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The Positive Alternative Credit Experience (PACE) Program A Quantitative Comparative Study

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by

Rebecca Anne Warren

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Dr. Lynda Leavitt, Dissertation Chair — Date: 9/16/2011

Dr. Sherrie Wisdom, Committee Member — Date: 9-16-2011

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Declaration of Originality

I do hereby declare and attest to the fact that this is an original study based solely upon my own scholarly work here at Lindenwood University and that I have not submitted it for any other college or university course or degree here or elsewhere.

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Abstract

The purpose of this quantitative comparative study was to evaluate the Positive Alternative Credit Experience (PACE) Program using an objectives-oriented approach to a formative program evaluation. The PACE Program was a semester-long high school alternative education program designed to serve students at-risk for academic failure or dropping out and was operated by a large suburban school district located in St. Louis, Missouri. The outcome objectives of the program were to improve student success as measured by (a) an increase in grade point average (GPA), (b) an increase in attendance rate, (c) a decrease, or elimination of out-of-school suspension (OSS) rate, and (d) a decrease or elimination of dropout rate. Outcome data collected from a sample of students who attended the PACE Program in 2008-2009 were compared to outcome data collected from a Matched Sample of students with matching descriptive and demographic characteristics who did not participate in the program in 2008-2009. Data analysis determined if there was a significant difference in measured student success when comparing the PACE Sample (students who attended the PACE Program and subsequently returned to their home schools for one semester), with a Matched Sample (students who attended a traditional high school during this same timeframe). Purposive sampling was used to select the PACE Sample, and stratified random sampling was used to select the Matched Sample. The PACE Sample of 36 students was comprised of a Semester I PACE Cohort of 18 students and a Semester II PACE Cohort of 18 students. The Matched Sample and Semester I and II Matched Cohorts were identical in size.

When the descriptive and demographic characteristic variables of the PACE and Matched Cohorts and Samples were statistically compared, there were no significant differences on the descriptive characteristic variables of cumulative GPA, attendance rate, and OSS rate. The descriptive characteristic variable of current GPA of the Matched Sample was significantly higher, however, than the current GPA of the PACE Sample. When demographic characteristic variables of the PACE and Matched Samples were statistically compared there were no significant differences in grade level, ethnicity, residence, gender, Individualized Education Plan (IEP) status, and Free and Reduced Lunch (FRL) status.

The results of data analysis did not show statistically significant differences in the outcome variables of GPA (cumulative and current), attendance rate, and OSS rate of the PACE or Matched Samples. However, when the outcome variable of dropout rate was analyzed, there was a statistically significant increase in the dropout rate of the Matched Sample. The results of data analysis also revealed that the Matched Sample had a higher dropout when compared to the PACE Sample, and this difference was also statistically significant.

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KEY TO ABBREVIATIONS

AYP	Adequate Yearly Progress
DRC	Daily Report Card
E/BD	Emotionally and Behaviorally Disturbed
FRL	Free and Reduced Lunch
GPA	Grade Point Average
IDEA	Individuals with Disabilities Educational Act
IEP	Individualized Education Plan
MODESE	Missouri Department of Elementary and Secondary Education
NCLB	No Child Left Behind
OSS	Out-of-School Suspension
PACE	Positive Alternative Credit Experience
PSD	Parkway School District
SES	Socio-economic Status

Chapter One

> The same assumptions of crisis and failure that have fueled every other recent reform debate are being invoked…by our favorite myths: that there was once a golden age, an era when schools maintained rigorous academic standards, when all children learned, when few dropped out and most graduated on time. (Schrag as cited in Mottaz, 2002, p. vii)

Most educators would agree that the *golden age* when all children received a rigorous education and very few dropped out is indeed a myth. Yet, the commitment to reach such a desired state has continued to challenge the way children are educated within the American system of public education (Mottaz, 2002). Alternative education is one result of this commitment and is grounded in the same fundamental belief that has shaped the traditional education system: that all children should be given the opportunity to learn (Carnine & Barnett, 2004; Mottaz, 2002). Alternative education advocates claim that this basic belief carries with it both a heavy responsibility and the mistaken assumption that *all* children have the same academic, social, and emotional needs. A narrow view of this fundamental belief would presume that all children can learn in the same school environments and would mitigate the fact that students today come from a wider array of backgrounds and cultures and display a greater variety of academic, social, and emotional needs (Lacey & Sobers, 2005; Lange & Sletten, 2002; Mottaz, 2002). Advocates for alternative education contend that the traditional model of school is not able to meet the needs of all students and until school districts offer alternative education options, a certain percentage of students will continue to fail academically or drop out

(Aron & Zweig, 2003; Barr & Parrett, 1997; Chalker, 1996; Raywid, 1994). One public school district's response was to create the Positive Alternative Credit Experience (PACE) Program as an education alternative option.

The purpose of this quantitative comparative study was to evaluate the PACE program using an objectives-oriented approach to a formative program evaluation. The outcome objectives of the program were to improve student success as measured by: (a) an increase in grade point average (GPA), (b) an increase in attendance rate, (c) a decrease, or elimination of out-of-school suspension (OSS) rate, and (d) a decrease or elimination of dropout rate. Outcome data collected from a sample of 2008-2009 participants in the PACE Program were compared to outcome data collected from a sample of 2008-2009 nonparticipants with matching descriptive and demographic characteristics. Data analysis determined if there was a significant difference in measured student success when the outcomes of students who attended the PACE Program and subsequently returned to their home schools for one semester, were compared with the outcomes of a Matched Sample of students who attended a traditional high school during this same timeframe.

Background of the Study

Since the landmark proclamation of the 1983 *A Nation at Risk* report, which condemned the mediocre quality of the nation's schools, the United States began to revise and restructure its educational system (Aron, 2006; Brandt, 1993); the 2001 "No Child Left Behind Act" (NCLB) has continued to shape their efforts (Aron, 2006; Lacey & Sobers, 2005; Tissington, 2006). According to Brandt (1993), after *A Nation at Risk* was

published, educators and their advocates countered the conclusion of this report by stating "the cause was not so much an inept school system, as it was a social and economic system that was not producing secure, healthy, motivated young people" (p. 3). During this same time, the term *at-risk* also came into wide use to describe certain types of students and various internal and external factors that influenced the behaviors of some students (Brandt, 1993; J. Brown & D. Brown, 2005).

Although alternative education is not new to the public school system, within the last 20 years, as more educators recognized that the traditional model of schooling did not meet the needs of all students, they began to define and create different types of alternative schools and programs (Chalker, 1996; Lange & Sletten, 2002; Mottaz, 2002). One of the most popular and prolific models of alternative schools and programs were those designed to serve high school students who are at-risk of failure and dropping out (Kim & Taylor, 2008; Lange & Sletten, 2002; Lehr, Tan, & Ysseldyke, 2009). As of the 2007-2008 school year, 40% of the public school districts across the country had reported at least one alternative high school or program that operated solely within the district for students at-risk for academic failure or dropping out (Carver & Lewis, 2010).

Public alternative high schools and programs across the county vary widely in both their design and purpose, and scholars, practitioners, and researchers struggle to define, explore, and analyze the effectiveness of alternative schools and programs (Henrich, 2005; Lange & Sletten, 2002; Rix & Twining, 2007; Tobin & Sprague, 2000). Alternative education authorities reported that a typology or a classification system that uses the unique characteristics of alternative education would "serve as a starting point

for establishing common terminologies to characterize...and classify…based on certain common characteristics. These unique characteristics might include location, purpose, program offerings and services, as well as the student clientele served" (Aron, 2003, p. 4). A review of literature revealed that several frequently cited typologies, but thus far, a definitive typology that clearly distinguishes among the many varieties and types of schools and programs located across the nation has not been developed and accepted (Aron, 2006).

The PACE Program, the alternative education program examined in this study, is best defined in a typology described in Raywid (1998). The PACE Program uses a *point and level system* to help students identify and change the behaviors that have prevented them from being successful at their home schools. Much like one of the typologies described by Raywid, the PACE Program is attempting to change the students by changing their behaviors. Just as there are different types of alternative schools and programs, there are also different types of students who attend them (Aron, 2006; Aron & Zwieg, 2003). Like most alternative schools and programs that have opened within the last 20 years, the PACE Program was designed to meet the diverse academic, social, and emotional needs of students who are at-risk of academic failure or dropping out (M. Barolak, personal communication, March 10, 2009; Lehr et al., 2009; H. Vanderhyden, personal communication, March 1, 2009).

Despite the wealth of professional literature containing information about alternative schools and programs, there is a relatively small amount of rigorous empirical research regarding current practices and characteristics of alternative schools and

programs and the effects they have on at-risk students (Aron, 2006; Lange & Sletten, 2002; Quinn & Poirier, 2006; Ruzzi & Kraemer, 2006**).** Moreover, there is a paucity of controlled or rigorous empirical quantitative research studies that examined the effects that alternative schools and programs have on student educational outcomes (Clark, 1991; Lehr & Lange, 2003; Sinclair, Christenson, & Thurlow, 2005). Quinn and Poirier (2006) commented that the lack of empirical study of these characteristics such as small class size, flexibility, personalized school environments, and student choice, renders them "questionable: it is unclear whether these characteristics produce positive outcomes or are generally correlated with positive outcomes" (p. 16). Quinn and Poirier (2006) further emphasized that in most studies, researchers report school and program characteristics descriptively with little discussion about the relationship of these characteristics to the success of programs or their effects on students. The review of literature suggested that it is also difficult to compare the limited amount of rigorous empirical research because terminologies are used inconsistently and research designs differ. Some of these differences include populations, sample sizes, independent and dependent variables, data collection timeframes, and data collection and analysis methods (Aron, 2006; Lange & Sletten, 2002). Therefore, the results of this research not only will add to the limited body of literature that examined the educational outcomes of students who attended a short-term alternative program for at-risk students, but also provide quantitative data for the school district to use when they formally evaluate the effectiveness of the PACE Program.

The PACE Program is housed within one of the largest public school districts in St. Louis County, Missouri. As of 2009, the school district had a student enrollment of 17,467, a 97% graduation rate and a 3% dropout rate (PSD, 2009). Its 29 schools are located throughout four distinct geographic attendance areas with one traditional high school operated within each attendance area. The school district envisioned the PACE Program as a short-term (one-semester) high school alternative program for at-risk students who attended one of the four traditional high schools. Specifically, the PACE Program was "designed to help at-risk students identify and change behaviors that prevent them from being academically and behaviorally successful at their home school" (PSD, 2009, para. 1). PACE Program educators support behavior change through the implementation of a point and level system that is described and discussed in Chapter 2. Originally opened for the 2006-2007 school year as a half-day program, the PACE Program was extended to a full-day program for the 2007-2008 school year (H. Vanderhyden, personal communication, March 1, 2009).

School district administrators designed the PACE Program to serve three distinct groups of at-risk high school students: students who have volunteered and are *invited* into the program; students who are serving long-term, out-of-school suspensions; and students who are placed into the program by the school district superintendent. The first group is always the largest in number and is comprised of students (grades 9-11) who are invited to attend the program because they are not successful at their home schools. The second group is comprised of students (grades 9-12) who are suspended out-of-school for 45 days or more. The third group typically includes only one or two students (grades 9-12)

who are placed into the program by the superintendent because of their extensive behavior histories, such as multiple out-of-school suspensions, in-school suspensions, or a combination of both (M. Barolak, personal communication, March 2, 2009; H. Vanderhyden, personal communication, March 1, 2009).

Unlike most school districts around the country, the school district in this research study has a 23-year history of providing different types of alternative education options to their at-risk students. In 1986, they opened the Alternative Discipline Center (ADC), which is still in operation, and is designed to educate students from grades six through 12 who have been suspended less than 45 days from their home schools. This program allows students to remain enrolled in their home school courses during their suspension, and they complete all course assignments at the ADC. Students return to their home school at the end of their suspension. In 1992, they opened an alternative high school, which is still in operation and is designed for students in grades 10 through 12 who need an alternative approach to traditional instruction and curriculum. Fern Ridge is a diploma granting high school and all students attend voluntarily. From 1994 to 2003 the school district offered an alternative program called Earn Your Way Back (EYWB) that was designed to serve long-term suspended at-risk students. In 2006, the district opened the high school alternative program called PACE, the research site of this study. PACE is a one-semester alternative program designed to serve 50 at-risk high school students. Students have the opportunity to earn credits toward graduation and the grades they receive in their courses are added to their transcripts and calculated into their GPAs. In 2007, the school district opened REACH, a one-year alternative program for 25 at-risk

eighth grade students. Most students in this program attend voluntarily although the superintendent places some suspended students into the program.

For the past two decades, the school district in this study has provided several different types of alternative educational options for their at-risk students; it is obvious that the commitment of the school district to this population of students is not in question. One could question, however, why the district has not conducted summative evaluations of their alternative programs to see if they are making a difference in the success of students while they attend the programs or after they return to their home schools. Therefore, as principal of the PACE Program, the researcher chose to conduct a formative evaluation of the outcome objectives of the PACE Program for this study and the school district officials can use the results as quantitative data when officials conduct a summative evaluation of this program.

Statement of the Problem

In light of the current accountability movement and budgetary cutbacks, school district boards of education, legislative bodies and the public want evidence that the financial resources and efforts put into new schools or programs are successfully meeting their objectives and are improving the educational outcomes for students (Sloat, Audas, & Willms, 2007). According to McMillan and Schumacher (2001), "successful attainment of objectives does indicate both the merit and worth of a practice. Educators can demonstrate accountability and the productive use of public funds when objectives are attained" (p. 535). This is especially important because students who typically attend alternative schools or programs require individualized academic or behavioral support.

School districts must stretch their shrinking budgets to accommodate the added expense of maintaining small class sizes and low student to teacher ratios. McMillan and Schumacher (2001) also stated, "the nonattainment of objectives or some objectives can lead to questioning programmatic components and a closer scrutiny of the practice" (p. 536). However, as school districts seek to develop effective alternative schools and programs that meet the diverse needs of at-risk students, the small body of quantitative outcomes-based evaluation research literature handicaps them. The paucity of research restricts their ability to include research based best practices and components as they implement the new academic achievement accountability standards of NCLB (Aron & Zweig, 2003; Cable, Plucker, & Spradlin, 2009; Gilson, 2006; Lehr et al., 2009; Quinn & Poirier, 2006). More specifically, the researcher believes that it will be difficult for some school districts to draw correlations, either statistically or cognitively, between the design and components of schools and programs that currently exist and have focused on non-traditional student outcomes such as self-esteem and attitudes, and the design and components of effective schools and programs that currently exist and have focused on traditional student outcomes such as grades and attendance.

The school district that implemented the PACE Program, the alternative program under study, is similar to other alternative programs because it, too, was designed for students who are at-risk for academic failure or dropping out. To date, however, the school district has only analyzed and reported the results of one student attitude and perception survey given to 31 students who attended the PACE Program during the first semester of the 2009-2010 school year. According to Aron (2006), "alternative education

programs are first and foremost education programs, so they need to focus on preparing students academically while also meeting the additional needs of their students" (p. 18). To that end, the researcher believed that the analysis of outcome data would determine if there is a measurable difference in student success when comparing students who attended the PACE Program and subsequently returned to their home schools for one semester, to a Matched Sample of students who attended a traditional high school during that same timeframe.

Purpose of the Study

The purpose of this quantitative comparative study was to evaluate the PACE program using an objectives-oriented approach to a formative program evaluation. The outcome objectives of the program are to improve student success as measured by: (a) an increase in grade point average (GPA), (b) an increase in attendance rate, (c) a decrease, or elimination of out-of-school suspension (OSS) rate, and (d) a decrease or elimination of dropout rate. The desired measured outcomes for the program were analyzed using a matched group design. Outcome data gathered from a purposive sample of 2008-2009 students who participated in the program were compared to outcome data gathered from a Matched Sample of 2008-2009 nonparticipants with matching descriptive and demographic characteristics. Because students who are invited into the program attended voluntarily, there were students with similar descriptive and demographic characteristics attending the traditional high school that provided a population for the Matched Sample to be used for comparison.

Specifically, the analysis of outcome data was designed to reveal any measurable differences in student success when comparing students who attended the PACE Program and subsequently returned to their home schools for one semester, to a Matched Sample of students who attended a traditional high school during this same timeframe. Consequently, any measurable increase or decrease in GPA, attendance rate, OSS rate or dropout rate could be an indication of one of three things. One, the PACE Program contributed to the success of the students, and the district will have a piece of evidence to continue the program in its present construct or to expand the program to accommodate more than 50 students. Two, the PACE Program had a neutral effect on the success of the students, and the district will have a piece of evidence to help them decide whether to alter or change the program. Finally, the PACE Program contributed to a negative effect on the success of the students, and the school district will have evidence to help them decide whether they need to change or cancel the program.

Although a summative evaluation of the effectiveness of this program was not the specific purpose of this study, the results of this research will provide assessment evidence for the school district when they do conduct a summative evaluation. Thus, the outcome data of the students who attended the PACE Program during the 2008-2009 school year was the focus of this study, rather than the implementation of the program or a summative evaluation of the program.

Research Questions and Hypotheses

Two research questions were designed around the four PACE Program outcome objectives. To provide focus and to narrow and further define the purpose of the study,

the researcher identified research variables or dependent variables within the research questions (Creswell, 2003). The first research question and three related hypotheses addressed the outcome variables of GPA, attendance rate, and OSS rate. The second research question and related hypothesis addressed the outcome variable of dropout rate.

Research question #1. Will students who attended the PACE Program for one semester during the 2008-2009 school year show a measureable difference in their GPAs, attendance rates, and OSS rates at the end of the first semester back at their home schools when compared to a Matched Sample of students who attended a traditional high school during this same timeframe?

Alternate hypothesis #1. Students who attended the PACE Program for one semester during the 2008-2009 school year will show a measureable difference in average GPA (cumulative and current) at the end of their first semester back at their home schools when compared to the Matched Sample of students who attended a traditional high school during this same timeframe.

Null hypothesis #1. Students who attended the PACE Program for one semester during the 2008-2009 school year will not show a measureable difference in average GPA (cumulative and current) at the end of their first semester back at their home schools when compared to the Matched Sample of students who attended a traditional high school during this same timeframe.

Alternate hypothesis #2. Students who attended the PACE Program for one semester during the 2008-2009 school year will show a measureable difference in attendance rate at the end of their first semester back at their home schools when

compared to the Matched Sample of students who attended a traditional high school during this same timeframe.

Null hypothesis #2. Students who attended the PACE Program for one semester during the 2008-2009 school year will not show a measureable difference in attendance rate at the end of their first semester back at their home schools when compared to the Matched Sample of students who attended a traditional high school during this same timeframe.

Alternate hypothesis #3. Students who attended the PACE Program for one semester during the 2008-2009 school year will show a measureable difference in OSS rate at the end of their first semester back at their home schools when compared to the Matched Sample of students who attended a traditional high school during this same timeframe.

Null hypothesis #3. Students who attended the PACE Program for one semester during the 2008-2009 school year will not show a measureable difference in OSS rate at the end of their first semester back at their home schools when compared to the Matched Sample of students who attended a traditional high school during this same timeframe.

Research question #2. Will students who attended the PACE Program for one semester during the 2008-2009 school year and subsequently returned to their traditional home schools show a measureable difference in dropout rate at the start of the 2010-2011 school year when compared to a Matched Sample of students who attended a traditional high school during this same timeframe?

Alternate hypothesis #4. Students who attended the PACE Program for one semester during the 2008-2009 school year and subsequently returned to their home high schools will show a measureable difference in dropout rate at the start of the first semester of the 2010-2011 school year when compared to the Matched Sample of students who attended a traditional high school during this same timeframe.

Null hypothesis #4. Students who attended the PACE Program for one semester during the 2008-2009 school year and subsequently returned to their home high schools will not show a measureable difference in dropout rate at the start of the first semester of the 2010-2011 school year when compared to the Matched Sample of students who attended a traditional high school during this same timeframe.

Definition of Terms

Alternative education. Alternative education refers to those schools or programs designed to meet the needs of students who are at-risk of failure or dropout and "are not succeeding in a traditional public school environment" (Ruzzi & Kraemer, 2006, p. 2).

At-risk student. For the purposes of this study, at-risk student is defined as a student who displays one or more of the following characteristics: failing grades, poor attendance, disruptive behavior that results in out-of-school suspension, and similar factors that might cause the student to disengage or drop out of school.

Dropout. For the purposes of this study, dropouts are students who were at one time enrolled in a high school, but stopped attending and did not graduate (students who transferred to other high schools or students who were being homeschooled were not considered dropouts).

Dropout rate. Three different definitions of dropout rate were found in the literature and they are defined Chapter 2.

Formative evaluation. "The formative evaluation is the process of consistently monitoring the progress of an academic or instructional program as it moves towards established goals and objectives. The evaluation is conducted by measuring performance outcomes over time" (Formative Evaluation, n.d., para. 1).

Home school. For the purpose of this study, home school refers to one of four traditional high schools in the district; student attendance in a specific home school is determined by the address of the student within the school district geographic attendance boundaries.

Individualized Education Plan (IEP). Refers to a written instructional plan for students with disabilities and designated as special education students under the Individuals with Disabilities Act (U.S. Department of Education, 2000).

Success. For the purposes of the study, PACE Program success refers to an increase in GPA and attendance rate, a decrease in OSS rate, and a dropout rate that does not increase after students return to their home schools.

Summative evaluation. For the purposes of this study, a summative evaluation refers to type of evaluation conducted by a school district program evaluator that includes collecting and analyzing quantitative and qualitative data over a specified time.

Traditional high school. For the purposes of this study, a traditional high school is geographically located within the study school district, uses a state approved

curriculum with a ninth through 12th grade level system, and operates with either a block schedule or a hybrid of a block and a traditional eight period day.

Dependent Variables

Attendance rate. For the purposes of this study, attendance rate is defined as the average number of class periods students were absent during one semester of attendance at a traditional high school or the PACE Program.

Cumulative GPA. For the purposes of this study, cumulative GPA is defined as the average of all final grades in all courses taken during all semesters a student attended a high school. Specifically, the value of each grade is multiplied by the credit hours the course is worth to get the grade point value. Next, the grade point value is added up and divided by the number of credit hours attempted. In the school district under study, the cumulative GPA is based on a 4.0 scale (A = 4, B = 3, C = 2, D = 1, F = 0).

Current GPA. For the purposes of this study, current GPA is defined as the average of all final grades in all courses at the end of the specified semester of data collection. All students in this district receive final grades in all of their courses at the end of every semester and these grades are used to calculate current GPA. Specifically, the value of each grade is multiplied by the credit hours the course is worth to get the grade point value. Next, the grade point value is added up and divided by the number of credit hours attempted during that same semester. In the school district under study, the current GPA is based on a 4.0 scale (A = 4, B = 3, C = 2, D = 1, F = 0).

Dropout rate. For the purposes of this study, dropout rate is defined as the percentage of students who were enrolled in a traditional school or the PACE Program

during the 2008-2009 school year and by the start of the 2010-2011 school year, that did not graduate and were not enrolled in school. Any student who transferred out of any of the four traditional high schools or who did not complete the 2009-2010 school year because of death, illness, or home schooling was not included in any of the calculations.

Out-of-School Suspension (OSS) rate. OSS rate is defined as "the removal of a student from school for a temporary period of time. A student may be suspended for conduct which is prejudicial to good order and discipline in the schools or which tends to impair the morale or good conduct of students" (PSD, Student Suspension, 2009, para. 1). For the purposes of this study, the OSS rate is defined as the average number of days students were suspended OSS during one semester of attendance at a traditional high school or the PACE Program.

Independent Variable

The Independent Variable in this study is student participation in the PACE Program which was a one semester alternative high school program designed to help improve the educational success of at-risk students who attended a traditional high school within the same school district.

Professional Significance of the Study

Within a wealth of literature containing information about alternative schools and programs, the researcher found a relatively small quantity of published research studies, and an even smaller quantity of current published research studies that examined alternative schools and programs operated by and within public school districts (Lehr et al., 2009). In addition, it appeared that the majority of research studies analyzed attitude

or perception data as measures of school and program effectiveness (Fitzsimmons Hughes et al., 2006; Lange & Sletten, 2002; National Alternative Education Association [NAEA], 2009). Research studies that analyzed student outcome data as measures of alternative school and program effectiveness were scant. Therefore, the significance of this study to a broader community of alternative education researchers and practitioners is that it fills a gap in the limited research literature by using quantifiable student outcomes as measures of student success in a short-term alternative program designed to help students at-risk of academic failure or dropping out. Within a more specific context, the study site school district provides considerable funding and resources to the program, but to date, no one has analyzed any student data to see if it is making a difference in the success of students after they return to their home high schools. Therefore, the school district officials can use the results of this study as a piece of evidence when they formally evaluate the effectiveness of the program. Further, the researcher, as principal of the PACE Program, has a professional interest in this study and will use the results to set program goals and plan professional development opportunities.

Assumptions

The following assumptions apply to this research study. First, the researcher assumed that the teachers in the 2008-2009 PACE Program followed the school district's board approved curriculum. Second, because all teachers within this district were allowed the freedom to choose the best researched-based instructional methodologies to meet the needs of their students, it was also assumed that the teachers in the PACE Program employed the best research-based methodologies to meet the needs of this at-

risk population of students. Finally, although the approach to curriculum and instruction of a PACE Program teacher might be different than the approach to curriculum and instruction of a traditional teacher, the work required of the 2008-2009 PACE Program students was just as rigorous as the work required of all students who attended each of the traditional high schools. An example of one different curriculum approach would be instead of a student demonstrating his or her knowledge of a topic by taking a traditional test, a PACE student would be allowed to demonstrate his or her knowledge of the topic by creating and giving a formal presentation.

It should be noted that although other public school alternatives (including magnet programs, charter schools, distance- learning schools, and some private schools), also educate a segment of America's students by using alternative approaches (Lehr, Morearu, Lange, & Lanners, 2004), they are beyond the scope of this research study. In addition, because the terms alternative schools and alternative programs are used interchangeably in the literature, unless specifically noted, they will also be used interchangeably throughout most of this research study.

