her childhood years in Baton Rouge, Louisiana. She finished her undergraduate degree in education from Louisiana State University in May 1973. After a career of 26 years in secondary math and science education, she returned to Louisiana State University in June 2001 as a graduate student in the Department of Mathematics. She was awarded a Master of Science degree in August 2003. In recent years, Ms. Brand has taught mathematics at Louisiana State University as an instructor, worked with practicing mathematics teachers as a coordinator for a professional development grant, and is now a member of the Gordon A. Cain Center Evaluation Division at LSU. She is currently a candidate for the degree of Doctor of Philosophy in the Department of Education Theory, Policy and Practice studying Educational Leadership and Research, which will be awarded in May 2011.