Limitations of the Study

Limitations to this study include both internal and external validity and are acknowledged by the researcher. The internal validity of the study was a concern because the independent variable, participation in the PACE Program, preexisted and could not be manipulated by the researcher. The school district designed the PACE Program in 2006 and, with the exception of extending the length of the school day, none of the program components have changed. Second, students were not randomly selected

to attend the PACE Program; however, all students who were invited into the program attended voluntarily. Third, although the researcher used 10 variables to match students in the Matched Sample to students in the PACE Sample, the Matched Sample students were similar, but not identical to the students in the PACE Sample. Fourth, maturation of students in both samples may not be equal. For example, as some students in the Matched Sample mature, they may become wiser and make better decisions with regard to academics and behaviors which possibly duplicated some of the PACE Program interventions that the students in the PACE Sample received. A fifth limitation includes variability among classes, teachers, instructional methodologies, and evaluation methods that students in the four traditional high schools experience and which can ultimately affect a student's GPA. To minimize this effect, the researcher chose only students who were enrolled in the same school district and who attended the 2008-2009 PACE Program, or students who remained in their traditional home high schools during this same timeframe. In addition, teachers who used the same school district curriculum taught all students in the study. Next, all data used in the study were collected by accessing archived student records which were contained in the school district computer software called Infinite Campus. Finally, the Matched Sample was selected by using a stratified random sampling method.

Analyzing group averages to determine changes in attendance rates and OSS rates is also a limitation of this study because one student out of each semester cohort or sample could be responsible for the total amount of days absent or days suspended. To minimize this effect, the researcher used a stratified random sampling method to identify

students for the Matched Sample who had similar OSS and attendance rates. The final limitation involved the dropout data collection timeframe because students in the Semester I PACE Cohort had the opportunity to complete three semesters at their traditional home schools after they attended the PACE Program while students in the Semester II PACE Cohort had the opportunity to complete only two semesters. Consequently, students in the Semester I PACE Cohort attended their traditional home schools one semester longer than the students in the Semester II PACE Cohort.

External validity was also a concern for this type of study. Therefore, to increase the external validity, operational definitions were defined for the four dependent variables and the six demographic variables used by the researcher to identify the Matched Sample of students. With respect to generalizing the population, because the PACE Program student population was largely homogeneous, it will be hard to generalize the results to a larger population. This is, and always will be, a problem that is inherent to any research conducted on alternative schools and programs no matter what type of study is conducted (Lange & Sletten, 2002). To minimize this limitation, the researcher randomly selected a Matched Sample of students from the larger population who had similar descriptive and demographic characteristics to the sample of PACE students. In addition, "whenever purposive or convenience samples are used, generalization is made more plausible if data are presented to show that the sample is representative of the intended population" (Fraenkel & Wallen, 2009, p. 103). For example, all students who attended the PACE Program during the 2008-2009 school year were included in the PACE Sample.

Ecological validity was also compromised in this study because of the small

setting of the program. While the results might benefit the school district that houses the program, they are limited to this one alternative program located in a suburb of St. Louis County, Missouri. Therefore, the ability to generalize results across different settings is limited.

Conclusion

Societal forces are influencing public school districts to respond to the problem of their inability to meet the needs of all their students, especially those students who are at-risk for academic failure or dropping out (Aron, 2006, Lange & Sletten, 2002; Mottaz, 2002; National Governors Association [NGA], Center for Best Practices, 2001). Alternative education options in the form of alternative schools and programs are recognized as effective ways to better educate and reengage at-risk students (Aron, 2006; Lange & Sletten, 2002; Raywid, 1994, 1999, 2001; Ruzzi & Kraemer, 2006). Since the federal government now measures public alternative schools by the same accountability standards as traditional schools, they face a difficult challenge. Educators and researchers have assessed or evaluated the effectiveness of current practices and methodologies only by measures of attitudes and perceptions of the students they serve. Very little published research utilized student outcomes to measure effectiveness.

Although these schools or programs "have evolved over the years to mean different things to different audiences" (Lange & Sletten, 2002, p. 5), for the school district in this study, the PACE Program means an alternative program that offers a highly structured environment where at-risk students work closely with the faculty to identify and change behaviors that have caused them to be unsuccessful at their home

schools. This research study was designed to compare student outcome variables including GPA, attendance rate, OSS rate, and dropout rate of 36 invited students who attended the program during the 2008-2009 school year, with the same outcome variables of a Matched Sample of students who attended a traditional high school during the same 2008-2009 school year.

Chapter 2 is a review of the literature that includes an historical and current overview of the evolution of public alternative education. This conceptual framework is intended to give the reader a backdrop in which to focus on the needs of at-risk students, understand the design and the purpose of the PACE Program, consider essential and best practices, and expose certain factors that appeared to have influenced alternative school and program researchers to design their studies using certain types of research methodologies.

Chapter Two: Review of the Literature

> Give me your tired, your poor, your Huddled masses, yearning to breathe free. The wretched refuse of your teeming shore, Send these, the homeless, tempest tossed to me: I lift my lamp beside the golden door. (E. Lazarus as cited in Mottaz, 2002, p. 9)

Every day across the country, thousands of students walk through the "golden doors" of public high schools tired, poor, and homeless (Brandt, 1993). These same students also arrive with a wide range of academic, social, emotional, and behavioral needs. Currently labeled at-risk, these students create unique challenges and difficulties for public school districts because traditional school environments are not able to meet the diversity of their needs (Cable, Plucker, & Spradlin, 2009; Mottaz, 2002). Honigsfeld and Dunn (2009) emphasized that within the last two decades educators have determined that not all students respond well to traditional teaching methods that rely on lectures, discussions, and readings; some students need more hands-on or more active learning environments. Other alternative education proponents contended that until school districts offer students the ability to attend alternative schools or programs, they would never be able to meet the needs of all students (Aron & Zweig, 2003; Barr & Parrett, 1997; Chalker, 1996; Raywid, 1994). Slavin and Madden (1989) believed that schools do not have the capacity to meet the needs of every student, but they can implement programs that give students a greater chance for success.

The concept of alternative education emerged and began its evolution in public schools over 50 years ago. Yet, only within the last two decades have public school

districts been exploring new ways of providing alternative education options for students who are not finding success within a traditional classroom setting and are at-risk for academic failure or dropping out (Lange & Sletten, 2002).

Although alternative schools and programs of today are different in their design and purpose than their predecessors over 50 years ago, their original argument to expand the traditional school environment has not changed: the one-size-fits-all model of schooling does not fit all students (Cable et al., 2009; Mottaz, 2002). The challenges and complexities of providing alternative education options to students are many; what rings true in almost all of the literature is the obvious need for an alternative approach to educating and meeting the diverse needs of students who are at-risk for failure or dropping out (Aron, 2006; Lange & Sletten, 2002; Mottaz, 2002).

The intent of this literature review is to provide the reader with a historical and current research synthesis that includes enough background knowledge to contextualize the PACE Program within the broad framework of alternative education. Presented in nine sections, this literature review illustrates the evolution of current knowledge and practices regarding public high school alternative education schools and programs and the at-risk students they serve. An extensive review of literature on public alternative education reveals a considerable variation among definitions and interpretations of the terms alternative education, alternative schools and programs, and at-risk. The first section will illustrate why multiple definitions and definition differences have resulted in confusion, inequities, and difficulties for alternative schools and programs and the students they serve. The second section provides a chronological overview of alternative

education both outside and inside of public education including why and how it emerged in the public school system. The third section reveals four major factors that influenced both the purpose and the design of alternative schools and programs within the public school system. The fourth section includes how the roles of government have influenced the design of alternative schools and program. The fifth section of this chapter provides the reader with a useful framework for understanding the PACE Program, the alternative program examined in this study that includes how alternative schools and programs are classified, common types of settings, and what types of students attend them. The sixth section describes the construct of the term at-risk. The school related risk factors of academic failure, truancy, OSS, and dropout are discussed in the seventh section. The eighth section includes a synthesis of published research on level systems, and the last section contains essential elements and best practices of alternative schools and programs that specifically educate at-risk students**.** The last section contains a synthesis and discussion of the most recent research conducted on the effectiveness of public alternative high schools and programs including student outcomes. This section also and addresses why a lack of research creates challenges and difficulties for public school districts to design alternative schools and programs and then to determine if they are meeting the diverse needs of their at-risk students.

Multiple Definitions of Terms Cause Confusion

The wide variety of definitions and interpretations of the terms alternative education, alternative school, alternative program, and at-risk has caused a great deal of confusion in the minds of scholars, parents, educators, and policy-makers. The

consequences are noteworthy because throughout both historic and current literature, the diversity of definitions has created a lack of comprehensive, consistent, and equitable guidelines for the establishment and assessment of alternative schools and programs (Aron, 2003; Lange & Sletten, 2002; Lehr et al., 2009; Mottaz, 2002). Although these terms have been used consistently throughout the alternative education literature, their differing definitions and their differing interpretations revealed why it is a challenge for public school districts to design alternative schools and programs to effectively educate and meet at-risk students' wide diversity of needs.

The term - alternative education. A review of the literature consistently revealed that there is no one commonly understood, or an officially accepted, definition for the term alternative education (Aron, 2006; Chalker, 1996; Lehr et al., 2009). Davis, Brutsaert-Durant, and Lee (2001) pointed out that "the term alternative education means different things to different people" (p. 8) including the following: separate schools that have no connection to public school; charter schools which are run by teachers/parents and use specific approaches to curriculum and instruction; magnet schools that focus on students' specific talents or strengths; and school or program options within a public school system that address dropout prevention, pregnancy, negative behavior, vocational education, and community education (Davis et al., 2001). Aron (2006) noted that the term could also refer to home schooling options, GED programs, schools for gifted students, and schools and programs that serve delinquent students housed in juvenile justice facilities and homeless shelters. Individual states or school districts have determined their own definitions and characteristics for the term alternative education.

The following information gathered from recent reports illustrates the wide variety of definitions and highlights the fact that there has been little agreement on a common definition of the term alternative education even though it has been part of the public school system since the late 1960s.

In their state policy and legislation report, Lehr, Lanners, and Lange (2003) expressed that it is still not known if there are similarities among all of the state definitions, and Lehr et al. (2009) reported that their survey results revealed that only "thirty-four (71%) states with formal legislation have a definition for alternative education" (p. 24). Further, Lehr et al. (2009) claimed that the "the way in which the definition is operationalized within states and communities is still unclear" (p. 19). According to Lehr et al. (2009) and Lehr et al. (2003), until all 50 states define and document how they approach alternative education within their individual state laws, it will continue to be unclear how the differences in the definitions contributed to the ways in which alternative schools and programs are funded and designed, and to the ways in which they educate their students.

The terms - alternative school and alternative program. Much like the definition of the term alternative education, it has been difficult to develop common definitions for the terms alternative school and alternative program (Aron, 2003; Davis et al., 2001; Lehr & Lange, 2003). As alternative schools and programs around the country began to grow in number, so did the number of different state and school district definitions of these terms (Lehr & Lange, 2003; Martin & Brand, 2006). Lehr and Lange (2003) reported that a number of states included charter schools in their definitions of a

public school alternative education option. Some states combined the term alternative school with the term alternative program; other states clearly differentiated between the two terms. Lehr and Lange (2003) also commented that several states reported that their alternative school and program options are schools of choice; meaning students choose to attend them. Still other states reported that their alternative schools and programs are placement schools, meaning school district personnel place students into them. In addition, Lehr and Lange (2003) noted that some states reported that they use alternative schools and programs as a type of disciplinary consequence for suspended or expelled students. These researchers also stated that some state and community alternative schools and programs defined the length of placement for suspended students as either long-term placement, where students stay until they graduate, or short-term placement, where students stay for a few weeks or up to one semester.

In spite of the fact that there is a wide-variety of state and community definitions for the terms alternative school and alternative program in the literature, Lehr et al. (2009) reported that "most of the states with formal laws or policies defined alternative schools as being for at-risk students who are served in settings separate from the general classroom" (p. 24). Some States and communities also use the following definition of an alternative school provided by the U.S. Department of Education (Lehr et al., 2009):

> A public elementary/secondary school that addresses the needs of students which typically cannot be met in a regular school and provides nontraditional education which is not categorized solely as regular education, special education, vocational

> education, gifted and talented or magnet school programs. (U.S. Department of Education, 2002, p. 55 as cited in Lehr et al., 2009)

Lehr et al, (2009) agreed with other authorities (Davis et al., 2001; Lehr & Lange, 2003) that alternative schools and alternative programs can be "defined by the fact that they tend to serve students who are at-risk for school failure within the traditional educational system" (p. 19). Carnine and Barnett (2004) concurred, adding that alternative schools "were often considered a last resort for students who were not finding success in a traditional school environment" (p.2). In sum, the current literature indicates that the use of the broad U.S. Department of Education definition leaves states and communities the ability to interpret and implement alternative schools and programs that will be able to meet the needs of their at-risk students.

The school district that operates the PACE Program, the alternative program under study, defines it as a high school alternative program "designed to help students identify and change behaviors that prevent them from being academically and behaviorally successful at their home school" (PSD, Alternative Programs, 2009, para 1). Although the term at-risk is not included in the formal definition, the PACE Program is commonly known throughout the school district as an alternative program designed for students who are at-risk for academic failure or dropping out and who are attending one of their traditional schools.

The term - at-risk. The definition of the term at-risk also continues to differ and it was not widely recognized among authorities until the Commission on Excellence issued the 1983 report called *A Nation at Risk* (Brandt, 1993). Within the American

educational system, the term at-risk has had an ever-changing definition, and it has meant or has defined different types of students, different types of internal and external risk factors, and different types of student behaviors. For example, when Slavin and Madden (1989) conducted their research study, they defined an at-risk student as "one who is in danger of failing to complete his or her education with an adequate level of skills" (p. 4). Sagor (1999) thought the term to mean "a mismatch between learner and learning system" (p. 5). More recently, Honigsfeld and Dunn (2009) broadened the definition of an at-risk student and included it to mean those students who are "typically performing adolescents, who strive to excel but invariably remain in the average or middle group in the eyes of their teachers, and parents, as well as in their own eyes" (p. 10).

Other authorities expressed that the definition of another type of at-risk student includes those who are initially successful in school, but for some reason fall behind and become chronic underachievers. These same authorities reported that this type of at-risk student might be a poor reader, is usually bored or restless, is nonconforming and sometimes disobedient, and appears academically apathetic (Aron, 2006; Lehr & Lange 2003). All these definitions and examples serve to illustrate that the term at-risk differs among educational authorities and that they use it to define different types of students, different types of risk factors, and different types of student behaviors. Nevertheless, one common thread runs through all the descriptions, characteristics, and definitions of at-risk students – with few exceptions, at-risk students appear to have disconnected or disengaged from school (Aron, 2003; Aron & Zweig, 2003).

The indiscriminate use of the differing definitions and meanings of the terms alternative education, alternative schools, alternative programs, and at-risk has resulted in different interpretations of the terms and has caused confusion among educators, parents, and policy makers. In addition, the different definitions and meanings of these terms are reported to be the main reason why there is a lack of comprehensive, consistent, and equitable guidelines for the establishment and assessment of alternative schools (Aron, 2003; Lange & Sletten, 2002; Lehr, et al., 2009; Mottaz, 2002). According to Lang and Sletten (2002), this has contributed to the confusion because it "complicates national examination of the practice and effectiveness of alternative schools and programs" (p. 20).

Historical Context of Alternative Education

There are only a few documented references to the origin of alternative education within the literature. Some educational historians believed that alternative education in the United States began sometime between 1837 and the early 20th century (Cable et al., 2009) when the prevailing educational theories in the areas of psychology, learning, and organizational management were tested against new scientific theories. The result was a "one best system" of public education designed to produce the best citizenry and the best workforce for the burgeoning industrial system (Gable, Bullock, & Evans, 2006; Miller, 2004). Certain groups of educational scholars, educators, and parents did not agree with the new concept, however, and contended that the one best system would not allow students to grow and develop intellectually, socially, emotionally, and morally as individuals (Miller, 2004). Consequently, disenchanted members of these groups opted

for a different type of educational approach, an approach that was an alternative to the current system (Lange & Sletten, 2002).

Other educational authorities believed that alternative education in the United States began in the 1930s with the progressive ideas of John Dewey. Dewey "encouraged educators to move from the 'school as a factory' approach to education to a more progressive school philosophy that looked at students as individuals" (Reimer & Cash, 2003, p. 3), and he believed education should involve students' experiencing real-life tasks (Neumann, 1994; Sekayi, 2001). The literature also suggested that as early as 1925, a book entitled *Wayword Youth*, by August Aichhorn, addressed the need for educating students with "challenging behaviors" in an alternative way (Fitzsimmons Hughes et al., 2006; Gable et al., 2006). Even though alternative schools began to emerge in the 1930s and 1940s, it was not until several decades later, during the 1950s and early 1960s, that alternative schools experienced a large increase in numbers (Lange & Sletten, 2002; Raywid, 1998; Sagor, 1999).

According to Lange and Sletten (2002), alternative schools that opened during the decades of the 1950s and 1960s found "their roots in the civil rights movement" (p. 3) of the 1960s. Lange and Sletten also wrote that during these two decades, "the mainstream public education system of the late 1950s and early 1960s was highly criticized for being racist and exclusively designed for the success of the few" (p. 3). Raywid (1981) emphasized, "[mainstream] schools were cold, dehumanizing, irrelevant institutions, largely indifferent to the humanity and the 'personhood' of those within it" (p. 551). Young (1990) also expressed that "critics of the public school system argued that the

system defined excellence solely in narrow cognitive terms at the expense of equity" (p. 9).

In 1965, just as "America was declaring war on poverty" (Lange & Sletten, 2002, p. 3), President Johnson signed The Elementary and Secondary Education Act and named the "public school system as the front line of attack" (Lange & Sletten, 2002, p. 3). According to Young (1990), "the emphasis on excellence was at this point replaced by the humanistic goal of equity" (p. 9), and new educational alternatives that offered an equal education to minority students began to emerge. Chapter 1 of the 1965 Elementary and Secondary Education Act funded some of these new alternatives, and Raywid (1998) believed the different funding sources molded the design and purpose of these early alternative schools. Consequently, near the end of the 1960s, alternative education had "split into two broad categories: alternatives outside of public education and those within the public school system" (Lange & Sletten, 2002, p. 3).

Alternative education movement outside of the public school system. Freedom Schools and Free Schools are two examples of non-public alternative schools that emerged during the 1960s. The origins of these schools were the result of different motives and differing educational philosophies of educators and parents (Cable et al., 2009). Lange and Sletten (2002) noted that Freedom schools "were developed and run as a community-school model…in settings ranging from church basements to storefronts" (p. 3). Lange and Sletten (2002) also concluded that during this time, "community control came to the forefront" (p.3). On the other hand, the Free Schools, unlike the Freedom Schools that emphasized community, emphasized unique qualities of individual

students by giving them the "freedom to learn and the freedom from restrictions" (Lange & Sletten, 2002, p. 3).

Most of these early, non-public alternatives were short-lived, and by the late 1970s, most of them had closed. Although no single factor appeared to cause their short life spans, the literature noted factors such as financial mismanagement, school accountability pressures (Kim, 2006), and difficulties of balancing their individual structures with necessary formalities (Lange & Sletten, 2002) as possible reasons. Raywid (1981) claimed these early non-public alternatives laid the groundwork for the current alternative movement by not tolerating an education system that was rigidly entrenched in a singular method of educating students. Raywid (1994) further emphasized this point by stating:

> Despite the ambiguities and the emergence of multiple alternatives, two enduring consistencies had characterized alternative schools from the start: they have been designed to respond to a group that appears not to be optimally served by the regular program, and, consequently have represented varying degrees of departure from standard school organization, programs and environments. (p. 26)

As the 1960s ended, the public school system experienced a "movement of reform" which Lange and Sletten (2002) attributed to the non-public alternative school. This reform movement revolved around the contribution of these early non-public alternative schools and their fundamental beliefs of "educational choice and the notion that not all students learn best in the same educational context" (p. 4).

Alternative education movement inside of the public school system. Although very few alternative schools that exist today resemble the first public school alternatives that emerged during the 1960s, their "philosophical underpinnings" (Davis et al., 2001, p. 4) remain the same. Public alternative schools that emerged during this decade were typically structured for secondary education and were designed for many purposes. Raywid (1998) considered all of these early alternative schools to be, in some way, an answer to the quickly emerging societal issues such as "juvenile crime and delinquency, school vandalism and violence, dropout prevention, desegregation, as well as a means to heightening school effectiveness" (Raywid, 1998, p. 10).

Near the end of the 1960s, some public school educators developed their own types of secondary alternatives, called Open Schools, which closely resembled private alternative options that were operating outside of public education systems during this time. Designed around parent, student, and teacher choice, Open Schools featured child-centered curricula, learner autonomy, and self-directed pacing (Young, 1990). Young (1990) believed that Open Schools influenced the development of other types of public alternatives including school-within-a-school, fundamental schools, and magnet schools. Public education alternatives that opened during this time in U.S. education history served not only as examples of democracy, but they also served as effective instruments for reforming all schools (Raywid, 1998). Likewise, Neumann (1994) found that "ideas of openness and choice, which underlie another central theme of 'humanistic' education – democracy- also influenced the organization and operation of many alternative schools" (p. 548).

As the popularity and growth of public alternative schools expanded, so did the differences in their design and purpose and during the two decades of the 1960s and 1970s, they were innovative in their approaches to curricular design and instructional strategies, and students attended by choice (Lehr & Lange, 2003; Lehr et al., 2009; Raywid, 1994). In addition, because they served students who had differing abilities, interests, and backgrounds, alternative schools during this time utilized multiple types of organizational configurations (Lehr & Lange, 2003). Despite their purpose and configuration differences, however, all of these alternative schools and programs, which had developed during this time, were because a few educators and parents were concerned that the public school education system was not responding to the needs of all children (Lehr & Lange, 2003; Raywid, 1999). Some authorities are of the opinion that the commonly held belief of mainstream, or traditional, public school educators during the 1960s and 1970s that a one-size-fits-all model of schooling was effective resulted in alternative schools experiencing "a great deal of difficulty establishing any true sense of respect or legitimacy by the public school establishment" (Davis et al., 2001, p. 1).

The belief of a few influential educators - that a one-size fits all system *should* fit all students- also kept other educators from endorsing alternative education as legitimate; therefore, they dismissed alternative education as a passing fad (Davis et al., 2001). According to the literature, however, not all educators held the same opinion, and, as a result, during the 1970s, the number of public alternatives grew from 100 to over 10,000 (Raywid, 1981). According to Raywid (1999), this growth is a testament to their "durability" (p. 47). However, Raywid (1999) also proposed that it was the adaptability

and flexibility of alternative schools that left them "somewhat marginal to the educational mainstream and a 'fringe' rather than a fully accepted member of the educational establishment" (p. 47).

These same difficulties have continued to haunt alternative schools even though alternative education is currently receiving more attention and acceptance by public school districts than in any time past. However, the fundamental beliefs that propelled the establishment of alternative schools, which were dismissed by some mainstream public school educators, are the same beliefs that are currently driving the continued expansion of alternative options (Davis et al., 2001; Raywid, 1999). These fundamental beliefs include the following: not all children learn best in the same way or in the same environments; schools or programs should be small and geared to children's individual skills and talents; there must be enough flexibility for students to demonstrate their learning in different ways; and teachers should use different motivational strategies to accommodate learning styles and behaviors (Davis, et al., 2001, Mottaz, 2002; Raywid, 1994).

The 1990s saw resurgence in public secondary alternative schools because of reform initiatives within the traditional school system. These included expanding the definition of school and rethinking the "traditional model of schooling in which all students are taught the same information in the same way" (Day, 2002, p 19). Literature also notes that public alternatives such as magnet programs, charter schools, distance-learning schools, and some private schools also originated during the late 1980s and 1990s. These alternative options also served to help address the achievement and equity

problems of the public school systems (Kim, 2006; Lange & Sletten, 2002) and to serve and educate a segment of America's students by using alternative approaches (Lehr et al., 2004). These types of alternatives, however, are beyond the scope of this literature review.

Major Factors that Influenced Change

Since the mid-1980s, several major factors appeared to contribute to changes in design, purpose, and growth of alternative schools and programs across the country. Each of these factors influenced alternative education in different ways, and included the following: an accountability movement that contributed to a shift in the focus and definition of alternative schools and programs (Davis et al., 2001; Gilson, 2006; Raywid, 2001); the 1994 Gun-Free Schools Act that required each state to enact a zero-tolerance law prompting school districts to create disciplinary alternative schools and programs (Ashford, 2000; Cable et al., 2009; Davis et al., 2001; Fitzsimmons Hughes et al., 2006); the Individuals with Disabilities Improvement Acts (IDEA) which influenced school districts to place disruptive students who received special education services into alternative schools and programs. (Cole, 2006; Fitzsimons Hughes et al., 2006; Tissington, 2006); and The No Child Left Behind Act (NCLB) of 2001 which resulted in dramatic changes in growth, purpose and design (Cable et al., 2009; Davis et al., 2001). When layered atop the accountability movement, the three pieces of legislation changed the direction of alternative schools because the populations of students that alternative schools currently serve are at risk for the very behaviors that the three pieces of legislation seek to combat.

The accountability movement. The conservative climate of the 1980s along with the 1983 publication of the landmark government report *A Nation At Risk*, which declared United States schools mediocre due to the poor achievement levels of American students (Cable et al., 2009), gave rise to an educational accountability movement. Alternative schools and programs experienced changes in focus, definition, and growth during this decade and some authorities believe that these changes occurred because of public school efforts to raise achievement levels (Gilson, 2006; Raywid, 1994; Settles & Orwick, 2003) of all students, especially those students who had been achieving at low levels (Settles & Orwick, 2003). As a result, the focus of public alternative schools and programs shifted from curricular and instructional innovation to one of curricular and instructional remediation (Lehr & Lange, 2003; Raywid, 1994). In addition, multiple organizational arrangements that allowed alternative schools and programs to educate all types of students shifted to a single organizational arrangement that allowed these schools and programs to educate only students who were at-risk of failing school (Gilson, 2006; Lehr & Lange, 2003; Lehr et al., 2009).

During this same time, the definition of alternative schools and programs also shifted from being broad and inclusive to being narrow and selective because they were being used only to remediate students who were not achieving at high enough levels to satisfy the higher academic achievement goals of the public schools (Gilson, 2006; Settles & Orwick, 2003). Further, while the term at-risk was coming into wide spread use during this time, its definition was also becoming broader (Brandt, 1993). Originally used to describe a type of student who was failing in public schools due to academic

deficiencies or due to chronic misbehaviors, authorities began to use the term to describe the internal and external factors that appeared to contribute to the poor academic, social, and emotional health of students (Brandt, 1993) such as poverty, low parental expectations, low parental education levels, and drug use and abuse (Arroyo, Rhoad, & Drew, 1999). As a result, a large number of students who were experiencing academic, social, or emotional difficulties in public school settings were labeled at-risk. Consequently, public school efforts to raise achievement levels during the accountability movement of the 1980s influenced the shifts in focus and definition of alternative schools and programs. The increased use and expanded definition of the term at-risk also influenced alternative schools and programs to educate a wider variety of at-risk students (Gilson, 2006; Settles & Orwick, 2003).

The 1994 Gun-Free Schools Act. During the last few years of the 1980s, school districts across the county designed the majority of their alternative schools and programs for students at risk for academic failure. However, safe schools legislation and zero-tolerance policies prompted these same school districts to create a different type, or model, of alternative school and program (Ashford, 2000). Educators created this new disciplinary model for the specific purpose of educating students who had been suspended or expelled from mainstream school environments because they had violated state or local laws or school district zero-tolerance policies (Kleiner, Porch, & Farris , 2002; Zweig, 2003). Literature documented the origin of zero-tolerance policies as a direct response to the 1994 Gun-Free Schools Act (Ashford, 2000).

This act mandated all states that received financial support through the Elementary and Secondary Education Act (ESEA) to pass legislation requiring school districts to expel for one year any student who possesses or brings a weapon to school (Ashford, 2000). According to Ashford (2000), "by the end of 1995, all 50 states had [the same legislation] on the books" (p. 28). The zero-tolerance legislation and policies of most states and school districts, however, included the expulsion or suspension of students for a predetermined period for the possession or the use of guns. The same legislation and policies also included "other acts of violence and drug related infractions" (Zweig, 2003, p. 7), participation in gang activity, and participation in acts of violence including fighting (Ashford, 2000; Kleiner et al., 2002; Zweig, 2003). Fitzsimmons Hughes et al. (2006) discussed the impact this legislation and policies had on alternative education and claimed that "a large percentage of…growth in alternative schools can be explained by recent federal and state zero tolerance and 'expel, but educate,' policies and laws" (p. 1). Similarly, Lehr et al. (2009) pointed out that, "alternative schools may be used more and more as a setting for students who have been suspended/expelled or are 'disruptive' in the classroom" (p. 26).

The Individuals with Disabilities Education Act (IDEA). Passage of the Amendments to the 1975 Individuals with Disabilities Education Act (IDEA) in 1997 and the reauthorization of the Individuals with Disabilities Education Improvement Act (IDEIA) in 2004 were factors that influenced the types of students placed into alternative school and program settings (Gable et al., 2006; Peterson & Smith, 2002; Quinn & Poirier, 2006). Changes in this federal law resulted in the placement of more students

who received special education services into alternative schools and programs because the changes allowed public schools to place suspended or chronically misbehaving special education students into an interim alternative educational setting (Gregg, 1999; Peterson & Smith, 2002; Quinn & Poirier, 2006). Because of changes in the provisions in IDEA that held public school districts to a higher standard of student performance accountability, school districts that were once merely required to give students with disabilities access to the general education were now required to ensure their academic success (Fitzsimmons Hughes et al., 2006; Tissington, 2006). Data from a national study suggested that 12% of students who attended public school alternatives in 2000 have a disability (Kleiner et al., 2002) and Lehr et al. (2009) reported that "this percentage is not significantly different from the overall percentage of students with IEP's enrolled in public schools during 2000-2001" (p. 23).

In contrast to Kleiner et al. (2002) and Lehr et al. (2009), other authorities claimed that the majority of the students in alterative schools and programs have learning disabilities or emotional/behavior disorders (Ahearn, 2004; Unruh, Bullis, Todis, Waintrup, & Atkins, 2007). Foley and Pang (2006) reported that the largest portion of students with IEPs who attend alternative schools and programs have emotional and behavior disorders; students who have "other disabilities such as learning disabilities, mild mental impairment, and attention deficits, with and without hyperactivity, appear to comprise smaller portions of student populations" (p. 18). Foley and Pang (2006) suggested that these numbers might be larger because some school districts place students in these schools or programs. Consequently, it appeared that schools districts use

alternative schools and programs as a way to remove disruptive students with disabilities from traditional schools and as a way to comply with accountability guidelines because students with disabilities were more likely to reach higher academic levels when they attended alternative schools and programs (Davis et al., 2001).

Since the late 1980s, educators have viewed alternative education as a solution to the problem of traditional schools being unable to meet accountability standards and as a solution to the problem of educating students who have been removed from traditional schools (Lange & Sletten, 2002; Settles & Orwick, 2003). Consequently, school districts around the country began to design alternative schools and programs to house and educate students who were at–risk of academic failure or dropping out. They also designed alternative schools and programs to house and educate students who they removed from the traditional environment due to their misbehavior (Davis et al., 2001; Raywid, 2001). At the beginning of the 21st century, another education accountability movement began with the passing of the 2001 No Child Left Behind (NCLB) Act and has proved to be, arguably, the greatest challenge to public alternative schools and programs (Cable et al., 2009; Tissington, 2006).

The 2001 No Child Left Behind (NCLB) Act. The 2001 NCLB Act has elevated alternative education not only to a new level of importance within the American public school system, but also to a new level of challenges (Fitzsimmons Hughes et al., 2006). To date, this federal legislation is the most widespread accountability reform movement in U.S. education history (Cole, 2006; Davis et al., 2001). Growth in both numbers of students and alternative schools and programs, along with changes in their

purpose and design, are reflections of its impact (Davis et al., 2001). The research literature suggested that the NCLB accountability measures of standardized assessment results and Adequate Yearly Progress (AYP) account for the changes (Cable et al., 2009; Fitzsimmons Hughes et al., 2006). However, unlike in the past, alternative schools and programs must now adhere to the same accountability measures as traditional schools (NGA, Center for Best Practices, 2001); consequently, in order for them to comply with the new accountability provisions, they must continue to make changes in both design and purpose (Davis et al., 2001; Gilson, 2006; Honigsfeld & Dunn, 2009).

Honigsfeld and Dunn (2009) revealed that the first reason the number of alternative schools and programs increased after the passing of NCLB Act 2001 was that the new federal legislation required public school districts to increase their use of standardized assessment results to inform their decisions about program development. These assessments "strongly favor analytic, sequential cognitive processors" (p. 220) and favor students who respond well to traditional teaching methods that require them to concentrate on the content of a lecture, take notes, and read assigned textbook material at school or at home. Many at-risk students, however, do not respond well to these traditional methods and do not score well on the state assessments. These students suffer from embarrassment and in some cases depression because they fall behind academically, they lack motivation to achieve at a high level, they lose interest in school, and they eventually fail or drop out (Honigsfeld & Dunn, 2009).

The second reason alternative schools and programs experienced growth during this time was because NCLB also required schools and school districts to make AYP

(Honigsfeld & Dunn, 2009; Lehr et al., 2009). The need to raise graduation rates forced some districts to look more closely at creating or expanding alternative programs options to help educate their low achieving students and students who are at-risk for dropout (Lehr et al., 2009). Therefore, NCLB challenges states to provide an equitable education to those students who have a wide range of both academic and social-emotional needs (Powell, 2003). Although NCLB challenged states to provide an equitable education to students, it also holds states and public schools accountable for increasing academic achievement for all students (NCLB, 2002). This legislation creates an additional challenge for today's educators because it contains an increased expectation at federal, state, and local levels for a higher percentage of students to graduate on time and not drop out (Aron, 2006; Cole, 2006).

Historically, all types of educational reform have created new challenges and pressures for the American public education system; the accountability provisions of the NCLB Act are no exception. Public school alternative education, however, has for the most part, been "operating with some degree of autonomy outside of traditional education" (Cable et al., 2009, p. 1), and it has not been faced with the same types of challenges and public pressures with which traditional public schools must deal (Kraemer & Ruzzi, 2001). However, the federal government now holds alternative education schools and programs to the same accountability provisions of NCLB, as are traditional schools (Cable et al., 2009; Fitzsimmons Hughes et al., 2006). Consequently, alternative programs will have to undergo dramatic changes in design and operation (Cable et al., 2009) to "find a way to bridge a wide gap between existing student performance levels

and annual measurable objectives" (McKee & Conner, 2007, p. 46). This might be a difficult undertaking for public school districts since the trend of removing students from traditional schools and housing them in alternative schools and programs appears to be continuing (Lehr & Lange, 2003; Lehr et al., 2009). Lehr et al. (2009) reported that more than half of the schools in the 32 states that responded to their nation-wide survey served voluntarily enrolled students as well as involuntarily placed students.

The Gun Free Schools Act, IDEA, and NCLB all appeared to influence the growth of alternative schools and programs (Gilson, 2006; Lehr & Lange, 2003). Although estimates vary, "in 1989 there were 894 public alternative schools in America. By 1995, this number had increased to 2,640" (Mottaz, 2002, p. 3). Estimated data from the National Center for Education Statistics (NCES) revealed the number of public alternative schools and programs increased from 2,606 in 1993-1994 to 3,850 in 1997-1998 (Kleiner et al., 2002). The results of a 2002 national study of public alternative schools and programs in Kleiner et al. (2002) revealed the following: "Overall, there were 10,900 public alternative schools and programs for at-risk students in the nation during the 2000-2001 school year (p. iii). Kleiner et al. (2002) also concluded, "39% of public school districts administered at least one alternative school or program for at-risk students during the 2000-2001 school year" (p. iii). A more recent study conducted by NCES for the 2007-2008 school year revealed "forty percent of the public school districts reported having at least one alternative high school or alternative program that operated solely within the district for students at-risk for academic failure" (Carver & Lewis, 2010, p. 3). This same report also revealed that "there were 558,300 students enrolled in public

school districts attending alternative schools and programs for at-risk students in 2007-2008" (Carver & Lewis, 2010, p. 3). According to Lehr et al. (2009), 39 states responded to a nationwide school district survey in 2002 that led the authors to conclude, "alternative schools are serving a significant portion of our nation's students- many of whom are considered at risk" (p. 23).

Governmental Roles

Currently, the United States government plays a role in alternative education at all levels. Federal, state, and local governments support public school alternative programs through legislation, policy, and other legislative measures. The methods of support include funding, accountability, data collection, and other assistance measures, but the literature suggests that differences in governmental support have resulted in inequities (Lehr et al., 2009; Martin & Brand, 2006). Martin and Brand (2006) also raised concerns regarding what they considered a "fragmentation of services" (p. 2). A brief overview of government roles supporting alternative education in the K-12 public education system serves to highlight some of the differences in the levels of support.

Federal government. Both the legislative and executive branches of government have been responsible for both funding and development of programs for at-risk youth; however, there has never been an organized approach to serving this population. Although all of the existing alternative programs are not operated by public school districts, the Department of Education only allocates funds to the public education system (Martin & Brand, 2006). However, Martin and Brand (2006) also pointed out that these public alternative education programs, which are not administered by public school

districts, can receive funding and support services through federal programs such as "The No Child Left behind Act (NCLB), the Individuals with Disabilities Education Act (IDEA), and the Carl D. Perkins Vocational and Applied Technology Education Act (Perkins)" (p. 2).

However, to receive any type of federal funding, alternative programs have to make the funding agency's goals fit into their existing structure or change their existing structure to meet the funding agency's requirements, and Martin and Brand (2006) remarked that their review of this process served to highlight an increased need for "greater coordination across agencies" (p. 5). Further, the majority of Title I compensatory funds go towards elementary education, and currently, no data is available that shows how much of the 10.5 billion dollars "helps students with disabilities at the secondary level" (Martin & Brand, 2006, p. 5).

State government. Improving secondary education, specifically working to engage at-risk students and decrease dropout rates, along with reconnecting students that already dropped out of the system are increasing priorities at the state level. According to Martin and Brand (2006), "States have the primary responsibility for defining and funding alternative education" (p. 8) and the level of involvement varies from state to state (Lehr et al., 2004; Lehr et al., 2009). In addition, even though state legislatures, through policies and legislation, may require defining alternative education, citing funding sources, specifying curriculum and instruction, establishing teacher credentials, and setting age limits, this also varies widely among the states (Lehr et al., 2004; Lehr et al., 2009; Martin & Brand, 2006). A synthesis of state-level legislation and policy

conducted by Lehr et al. (2009) revealed "the existence of legislation for all 50 states and the District of Columbia" (p. 23) on alternative schools, compared to "22 states with alternative school legislation or official policies reported in a 1998 publication" (p. 23). Lehr et al. (2009) also indicated that the study results revealed that states are paying more attention to alternative education than they had in the past.

Local government. Counties, cities, and school districts all play a role in developing and implementing alternative programs. Their interest in these programs is on the rise, and yet, these programs continue to experience disjointed and fragmented funding (Martin & Brand, 2006). School districts control how they spend their funding dollars and have the ability to create, or expand alternative program options, including contracting with community programs or private companies to provide options (Martin & Brand, 2006). Sometimes their options are limited because school districts do not always have enough money to fund them. However, because government funds follow students, if a school district is able to reenroll their students who have dropped out, states return education dollars to the district (Martin & Brand, 2006). The literature described a wide variety of ways alternative schools and programs across the country are funded and administered, and it is this administrative dimension that Aron (2003) claimed "helps clarify…what makes alterative education programs 'alternative'" (p. 14).

Classification of Alternative Schools and Programs

Although there are several classification systems or typologies cited throughout the alternative education literature, authorities purported that a definitive typology has not yet been developed and accepted because alternative schools and programs belie a

common definition (Aron, 2003; Aron, 2006; Davis et al., 2001). Aron (2003) pointed out that a typology, which "is a classification of the various kinds of alternative education based on certain common characteristics…" (p. 4), will help educators, parents, policy-makers, and funders "promote the expansion of high-quality approaches and improve or eliminate low-quality approaches" (p. 4). It will also allow scholars, practitioners, and other researchers to generalize the results of current research studies that examined outcomes and effective practices (Aron, 2003). Descriptions of all typologies found in the literature are not relevant to this study; however, the typologies discussed in Raywid (1994, 1998) provide adequate context in which to classify the PACE Program.

Raywid (1994) articulated an alternative school and program typology that included "three pure types, which individual alternative programs approximate to varying degrees" (p. 27). Raywid (1994) identified and labeled the three alternative types as "Type 1 - Popular Innovations, Type II - Last Chance Programs, and Type III - Remedial Focus" (p. 27). Raywid (1994) identified Type I schools as the most innovative and popular of the alternatives. These programs evolved from the idealism of the 1960s alternatives, including those original programs for at-risk students (Aron, 2003). Schools-within-schools, magnet schools, and charter schools are typical models of this first original type of alternative (Aron, 2003; Aron & Zweig, 2003).

Type II schools were identified in Raywid (1994) as last chance programs. Fizzell and Raywid (1997) later named these programs "reform schools" (p. 7), which are "punitively oriented programs to which students are sentenced – usually as one last chance prior to expulsion" (p.7). Fizzell and Raywid also remarked that educators placed

students who exhibited chronic misbehaviors that resulted in out-of-school suspensions into this type of program. These researchers explained that the goal of this type of program is to help students change their behavior through behavior modification techniques. Unlike students who attend Type I programs, students who attend Type II programs are placed involuntarily, are denied freedoms or options, and are subject to "firm and aggressive disciplinary policies" (p. 7). Similarly, the Appalachia Educational Laboratory (1998) emphasized that discipline is "the distinguishing characteristic of Type II programs, which aim to segregate, contain, and reform disruptive students" (as cited by Aron, 2003, p. 11).

Type III programs have a remedial focus, and, unlike students in Type I and Type II programs, students in these programs "are presumed to need remediation or rehabilitation – academic, social/emotional, or both" (Raywid, 1994, p. 27). According to Raywid (1994), this type of program leans towards a therapeutic approach to help students cope with social or emotional challenges. A few years later, Fizzell and Raywid (1997) explained, "This type of school was developed in the interests of dropout prevention and responding to the needs of students judged to be at-risk" (p. 7). Raywid (1994) acknowledged, however, that although she placed all alternative programs into three pure program types, some programs are a combination of two or more types to give students the support that they need.

In a later publication, Raywid (1998) restructured her original typology to include three new categories, or types, of alternative schools and programs because the proliferation of alternative programs in 1990s resulted in many programs that had more

similarities than they had differences. Aron (2003) attributed these changes to the mixing of program roles and objectives. In response to these changes, Raywid (1998) created a new and most recent typology that included three main types of alternative schools and programs and reasoned that each type is defined by whom, or by what, the school or program is changing: the student, the school, or the educational system. Programs that focused on changing the student include a combination of Raywid's original Type II and Type III (Raywid, 1998). Programs that have a focus on changing the school are similar to Raywid's original Type I. Programs that focus on changing the educational system are more innovative than any other type and are most like Raywid's original Type I. Because the PACE Program is attempting to change the behaviors of students by promoting student self-management and self-discipline through the use of a level system, it can be defined as a program that focuses on changing the student and classified within Raywid's most recent typology.

However, according to Fizzell and Raywid (1997), school districts can draw out important fundamental distinctions within the different types of alternative schools and programs by answering the following questions: "To which basic problems are alternative education programs designed to respond?" and "Who is alternative education created to serve?" (p. 7). To illustrate, the school district that houses the PACE Program designed it to respond to the problem of the inability of their traditional high schools to meet the diverse needs of their at-risk students. Therefore, they created the PACE Program to meet the academic, emotional, and social needs of students who are at-risk for school failure or dropout due to poor academics, poor attendance, or misbehavior.

Alternative School and Program Settings

The popularity and growth of alternative schools has resulted in school districts housing them within different types of operational settings, based on student, school district, and community needs (Martin & Brand, 2006). Aron and Zweig (2003) described the setting of alternative schools and programs as "where the programming actually occurs" (p. 24) and a review of the literature revealed four popular types of operational settings: the separate school, the school-within-a-school, the continuation school, and the self-contained classroom (Aron & Zweig, 2003; Chalker, 1996; Sekayi, 2001). Chalker (1996) reported that separate alternative schools are becoming increasingly popular around the country because they allow the school to be both self-contained and isolated from other school campuses; this is the case with the PACE Program.

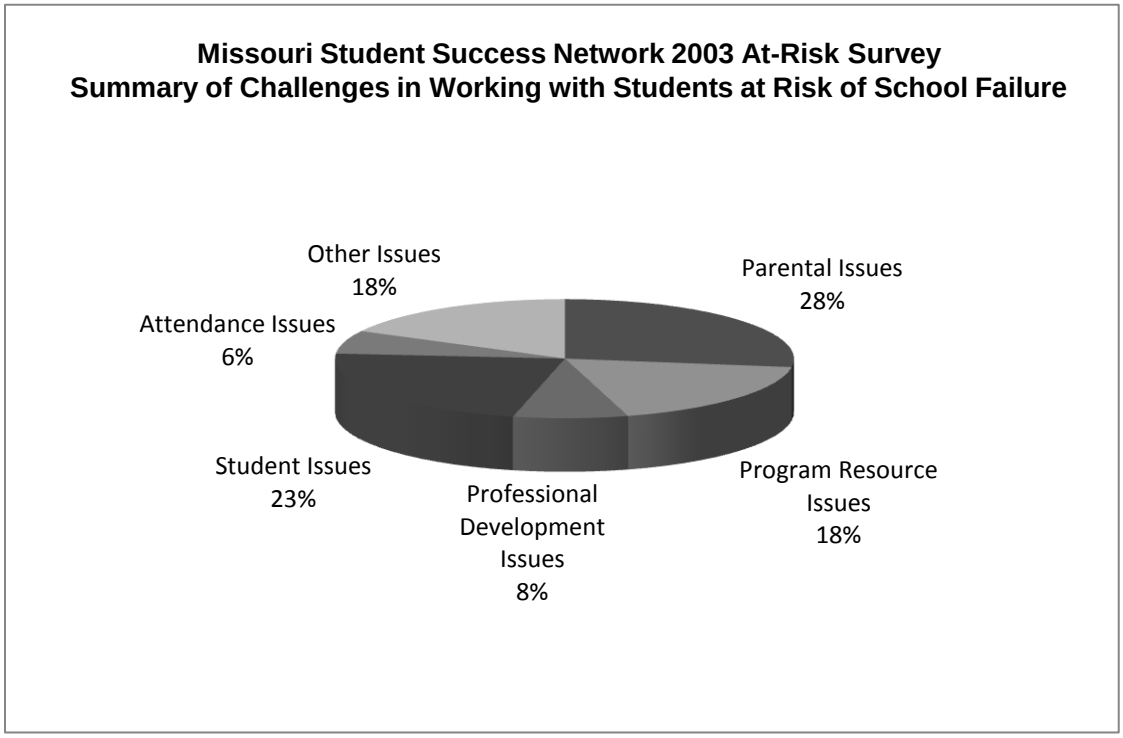
Characteristics of Students Who Attend Alternative Schools and Programs

As public school districts across the country have attempted to respond to the needs of all students by opening alternative schools and programs, the wide-variety of characteristics that identify students best served by alternative options has continued to challenge them. A review of literature suggested that students who attend the majority of alternative schools and programs are labeled at-risk by school personnel because they exhibit certain characteristics that appear to put them at-risk for failure (Aron, 2003; Aron, 2006; Johnson & Perkins, 2009). A survey study conducted for the Missouri Student Success Network (MSSN) in 2003 asked 260 school personnel and social service professionals "to list the 'three biggest challenges in working with students at-risk of

school failure'" (p. 3). The majority the respondents were experienced public school teachers and in total, they listed 624 challenges (see Table A1). As Figure 1 shows, overall, 57%, of the challenges were in some manner related to the characteristics of students that contribute to causing them to be at-risk for failure (MSSN, 2003).

Figure 1

Summary of Staff Perceptions of Challenges



Source: Missouri Student Success Network, 2003. Survey of At-Risk Services (p. 8).

Examples of parental issues identified in the survey include, a lack of parental involvement, no family support, and negative influences at the home. Student issues such as low self-esteem, motivation, attitude, and behavior/discipline as well as attendance issues such as poor attendance and truancy also characterize or can contribute to students being at risk of school failure.

The Construct of the Term At-risk

The term at-risk has no definitive meaning; shifts in term usage help explain differences in opinions about the causes of educational failure, differences in research methodology, and differences in intervention strategies (Cable et al., 2009). In the field of education, the term at-risk came into widespread use in the 1980s (Brandt, 1993; Byrnes, 2004) to describe disadvantaged students who were apt to experience negative educational outcomes (Pallas, 1989). Simultaneously, in the medical field, epidemiologists were conducting research on characteristics or risk factors that appeared to be predictive of certain types of health problems. Literature suggested that both education and sociology researchers during the 1980s and 1990s adopted an epidemiological model and by using this model, they focused their research on describing demographic characteristics of students that appeared to be predictive of educational problems (Byrnes, 2004; Johnston & Wetherill, 1998; Pallas, 1989). Consequently, the phrase "at-risk student" became the most common way to describe students who were demographically at-risk for educational problems (Brandt, 1993; Pallas, 1989; Sparks, Johnson, & Akos, 2010).

During the latter half of the 1990s, some scholars argued that this phrase appeared to place all of the blame for educational problems on the student because the focus was only on students' personal or family characteristics (Byrnes, 2004; Johnston & Wetherill, 1998). The common school interventions of academic remediation, tracking, and retention are a result of blaming the student for educational problems (Byrnes, 2004). According to Byrnes (2004), these same scholars argued that the phrase "at-risk student"

("Evolution of the Construct," para. 1) should be replaced by the phrase "students placed at-risk" ("Evolution of the Construct," para. 1) because it takes the focus off the student and places it on social institutions such as schools. Therefore, "educational failure is really the result of a poor fit between student characteristics, and the classroom environment" (Byrnes, 2004, "Evolution of the Construct," para. 4).

Based on the preponderance of research that focused on personal, family, and community characteristics of students who have experienced negative educational outcomes, the term at-risk is currently used to describe both a wide variety of student characteristics and a wide variety of internal and external factors (Aron & Zweig, 2003; McCall, 2003). Lawson (2009) stated that "risk factors are both descriptive and predictive….They describe current needs, and predict what is likely to happen if nothing is done" (p. 59). Similarly, Capuzzi and Gross (2004) believed that the factors that cause students to be identified as at-risk could be classified as causal factors, and the effect causal factors have on at-risk students could be classified as effect factors. To illustrate their point, personal, family, and community causal factors such as drug and alcohol abuse, pregnancy, poverty, crime, social, emotional, and, to a lesser degree cognitive problems (Aron & Zweig, 2003; Lehr et al., 2009; McCall, 2003; Slavin & Madden, 1989), could result in one or more effect factors such as academic failure, chronic behavior problems resulting in suspensions, truancy, social or emotional disabilities, and dropping out. Croninger and Lee (2001) discussed "two broad categories of risk factors - social and academic" (p. 552). Social risk includes demographic factors that contribute

to “school difficulties” (p. 552) and “academic risk highlights the actual manifestation of school-related problems” (p. 552) such as low grades or poor attendance.

School Related Risk Factors

Students who display one or more school-related risk factors are considered educationally at-risk for the following: academic failure, poor attendance (truancy or absenteeism), behavioral problems that result in suspensions, dropout, and disabilities (Hammond, Linton, Smink, & Drew, 2007). A large body of research indicated that certain personal, family, and community risk factors are clearly associated with educational risk (Croninger & Lee; 2001; Gleason & Dynarksi, 2002; Hammond, et al., 2007; Lange & Sletten, 2002; Pallas, 1989; Prevatt & Kelly, 2003; Sparks et al., 2010; S. Suh & J. Suh, 2007); a smaller body of research suggested that certain personal, family and community risk factors are good predictors of educational risk (Hammond et al., 2007; Henry & Huizinga, 2007; S. Suh & J. Suh, & Houston, 2007). It appears that school-related risk factors are entwined with personal, family, and community factors and research has yet to determine exactly what types, and exactly how many, personal, family, and community risk factors will result in educational risk (Aron & Zweig, 2003; Cappuzi & Gross, 2004; Lehr et al., 2009; McCall, 2003; Ruzzi & Kraemer, 2006; Slavin & Madden, 1989). In addition, because school-related risk factors tend to overlap one another, students can exhibit one or more of them at different times during their school years. School-related risk factors can also play reverse roles; i.e., poor attendance can result in academic failure and conversely, academic failure can result in poor attendance (Capuzzi & Gross, 2004).

The PACE Program, the alternative program under study, is designed to serve the needs of students with and without disabilities who are considered at-risk for academic failure and dropout. The program was specifically designed to address the school-related risk factors of GPA, attendance, OSS, and dropout. These school related risk factors are defined separately within the sections that follow; however, because of an extensive amount of overlap, each of the four sections includes references to the other sections.

Academic failure. Academic failure, also known as poor or low academic performance, is a common thread that runs throughout the at-risk literature (Hammond et al., 2007; Hampden-Thompson, Warkentien, & Daniel, 2009; Honigsfeld & Dunn, 2009; Kaillio & Padula, 2001; Lange & Sletten, 2002; Prevatt & Kelly, 2003). However, research suggested that academic performance has not been a common gauge of the effectiveness of alternative schools and programs (Ruzzi & Kraemer, 2006; Somers, Owens, & Piliawsky, 2004) and a paucity of research literature confirmed Ruzzi and Kraemer (2006) who wrote, "limited research has been done on academic outcomes of alternative education" (p. 5).

Recently, there has been a growing interest in personal, family, and other school-related risk factors that appear to predict or co-occur with the school-related risk factor of academic failure (Aron, 2005; Gleason & Dynarski, 2002; Hammond et al., 2007; Honigsfeld & Dunn, 2009; Pallas, 1989; Slavin & Madden, 1989; Somers et al., 2004; Suh et al., 2007). Studies revealed that students who have a low SES are also likely to achieve at lower levels and drop out than are students that come from higher income households (Pallas, 1989; Slavin & Madden, 1989). Honigsfeld and Dunn (2009)

reported that students who grow up within families or communities whose members do not speak English are at-risk for academic failure because these students do not learn English until they are old enough to enter school. Compared to White children, Black and Hispanic children also tend to score lower on tests and have a higher risk of dropping out (Aron, 2005; Pallas, 1989). In addition, Pallas (1989) found that children who grow up in single-parent households are likely to have a low SES and score lower on tests than children who live in two-parent households. Research has also shown that the simultaneous exposure to several of these same types of risk factors increases the likelihood of students experiencing academic failure (Arroyo et al., 1999; Gold & Mann, 1984; Somers et al., 2004). In a study that was designed to evaluate the effectiveness of three alternative schools on misbehavior, Gold and Mann (1984) concluded that poor scholastic experiences caused disruptive student behavior in schools. Arroyo et al. (1999) cited several risk factors that are associated with underachieving students in urban settings. These researchers reported that, even though schools could control some of the factors, they could not control all of them. Factors under school control included the following: whether teachers care for and respect their students and display high expectations for achievement, relevant curriculum, class sizes, and student confidence in their potential. Factors that schools cannot control included student mobility, poverty, or low SES, low parental expectations, and low parental education levels (Arroyo et al., 1999).

Kallio and Padula (2001) conducted a student perception study in an alternative school that switched from a behavior modification discipline school to a school that

focused on curriculum and academic achievement. Their findings provided anecdotal evidence of improved perceptions of academic achievement by both students and parents (Kallio & Padula, 2001). Hallfors et al. (2002) conducted a meta-analysis on data they collected from different types of school surveys from 28 communities across various time periods to assess the reliability of truancy, GPA, and sexual activity as risk measures. Substances such as alcohol, tobacco, cigarettes, and other drugs were used as outcome measures in the study, and the results showed that truancy, low GPA, and sexual activity were all strong predictors of drug use among seventh through 12th grade students (Hallfors et al., 2002).

In an attempt to close the achievement gap and to increase the academic performance of students who are at–risk for academic failure, grade retention is becoming an increasingly common intervention (Jimerson et al., 2006; Mulroy, 2008). Jimerson et al. (2006) commented, "during the past decade, amidst the current context emphasizing educational standards and accountability, the practice of grade retention has increased" (p. 85) and is used by schools to remediate and improve the academic performance of students so they can meet the basic competency indicators of NCLB. Jimerson et al. synthesized the data of 83 studies included in three meta-analytic studies published from 1925-1999 and concluded that "overall, the convergence of research does not demonstrate academic advantages for retained students relative to comparison groups of low-achieving promoted peers" (p. 87).

Absenteeism and truancy. After compulsory education and mandatory attendance laws were introduced into the U.S. public education system during the late

19th and early 20th centuries, attendance became an issue (Sutphen, Ford, & Flaherty, 2010). Within the past decade, the body of literature concerned with attendance revealed that absenteeism has become an increasingly important issue at local, state, and national levels (Heilbrunn, 2007; Henry & Huizinga, 2007; McCray, 2006), and growing numbers of truancy reduction programs across the nation provides further evidence of this increased concern (Heilbrunn, 2007; McCray, 2006). However, it is hard to determine how extensive the problem is because of differences in definitions and inconsistencies in data reporting (Heilbrunn, 2007; Yeide & Kobrin, 2009). In contrast to a wealth of literature that describes the possible causes and the predictive outcomes of poor attendance, there is little research concerning solutions or remedies that address both academic and social outcomes that place students at-risk (Heilbrunn, 2007; McCray, 2006). According to Sutphen et al. (2010), truancy is a legal term defined at both the state and the school district levels. Generally, states define truancy as "a specified number of unexcused absences from school over a designated period of time" (p. 161). As an added note, because truancy, absenteeism, and poor attendance appeared to be interchangeable throughout the literature, they are also interchangeable within the remainder of this literature review.

Obstacles to reporting and measuring truancy rates. Although research indicated and identified absenteeism or truancy as a risk factor for academic failure and dropout, it is difficult to report the scale of the problem because definition differences and data reporting inconsistencies have created serious measurement obstacles that ultimately create inconsistencies (Heilbrunn, 2007; Yeide & Kobrin, 2009). In fact,

according to Heilbrunn (2007), definition differences and reporting inconsistencies make it impossible to measure accurately the extent of the problem. Heilbrunn (2007) pointed out that at the classroom level, teachers do not consistently and accurately report student attendance. School districts also compromise the accuracy of the reported attendance because they rely on the accuracy of individual schools, and attendance-taking practices and attendance policies of school districts vary (Heilbrunn, 2007). For example, school districts independently determine the definitions of excused and unexcused absences; hence, an excused absence in one district might be an unexcused absence in another district. Further, some school attendance secretaries rely on students' parents to provide excuses for absences, or they use personal judgments to determine whether they report a student's absence as excused or unexcused (Heilbrunn, 2007). The largest obstacle occurs at the state level (Heilbrunn, 2007; Yeide & Kobrin, 2009). Heilbrunn (2007) expressed that "since both compulsory education's rules and the definition of truancy are set according to state law, calculating the number of truants across multiple states is like adding apples and oranges" (p. 2). Until all states establish common definitions, set identical compulsory age rules, and use identical formulas to calculate truancy rates, it will be impossible to aggregate national truancy data (Heilbrunn, 2005, 2007). Without a standard process for school districts or states to collect and report attendance, the true effects of truancy in schools will never be determined (Christie, 2006).

Factors associated with truancy. A growing body of literature identified many different personal, family, and school factors that are associated with truancy (Butler, Reed, & Robles-Pina, 2005; Heilbrunn, 2005; McCray, 2006; Reimer & Dimock, 2005).

Personal factors included drugs, alcohol, physical, social, and mental health problems, lack of employment opportunities (Butler et al., 2005; Heilbrunn, 2005), abuse, and neglect (Heilbrunn, 2005). Family factors, which relate to issues within the home environment, included the following: parent abuse of drugs or alcohol (Butler et al., 2005; Heilbrunn, 2005), poverty or low income (Heilbrunn, 2005), lack of supervision (Henry, 2007), and indifference toward education, lack of employment opportunities, mobility rates, single parent households, and transportation problems (Butler et al., 2005). School factors included size, cultural sensitivities, inflexible attitudes, behaviors toward learning style differences, and inconsistencies in attendance policies (Butler et al., 2005).

Research strongly suggested that there are both legal and economic implications of truancy. In fact, Heilbrunn (2005) pointed out that "truancy is both a cause and an effect of legal and economic problems" (p. 4). Butler et al. (2005) commented that there appeared to be a relationship between attendance and certain economic variables including employment opportunities of students and parents, mobility rates, single parent households, and transportation problems. Schools can also cause financial hardship for families when they file truancy petitions that result in students and parents receiving court sanctions such as fines or neglect charges (Heilbrunn, 2005).

Researchers of several studies suggested that truancy could be linked or connected to other types of student problem behaviors such as dropout, substance abuse , low student achievement (Henry, 2007), and juvenile delinquency (Heilbrunn, 2007; McCray, 2006; Reimer & Dimock, 2005). Although the connections to these problem behaviors were a recurring theme throughout the education literature, the connection

between truancy and juvenile delinquency did not appear as often in the current education research literature. Heilbrunn (2007) emphasized the relationship between truancy "dropout, substance use and abuse, and delinquency" (p. 6) and believed these problem behaviors "are circular, rather than linear. That is, truancy can be both a cause and a consequence for any of these troubling behaviors" (p. 6).

Dropout connection. Throughout the literature, authorities reported that there was a strong connection of truancy to high school dropout, and a growing body of literature linked dropout to a lack of school engagement (Finlay, 2006; Heilbrunn, 2007; Tyler & Lofstrom, 2009; Yazzie-Mintz, 2010). According to Yazzie-Mintz (2010), 42,754 students took the survey and the results revealed that the more often students skipped school, the more often they considered dropping out of school.

Munoz (2002) conducted an experimental study and analyzed the impact of a six month dropout prevention program on "dropout proneness" (p. 7) for students who attended an urban alternative high school. Munoz (2002) found that as attendance improved, the number of dropouts declined. Two limitations affect the results of this study. First, although students in the target group received the treatment services of attendance intervention specialists, students in the control group also received some of the same services. Second, converging research indicated that the interaction of many types of variables appeared to influence dropout and with the exceptions of race, gender, and Test of Basic Education (TABE) achievement results, Munoz did not control for extraneous variables. Therefore, as Munoz rightfully concluded, "this study is an exploratory effort to establish tentative cause-effect relationship" (Munoz, 2002, p. 18).

Substance use and abuse connection. Several recent studies focused on truancy and its relationship to substance use. One of these studies, conducted by Henry and Huizinga (2005), analyzed data from the Rochester Youth Study of 14-year-olds, and concluded that compared to students who never skipped classes, students who occasionally skipped classes are four times as likely to begin using marijuana. In addition, the researchers of this same study reported that chronic truants (students who missed more than 10 days) were 16 times more likely to begin using marijuana as non-skippers. The Denver Youth Survey, which surveyed students from ages 11 to 15, provided Henry and Huizinga (2007) data from a longitudinal sample of students. Henry and Huizinga reported that the results of this study revealed "truancy was a significant predictor of initiation of alcohol, tobacco, and marijuana use" (p. 358). These researchers also found "The robust effect of truancy persisted after controlling for potential confounders, including school performance, school isolation, association with delinquent peers, personal delinquent values, parental monitoring, and family attachment" (p. 358). Henry and Huizinga (2007) noted, however, that the sample included students who lived in "socially disorganized neighborhoods" (p. 358) and acknowledged this study did not establish a causal relationship. Other recent research, however, showed a linear relationship linking truancy and first time marijuana use; as the number of skipped school days increased, drug use also increased (Seeley, 2008). This research also concluded that truancy is a risk factor that can strongly predict (97%) first time marijuana use (Seeley, 2008).

In a related study, "Truancy and Escalation of Substance Use During Adolescence", Henry and Thornberry (2010) analyzed data from the Rochester Youth Development Study to examine whether truancy escalated substance use and the researchers reported that the results of their study "demonstrated a robust association between truancy and substance use" (p. 122). As Hallfors et al. (2002) pointed out in their meta-analytic study of truancy, GPA, and sexual activity, while all three risk factors are strong predictors of drug use among seventh through 12th grade students, it appeared that truancy was a better predictor of drug use than both GPA and sexual activity. Further, the results of these recent studies provided evidence that truancy, over other types of risk factors, was the best predictor of a student using drugs for the first time. The research findings of Vucina and Becirevic (2007) and White, Violette, Metzger, and Stouthamer-Loeber (2007) revealed a positive connection between truancy and student drug usage that supported this conclusion.

Eaton, Brener, and Kann (2008) designed and conducted a study to determine whether students with absences (excused or unexcused) engaged in health risk behaviors more often than students without absences. Eaton et al. had 4,517 students in grades nine through 12 from 64 public schools and across eight states, participate in the study and by using logistic regression analysis, the researchers controlled student demographic variables of gender, race, and age. They defined dependent variable categories as the following: "unintentional injuries and violence, tobacco use, alcohol and other drug use, sexual behaviors, dietary behaviors, and physical activity" (p. 224). Eaton et al. (2008) found that students who had any type of absence, with or without parent permission, had

a higher likelihood of engaging in health risk behaviors than students who did not have absences. More importantly, their study revealed that students with unexcused absences were two times more apt to participate in risk behaviors than were students who had excused absences (Eaton et al., 2008). The researchers acknowledged, however, that they used data collection and sampling methodologies that limited their ability to determine causality.

Student achievement connection. Truancy, or absenteeism, has sometimes been disregarded as an important factor or variable in its relationship to student achievement (Hallfors, Cho, Brodish, Flewelling, & Khatapoush, 2006), but its impact is greater than what has been commonly thought (Lamdin, 1996; McCray, 2006). Clearly, absenteeism results in a loss of instructional time (McCray, 2006; Roby, 2004) and loss of instructional time can have a negative effect on student achievement (Lamdin, 1996; McCray, 2006). The results of a study of Ohio schools suggested that there was a moderate to strong correlation between student achievement and student attendance at grades four, six, nine, and 12 with the most significant relationship occurring during the ninth grade (Roby, 2004).

Juvenile delinquent behavior connection. Research suggested that students who are truant have more time to participate in daytime crime. MacGillivary and Erickson (2006) examined data from the National Incidence Reporting System that indicated that in Denver, Colorado, there were more incidences of crimes committed by adolescents during the day than there were incidences of crimes committed after school hours. Heilbrunn (2007) reported that researchers who contributed to the "Causes and Correlates

of Juvenile Delinquency", which was a large study comprised of three longitudinal studies, identified truancy as one of three developmental pathways for delinquency in boys. Data from one of the studies showed that students who self-reported incidences of delinquency also self-reported incidences of truancy and these same students, according to the study, self-reported assaults or property crimes for which they were arrested (Heilbrunn, 2007). Significant to this study, however, was students who admitted to skipping school occasionally reported substantially fewer incidences than did students who admitted to chronically skipping school (Heilbrunn, 2007).

Out-of-school suspension (OSS). Schools have behavior policies, and they use a variety of classroom and school-wide behavior management interventions (Dupper, Theriot, & Craun, 2009; Raffaele Mendez, Knoff, & Ferron, 2002; Rausch & Skiba, 2004). School exclusion, in the form of OSS, is one of these interventions. School administrators use OSS to remove students from the school environment for misbehavior and to prevent future misbehaviors (Christle, Nelson, & Jolivette, 2004; Gable et al., 2006). According to Christle et al. (2004), rates of school exclusion have escalated along with the numbers of school safety concerns and zero tolerance policies. Student misbehavior that results in OSS is usually more serious or violent than misbehaviors that result in in-school suspension (ISS). However, research suggested that the most common reasons students receive OSS involve minor disruptive peer interactions or negative student to teacher interactions (Dupper et al., 2009; Raffaele Mendez et al., 2002; Rausch & Skiba, 2004).

Current knowledge about the relationship of student and school characteristics to

school exclusion is limited due to a lack of empirical research (Christle et al., 2004; Dupper, et al., 2009). Research that addressed this limitation, however, suggested gender and the risk factors of race, SES, and disabilities are all associated with school exclusion (Dupper, et al., 2009; Skiba & Rausch, 2006, Skiba & Sprague, 2008). More males than females receive suspensions (Finlay, 2005), and higher rates of suspension are reported for African American students (Skiba & Sprague, 2008); research conducted by Skiba and Rausch (2006) provided similar conclusions. These researchers wrote, "students of color, particularly African American students, and students from disadvantaged backgrounds are at increased risk of being removed from school through suspension and expulsion" (p. 1076). In addition, students with identified disabilities i.e., emotional, behavioral or learning, tended to have higher rates of suspension compared to students without disabilities (Krezmien, Leone, & Achilles, 2006).

The research also revealed little evidence that OSS is a deterrent for future misbehaviors (Theriot, Craun, & Dupper, 2009). In fact, Theriot et al. (2009) used hierarchical modeling to analyze behavior data of 9,706 secondary students in one school district and found that the interactions of poverty, race, and gender did not predict the possibility of OSS or expulsion. However, they also found that the interactions of poverty, the numbers of prior ISS and OSS, and the severity of prior infractions, did predict OSS and expulsion. Theriot et al. (2009) also reported that administrators suspended students out-of-school at higher rates if students attended schools that had higher overall OSS suspension rates. This finding was consistent with a study conducted by Skiba and Rausch (2004) that proposed that the attitudes of school principals affected

school OSS rates. In this study, Skiba and Rausch concluded that schools led by principals who favored OSS over other types of behavior interventions, suspended students at higher rates than schools whose principals favored preventative and alternative methods to suspension.

Although many educators regard OSS as an effective disciplinary strategy (Christle et al., 2004), research revealed that it could negatively affect academic performance and relationships with teachers and school staff (Sprague & Walker, 2000). Skiba and Rausch (2004) explored a possible relationship between OSS and achievement outcomes on "The Math and English/Language Arts section of the Indiana State Test of Educational Progress (ISTEP)" (p. 2). In this study, analysis of test data and school suspension data for the 2002-2003 school year revealed that schools with high suspension rates (top 25%), "clearly have a lower ISTEP passing rate than those with a lower rate of…out-of-school suspension" (p. 2). Skiba and Rausch (2004) used a linear multiple regression equation to control for the demographic variables of low SES, minority status (African American), level of school (secondary), and an analysis of correlations revealed that poverty, OSS rate, and the percentage of African American students were all "significant predictors of students passing ISTEP" (Skiba & Rausch, 2004, p. 2). Similarly, Suh et al. (2007) analyzed data from the National Longitudinal Survey of Youth to determine if certain factors can predict school failure, and they identified school suspension as one of the three best predictors. Although schools use OSS to manage the misbehaviors of some students because they negatively affect a positive and safe learning environment (Christle et al., 2004), studies show that exclusion from school can result in

unintended negative consequences for the suspended student. One of these consequences is dropping out (Dupper et al., 2009).

Dropping out. Across the country, government entities, employers, and parents are closely watching both the academic successes of students who graduate from U.S. public high schools along with the academic failures of students who drop out from these same schools (Aron, 2003; Mottaz, 2002). Sum, Khatiwada, McLaughlin, and Palma (2009) reported an estimated 67.7% employment rate of high school graduates compared to an estimated 45.7% employment rate of high school dropouts in 2008 for 16 to 24-year-olds. According to Prevatt and Kelly (2003), negative consequences of dropping out of high school "are extreme, affecting individuals, their families, and society at large" (p. 378) and compared to students who graduate from high school, students who dropout suffer from unemployment, lower wage earnings, and poorer health (Croninger & Lee, 2001; Prevatt & Kelly, 2003; Sum et al., 2009). In addition, dropouts are more likely to be incarcerated because they participate in higher rates of violent and criminal activities than students who graduate from school (Prevatt & Kelly, 2003; Sum et al., 2009). Sum et al. (2009) emphasized, "nearly 1 of every 10 young male high school dropouts was institutionalized on a given day in 2006-2007 versus fewer than 1 of 33 high school graduates" (p.10). Sum et al. (2009) also concluded that males and Blacks experience more negative consequences associated with dropping out than do females and members of other race or ethnic groups. Conner and McKee (2008) wrote that dropout rates among Hispanic students are substantially higher than dropout rates among White

students (22.4% versus 6%) and when compared to Black students, the Hispanic dropout rate is twice as high (10.4%).

Importance of using common and consistent term definitions. Term definitions and methods for measuring and reporting graduation and dropout rates can vary from state to state. These differences have resulted in reporting inconsistencies and confusing interpretations; these differences have also contributed to the lack of quantitative dropout program evaluation research (Mulroy, 2008; Princiotta & Reyna, 2009). Although NCLB challenges states to comply with new federal guidelines that hold them accountable for their graduation rates, it is difficult to accurately measure graduation and dropout rates because term definitions, data collection, and reporting methods vary across school districts and across states (Mulroy, 2008; Prevatt & Kelly, 2003; Princiotta & Reyna, 2009). In today's environment of heightened accountability, graduation and dropout rates are viewed and are used as key indicators of the effectiveness of our education system and yet, according to a recent publication in 2011 by the National Research Council and the National Academy of Education:

> There is still wide spread disagreement among researchers, statisticians, and policy analysts about the 'true rates', how they are best measured, and what trends are evident over time…policy makers…are faced with choosing among substantially discrepant estimates that would lead them to different conclusions regarding both the size of the dropout problem and how it has changed in recent years. (p. vii)

The literature has yet to report a common method of calculating dropout data; consequently, it is difficult not only to compare dropout data, but also to ensure (or trust) that the data is accurate. A recent push by state governors for all states to adopt a common method to calculate dropout rates serves to illustrate why common definitions are needed to ensure data is accurate (McKee & Conner, 2007; Princiotta & Reyna, 2009). In addition, three types of dropout rates, status dropout rate, event dropout rate, and cohort dropout rate, are used throughout the literature (Reimer & Smink, 2005); however, none of these rates has formulas that are "simply the graduation rate subtracted from 100 percent" (Princiotta & Reyna, 2009, p. 11). Each rate differs in both definition and formula, and as illustrated in the following examples, each rate can produce different dropout rates: the status dropout rate "measures the proportion of students who have not completed high school and are not enrolled at one point in time, regardless of when they dropped out" (Thurlow, Sinclair, & Johnson, 2002, p. 4). From 2000 to 2008, the national status dropout rate declined 11% to 8%. However, this rate included data of all 16 to24-year-olds, even if they never attended school in this country (Aud et al., 2010).

According to Cataldi, Laird, and KewalRamani (2009), the event dropout rate "estimates the percentage of high school students who left high school between the beginning of one school year and the beginning of the next without earning a high school diploma or its equivalent" (p. 1), and in 2007, the National event dropout rate was 3.5%. The cohort dropout rate "measures a group of students over a period of time. These rates are based on repeated measures of students with shared experiences and reveal how many students starting in a specific grade dropout over time" (MODESE, 2009, Dropout Rate

Calculation Methods, para. 3). Analysis of longitudinal data in a 2004 NCES study reported that at least 20% of eighth grade students in a 1988 cohort dropped out of high school at least one time during their high school careers (Hurst, Kelly, & Princiotta, 2004).

MODESE uses the event rate formula to calculate the state dropout rate and reported that there is an "overall increase in dropout rate from a low of 3.3 percent in 2003 to 4.2 percent in 2008" (MODESE, Dropout Rate Calculation Methods, 2009, para. 1). Dropout rates for minority students in Missouri "increased in 2008 to 8.7 percent, up from 6.7 percent in 2007" (MODESE, Dropout Rate Calculation Methods, 2009, para. 1). The Missouri school district that houses the PACE Program has a relatively low dropout rate of 1.7% in 2008, compared to the state dropout rate of 4.2% (MODESE, 2009).

The wide variety of personal, family, community and school risk factors have also made it difficult for researchers to determine which risk factors predict dropping out (Gleason & Dynarski, 2002; Tyler & Lofstrom, 2009). As researchers Tyler and Lofstrom (2009) stated, "Although researchers know quite a bit about the characteristics of students who leave school, we know much less about the causal factors that lead to the school-leaving process" (p. 83). The importance of having accurate data was revealed when comparing research focused on proposed causes of dropout and research focused on proposed relationships, and research focused on correlates between possible non-school and school-related risk factors and dropping out of school (Prevatt & Kelly, 2003). A study conducted by Gleason and Dynarski (2002) suggested that this is a valid concern. They also emphasized that even though certain demographic risk factors appear to

correlate with dropping out, these same risk factors might not always predict dropout. A study of dropout factors conducted by S. Suh and J. Suh (2007) identified 16 predictors that had a significant impact on whether a student decided to drop out of school. In this study, the factors included the following: poverty or a low SES, race and ethnicity, family composition, a mother's education level, age of first sexual experience, peer influences, and whether students expect to attend school the following year. S. Suh, and J. Suh (2007) also determined that three risk factor categories of low GPA, low SES, and behavioral problems, have the greatest and equal impact on a student's decision to drop out.

In another study of dropout risk factors, Suh et al. (2007) found that the one factor that correlated with student failure was living with mothers who did not graduate from high school. In an earlier study, Pallas (1989) explained that well-educated mothers tend to give their children resources that are more enriching. Children of these mothers are more inclined to stay in school than are the children from less educated mothers who do not give their children as many educational resources. In addition, Honigsfeld and Dunn (2009) commented that students who live in poverty, or have a low SES, not only lack educational resources, but they also lack basic resources that in turn might influence behavior and academic performance. Not all studies agree, however, because a study conducted by Barton (2006), which controlled for SES, suggested that living in a single-parent household was the most significant factor for predicting dropping out.

S. Suh and J. Suh (2007) also suggested that the more risk factors students have, or are exposed to, the more likely they are to drop out of school. Johnson and Perkins

(2009) came to the same conclusion after they examined a Baltimore study on at-risk factors that influenced dropouts. Johnson and Perkins (2009) reported that the results of this study indicated that increased exposure to at-risk factors increased the chance of dropping out. Similarly, Janosz, Archambault, Morizot, and Pagani (2008) pointed out in their school engagement study that a "confluence of individual, social, family, cultural, socioeconomic, and institutional factors" can result in dropping out (p. 22). Jerald (2006) reported that longitudinal studies of cohorts conducted in three school districts confirmed the results of prior studies on how well certain risk factors are able to predict dropping out: students who exhibit either low levels of academic achievement or educational engagement are more likely to drop out.

Level Systems

The PACE Program uses a point and level system as a school-wide behavior management framework, or model. The definition of a level system varies throughout the literature; however, in terms of an educational setting such as the PACE Program, the definition provided by Farrell, Smith, and Brownell (1998) is applicable to the current study. Farell et al. (1998) defined a level system as an "organizational framework(s) in which a teacher can shape a student's desired behaviors in hierarchies of behavioral expectations or levels through the systematic application of behavioral principles" (p. 1). Cancio and Johnson (2007) stated the following:

> A student's progress through the various levels of a level system depends on changes in his or her measurable behavior and achievement. As the student progresses through the levels, the behavioral expectations and privileges provided

for acceptable behavior are altered toward the eventual goal of self- management. (p. 513)

Rooted in the economic system of exchange, level systems combined with reinforcers or tokens, such as points, become part of a token reinforcement system. During the 1950s, token reinforcement systems played an important role in applied behavior psychology and in the operant conditioning principles of behaviorist B. F. Skinner (Mohr et al., 2009). When level systems are used in educational settings, such as the PACE Program, " [they] are essentially an application of the principle of shaping, where the goal is self- management (i.e., developing personal responsibility for social, emotional, and academic performance)" (Cancio & Johnson, 2007, p. 513).

In the point and level system used by the PACE Program, students earn points throughout each class period, which can be exchanged for privileges specified for each level on Fun Fridays. The goal is to motivate them to eventually self-manage and choose appropriate behaviors as they progress up the levels (Farrell et al., 1998). A point and level system is a hierarchy of student expectation contingencies, whereby students accumulate points, and earn corresponding privileges (Cruz & Cullinan, 2001). These student expectations can include any type of academic, social, or personal behaviors that teachers and students have targeted.

Specifically, in the PACE Program, the program director, the behavior specialist, and classroom teachers design and use a point and level systems to help their students learn different and more appropriate behaviors through a series of steps, or levels. All classroom teachers, the behavior specialist, and the program administrator designed each

level to include details about the privileges, rewards, and schedules of reinforcement to help students identify and then choose appropriate social, emotional, and academic behaviors that will improve their success while they are attending the program and when they return to their home schools. If students meet all the expectations within one level they can move up to the next level and garner more privileges such as playing Guitar Hero or ordering pizza on Fun Fridays (H. Vanderhyden, personal communication, March 1, 2009).

Although a variety of educational settings use level systems, they appeared most commonly in the literature about managing and improving the behaviors of individuals who have emotional or behavioral disabilities (E/BD) in therapeutic settings (Farrell et al., 1998; Mohr et al., 2009; VanderVen, 2009). Level systems are also a popular behavior management tool in alternative education settings (Farrell et al., 1998). Not all authorities agree, however, that level systems are effective, nor do they agree that it is appropriate to use them in any school setting (VanderVen, 2009; Witzel & Mercer, 2003). According to the literature, point and level systems serve several purposes: to promote data-driven decisions, to provide an external structure for teachers and students, to ease student transitions into other programs, and to help students develop an internal motivation to self-manage appropriate behavior choices (Cancio & Johnson, 2007; Farrell et al., 1998; Heward, 2003; Mohr et al., 2009; Santmire, 2009; Tobin & Sprague, 2000).

Cancio and Johnson (2007) and Tobin and Sprague (2000) proposed that points provide valuable data that can be collected and analyzed to make data-driven decisions. Santmire (2009) concurred and reported that point systems allow teachers to track

students' behavioral development progress, and they enhance their abilities to develop new behavior interventions when they collect and analyze the data. The researcher has observed that teachers and administrators in the PACE Program use points data to monitor student behavior during the school day, and they also use the data to determine new target behaviors. Although researchers reported a positive purpose for using a point and level system, Mohr et al. (2009) argued that their use could result in students and teachers only paying attention to negative behaviors instead of positive behaviors. Mohr et al. (2009) also warned that inconsistencies in implementation, such as awarding points differently, could result in an increase of negative student behaviors.

A level system serves a second purpose of providing an external structure for behavior regulation where "students access greater independences and more privileges as they demonstrate increased behavioral control" (Heward, 2003, p. 306). Cancio and Johnson (2007) acknowledged this purpose by commenting, "point and level systems are used to provide fair and consistent order in programs for students with E/BD. They [level systems] provide teachers and staff with a clear structure for effectively reinforcing and utilizing descriptive instructional praise and corrective teaching" (p. 515). Tobin and Sprague (1999) found that a "highly structured classroom with behavioral classroom management" (p. 9) with the help of a level system, was a necessary factor for educating at-risk students. These researchers also indicated that point and level systems contributed to behavior control and academic gains. On the other hand, although Cancio and Johnson (2007) are proponents, they admitted that while the original intention is to allow students to earn points for appropriate behaviors, they witnessed a teacher who subtracted points

when students misbehaved. Cancio and Johnson expressed that some students appeared to be successful under this approach; other students, however, were not. This type of observation could be one reason why researchers Mohr et al. (2009) purported that "point and level systems for all their appearance of 'fairness' and objectivity are punitive" (p. 11).

A third purpose of level systems is to help students' transition into other programs that have fewer restrictions (Cancio & Johnson, 2007; Farrell et al., 1998). By law, public schools must place all students who have documented disabilities in a least restricted environment (Quinn & Rutherford, 1998). Yet, students who have emotional or behavioral disabilities (E/BD) are more likely than are students with other disabilities to be served in settings that are more restrictive without ever returning to mainstream settings (Fitzsimmons Hughes et al., 2006). Moreover, the literature indicated that some educators view the purpose of level systems as more of a method to manage student behavior within the context of some alternative education settings, rather than to transition students into a less restrictive environment (Farrell et al., 1998).

The final, and arguably the most important, purpose of level systems is to motivate students to choose appropriate behaviors and to help them develop an internal capacity to self-manage (Cancio & Johnson, 2007; Farrell et al., 1998; Heward, 2003; Mohr et al., 2009; Santmire, 2009; Tobin & Sprague, 2000). However, the researcher discovered that there is still an ongoing debate in the educational literature whether using external (extrinsic) motivators (reinforcers), such as points, has a positive or negative effect on internal (intrinsic) motivation (the ultimate goal). The intent of using external

motivators such as points is to (a) motivate students to change their behaviors (Deci, Koestner, & Ryan, 2001), (b) generalize the appropriate behaviors across settings (Cruz & Cullinan, 2001; Santmire, 2009), and (c) sustain the changes over time (Cruz & Cullinan, 2001; Santmire, 2009).

Witzel and Mercer (2003) used meta-analysis to compare current research practices and findings and concluded, "not only can rewards be effective at achieving short-term outcomes, they can also help build intrinsic motivation in a student" (p. 94). Witzel and Mercer (2003) also wrote, "the consensus in this conflict is that the effect of rewards significantly depends on how they are delivered by the teacher" (p. 91). Consequently, according to Witzel and Mercer (2003), some authorities have claimed that level systems are ineffective models for sustaining long-lasting behavioral changes because they use external motivators to motivate students to choose and self-manage appropriate behaviors.

A study of elementary students conducted by Cruz and Cullinan (2001) claimed that point and level systems are effective. The researchers' graphed teacher collected data and reported "a little over 20%" improvement in on-task behavior (p. 21). The remainder of their supporting evidence included anecdotes that reported the increase of student on-task behavior and motivation. It is important to note, however, that researchers Cruz and Cullinan (2001) acknowledged, "there are presently no researched-based answers" (p. 23) to whether the model "work(s) equally well for all ages" (p. 23) and "whether gains are maintained over time" (p. 23).

Johnston, Cooch, and Pollard (2004) suggested that a level system was a necessary component for the success of one alternative high school. Despite the fact that this school was labeled a discipline school, Johnston et al. (2004) reported that all of its students attended voluntarily and from 1991-2002, 175 (83%) out of 211 students graduated from the school. The researchers also discussed how students who attended this program "earn privileges by progressing through a four-level 'Phase System'" (p. 26). One level in the system included academic criteria; the three remaining levels included appropriate behavior criteria. Johnston et al. (2004) reported the academic achievement of students in this program in 2001-02 and noted that students were scoring at or above grade level in math and reading. However, the authors did not include how many students took the achievement tests. They also reported that students attended on a regular basis, but they did not give any data to confirm this statement. The authors cited students' opinions they collected from essays and surveys and reported that overall, students were satisfied with the school.

Teachers in the PACE Program use a point and level system to provide structure for both the students and the program, they also meet on a regular basis to ensure fidelity. PACE Program teachers have clearly defined and have used consistent methods of awarding points to students and use a strong and positive communication system to keep students and parents informed (H. Vanderhyden, personal communication, March 1, 2009). The relationship between valid data and the effectiveness of the point and level system used by the PACE Program is contingent on several conditions: (a) students' willingness to participate, (b) teachers awarding points consistently, (c) collecting

accurate data, and (d) using the data to drive decisions about behavior interventions (L. Maddox, personal communication, October 10, 2010).

The research literature revealed three important concerns about point and level systems including the validity of point allocation and data collection, the lack of empirical research conducted in a variety of educational settings, and concerns that point and level systems can violate the provisions of IDEA if used inappropriately (Cancio & Johnson, 2007; Farrell et al., 1998). The validity of point and data collection is compromised when points are used to reflect student progress because additional time demands placed on teachers to determine the number of points each student earns each period (Farrell et al., 1998; Santmire, 2009) can lead to an inconsistent awarding of points which can increase negative behaviors (Mohr et al., 2009). The overwhelming majority of research studies used descriptive qualitative methodologies and conducted the research in either residential or therapeutic settings for E/BD students. The lack of current empirical evidence supports Farrell et al. (1998) who claimed that level systems have "become a tradition based on reason and experience, not critical analysis" (p. 90). Mohr et al. (2009) confirmed this statement and remarked, "despite their many limitations and questionable record of success with children, point and level systems are widely implemented programs" (p. 13).

Cancio and Johnson (2007) and Farrell et al. (1998) expressed an additional concern about a possible violation of the provisions of IDEA if schools use point and level systems inappropriately. For example, teachers should not place students who have documented disabilities on identical levels without first consulting each student's present

level and goal information (Cancio & Johnson, 2007; Farrell et al., 1998). In addition, Farrell et al. (1998) asserted that these same "concerns also apply to the manner in which teachers use rewards, rewards schedules, consequences, and criteria for progressing through the level system" (p. 97).

It appeared from the limited research on point and level systems that students benefited because they provide a way to identify and document important skills and behaviors necessary for school success. Further, in some school settings, they appeared to be generally effective in reducing inappropriate behaviors and increasing appropriate behaviors (Cancio & Johnson, 2007; Heward, 2003; Tobin & Sprague, 1999). In terms of academic achievement, a few studies reported some positive gains (Cruz & Cullinan, 2001; Johnston et al., 2004). However, empirical evidence that supports whether they are able to help students generalize appropriate behaviors across different contexts and maintain behavior changes long-term is lacking (Cruz & Cullinan, 2001; Santmire, 2009). There also appear to be important and valid concerns about violating IDEA (Cancio & Johnson, 2007; Farrell et al., 1998) and about implementation inconsistencies such as awarding and collecting data (Farrell, et al., 1998; Santmire, 2009).

Elements of Effective Alternative Schools and Programs

Despite the rapid growth of alternative schools and programs, evaluation of the effect these schools and programs have on students is limited (Aron, 2006; Lange & Sletten, 2002; Sinclair et al., 2005). Further, not all researchers agree how to measure the success or the effectiveness of public alternative schools and programs in meeting the needs of the students they serve (Aron, 2006; Quinn & Rutherford, 1998). While the

majority of the literature suggested that success or effectiveness is contingent on the presence of certain characteristics, components, or best practices (Barr & Parrett, 1997; Raywid, 1994, 2001; Reimer & Cash, 2003), the researcher found very few empirical studies that provided evidence that supported the relevance of these elements to school or program effectiveness. Therefore, it was not clear whether these elements are the cause of positive student outcomes or generally contribute to positive student outcomes (Lehr & Lange, 2003; Quinn & Poirier, 2006; Quinn, Poirier, Faller, Gable, & Tonelson, 2006; Sinclair et al., 2005).

Nevertheless, the literature is replete with case studies that described what an effective alternative school and program looks and feels like (Henrich, 2005; Lange & Sletten, 2002). For the purpose of this study, the most frequently cited essential elements or characteristics in the literature about effective schools and programs are grouped into six areas: organizational structure, leadership, academic expectations and student support, staff development, program assessment, and evaluation.

Organizational structure. Organizational structure and process allow alternative schools and programs to establish and maintain learning communities and student centered environments (Aron & Zweig, 2003; Lange & Sletten, 2002; Raywid, 1994, 2001). In effective alternative schools and programs, smaller classrooms allow more flexibility for individualized instruction, consistencies in rules, and more personal teacher interactions with students (Aron & Zweig, 2003; Deblois & Place, 2007; Kaillio & Sanders, 1999; Quinn & Poirier, 2006). However, even with flexible classroom organization, Tobin and Sprague (2000) indicated that classrooms that maintained strict

structure with clear rules and expectations, and teachers who have a behavior management plan that allowed students to learn self-management skills, resulted in improved academic performance. Smaller schools that have flexible schedules and formats appeared to produce positive results (Johnston et al., 2004; Lehr & Lange, 2003; Paglin & Fager, 1997) and maintaining a philosophy whereby students and teachers attend and teach by choice was also a noteworthy attribute of effective alternative schools and programs (Aron & Zweig, 2003; Lange & Sletten, 2002; Lehr & Lange, 2003; Raywid, 1994).

Gold and Mann (1984) conducted a longitudinal study with two groups of students in Michigan that was designed to measure the effectiveness of three alternative programs on improving students' behavior. The first group included students who attended one of three alternative programs and after one semester, returned to their conventional schools. The second group included students who only attended a conventional school that the alternative students formerly attended. Gold and Mann (1984) compared behavior data of the first group to behavior data of the second group and found a statistically reliable decline in the behaviors of students who were attending an alternative program, compared to the behaviors of the students who only attended a conventional school. Students in the alternative program reported that flexibility was the reason for their behavior changes, and researchers Gold and Mann (1984) attributed the students' perceptions of flexibility to their beliefs in having better academic prospects and in their commitments to their role as students. In addition, because the students who attended the alternative schools returned to their conventional school settings, Gold and

Mann were able to determine whether the behavior and academic changes persisted. One group of these students, which researchers labeled the "buoyant" group, did sustain the behavior changes, and the researchers reported that students in this group had higher self-esteem and lower rates of depression and other health issues before attending an alternative program (Gold & Mann, 1984). However, the group labeled the "beset" group did not sustain the changes once back in a traditional setting, and students in this group were reported as having higher levels of depression and anxiousness before they attended an alternative program (Gold & Mann, 1984).

In a statewide study of alternative schools in Minnesota, Lange and Lehr (1999) found that student choice and flexibility were important factors for students who were deciding to attend alternative schools; almost all students who attended Minnesota alternative schools attended them by choice versus involuntary placement due to their misbehaviors or other reasons. Other research findings suggested that keeping alternative schools and programs small, allowed students to receive more attention, which improved their academic performance (Aron & Zweig, 2003; Henrich, 2005; Lange & Sletten, 2002; Nichols & Steffy, 1999). Literature also noted the benefits of small classrooms (Kaillio & Sanders, 1999; Kellmayer, 1998; Lehr & Lange, 2003; Nichols & Steffy, 1999; Quinn & Poirier, 2006; Raywid, 1998, 2001; Tobin & Sprague, 1999, 2000), and Tobin and Sprague (2000) reported that lower class sizes and lower teacher-student ratios than are found in traditional schools allowed for higher instructional quality and better student behavior.

The literature review also revealed a strong belief that it is easier to create and maintain a warm, caring, friendly, and personalized atmosphere in schools that have small student populations (Lehr & Lange, 2003; Loflin, 2002; Raywid, 1994). In fact, both Loflin (2002) and Raywid (1994) commented that some students purposely misbehaved so they could stay in a small alternative school. The research of Aron (2006), J. Dugger and C. Dugger (1998), Lange and Sletten (2002), and Paglin and Fager (1997) concurred with this relationship between small schools and small teacher-student ratios to effective schools and programs; however, research results of Gilson (2006) did not.

In an attempt to determine the effectiveness of rural alternative schools in Iowa, Gilson (2006) examined and quantitatively compared certain program characteristics of 66 alternative high schools with student populations that ranged from 26 to 545. In this study, Gilson (2006) defined effectiveness as student retention and completion and gave 12 survey questions, which were developed based on research formerly conducted on successful alternative schools, to coordinators and teachers who worked in the schools. Specifically, Gilson (2006) used the results of research conducted on the size of the school, teacher and student choice, and school autonomy. The results of this study indicated that the relationship between school size and student retention was statistically significant in schools with a student population of over 30. Gilson (2006) noted, "69% of the respondents indicated more than three-fourths of their students stayed in school for one full year or more" (p. 55). Conversely, school size did not correlate with improved graduation completion rate because only "80% of the schools reported a graduation

completion rate of more than half" (p. 55). In addition, student and teacher choice and school autonomy did not reveal statistically significant relationships to student retention and graduation completion rate (Gilson, 2006).

Leadership and governance. Successful schools and programs have strong and stable leaders who display the ability to engage faculty, students, parents, and the community in developing a shared vision (Quinn & Poirier, 2006; Raywid, 1994). Schools and programs that have autonomous relationships with central office were also reported to have a better ability to meet the diverse needs of students versus the more limited ability of those schools and programs that were more strictly controlled (Aron & Zweig, 2003; Gregg, 1999; Leone & Drakeford, 1999; Raywid, 1994). Site-based management was one method proposed by Aron (2006) and Raywid (1994) to increase school and program autonomy and flexibility. In a previously mentioned statewide study of Minnesota alternative schools, Lange and Lehr (1999) revealed differences between successful and unsuccessful alternative schools in terms of organizational indicators. In this study, successful schools reported district level administrators, school level administrators, and teachers were given more decision-making autonomy than administrators and teachers were given in schools that were not as successful (Lange & Lehr, 1999). In contrast, Gilson (2006) did not report significant positive relationships between school autonomy and graduation rate.

A commitment to strong leadership by all members of the community was crucial to the success of the schools and programs and to the achievement of all students (Aron, 2006; Leone & Drakeford. 1999). School and community stakeholders who build strong

relationships with students provide quality leadership that is required to improve student performance and increase school success (Aron, 2006; Aron & Zweig, 2003; Kochhar-Bryant & Lacey, 2005). Alternative schools and programs in minority and poverty areas have reported notable results, and Raywid (1994) pointed out two characteristics that contributed to their success: all programs were site-based with no central office interference, and they had considerable continuity in leadership.

Instruction, student support, and climate. Factors that relate to successful alternative schools and programs include high academic and behavior expectations, relevant and rigorous curriculum based on real-life application, and instructional efficacy of teachers (Aron & Zweig, 2003; Barr & Parrett, 1997; Fitzsimmons Hughes et al., 2006; Leone & Drakeford, 1999; Quinn & Rutherford, 1998; Tobin & Sprague, 2000). Tobin and Sprague (2000) provided evidence of positive outcomes when schools provided mentors to support student academic and behavior progress. Other examples of student support included mastery learning and self-paced instruction (J. Dugger & C. Dugger, 1998; Kochhar-Bryant & Lacey, 2005) in basic literacy and math skills and in advanced curricula (J. Dugger & C. Dugger, 1998; Tobin & Sprague, 2000).

Other literature proposed that focusing on developing academic skills, social skills, and vocational skills helps students make better decisions and increased their resilience to combat future adversity (Benigni & Moylan, 2008). Tobin and Sprague (2000) agreed, stating that their research provided convincing evidence of improved problem-solving skills when teachers taught social skills, and provided small group and individualized academic instruction. In addition, using a curriculum that links the school

to work was also found to be an important element of effective alternative schools and programs (Benigni & Moylan, 2008; Kellmayer, 1998; Paglin & Fager, 1997) along with providing transitional programs that are tied to traditional education and community settings and providing internal and external services, such as health and social services (Fitzsimmons Hughes et al., 2006; Lange & Sletten, 2002; Leone & Drakeford, 1999; Quinn & Poirier, 2006; Quinn & Rutherford, 1998),

Schools and programs that provided a climate allowing more student attention and encouragement, while at the same time offering additional support services increased the odds of students completing high school (Lehr & Lange, 2003; Zweig, 2003). Quinn et al. (2006) "conducted a 4- year study of alternative education programs in three racially and economically diverse school districts" (p. 14) and selected the schools based on their exemplary status and evidence of effectiveness. Quinn et al. (2006) assessed the school climate by surveying 150 students and 135 teachers. Their research suggested several components as essential for highly effective schools including the following: equitable enforcements of fair and valid rules; respectful treatment of students by teachers and administrators; and, openness of staff to change and problem solving (Quinn et al., 2006). The results of the teacher survey in Quinn et al. (2006) also revealed that teachers in effective schools possess two important characteristics: one, they tended to be sympathetic toward students, and two, they involved students in decision-making.

Ongoing staff development. Ongoing professional development (J. Dugger & C. Dugger, 1998; Gregg, 1999) and other types of relevant support provided to faculty and staff such as (Fitzsimmons Hughes, et al., 2006) thought provoking and stimulating

activities were reported to be an important feature of effective alternative schools and programs (Aron, 2006; J. Dugger & C. Dugger, 1998). Providing faculty and staff with on-going learning opportunities focused on at-risk students (Fitzsimmons Hughes et al., 2006; Kochhar-Bryant & Lacey, 2005; Lange & Sletten, 2002; Quinn & Poirier, 2006) and providing faculty and staff engaging instruction (Leone & Drakeford, 1999; Raywid, 1994) were also considered crucial for student and school improvement.

Program assessment and evaluation. Continuous program assessment and evaluation is vital to the success of alternative schools and programs (J. Dugger & C. Dugger, 1998; Gregg, 1999; Lange & Sletten, 2002). Regular and on-going assessment of student achievement data, school climate data, and student engagement data allows schools to address areas of strengths and weakness (Fitzsimmons Hughes et al., 2006; NAEA, 2009). Kochhar-Bryant and Lacey (2005) commented that program assessment and evaluation helps school stakeholders feel accountable. Research indicated, however, that inadequate data reporting and collection systems have created accountability obstacles (Aron & Zwieg, 2003; J. Duggar & C. Duggar, 1998; Settles & Orwick, 2003).

In 2009, The National Alternative Education Association (NAEA), published "Exemplary Practices in Alternative Education: Indicators of Quality Programming" that identified 10 exemplary practices for alternative schools and programs. According to the authors, this document is an attempt to improve the quality of alternative education programs across the nation because it is "forged from research on productive alternative programs and the wisdom of alternative educators" (p. 4), and it "identified specific indicators of quality programming that signify meeting each of the identified exemplary

practices" (p. 4). The 10 exemplary practices relate to areas of "mission and purpose, leadership, climate and culture, staffing and professional development, curriculum and instruction, student assessment, transitional planning and support, parent/guardian involvement, collaboration and program evaluation" (NAEA, 2009, p. 4). This publication is by far the most detailed, the most extensive, and arguably, the most valuable for practitioners in the field today (NAEA, 2009). However, in light of the current governmental and public demands for higher levels of accountability asking schools to demonstrate their effectiveness in measurable terms, the researcher believes this publication offers little help to practitioners. Although the publication clearly identifies the types of academic and non-academic data that schools and programs should collect, it does not specify methods for data collection and data analysis, nor does it identify how to use the data for school improvement purposes.

Student Outcome Data. A review of the literature revealed an extremely limited amount of evaluation research on the effectiveness of public alternative schools and programs (Clark, 1991; Gilson, 2006; Lange & Sletten, 2002). In earlier research, Clark (1991) emphasized that the largest obstacle to evaluating the effectiveness of alternative schools and programs is the shortage of empirical studies that examined and measured school or program quality using student outcome data (Clark, 1991; Gilson, 2006; Lehr & Lange, 2003). Clark (1991) also expressed that schools or programs that have been considered successful because they accomplished their goals of reducing dropouts, increasing student achievement, and enhancing student self-esteem, were not able to provide evidence in terms of "viable outcomes data" (p. 106).

Lange and Sletten (2002) acknowledged that there are "limitations in the research" (p. 16), but they, unlike Clark (1991) concluded that the available findings in the research conducted on "student response to choice and flexibility, students' sense of belonging, satisfaction, changes in self-esteem, and academic achievement" (p. 16) did provide evidence of viable outcomes. Lange and Sletten (2002) also reported "in general, student reports of their experience have been overwhelmingly positive" (p. 17). Similarly, a survey conducted by Clemont, Chamberlin, and Foxx (2009) reported positive experiences of 7,943 students who attended 196 alternative programs during 2007-2008. They also concluded that the positive results suggested that the programs in Indiana are helping students achieve greater academic success (Clemont et al., 2009). However, the results of other research showed that even though students made positive behavioral and academic changes while they attended short-term alternative programs, the students were unable to sustain their positive gains when they returned to a traditional setting (Carruthers & Baenen, 1997; Cox, 1999; Gold & Mann, 1984).

There are, however, several obstacles to conducting certain types of research on alternative schools and programs that appeared to limit options for research methodology. First, alternative schools and programs serve somewhat homogeneous student populations (Beken, Williams, Combs, & Slate, 2009; Lange & Sletten, 2002) in wide varieties of school and program settings, and as emphasized by Gable et al. (2006), they "serve especially ideographic functions. Students enrolled voluntarily in a remedial day school program may bear little resemblance to adjudicated delinquents in a secure facility. Research conducted in the former setting would have limited applicability in the

latter" (p. 8). Second, it is difficult to measure and evaluate the effect alternative schools and programs have on student outcomes because of poor record keeping for student attendance, discipline referrals, grades, and graduation rates (Gilson, 2006). Further, some schools and programs lack the resources and the expertise to collect and effectively analyze data (Sloat et al., 2007). Third, conducting experimental research within a school setting has both ethical and practical challenges. Exposing one group of students to an intervention at the exclusion of another group can be considered an ethical challenge, and Munoz (2002) believed "as in much current educational research, social justice issues take prominence over research designs and threats to internal validity" (Munoz, 2002, p. 18). The use of random sampling techniques and control groups, which are both requirements for rigorous experimental research designs, also create practical challenges; random sampling and identifying control groups can disrupt individuals, classrooms or schools routines and processes (Aron, 2006; de Anda, 2007). Insufficiently trained staff to conduct interventions, differences in resources between schools and school districts, and differences in financial resources of researchers can create additional practical challenges (de Anda, 2007).

Although 20 years have passed since Clark (1991) claimed that "Thus far few…programs have been…evaluated to provide solid evidence of what works with at-risk youngsters" (p. 105), it is demonstrably apparent that not much has changed and there is still "a dearth of evaluation" (p. 105) research literature. However, in terms of student outcomes, a few studies reported evidence of viable outcome data, although these studies reported mixed results (Beken et al., 2009; Cox, 1999; Cox, Davidson, & Bynum,

1995; J. Dugger & C. Dugger, 1998; Lange & Lehr, 1999). Cox et al. (1995) believed that although the prior studies reported improved student performance, these studies did not determine effect sizes and correlations to success. Therefore, to examine the magnitude of the overall effectiveness on student school performance including the following: attendance, attitude, achievement, self-esteem and decreased delinquency, and to examine the ability of the programs to change student performance, Cox et al. (1995) "used meta-analysis to quantitatively summarize prior empirical research on [57] alternative schools" (p. 219). In this study, Cox et al. (1995) found that "alternative programs have a small overall effect on school performance, attitudes toward school, and self esteem, but no effect on delinquency" (p. 219). Further, Cox et al. (1995) explained that although the programs were able to create a positive change in student attitudes, they did not have strong enough effects on school performance such as achievement and attendance and strong enough effects on self-esteem to change delinquent behaviors (Cox et al., 1995).

Similarly, Cox (1999) evaluated the effect alternative schools had on students' GPA, attendance, self-esteem, and delinquency. Cox (1999) utilized an experimental research design, which was rare within the research literature, and included using both a comparison group and a variety of data sources. The results of this study revealed that students had short-term gains in GPA, attendance, self-esteem, but not behavior; however, when students returned to their regular school, the positive gains disappeared (Cox, 1999). Carruthers and Baenen (1997) also reported a negative impact on

academics when students in their study who attended short-term alternative schools in North Carolina returned to a traditional setting.

Other studies such as J. Dugger and C. Dugger (1998) and Lange and Lehr (1999), used test scores to measure academic student outcomes and reported mixed results of either small increases, no change, or a decline of standardized tests scores. A more recent study conducted by Beken et al. (2009) used test scores to examine the difference in math and English performance between at-risk students who attended traditional schools in Texas and at-risk students who attended alternative schools in Texas. The results of this study revealed that the test scores of the at-risk students in traditional schools were significantly higher than the test scores of the at-risk students in alternative schools (Beken et al., 2009). Beken et al. (2009) acknowledged several important limitations to this study; one limitation, however, the Texas Education Agency definition of the term at-risk, made it impossible to determine the exact number of risk factors of all students who participated in the study.

Summary

Although alternative education has played important roles within the public school system over the past 50 years, a review of the literature revealed that because definitions of terms, concepts, and student outcomes have not been clearly defined, alternative education has been poorly understood since its inception (Aron, 2006; Cable et al., 2009; Lehr et al., 2009; Reimer & Cash, 2003). Within the last 20 years, as more educators recognized that the traditional model of schooling did not meet the needs of all students, they began to define and create different types of alternative schools and

programs. One of the most popular and prolific models are those school and programs designed to serve students who are at-risk of failure and dropout (Kim & Taylor, 2008; Lange & Sletten, 2002).

The researcher found that psychological and sociological research on risk factors is plentiful; however, educational research conducted on public alternative schools is not. A few research studies compared and investigated how established "school- related forces and factors…interact and operate in combination" (Lawson, 2009, p. 59) and identified specific risk factors that appear to influence whether students are at-risk of dropping out school (Janosz et al., 2008; Lawson, 2009). Other research presented in the body of this literature review indicated that the sporadically conducted research revealed mixed results of reported student outcomes (Lange & Sletten, 2002). The results of several studies also highlighted the fact that the length of a program could be an important design factor because these studies found that students who attended short-term programs did not sustain positive gains when they returned to a traditional school setting (Carruthers & Baenen, 1997; Cox, 1999; Gold & Mann, 1984).

The wide-variety of purpose and structure of alternative schools and programs across states and within states has increased the complexity of determining their effectiveness (Lange & Sletten, 2002; Lehr et al., 2009). Research also suggested that although researchers have conducted effectiveness studies, it is difficult to generalize the results of these studies across settings because of the considerable variation among the types and the philosophical differences with respect to programming and delivery models (Lange & Sletten, 2002). This wide variety of alternative schools and programs' purpose

and structure is in part due to differences in their target populations, differences in the intended outcomes for the students, and differences in the indicators used to measure their effectiveness (Lange & Sletten, 2002). Moreover, many schools do not keep accurate attendance, grades, discipline referrals, and dropout records (Gilson, 2006; Lange & Sletten, 2002).

The challenge for alternative educators is implementing while not compromising high academic standards that are now required by NCLB, and to maintain the components that research literature revealed to be essential to all effective alternative schools and programs (Cable et al., 2009; Lange & Sletten, 2002; Lehr et al., 2009; Quinn et al., 2006). The shortage of empirical research, perhaps because of the obstacles to conducting experimental research, limits the ability to draw conclusions. There has been very little published research on alternative education since NCLB was passed, and although earlier research findings gave important background knowledge, the researcher believes that they might not be relevant to school districts that are in need of current educational accountability policies and practices. Recent changes in how federal, state, and local governments define, examine, and hold schools accountable have resulted in an increased expectation of these governmental bodies for public schools to educate a greater number of students than in the past, and at an increasingly sophisticated level (Jerald, 2006; Mottaz, 2002). Employers and parents have a similar expectation for public high schools because the number of specialized jobs that require a well-educated and highly trained workforce has increased while the number of available blue-color jobs

that do not demand a well educated work force has declined (Mottaz, 2002; M. Storm & R. Storm, 2004).

The obvious lack of studies that evaluated the effectiveness of in-district public alternative schools and programs using measureable student outcomes leaves school districts with a shallow and parsimonious research base. The researcher proposes that this clearly diminishes their capacity to use research-based models and blueprints to design the most effective types of alternative schools and programs that meet the diverse academic, emotional, and social needs of the students they serve.

Chapter Three: Methodology

Overview

The majority of public alternative high schools and programs are designed to serve students who are at-risk for academic failure or dropping out (Cable et al., 2009; Lange & Sletten, 2002; Ruzzi & Kraemer, 2006). The National Center for Education Statistics (NCES) estimated that 40% of public school districts reported having at least one alternative high school or alternative program that operated solely within the district for students at-risk for academic failure during the 2007-2008 school year (Carver & Lewis, 2010). Despite a substantial body of published literature on alternative schools and programs, only a small amount of research literature specifically addressed the effects public alternative schools and programs have on at-risk students who attend them. Moreover, the body of published quantitative empirical research that examined the effects these schools and programs had on educational outcomes of at-risk students is extremely limited (Aron, 2006; Lange & Sletten, 2002; Lehr & Lange, 2003; Quinn & Poirier, 2006; Ruzzi & Kraemer, 2006).

To address the gap in the limited body of outcomes-based evaluation research, the researcher designed this comparative study to measure quantitatively the effectiveness of a high school alternative program operated by a public school district for students who are at-risk for academic failure or dropping out. Therefore, the results of this research not only will add to the limited body of literature that examined the educational outcomes of students who attended a short-term alternative program for at-risk students, but also will

provide quantitative evidence for the school district to use when they formally evaluate the effectiveness of the PACE Program.

Purpose of the Study

The purpose of this quantitative comparison study was to evaluate the PACE Program using an objectives-oriented approach to formative program evaluation, and according to McMillan and Schumacher (2001) "no other approach has such an elaborate technology and scientific basis" (p. 536). The researcher collected and analyzed the desired measured outcomes for the program using a matched group design. The outcome objectives of the program were to improve student success as measured by an increase in GPA, an increase in attendance rate, a decrease or elimination of OSS rate, and a decrease or elimination of dropout rate. Specifically, the researcher compared outcome data of a sample of 36 students who attended the PACE Program during the 2008-2009 school year and subsequently returned to their home schools to outcome data of a sample of 36 students with matching descriptive and demographic characteristics, who only attended a traditional high school during the same timeframe.

Research Design

Given the focus of this study, the researcher chose a quantitative comparison research design to investigate whether a group of students who attended the PACE Program would show statistically significant differences in student success when compared to a group of similar students who did not attend the PACE Program that same school year. According to Creswell (2003), this type of methodology is appropriate when

the purpose of a study is to collect and statistically analyze numerical data to determine any differences between two groups of students.

Research Questions and Hypotheses

The researcher designed two research questions around the four PACE Program outcome objectives and identified research variables or dependent variables within the research data to provide focus and to narrow and further define the purpose of the study (Creswell, 2003). The first research question and related hypotheses addressed the outcome variables of GPA, attendance rate, and OSS rate. The second research question and related hypothesis addressed the outcome variable of dropout rate.

Research question #1. Will students who attended the PACE Program for one semester during the 2008-2009 school year show a measureable difference in their GPAs, attendance rates, and OSS rates at the end of the first semester back at their traditional home schools when compared to a Matched Sample of students who attended a traditional high school during this same timeframe?

Alternate hypothesis #1. Students who attended the PACE Program for one semester during the 2008-2009 school year will show a measureable difference in average GPA (cumulative and current) at the end of their first semester back at their home schools when compared to the Matched Sample of students who attended a traditional high school during this same timeframe.

Null hypothesis #1. Students who attended the PACE Program for one semester during the 2008-2009 school year will not show a measureable difference in average GPA (cumulative and current) at the end of their first semester back at their home schools

when compared to the Matched Sample of students who attended a traditional high school during this same timeframe.

Alternate hypothesis #2. Students who attended the PACE Program for one semester during the 2008-2009 school year will show a measureable difference in attendance rate at the end of their first semester back at their home schools when compared to the Matched Sample of students who attended a traditional high school during this same timeframe.

Null hypothesis #2. Students who attended the PACE Program for one semester during the 2008-2009 school year will not show a measureable difference in attendance rate at the end of their first semester back at their home schools when compared to the Matched Sample of students who attended a traditional high school during this same timeframe.

Alternate hypothesis #3. Students who attended the PACE Program for one semester during the 2008-2009 school year will show a measureable difference in OSS rate at the end of their first semester back at their home schools when compared to the Matched Sample of students who attended a traditional high school during this same timeframe.

Null hypothesis #3. Students who attended the PACE Program for one semester during the 2008-2009 school year will not show a measureable difference in OSS rate at the end of their first semester back at their home schools when compared to the Matched Sample of students who attended a traditional high school during this same timeframe.

Research question #2. Will students who attended the PACE Program for one semester during the 2008-2009 school year and subsequently returned to their traditional home schools show a measureable difference in dropout rate at the start of the 2010-2011 school year when compared to a Matched Sample of students who attended a traditional high school during this same timeframe?

Alternate hypothesis #4. Students who attended the PACE Program for one semester during the 2008-2009 school year and subsequently returned to their home high schools will show a measureable difference in dropout rate at the start of the first semester of the 2010-2011 school year when compared to the Matched Sample of students who attended a traditional high school during this same timeframe.

Null hypothesis #4. Students who attended the PACE Program for one semester during the 2008-2009 school year and subsequently returned to their home high schools will not show a measureable difference in dropout rate at the start of the first semester of the 2010-2011 school year when compared to the Matched Sample of students who attended a traditional high school during this same timeframe.

Definition of Terms - Demographic Characteristic Variables

Six demographic characteristic variables were used to identify students for the Matched Sample. Students in the PACE Sample exhibited the same characteristics. With the exception of *gender* and *grade level*, the remaining four demographic characteristics are defined as follows:

Ethnicity. For the purposes of this study, ethnicity refers to ethnicities reported by parents to the study school district including Asian, Black (Not of Hispanic Origin),

Hispanic or Latino, Indian (American Indian or Alaskan Native), White (Not of Hispanic Origin), Native Hawaiian or Other Pacific Islander, Multi-Racial, and Other/Unknown.

Individualized Education Plan (IEP) Status. For the purposes of this study, IEP status refers to whether a student has a diagnosed disability and receives special education services as described in the student's Individualized Education Plan (IEP).

Residence. For the purposes of this study, residence refers to two populations of students. The first population resides within the school district attendance area and attends one of the four traditional high schools. The second population resides in the City of St. Louis, participates in the Voluntary Transfer Program, and attends one of the four traditional high schools.

Social and Economic Status (SES*).* For the purpose of this study, SES is indicated by whether the student is eligible to receive a free or reduced lunch (FRL) due to socio-economic hardship under the National School Lunch Act of 1946. Therefore, FRL status replaces SES throughout the remainder of this study.

Research Site Context

The PACE Program operates within a large public school district located in a suburb of St. Louis, Missouri. During the 2008-2009 school year, the school district had an average class size of 22.7, a 97% graduation rate, and a 3% dropout rate. The average student ACT score was 24, and 93.2% of high school graduates attended universities, colleges, and professional schools (PSD, 2009). Accredited with Distinction in Performance for High Achievement, the district also had 14 nationally recognized Blue Ribbon Schools of Excellence (PSD, 2009). Table 1 shows the total student enrollment

and student demographic data of the school district during the 2008-2009 school year. Table 1 also reveals a trend of declining total student enrollment and a trend of increasing numbers of students who are eligible for a free or reduced lunch

Table 1

Demographics of Research Site School District

	School Year				
	2006	2007	2008	2009	2010
Total Enrollment	18,787	18,432	18,031	17,467	17,386
Asian					
Number	1,911	1,918	1,963	1,916	1,972
Percent	10.2	10.4	10.9	11.0	11.3
Black					
Number	3,152	3,095	3,015	2,809	2,764
Percent	16.8	16.8	16.7	16.1	15.9
Hispanic					
Number	360	371	401	416	439
Percent	1.9	2.0	2.2	2.4	2.5
Indian					
Number	15	20	27	35	45
Percent	0.1	0.1	0.1	0.2	0.3
White					
Number	13,349	13,028	12,625	12,291	12,166
Percent	71.1	70.7	70.0	70.4	70.0
Free/Reduced Lunch (FTE)[a]					
Number	2,956.00	2,938.00	2,929.50	2,820.40	3,148.60
Percent	16.2	16.6	17.0	17.0	18.9

[a]January Data is used as the denominator when calculating the percent. Source: Missouri Dept. of Elementary and Secondary Education Core Data As Submitted by Missouri Public Schools. Posted November 12, 2010.

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Since 1987, the school district has participated in the voluntary desegregation program and has partnered with the St. Louis City School District to educate approximately 2, 000 voluntary student transfers (VST) each school year. One of the largest public school districts in St. Louis County, Missouri, its 29 schools are located throughout four distinct geographic attendance areas.

Research Populations

The research populations of interest to the researcher were students who were invited to attend the PACE Program during the 2008-2009 school year, and students who exhibited similar descriptive and demographic characteristics as the PACE Program invited students, but attended a traditional high school instead of enrolling the PACE Program that same school year.

The PACE Program. PACE opened in 2006 as a half-day, semester-long high school alternative education program designed to serve students at-risk for academic failure or dropping out. After one year of operation, however, the district changed the program to accommodate a full-day schedule. The PACE Program was located within the North attendance area and housed in the district's Instructional Services Center building. PACE enrolled students from all four geographic attendance areas and had a maximum enrollment capacity of 50 students (H. Vanderhyden, personal communication, March 1, 2009). The program also served three distinct groups of students. The program director invited the students in the first group to attend the program and consequently, these students attended the program voluntarily. The second group included students who had been placed on a case-by-case basis into the program by both the director of the

PACE Program and the school district superintendent. Every student in this second group had received a long term OSS of more than 45 days from their home schools. The third group included a very small number of students who the superintendent placed into the program on a case-by-case basis because they had lengthy discipline histories.

Although the total number of students fluctuated each semester, the majority of the students that attended the program were in the invited group. During the first semester of the 2008-2009 school year, the invited group included 18 students out of a combined three group total enrollment of 36 students; during the second semester of the 2008-2009 school year, the invited group included 18 students out of a combined three group total enrollment of 44 students. The researcher selected all 36 students from this invited group of students to be participants in this study. The researcher chose to only use the invited students because the purpose of this study was to determine if there was a significant difference in measured student success when comparing students who attended the PACE Program voluntarily and subsequently returned to their home schools for one semester, with a Matched Sample of descriptively and demographically similar students who attended a traditional high school during this same timeframe. Students in the second and third groups were involuntarily placed into the program.

A four-step enrollment process for all invited students who attended the program during the 2008-2009 school year began at one of the four traditional high schools. First, after high school assistant principals or counselors consulted with potential students, they recommended them to attend the PACE Program based on whether the students displayed one or more of the following risk factors: low GPA, poor attendance, or multiple

behavioral infractions such as after school detentions, in-school suspensions, and out-of-school suspensions. Next, the director of the PACE Program reviewed the recommendations and evaluated student transcripts to determine if the students would benefit from participating in the program. During the third step of the enrollment process, the program director contacted the students' parents/guardians to see whether they would agree to enroll their students in the program. If so, the program director took the final step and invited students to attend the program the following semester.

Teachers in the PACE Program provided instruction in the district curricula including: math, science, English, social studies, PE/health, art, reading and personal finance. Specific courses included the following: American History, World History, Government, Contemporary Issues, English 1, English 2, English 3, Mythology, Physics, Biology 1, Chemistry, Environmental Science, Algebra 1B, Algebra 2B, Geometry B, Art, Digital Design, Reading, PE/Health. In addition, during each class period, the teacher gave students social and emotional support with the help of a Life Skills educational curriculum. They used this curriculum to help students create and foster a supportive learning environment, develop skills for self-awareness and self-management, build academic strengths and direction, resolve conflict, and make appropriate decisions. With the exception of the Life Skills curriculum, the PACE students were taught the same curriculum as were students that attend one of the four traditional high schools. Unlike the four traditional high schools, however, the PACE Program did not provide instruction in music, drama, family and consumer science, foreign languages and industrial technology.

Students in the PACE Program attended six, 54-minute classes each day from 8:00 a.m. until 2:35 p.m., and they followed the same calendar as the other high schools in the district. The program maintained a low student/teacher ratio of 6:1, and one full time counselor provided students with additional social, emotional, and behavioral support. Students who had an IEP received special education services through two full-time special education teachers. The program director also received support from a full time teacher, referred to as a behavior specialist, who managed student behavior through the use of the level system and did not teach classes. A full-time nurse was on staff to monitor medication and provide support for any health issues. The program served both breakfast and lunch every day, and students chose either to ride a district bus or to drive their car. Much like the Earn Your Way Back (EYWB), the long-term suspension alternative program described in Chapter 1, the PACE Program also utilized a point and level system. This level system served the following purposes: to help the staff manage school-wide behavior, to help students identify and change their behaviors (Farrell et al., 1998), and, to help staff track and monitor students on a daily basis, including their academic performance and their behaviors both in and out of the classroom.

At the beginning of each semester, parents, guardians, and students were required to attend an orientation to inform them of the purposes of the level system and to emphasize the importance of the parent and guardian role in ensuring their child's success in the program. Throughout the semester, parents received weekly updates concerning their child's academic and behavior performance levels. Parents were also

encouraged to call or e-mail the director, the counselor, or any of their child's teachers if they had any questions or concerns regarding the program or their student.

Each morning, before the beginning of their first hour class, students attended a 10-minute advisory period to pick up their level system Daily Report Card (DRC), to talk to teachers about any academic or personal concerns, and to become focused for the rest of their day (see Figure B1). With the help of the counselor, the program director had previously reviewed students' academic and behavior performance history from their home school, and had developed specific target behaviors such as completing homework assignments or displaying appropriate classroom behaviors. All students had two of these target behaviors listed on their DRC along with specific academic and behavioral criteria for each level. Students carried their DRC from class to class and during the course of each period, the teachers evaluated students' behavior in accordance with the criteria listed on the left side of the DRC and the target behaviors written on the bottom. Drawing a horizontal line or writing a -1 in the appropriate box indicated that the student had lost a point for that behavior during the given period. At the end of each period, the teachers added the number of points students earned and wrote the total in the box at the bottom of the card in the appropriate column. Students also had the opportunity to earn points during the advisory and lunch periods and in the hallways as they passed from class to class. Students were able to earn up to 100 points by the end of each school day.

There was a degree of discretion in determining if, when, and how many points the faculty took away for a given infraction. However, as a rule of thumb, teachers tried to address any situation early and they gave students verbal redirections or warnings

before they took away points. Most students earned all their points each period, a few students lost a point or two, some students lost even more. Students who lost five or more points during any period had been fairly disruptive or insubordinate (J. Deluca, personal communication, May 5, 2009).

On Thursday of each week, advisors filled out a PACE Friday Sheet (see Figure B2) and expected students to take the Friday Sheet home and to bring it back on Monday signed by a parent or guardian. Advisors also moved students up or down a level depending on the number of points they earned during the week. When students reached the top level, they had to continue to maintain the number of points required to stay on that level. If students did not earn the required number of points to stay on their current level, their advisors moved them down a level. PACE faulty expected students to read the details of each level (a copy is posted in every classroom) and to work toward advancing up the level system starting from Level 1. The consequences for students who lost too many points on the DRC were listed on Level 0 (see Figure B3).

Students were required to meet their target behaviors at each level to become eligible for incentives. These incentives included participation in Fun Friday activities such as watching a movie, ordering pizza, and playing Guitar Hero. Advisors assigned students who did not earn enough points to move up a level and participate in Fun Friday to a study hall. A 20-minute afternoon Academic Lab served as an advisory period that allowed teachers to clarify student target behaviors and academic progress, answer questions about homework assignments, collect DRCs, and hand out Friday Sheets.

The four traditional high schools. Four traditional high schools were located within distinct geographic district attendance areas labeled North, Central, West, and South. In total, the four traditional high schools served approximately 6,087 students during the 2008-2009 school year and they were all comprehensive in their curricular offerings, activities, and athletics (PSD, 2009). The North attendance area included one traditional high school (grades 9-12) with a population of 1,521 students, one middle school (grades 6-8), and four elementary schools (grades K-5) (Coates & Tyson, 2009). Although one alternative high school (grades 10-12) was also located within this attendance area, its student population of 100 came from all four-attendance areas (PSD, 2009). Schools within the Central attendance area included one traditional high school (grades 9-12) with population of 1265 students, one middle school (grades 6-8), and four elementary schools (grades K-5) (Coates & Tyson, 2009). Included in the West attendance area were: one traditional high school (grades 9-12) with a population of 1,300 students, one middle school (grades 6-8), four elementary schools (grades K-5), and one early childhood center (Pre-K) (Coates & Tyson, 2009). The South attendance area was the largest with one traditional high school (grades 9-12) with a population of 2,001 students, two middle schools (grades 6-8), and six elementary schools (grades K-5) (Coates & Tyson, 2009).

Students enrolled in any of the four high schools received traditional instructional approaches to comprehensive curricular offerings of career and technical education, communication arts, fine arts, foreign languages, health and physical education, mathematics, science, and social studies. Within the core academic curriculum of

English, science, mathematics and social studies, all four high schools also offered advanced placement, honors, general, and remedial course levels (PSD, Curriculum, 2009).

North, Central, and South High Schools utilized a blocked schedule format; however, West High School utilized a hybrid schedule format of blocked and traditional classes. All four high schools started at 8:00 a.m. and ended at approximately 3:00 p.m. each day (PSD, Schools, 2009). The school district also partnered with The Special School District (SSD), which placed special education teachers in each high school, to serve all IEP students who received special education services. English as a second language (ESOL) programs were located in the North and Central attendance areas and ESOL students who lived in the South or West attendance areas, were able to receive a special assignment that allowed them to attend the ESOL programs located in the North or Central attendance areas (PSD, 2009).

Sampling Methods

The researcher chose to use purposive sampling to select the sample of invited students who voluntarily participated in the PACE Program and chose a random stratified sampling method to identify and select the Matched Sample. Purposive sampling was an appropriate sampling method for this study because the researcher's purpose was to use an objectives-oriented approach to evaluate data of the 36 invited students who attended the PACE Program (Fraenkel & Wallen, 2009). Stratified random sampling was an appropriate sampling method for this study because it helped the researcher establish "population validity to ensure that the accessible population represented the target

population" (Mertens, 2005, p. 309) while selecting 36 students who attended one of the four high schools. Furthermore, Fraenkel and Wallen (2009) stated, "[stratified random sampling] increases the likelihood of representativeness, especially if the sample is not very large. It [stratified random sampling] virtually ensures that key characteristics of individuals in the population are included in the same proportions in the sample" (p. 94). In addition, the use of this type of random sampling method for the Matched Sample increased the internal validity of the study (Fraenkel & Wallen, 2009). It should be noted that any student who transferred out of any of the four traditional high schools, or who did not complete the 2009-2010 school year because of death or illness was not included in any of the calculations.

To begin the sampling process, the researcher collected both descriptive and demographic characteristic data from archived student records contained in the school district student information system, Infinite Campus. Next, the researcher identified a hierarchy of characteristics, or strata, because it was the best way to identify strata "for the sample in the same proportion, as they exist in the population" (Fraenkel & Wallen, 2009, p. 94). Descriptive characteristics, or strata, included GPA (cumulative and current), attendance rate (number of class periods absent), and OSS suspension rate (number of days suspended out of school). Cumulative GPA was based on a 4.0 scale, and the researcher calculated it by taking the average of final grades in all courses and semesters. Specifically, the researcher multiplied the value of each grade by the credit hours the course was worth. Finally, the researcher added and then divided the resulting grade point value by the number of credit hours attempted.

Current GPA was based on a 4.0 school district scale and collected at the end of the semester prior to the semester students attended the PACE Program. The researcher calculated current GPA at the end of a semester by taking the average of final grades in all courses attempted during that semester. Specifically, the researcher multiplied the value of each grade by the credit hours the course was worth. Finally, the researcher added and then divided the resulting grade point value by the number of credit hours attempted.

The researcher calculated the attendance rate by adding the number of class periods students were absent (excused and unexcused) during each semester of data collection. OSS rate was calculated by adding the number of days students were suspended out-of-school during the semester of data collection. Behavior infractions that warranted OSS ranged from one to 180 days. Specifically, assistant principals and principals of the high schools determined if a behavior infraction warranted a one to 10 day OSS, or warranted an 11 to 180 day OSS. If administrators determined that a behavior infraction warranted 10 or fewer OSS days, they then determined how many OSS days the student received. If they determined the infraction warranted an 11 to 180 day OSS, the District Discipline Review Committee, serving in an advisory capacity to the superintendent, recommended the number of days the student received.

Demographic characteristics, or strata, included: grade level, ethnicity, residence, gender, IEP status, and FRL status. The total PACE Sample of 36 students was divided into a Semester I PACE Cohort of 18 students and a Semester II PACE Cohort of 18 students. Details of the remaining steps of sampling process are as follows:

1. Students for the Semester I Matched Cohort were identified by whether at the end of the 2007-2008 school year, they were in the same grade levels and had the same or very similar cumulative GPA's of the 18 students who attended the first semester of the PACE Program in 2008-2009 (Semester I PACE Cohort). The researcher used cumulative GPA as the primary matching variable because it represents students' grades over their entire high school careers.

2. Because the number of students in the cumulative GPA strata was larger than the number of students in the cumulative GPA strata of the Semester I PACE Cohort, the researcher stratified them again by the number of days they were suspended out of school during the second semester of 2007-2008.

3. Students were then randomly selected from each suspension category (number of days out) to get the same proportion within each "number of days out" category that existed among the students in the Semester I PACE Cohort.

4. Students within each suspension category were further stratified for attendance (class periods missed in the second semester of 2007-2008) and were randomly selected within each attendance category (class periods missed) to get the same or a very similar proportional representation within the "number of days absent" category in the Semester I Matched Cohort as was in the Semester I PACE Cohort.

5. The researcher continued a similar process to stratify the demographic strata of ethnicity, residence, gender, IEP status, and FRL status. The researcher followed identical steps to randomly select the Semester II Matched Cohort of 18 students that best

matched the Semester II PACE Cohort of 18 students; however, the collection period for this cohort was at the end of the first semester of the 2008-2009 school year.

In sum, the researcher collected both descriptive and demographic characteristic student data. Descriptive characteristics data were collected to identify equal proportions of students for Semester I and II Matched Cohorts who were similar in GPA (cumulative and current), attendance rate, and out-of-school suspension rate to students in the Semester I and II PACE Cohorts. Demographic characteristics data were collected to identify equal proportions of students for Semester I and II Matched Cohorts who were similar in grade level, ethnicity, residence status, gender, IEP status, and FRL status, to students in the Semesters I and II PACE Cohorts. The use of this hierarchical stratified random sampling process resulted in a randomly selected comparison, or a Matched Sample, of equal size to the PACE Sample.

Participants

PACE Sample. The PACE Sample included all 36 students who were invited and attended the PACE Program during 2008-2009 school year. Divided into two cohorts, the total sample included one cohort of 18 students who attended the program during the first semester of the 2008-2009 school year, and a second cohort of the18 students who attended the program during the second semester of the 2008-2009 school year. All 36 students returned to their traditional home schools after they completed one semester in the PACE Program.

Descriptive characteristics. Semester I PACE Cohort, Semester II PACE Cohort, and the total PACE Sample exhibited certain descriptive characteristics including: current

GPA, cumulative GPA, attendance rate, and OSS rate. Comparison data for the Semester I PACE Cohort, n = 18, the Semester II PACE Cohort, n = 18, and the PACE Sample, N = 36, are given in the cumulative GPA, current GPA, attendance rate, and OSS rate sections that follow:

Cumulative GPA. The cumulative GPA of the Semester I PACE Cohort (M = 1.239), however, was a bit lower than the Semester II Cohort (M = 1.250). When the cohorts were combined into the total PACE Sample, there was a small amount of change in cumulative GPA (M = 1.244).

Current GPA. The current GPA of the Semester I PACE Cohort (M = 0.975) was not as low as the Semester II PACE Cohort (M = 0.861). The current GPA of the total PACE Sample also remained low (M = 0.918).

Attendance rate. The attendance rate of the Semester I PACE Cohort (M = 27.11) was lower than the Semester II Cohort (M = 33.110). When the cohorts were combined into the total PACE Sample, the attendance rate remained high (M = 30.11).

OSS rate. The OSS rate of the Semester I PACE Cohort (M = 3.22) was also lower than the Semester II PACE Cohort (M = 9.830). Although the OSS rate of the total PACE Sample (M = 6.53) was lower than the Semester II PACE Cohort, it was still relatively high.

Demographic characteristics. The Semester I PACE Cohort, the Semester II PACE Cohort, and the total PACE Sample also exhibited certain demographic characteristics including: grade level, ethnicity, residence, gender, IEP status, and FRL

status. The percent of each demographic characteristic that was present in the two PACE Cohorts and in the total PACE sample are shown in Tables 2-4.

Matched Sample. Students in the Matched (comparison) Sample were randomly selected from a population of students who attended one of four traditional high schools at the start of the study and who were descriptively and demographically similar to the students in the PACE Sample. Of the 36 students selected for the total Matched Sample, 18 students were selected to be in a Semester I Matched Cohort because they were most similar to the students in the Semester I PACE Cohort; 18 students were selected to be in a Semester II Matched Cohort because they were most similar to the students in the Semester PACE II Cohort.

The students in the Matched Sample, however, never attended the program for one or more of the following reasons: they were not recommended by their home schools to attend program; they were recommended to attend the program, but chose not to attend; they were recommended to attend the program, but their parent/guardian did not want them to attend; or, they were recommended to attend the program, but the program director deemed them unsuitable. Consequently, all 36 students continued their education uninterrupted at their traditional home high school for the 2008-2009 school year.

Descriptive characteristics. Semester I Matched Cohort, Semester II Matched Cohort and the total Matched Sample exhibited certain descriptive characteristics including: current GPA, cumulative GPA, attendance rate, and OSS rate. Comparison data for the Semester I Matched Cohort, $n = 18$, the Semester II Matched Cohort, $n = 18$,

and the Matched Sample, $N = 36$ are given in the cumulative GPA, current GPA, attendance rate, and OSS rate sections that follow:

Cumulative GPA. The cumulative GPA of the Semester I Matched Cohort ($M = 1.312$) was only slightly higher than the Semester II Matched Cohort ($M = 1.216$) so when the two cohorts were combined into the total Matched Sample small change in cumulative GPA ($M = 1.264$) was expected.

*Current GPA***.** The current GPA of the Semester I Matched Cohort ($M = 1.437$) was lower than the Semester II Matched Cohort ($M = 1.414$). When the two cohorts were combined into the total Matched Sample there was not much change in attendance rate ($M = 1.426$).

Attendance rate. The attendance rate of the Semester I Matched Cohort ($M = 18.440$) was lower than the Semester II Matched Cohort ($M = 25.220$). The total Matched Sample revealed an attendance rate of $M = 21.830$.

OSS rate. The OSS rate of the Semester I Matched Cohort ($M = 1.780$) was substantially lower than the Semester II PACE Cohort ($M = 15.390$). When the two cohorts were combined into the total Matched Sample, the rate changed considerably ($M = 8.50$).

Demographic characteristics. The Semester I Matched Cohort, the Semester II Matched Cohort, and the total Matched Sample also exhibited certain demographic characteristics including: grade level, ethnicity, residence, gender, IEP status, and FRL status. The percent of each demographic that was present in the Matched Cohorts and total Matched Sample are shown in Tables 2-4.

PACE and Matched Sample Similarities. The researcher checked the closeness of descriptive and demographic characteristic similarity between the Semester I PACE and Semester I Matched Cohorts, between the Semester II PACE and Semester II Matched Cohorts, and between the PACE and Matched Samples. As it turned out, though, there were not enough non-PACE students who matched exactly with the students in the PACE Sample on these dimensions. Therefore, students in the Matched Sample in this study were similar to the students in the PACE Sample.

Descriptive characteristics - averages. The primary descriptive characteristic used to match students in the PACE and Matched Samples was cumulative GPA at the end of the previous semester because it represented students' grades over their entire high school career. Descriptive characteristic comparison data of the Semester I PACE Cohort, n = 18 and the Semester I Matched Cohort, n = 18; the Semester II PACE Cohort, n = 18, and the Semester II Matched Cohort, n = 18; and the PACE Sample, N = 36 and the Matched Sample, N = 36, are given in the following sections of cumulative GPA, current GPA, attendance rate, and OSS rate.

Cumulative GPA. The PACE and Matched Cohorts and the PACE and Matched Samples were not exactly matched on cumulative GPA, but they were close. For example, the cumulative GPA of the Semester I Matched Cohort (M = 1.437) was only slightly higher than the Semester I PACE Cohort (M = 1.239). The Semester II PACE Cohort had a slightly higher cumulative GPA (M = 1.250) than the Semester II Matched Cohort (M = 1.216). The total PACE Sample (M = 1.244) was also not much lower than the total Matched Sample (M = 1.264).

Current GPA. The PACE and Matched Cohorts and the PACE and Matched Samples differed the most on the descriptive characteristic of current GPA. For example, the Semester I Matched Cohort had a much higher current GPA (M = 1.437) than the Semester I PACE Cohort (M = 0.975). Semester II Matched Cohort also had a higher current GPA (M = 1.414), than the Semester II PACE Cohort (M = 0.861). Most importantly, though, the current GPA of the Matched Sample (M = 1.426) was dramatically higher than the total PACE Sample (M = 0.918).

Attendance Rate. The PACE and Matched Cohorts and the PACE and Matched Samples were also not identically matched on the descriptive characteristic of attendance rate, but they were similar. For example, although the Semester I Matched Cohort had a relatively high rate attendance rate (M = 18.440) the attendance rate of the Semester I PACE Cohort was only slightly higher (M = 27.11). The attendance rate of The Semester II Matched Cohort (M = 25.220) was also relatively high, but once again, the rate of the Semester II PACE Cohort was higher (M = 33.110). The total Matched Sample had a lower rate (M = 21.8310) than the total PACE Sample (M = 30.11).

OSS rate. There were also some differences in the OSS rates of the PACE and Matched Cohorts and the PACE and Matched Samples. For example, the OSS rate of the Semester I Matched Cohort (M = 1.780) was only slightly lower than the Semester I PACE Cohort (M = 3.22). Interestingly, although the OSS rate of the Semester II PACE Cohort was high (M = 9.830), the OSS rate of the Semester II PACE Cohort was much higher (M = 15.390). As expected, the total Matched Sample also had a higher OSS rate (M = 8.580) than the total PACE Sample (M = 6.53).

Table 2

Semester I Cohort– Percent of Demographics Present

	Cohorts	
Demographic Characteristic	PACE[a]	Matched[a]
Grade Level		
9	16.7%	16.7%
10	22.2%	38.9%
11	50.0%	27.8%
12	11.1%	16.7%
Ethnicity		
Black	44.4%	50.0%
Hispanic	5.6%	0%
White	50.0%	50.0%
Residence		
St. Louis City	38.9%	50.0%
St. Louis County	61.1%	50.0%
Gender		
Female	44.4%	50.0%
Male	55.6%	50.0%
IEP		
Yes	27.8%	38.9%
FRL		
Yes	50.0%	44.4%

[a]Note. n=18 for all analyses

Demographic characteristics – percentages present. Table 2 shows how the Semester I PACE and Semester I Matched Cohorts compared on the demographic characteristics of grade level, ethnicity, residence, gender, IEP and FRL. Although the two cohorts were not matched perfectly, they were similar.

Table 3 shows how the Semester II PACE and Matched Cohorts compared on the demographic characteristics of grade level, ethnicity, residence, gender, IEP, and FRL. Once again, the two cohorts were not matched perfectly, but they were similar.

Table 3

Semester II Cohort— Percent of Demographics Present

	Cohorts	
Demographic Characteristics	PACE[a]	Matched[a]
Grade Level		
9	11.1%	22.2%
10	61.1%	50.0%
11	27.8%	27.8%
Ethnicity		
Asian	5.6%	0%
Black	50.0%	55.6%
Hispanic	5.6%	0%
White	38.9%	44.4%
Residence		
St. Louis City	44.4%	38.9%
St. Louis County	55.6%	61.1%
Gender		
Female	44.4%	44.4%
Male	55.6%	55.6%
IEP		
Yes	5.6%	16.7%
FRL		
Yes	38.9%	33.3%

[a]*Note*. n=18 for all analyses

The Semester I and Semester II PACE and Matched Cohorts were combined into the total study samples and compared on the demographic characteristics of grade level,

ethnicity, residence, gender, IEP status and FRL status. Table 4 shows that like the two semester cohorts, the samples were not matched perfectly, but they were demographically similar.

Table 4

PACE and Matched Samples— Percent of Demographics Present

	Sample	
Demographic Characteristics	PACE[a]	Matched[a]
Grade Level		
9	13.9%	19.4%
10	41.7%	44.4%
11	38.9%	27.8%
12	5.6%	8.3%
Ethnicity		
Asian	2.8%	0%
Black	47.2%	52.8%
Hispanic	5.6%	0%
White	44.4%	47.2%
Residence		
St. Louis City	41.7%	44.4%
St. Louis County	58.3%	55.6%
Gender		
Female	44.4%	47.2%
Male	55.6%	52.8%
IEP		
Yes	16.7%	27.8%
FRL		
Yes	44.4%	38.9%

[a]*Note*. n=36 for all analyses

Data Collection and Instrumentation

There was no direct data collection instrument used in this quantitative comparative research study. The researcher accessed the district's student information system called Infinite Campus and with the assistance of the district program evaluator, collected descriptive, demographic, and outcome data located in achieved student records. To maintain student confidentiality and comply with federal regulations, no data contained student names. The researcher collected descriptive and demographic data for both the PACE and the Matched Samples. Descriptive data included GPA (cumulative and current), attendance rate (number of class periods absent), and OSS rate (number of days suspended). By adding the number of students who subsequently dropped out of school during the third data collection period, the researcher calculated the dropout rate.

Demographic data included grade level (9-12), ethnicity (White, African American, Hispanic, Indian, or other), residence (St. Louis City or St. Louis County), gender, IEP status (yes or no), and FRL status (yes or no). Collection of descriptive data from archived student records enabled the researcher to identify the strata and to get baseline data needed for statistical comparisons. Collection of demographic data from archived student records enabled the researcher to further refine the randomly selected Matched Sample to a size equal to the PACE Sample.

Once the sample selection process was completed, the researcher, with the assistance of the district program evaluator, accessed the district's student information system, Infinite Campus, to collect the outcome data. This data included GPA (current and cumulative), attendance rate (number of days absent), OSS rate (number of days

suspended), and dropout rate. All outcome data was collected during three timeframes that are defined in a later section. Data collected for the initial timeframe provided the baseline data. Outcome data collected during the second and the third data collection timeframes provided the comparison data needed for hypotheses testing.

Data collection timeframes - sampling process. The researcher chose two data collection timeframes to collect the data required to complete the steps of the sampling process:

1. End of the second semester of the 2007-2008 school year. The researcher collected both descriptive and demographic data to identify the proportion of the 18 students in the Semester I PACE Cohort who exhibited each characteristic. The researcher also collected the same types of data for this timeframe to identify and select the 18 students for the Semester I Matched Cohort.

2. End of the first semester of the 2008-2009 school year. The researcher collected both descriptive and demographic data to identify the proportion of the 18 students in the Semester II PACE Cohort who exhibited each characteristic. To identify and select the 18 students for the Semester II Matched Cohort, the researcher also collected the same types of data for this timeframe.

Data collection timeframes - outcome data. The researcher chose three timeframes to collect the outcome data required to compare statistically the PACE Sample to the Matched Sample:

1. End of the second semester of the 2008-2009 school year. The researcher collected outcome data, i.e., GPA (cumulative and current), attendance rates and OSS

rates for the 18 students in the Semester I PACE Cohort who after completing a semester in the program, returned to their traditional home schools for the second semester of the 2008-2009 school year. The researcher also collected the same types of outcome data for the 18 students in the Semester II Matched Cohort who attended a traditional home high school during the same timeframe.

2. End of the first semester of the 2009-2010 school year. The researcher collected outcome data, i.e., GPA (cumulative and current), attendance rates, and OSS rates for the 18 students in the Semester II PACE Cohort who after completing a semester in the program, returned to their traditional home high school for the first semester of the 2009-2010 school year. The researcher also collected the same types of outcome data for the 18 students in the Semester II Matched Cohort who attended a traditional home high school during the same timeframe.

3. Start of the 2010-2011 school year. The researcher collected dropout data for Semester I and Semester II PACE and Matched Cohorts.

Data Analysis Procedures - Characteristics of Samples Hypotheses Testing

The researcher used an analysis of variance (ANOVA) to determine if there was a statistically significant difference in the descriptive characteristics of the PACE Cohorts and PACE Sample compared to the Matched Cohorts and Matched Sample. A Chi-square test for difference in variance was performed to determine if there was a statistically significant difference in the demographic characteristics of the PACE Cohorts and PACE Sample compared to the Matched Cohorts and Matched Sample.

Descriptive characteristics comparison. To determine if there was a statistically significant difference in the descriptive characteristics of GPA (cumulative and current), attendance rate, OSS rate, and dropout rate of the PACE Cohorts and PACE Sample compared to the descriptive characteristics of the Matched Cohorts and Matched Sample an ANOVA was conducted to test the following null hypotheses:

1. There is no difference in the representation of the descriptive characteristics of current GPA, cumulative GPA, class periods absent, and days suspended between the Semester I PACE Cohort and the Semester I Matched Cohort.

2. There is no difference in the representation of the descriptive characteristics of cumulative GPA, current GPA, class periods absent, and days suspended between the Semester II PACE Cohort and the Semester II Matched Cohort.

3. There is no difference in the representation of the descriptive characteristics of, cumulative GPA, current GPA, class periods absent, and days suspended between the PACE Sample and the Matched Sample.

Demographic characteristics comparison. To determine if there was a statistically significant difference in the demographic characteristics of grade level, ethnicity, residence, gender, IEP status, and FRL status of the PACE Cohorts and PACE Sample compared to the Matched Cohorts and Matched Sample a Chi-square analyses for difference in variance was performed to the following null hypotheses:

1. There is no difference in the representation of the demographic characteristics of grade level, ethnicity, residence, gender, IEP status, and FRL status between the Semester I PACE Cohort and the Semester I Matched Cohort.

2. There is no difference in the representation of the demographic characteristics of grade level, ethnicity, residence, gender, IEP status, and FRL status between the Semester II PACE Cohort and the Semester II Matched Cohort.

3. There is no difference in the representation of the demographic characteristics of grade level, ethnicity, residence, gender, IEP status, and FRL status between the total PACE Sample and the total Matched Sample.

Data Analysis Procedures – Research Hypotheses Testing

The researcher conducted paired-samples *t* tests, analysis of covariance (ANCOVA), and Chi-square tests for difference in variance to test the null hypotheses (see Research Questions and Hypotheses section of this chapter). Specifically, to test the null hypothesis of GPA (cumulative and current), the researcher performed paired-samples *t* tests on the prior semester and subsequent semester GPAs of the PACE and Matched Cohorts and PACE and Matched Samples. In addition, to lend further support to the results the researcher conducted an ANCOVA test to compare the two samples on the final adjusted measures to see whether either sample made significantly more improvement than the other sample. The researcher performed an ANCOVA because it statistically corrects for differences on pre-treatment measures by adjusting the post-treatment scores to what they would be predicted to be if both groups had started out in the same place (Myers, Well, & Lorch, 2010). In other words, ANCOVA statistically erases pre-existing differences between comparison groups by appropriately adjusting the post-treatment scores for those differences (Myers et al., 2010)

To test the null hypotheses of attendance rate, the researcher used paired-samples *t* tests to compare the average number of class periods the Semester I and Semester II PACE and Matched Cohorts and the PACE and Matched Samples were absent during the prior and subsequent semesters. To test the hypothesis of OSS rate, the researcher also used paired-samples *t* tests to compare the average number of days the Semester I and Semester II PACE and Matched Cohorts and the PACE and Matched Samples were suspended out-of-school during the prior and subsequent semesters. A Chi-square test for difference in variance was performed to compare the dropout rate of the PACE and Matched Cohorts and the PACE and Matched Samples over time. In addition, another Chi-square test for difference in variance was conducted to determine if there was a statistical difference between the PACE and Matched Samples in the number of students who dropped out of school. A Chi-square test was appropriate for the analysis of dropout rate because it is able to determine the frequency of an event occurring when comparing two samples (Fraenkel & Wallen, 2009).

Summary

The purpose of this quantitative comparative study was to compare a sample of PACE Program students with a sample of matched non-PACE Program students to determine if students who attended the PACE Program would show any measureable differences in their GPA, attendance rate, OSS rate, and dropout rate. Specifically, the study was designed to determine (a) if there was a measurable difference in GPA (cumulative and current), attendance rate, OSS rate, and dropout rate of the 36 students who attended the PACE Program in 2008-2009 and subsequently returned to their

traditional home schools. These results were then compared with a Matched Sample of 36 students who only attended a traditional high school within the same school district during this same timeframe.

All data were collected from the school district student information system called Infinite Campus and analyzed to reveal if there were statistical differences in GPA (cumulative and current), attendance rate, out-of-school suspension rate and dropout rate between the PACE and Matched Samples. Chapter 4 presents the results of the data analysis.

Chapter Four: Results

Overview

Using a quantitative comparison matched group research design, this study compared the outcome data of 36 students who attended the PACE Program during the 2008-2009 school year and subsequently returned to their home schools to the outcome data of 36 students with matching descriptive and demographic characteristics, who attended a traditional high school during the same timeframe. The outcome data included cumulative GPA, current GPA, attendance rate, OSS rate, and dropout rate. Participation in the PACE Program was the independent variable and student outcomes of GPA (cumulative and current), attendance rate, OSS rate, and dropout rate were the four dependent variables. Students in the PACE Sample attended the PACE Program either during the first or second semester of the 2008-2009 school year; students in the Matched Sample attended one of four traditional high schools during this same timeframe.

The researcher divided the PACE Sample of 36 students into two semester cohorts: Semester I PACE Cohort (18 students who attended the PACE Program during the first semester of 2008-2009) and Semester II PACE Cohort (18 students who attended the PACE Program during the second semester of 2008-2009). The researcher also divided the Matched Sample of 36 students into two semester cohorts: Semester I Matched Cohort (18 students who were matched with students in the Semester I PACE Cohort) and Semester II Matched Cohort (18 students who were matched with students in the Semester II PACE Cohort).

With the help of the school district program evaluator, the researcher collected descriptive and demographic characteristic data from archived student records located in the school district student information system called Infinite Campus. The researcher used SPSS 16.0.1 for Windows ™ statistical software to analyze the data and designed the sampling process to identify a Matched Sample that was descriptively and demographically similar to the PACE Sample. To determine if the PACE and Matched Samples were similar, the researcher collected and then statistically compared the descriptive and demographic characteristic data of the samples for similarities using one-way ANOVA and Chi-square analyses for difference in variance. In addition, to test the null hypotheses, the researcher collected and then analyzed the outcome data of both samples using paired-samples *t* tests, ANCOVA, and Chi-square analysis for difference in variance statistical tests. An alpha level of .05 was used for all statistical analyses.

PACE and Matched Cohorts and Samples - Similarities

Students in the Matched Sample were selected based on how closely they descriptively and demographically matched the students in the PACE Sample. Tables 5–8 show descriptive and demographic comparisons and reveal their similarities.

Descriptive characteristic variables - comparisons. Descriptive characteristics included GPA (cumulative and current), attendance rate, and OSS rate. Cumulative GPA of the PACE and Matched students was used as the primary descriptive comparison characteristic. To determine how closely the PACE and Matched Semester Cohorts and the PACE and Matched Samples matched on the descriptive characteristics, the researcher conducted ANOVA to test the following three hypotheses:

1. There is no difference in the representation of the descriptive characteristics of cumulative GPA, current GPA, class periods absent, and days suspended between the Semester I PACE Cohort and the Semester I Matched Cohort.

2. There is no difference in the representation of the descriptive characteristics of cumulative GPA, current GPA, class periods absent, and days suspended between the Semester II PACE Cohort and the Semester II Matched Cohort.

3. There is no difference in the representation of the descriptive characteristics of cumulative GPA, current GPA, class periods absent, and days suspended between the total PACE Sample and the total Matched Sample.

Table 5

Mean Prior Semester Scores - Descriptive Characteristic Variables

Descriptive Characteristic Variables	2008-09 Semester I Cohorts[a]		2008-09 Semester II Cohorts[a]		2008-09 Total Samples[b]	
	PACE	Matched	PACE	Matched	PACE	Matched
Current GPA	0.975	1.437	0.861	1.414*	0.918	1.426*
Cumulative GPA	1.239	1.312	1.250	1.216	1.244	1.264
Class Periods Absent	27.11	18.440	33.110	25.220	30.11	21.830
Days Suspended	3.22	1.780	9.830	15.390	6.53	8.580

Note. Prior Semester is defined as the end of the semester immediately before the semester PACE Cohorts attended the PACE Program

[a]n = 18 for PACE and Matched Semester Cohorts. [b]n = 36 for Total Samples

*$p < .05$

As shown in Table 5, students in the PACE and Matched Samples were not matched exactly on mean prior semester cumulative GPA. Cumulative GPA of the Semester I Matched Cohort was slightly higher than the Semester I PACE Cohort while cumulative GPA of the Semester II PACE Cohort was higher than the cumulative GPA of the Semester II Matched Cohort. Based on ANOVA testing, however, there were no statistically significant differences between the PACE and Matched Samples on prior semester cumulative GPA, but there were, however, some statistically significant differences between the PACE and Matched Samples on mean prior semester current GPA. Specifically, the Semester II Matched Cohort had a significantly higher current GPA than the Semester II PACE Cohort, $F(1, 34) = 6.81$, $p = .013$ and the Matched Sample had a significantly higher current GPA than the PACE Sample, $F(1, 70) = 7.96$, $p = .006$. There were no statistically significant differences between the PACE and Matched Samples on the remaining two descriptive characteristic variables of attendance rate and OSS rate in the prior semester.

Demographic characteristic variables - comparisons. Students in the Semester I Matched Cohort, and the Semester II Matched Cohort were also selected based on how closely they demographically matched the students in the PACE Cohorts. Demographic characteristic variables included grade level, ethnicity, residence, gender, IEP status, and FRL status. To determine how closely the PACE and Matched Semester Cohorts and the PACE and Matched Samples matched on the demographic characteristic variables, a series of Chi-square analyses for difference of variance results were conducted (see Tables 6-8).

Semester I PACE and Matched Cohorts. To compare the demographic characteristic variables of Semester I PACE Cohort and the Semester I Matched Cohort the following demographic characteristic null hypothesis was applied and tested: There is no difference in the representation of the demographic characteristic variables of grade level, ethnicity, residence, gender, IEP status, and FRL status between the Semester I PACE Cohort and the Semester I Matched Cohort.

Table 6

Semester I PACE and Matched Cohorts– Comparison of Demographic Characteristic Variables

Demographic Characteristic Variables	X^2	*d.f.*	*p*
Grade Level	2.161	3	.54
Ethnicity	1.059	2	.59
Residence	.450	1	.50
Gender	.111	1	.74
IEP	.50	1	.48
FRL	.111	1	.74

Note. X^2 –critical = 3.8415
[a]n = 18 for all analyses
*$p < .05$

As shown in Table 6, the results of the chi square analysis revealed no significant statistical differences between the Semester I PACE Cohort and the Semester I Matched Cohort.

Semester II PACE and Matched Cohorts. To compare the demographic characteristic variables of Semester II PACE Cohort and the Semester II Matched Cohort the following null hypothesis was applied and tested: There is no difference in the representation of the demographic characteristic variables of grade level, ethnicity, residence, gender, IEP status, and FRL status between the Semester II PACE Cohort and the Semester II Matched Cohort.

Table 7

Semester II PACE and Matched Cohorts– Comparison of Demographic Characteristic Variables

Demographic Characteristic Variables[a]	X^2	*d. f.*	*p*
Grade Level	.867	2	.648
Ethnicity	2.119	3	.548
Residence	.114	1	.735
Gender	.0.00	1	1.00
IEP	1.125	1	.289
FRL	1.043	2	.593

Note. X^2 –critical = 3.8415
[a]n = 18 for all analyses
*$p < .05$

As Table 7 shows, the results Chi-square analysis revealed that there were no significant differences between the Semester II PACE and Matched Cohorts.

PACE and Matched Samples. When Semester I and Semester II PACE and Matched Cohorts were combined into the total PACE and Matched Samples, to compare

the demographic characteristic variables, the following null hypothesis was applied and tested: There was no difference in the representation of the demographic characteristic variables of grade level, ethnicity, residence, gender, IEP status, and FRL status between the PACE Sample and the Matched Sample.

Table 8 presents the results of Chi-square analysis and once again, the figures in the table indicate a similar pattern of non-significant demographic differences between the PACE and Matched Samples.

Table 8

Combined Cohorts (PACE and Matched Samples) – Comparison of Demographic Characteristic Variables

Demographic Characteristic Variables	X^2	*d. f.*	*p*
Grade Level	2.596	3	.456
Ethnicity	3.141	3	.370
Residence	.057	1	.812
Gender	.056	1	.813
IEP	1.286	1	.257
FRL	.231	1	.891

Note. X^2 –critical = 3.8415
[a]n = 18 for all analyses
*$p < .05$

In conclusion, students who were selected for the Matched Sample were similar to students in the PACE Sample on all descriptive and demographic characteristic variables. When these two samples were statistically compared, however, the Matched Sample was

descriptively similar to the PACE Sample in cumulative GPA, attendance rate and OSS rate, but the Matched Sample had a statistically significant higher current GPA than the PACE Sample. In addition, the Matched Sample was demographically similar to the PACE Sample and did not differ significantly on grade level, ethnicity, residence, gender, IEP status, and FRL status.

Research Questions and Hypotheses Testing – GPA, Attendance Rate, OSS Rate

Two research questions were designed using the outcome objectives of the PACE Program which were to improve student success as measured by: an increase in GPA, an increase in attendance rate, a decrease or elimination of OSS rate, and a decrease or elimination of dropout rate. To test the null hypotheses of GPA (cumulative and current), attendance rate, and OSS rate, the researcher conducted paired-samples *t* tests on the prior semester and the subsequent semester GPAs (cumulative and current), attendance rates and OSS rates of the two PACE and Matched Semester Cohorts and of the PACE and Matched Samples. Prior semester was defined as the end of the semester immediately before the students attended the PACE Program and subsequent semester was defined as end of the semester the PACE students returned to their home schools.

Research question #1. Will students who attended the PACE Program for one semester during the 2008-2009 school year show a measureable difference in their GPAs, attendance rates, and out-of-school suspension rates at the end of the first semester back at their traditional home schools when compared to a Matched Sample of students who attended a traditional high school during this same timeframe?

Null hypothesis #1a. Students who attended the PACE Program for one semester during the 2008-09 school year will not show a measureable difference in average cumulative GPA at the end of the first semester back at their home schools when compared to the matched group of students who attended a traditional high school during the same timeframe.

Table 9

Changes in Average Cumulative GPA

	Mean Cumulative GPA					
Groups	Prior Semester	Subsequent Semester	Change	*t*	*d .f.*	*p*
Semester I Cohorts						
PACE[a]	1.239	1.467	+ .228	-2.224	17	.04*
Matched[a]	1.312	1.337	+ .025	-.271	17	.790
Semester II Cohorts						
PACE[a]	1.250	1.413	+ .163	-2.217	17	.02*
Matched[a]	1.216	1.475	+ .259	-2.286	17	.012*
Samples						
PACE[b]	1.244	1.440	+ .196	-3.327	35	.002*
Matched[b]	1.264	1.406	+ .142	-2.135	35	.04*

Note.: [a]*t*- critical = 2.1098. [b]*t*- critical = 2.0301
[a]n = 18. [b]n = 36
**p* < .05

As Table 9 shows, both the PACE and Matched Samples tended to improve on their cumulative GPAs from the prior semester to the subsequent semester. Based on the results of paired-samples *t* tests for difference in means, the difference in the increase in the cumulative GPAs of the students in the Semester I PACE Cohort and Semester II PACE Cohort was statistically significant. In addition, when Semester I and Semester II PACE Cohorts were combined into the total PACE Sample, data analysis also showed a statistically significant difference in the increase in their cumulative GPAs.

Although students in the Semester I Matched Cohort showed an increase in their cumulative GPAs, based on the results of paired-samples *t* tests for difference in means, this difference was not statistically significant. However, there was a statistically significant difference in the increase in the cumulative GPAs of the students in the Semester II Matched Cohort. When the cumulative GPAs of the students in Semester I and Semester II Matched Cohorts were combined into the total Matched Sample, data analysis also revealed a statistically significant difference in the increase in their cumulative GPAs.

Null hypothesis #1b. Students who attended the PACE Program for one semester during the 2008-09 school year will not show a measureable difference in average current GPA at the end of the first semester back at their home schools when compared to the matched group of students who attended a traditional high school during the same timeframe.

Table 10

Changes in Average Current GPA

Groups	Mean Current GPA: Prior Semester	Mean Current GPA: Subsequent Semester	Change	*t*	*d .f.*	*p*
Semester I Cohorts						
PACE[a]	0.975	1.532	+ .557	-2.068	17	.05*
Matched[a]	1.437	1.511	+ .074	-.268	17	.598
Semester II Cohorts						
PACE[a]	0.861	1.571	+ .710	-3.76	17	.002*
Matched[a]	1.414	1.604	+ .190	-.960	17	.691
Samples						
PACE[b]	0.918	1.551	+ .633	-3.895	35	.0005*
Matched[b]	1.426	1.558	+ .132	-.785	35	.438

Note. [a]*t* – critical = 2.1098. [b]*t* – critical = 2.0301
[a]n = 18. [b]n = 36
**p* < .05

As shown in Table 10, the increase in current GPA was statistically significant in the Semester I and Semester II PACE Cohorts and the combined semester PACE Cohorts (PACE Sample). On the other hand, the Semester I and II Matched Cohorts and the Matched Sample had no statistically significant changes in their current GPAs. Although the PACE Sample demonstrated an improvement in their current GPA after they attended the PACE Program, the Matched Sample did not. However, as previously shown in

Table 6, the Matched Sample was already doing relatively well on this measure in the prior semester. Therefore, to compare the progress of the two samples, the researcher used ANCOVA to statistically correct for differences on pre-treatment scores (prior semester cumulative and current GPA) by adjusting the post-treatment scores (subsequent semester current GPA) to what they would be predicted to be if both cohorts and samples had started out in the same place (Myers et al., 2010). By using ANCOVA, the researcher was able to compare the two samples on the final adjusted measures to see whether one sample made significantly more improvement than the other sample.

The results of the ANCOVA are presented in Table 11 and show that after adjusting for pre-existing differences in GPA scores, there are no significant differences between the PACE and Matched Samples on their subsequent semester current and cumulative GPA's. The Semester I PACE Cohort finished the study with cumulative GPAs that were not significantly higher than the cumulative GPAs of the Semester I Matched Cohort ($F(1, 33) = 3.54$, $p = .07$). Consequently, although the PACE Sample did make progress in improving their grades, they did not make observably more progress than the Matched Sample. Data analysis indicated a non- rejection of the Null Hypothesis.

Table 11

Subsequent Semester GPA Means Adjusted for Prior Differences

Groups	Adjusted Mean	
	Current GPA	Cumulative GPA
Semester I Cohorts		
PACE[a]	1.583	1.487
Matched[a]	1.460	1.318
Semester II Cohorts		
PACE[a]	1.671	1.401
Matched[a]	1.505	1.487
Total Samples		
PACE[b]	1.619	1.446
Matched[b]	1.490	1.400

Note. ANCOVA - critical = [-a]$F(1, 33) = 4.139$. [b]$F(1, 69) = 3.980$
[a]n = 18, [b]n = 36,
*$p < .05$

Null hypothesis #2. Students who attend the PACE Program for one semester during the 2008-09 school year will not show a measurable difference in attendance rate at the end of their first semester back at their home schools when compared to the matched group of students who attended a traditional high school during this same timeframe.

Table 12

PACE and Matched Student Groups - Changes in Average Number of Class Period Absences

Groups	Mean Class Period Absences: Prior Semester	Mean Class Period Absences: Subsequent Semester	Change	*t*	*d. f*	*p*
Semester I Cohorts						
PACE[a]	27.11	20.44	- 6.67	.538	17	.598
Matched[a]	18.44	34.61	+16.17	2.073	17	.05*
Semester II Cohorts						
PACE[a]	33.11	29.50	- 3.61	.404	17	.691
Matched[a]	25.22	24.33	- .89	.175	17	.863
Total Samples						
PACE[b]	30.11	24.95	- 5.16	.682	35	.500
Matched[b]	21.83	29.47	+ 7.64	-1.590	35	.121

Note. [a]*t* – critical = 2.1098. [b]*t* – critical = 2.030.
[a]n = 18. [b]n = 36.
**p* < .05

Table 12 shows that while the average number of class periods missed by the Semester I PACE Cohort, Semester II PACE Cohort, and the PACE Sample decreases, indicating an improvement in attendance rates, based on the results of paired-samples *t* tests for difference in means, these improved rates are not statistically significant.

Therefore, the data showed that the attendance of PACE participants changed observably, but not significantly.

However, the Semester I Matched Cohort showed an increase in the average number of class periods missed and based on the results of paired-samples *t* tests for difference in means, this difference was statistically significant. There were no significant changes, however, in class period absences among the students in the Semester II Matched Cohort or among the students in the Matched Sample. As evidenced by the analysis of data, attendance improved observably more among the students in the PACE Cohorts than it did among the students in the Matched Cohorts, however, because the difference between the attendance rates of the PACE and Matched Samples is not statistically significant, the null hypothesis for attendance rate was not rejected.

Null hypothesis #3. Students who attended the PACE Program for one semester during the 2008-09 school year will not show a measurable difference in OSS rate at the end of their first semester back at their home schools when compared to the matched group of students who attended a traditional high school during this same timeframe.

Table 13

PACE and Matched Student Groups Changes in Average Days Suspended

	Mean Number of Days Suspended					
Groups	Prior Semester	Subsequent Semester	Change	*t*	*d. f*	*p*
Semester I Cohorts						
PACE[a]	3.22	0.00	-3.22	1.272	17	.220
Matched[a]	1.78	25.11	+23.33	-1.692	17	.109
Semester II Cohorts						
PACE[a]	9.83	0.94	- 8.89	1.275	17	.219
Matched[a]	15.39	2.67	- 12.72	1.388	17	.184
Total Samples						
PACE[*b*]	6.53	0.47	- 6.06	1.643	35	.109
Matched[*b*]	8.58	13.89	+ 5.31	-.609	35	.546

Note. [a]*t* – critical = 2.1098. [b]*t* –critical = 2.030.
[a]n = 18. [b]n = 36.
**p* < .05

To determine whether the PACE or Matched Cohorts and Samples had any measurable change in their OSS rates over the two semesters of the study, the researcher again ran paired-samples *t t*ests for difference in means. As shown in Table 13, although the OSS rate of the Semester I Matched Cohort increased observably in the subsequent semester, the Semester I and the Semester II PACE and Matched Cohorts and the PACE

and Matched Samples did not show significant change in the number of suspension days from the prior semester to the subsequent semester. Consequently, based on analysis of the data, the null hypothesis for OSS was not rejected.

Research question #2. Will students who attended the PACE Program for one semester during the 2008-2009 school year show a measureable difference in dropout rate at the start of the 2010-2011 school year when compared to a Matched Sample of students who attended a traditional high school during this same timeframe?

Hypothesis Testing - Dropout Rate

To test the null hypothesis for dropout, dropout data for the Semester I and Semester II PACE and Matched Cohorts and the PACE and Matched Samples were collected at the start of the 2010-2011 school year (August, 2010). A Chi-square analyses for difference in variance was conducted to compare the dropout rate of the PACE and Matched Cohorts and the PACE and Matched Samples over time and another Chi-square analysis for difference in variance was conducted to compare the dropout rate between the PACE and Matched Samples.

Null hypothesis #4a. Students who attended the PACE Program for one semester during the 2008-2009 school year and subsequently returned to their home high schools and students who only attended a traditional high school during this same timeframe will not show a measureable difference in dropout rate when dropout data collected at the start of the study is compared to the dropout data collected at the end of the study (the start of the first semester of the 2010-2011 school year).

Table 14

Dropout Rate Comparison Change over Time

Groups	Dropout Percentage	X^2	*p*
Semester I Cohort			
PACE[a]	0%	--	--
Matched[a]	22.2%	4.50	.0339*
Semester II Cohort			
PACE[a]	5.69%	1.029	.3105
Matched[a]	11.1%	2.118	.1456
Samples			
PACE[b]	2.8%	1.014	.3139
Matched[b]	16.7%	6.545	.0105*

Note. $_X^2$ – critical = 3.8415
[a]n = 18. [b]n = 36.
**p* = < .05

Table 14 presents the results of Chi-square analysis on dropout rate changes over time. As the figures in the table indicate there was a significant increase in the number of students who dropped out of the Semester I Matched Cohort ($_X^2$ (1, N = 18) = 4.50, *p* = .0339). Moreover, a significant increase in the number of students who dropped out was revealed when the Semester I Matched Cohort was combined with the Semester II Matched Cohort (total Matched Sample) ($_X^2$ (1, N = 36) = 6.545, *p* = .0105).

Null hypothesis #4b. Students who attended the PACE Program for one semester during the 2008-2009 school year and subsequently returned to their home high schools will not show a measureable difference in dropout rate at the start of the first semester of the 2010-2011 school year when compared to the matched sample of students who attended a traditional high school during this same timeframe.

Table 15

Dropout Rate Comparisons of PACE and Matched Samples

	Dropout Percentage.				
Groups	PACE	Matched	X^2	*d .f.*	*p*
Semester I Cohort	0.0%	22.2%	4.50	1	.034*
Semester II Cohort	5.69%	11.1%	.364	1	.546
Samples	2.8%	16.7%	3.956	1	.047*

Note. X^2 – critical = 3.8415.
[a]n = 18. [b]n = 36.
**p* <.05

Table 15 shows the results of a second Chi-square analysis comparing the dropout rates between the Semester I PACE and Matched Cohorts, the Semester II PACE and Matched Cohorts and between the PACE and Matched Samples. In the Semester I PACE Cohort, no students dropped out, compared to four (22%) students who dropped out in the Semester I Matched Cohort. Based on Chi-square analysis, this difference is statistically significant ($_X^2$ (1, N = 18) = 4.50, p = .034). In the Semester II PACE and Matched Cohorts, one PACE student compared to two Matched students dropped out. While this was not a statistically significant difference, the Semester II Matched Cohort

dropout rate of 11.1% was observably higher than the Semester II PACE Cohort dropout rate of 5.6%. The combined semester PACE Cohorts (PACE Sample), showed the overall dropout rate was 2.8% while the overall dropout rate for the combined semester Matched Cohorts (Matched Sample) was 16.7%. Based on Chi-square analysis, this overall difference is statistically significant $_X^2$ (1, N = 36) = 3.956, p = .047. Therefore, based on the analysis of data, the null hypothesis was rejected.

Summary of Findings

The objective of this research study was to evaluate the PACE Program using an objectives-oriented approach to a formative program evaluation. The outcome objectives of the program were to improve student success as measured by: an increase GPA, an increase in attendance rate, a decrease, or elimination of out-of-school suspension rate, and a decrease or elimination of dropout rate. The desired measured outcomes for the program were analyzed by comparing the outcome data of GPA (cumulative and current), attendance rate, OSS rate and dropout rate of students who attended the PACE Program to the same outcome data of a matched group of students who did not attend the PACE Program. Based on the results of paired-samples *t* test analysis comparing before and after GPAs, the researcher found that students in the PACE Sample did make statistically significant improvement in the current GPA after attending the program. However, based on ANCOVA, which adjusted for pre-existing differences, the PACE students did not make significantly more progress in improving their current GPAs than the Matched students. Similarly, the outcome data of attendance rate and suspension rate of the PACE

students were not significantly different from the attendance rate and suspension rates outcomes of the Matched students.

Consequently, because the researcher did not find significant differences between the PACE and Matched Samples on the dependent outcome variables of GPA (cumulative and current), attendance rate, and OSS rate, the null hypotheses for these measures were not rejected. However, the difference between the PACE and Matched Samples dropout rates was statistically significant and the null hypothesis was rejected.

Chapter 5 includes the conclusions, and discussions of these results along with a review of the study design, a discussion of implications and recommendations for practitioners, and several recommendations for future research studies.

Chapter Five: Conclusions, Discussions, and Recommendations

> There is nothing wrong with short-term quantitative results, nor are they necessarily antithetical to longer term qualitative results. Some of the best organizations in the world understand that balance and practice it daily. The trouble is, not many of them are in the United States. (W. P. Dolan as cited in Mottaz, 2002, p. 51)

Overview

Societal forces are influencing public school districts to respond to their inability to meet the needs of all students, especially those students who are at-risk for academic failure or dropping out (Aron, 2006; Lange & Sletten, 2002). Furthermore, in light of the current accountability movement and budgetary cutbacks, school district boards of education, legislative bodies, and the public want evidence that the financial resources and efforts invested in schools or programs are making a difference in the educational outcomes for students (Sloat et al., 2007). School districts have responded to these forces and have identified options in the form of alternative schools and programs as a better way to educate and reengage these at-risk students (Aron, 2006; Lange & Sletten, 2002; Raywid, 1994, 1999; Ruzzi & Kraemer, 2006).

Scholars, practitioners, and researchers have been challenged, however, to define, explore, and analyze the effectiveness of alternative options because public alternative high schools and programs across the country vary widely in both their design and purpose (Henrich, 2005; Lange & Sletten, 2002; Rix & Twining, 2007; Tobin & Sprague, 2000). One result of this challenge is in an abundance of research studies that examined

and evaluated alternative schools and programs using qualitative measures of satisfaction, self-esteem, and school connectedness. Another result of this challenge is a lack of quantitative objectives-based outcome evaluation research. This lack of research limits school districts as they seek to design effective alternative schools and programs that meet the diverse needs of at-risk students and as they to strive to implement the new accountability standards of NCLB (Aron, 2006; Aron & Zweig, 2003; Cable et al., 2009; Gilson, 2006; Lehr et al., 2009; Quinn & Poirier, 2006). Further, as referenced by the W. Patrick Dolan quote at the beginning of this chapter, the best organizations understand and maintain a balance of both quantitative and qualitative results. It is the opinion of the researcher that for alternative schools and programs this balance is long overdue. Therefore, the researcher designed the current study to add to the limited body of alternative education research by using an objectives-oriented approach to formative program evaluation.

Specifically, the purpose of the study was to measure the effectiveness of the PACE program, a short-term in-district public high school alternative program, by using quantitatively measureable school-related outcomes of GPA, attendance, OSS, and dropout rates. The study used a matched group design to compare the school-related outcomes of 36 invited students who attended the PACE Program during the 2008-2009 school year with the same school-related outcomes of a matched group of students who had similar descriptive and demographic characteristics but did not attend the PACE Program during that same school year. A large public school district located in a suburb of St. Louis, Missouri both designed and operated the PACE Program; all of the matched

students attended one of four traditional high schools in this same school district. The PACE Sample of 36 students was comprised of a Semester I PACE Cohort of 18 students and a Semester II Cohort of 18 students. The Matched Sample of 36 students was comprised of a Semester I Matched Cohort of 18 students and a Semester II Matched Cohort of 18 students.

The researcher and school district program evaluator collected all data from archived student records located in the school district student information system called Infinite Campus. The sampling process was designed to identify a Matched Sample that was descriptively and demographically similar to the PACE Sample. The researcher collected and statistically compared the descriptive and demographic characteristic data of the PACE and Matched Samples using one-way ANOVA and Chi-square analyses for difference in variance. To test the null hypotheses, the researcher collected and statistically analyzed the outcome data of the PACE and Matched Samples using the statistical tests of paired-samples *t* test, ANCOVA, and Chi-square analysis for difference of variance. An alpha level of .05 was used for all statistical analyses.

The remainder of this chapter includes the following sections: review and discussion of the study design, review of the research questions and null hypotheses testing, discussion of hypotheses test results, implications, and recommendations for practitioners, recommendations for future research studies, and concluding remarks.

Study Design – Review and Discussion

This quantitative comparative study used a matched group research design, which according to Creswell (2003), is an appropriate design when the purpose of a study is to

collect and statistically analyze numerical data to determine any differences between two groups of students. The researcher took steps to minimize inherent threats to the internal and external validity of this type of study design. For example, to increase external validity, all operational definitions were defined for the outcome (dependent) variables of GPA (cumulative and current), attendance rate (average number of class periods missed), OSS rate (average number of days suspended), and dropout rate. Furthermore, the researcher provided operational definitions of the descriptive and demographic characteristic variables used to identify the students for the Matched Sample.

To minimize threats to the internal validity during the sampling process, the Matched Sample was randomly selected because the PACE Sample was a purposive sample and was not randomly selected (Fraenkel & Wallen, 2009). Moreover, stratified random sampling was used to select students for the Matched Sample who were descriptively and demographically similar to the students in the PACE Sample. When the descriptive and demographic characteristic variables of the PACE and Matched Samples were statistically compared, there were no significant differences on the descriptive characteristic variables of cumulative GPA, attendance rate, and OSS rate. The descriptive characteristic variable of current GPA of the Matched Sample was significantly higher, than the current GPA of the PACE Sample. When demographic characteristic variables of the PACE and Matched Samples were statistically compared there were no significant differences in grade level, ethnicity, residence, gender, IEP status, and FRL status. Consequently, there were no significant differences between the

descriptive and demographic variables of the Matched Sample and the PACE Sample, with the exception of current GPA.

Research Questions and Hypotheses Testing

The researcher designed two research questions around the PACE Program outcome objectives of GPA, attendance rate, OSS rate, and dropout rate. Results of the hypotheses that were proposed and tested did not reveal any significant statistical differences between the PACE and Matched Samples on the outcome variables of GPA (cumulative and current), attendance rate, and OSS rate; consequently, the three hypotheses were supported. When the PACE Sample was compared to the Matched Sample on the outcome variable of dropout rate, the PACE Sample had a lower dropout rate than the Matched Sample. Therefore, the data did not support the hypothesis for dropout.

Discussion of Results

Research question #1. Will students who attended the PACE Program for one semester during the 2008-2009 school year show a measureable increase in their GPA and attendance rate, and show a measureable decrease in their OSS rate at the end of the first semester back at their home schools when compared to a Matched Sample of students who attended a traditional high school setting during this same timeframe?

Cumulative GPA and current GPA. The results of the paired-samples *t* tests showed that when the subsequent semester GPAs (cumulative and current) of the PACE and Matched Samples were compared, the PACE Sample made a statistically significant improvement in current GPA. On the other hand, the Matched Sample did not have a

statistically significant change in current GPA. When the cumulative GPAs of the PACE and Matched Samples were compared, both samples made statistically significant improvements. Because the Matched Sample was already doing relatively well on the outcome measure of current GPA at the start of the study, ANCOVA, which corrects the pre-existing differences in GPA scores, was used to determine if the PACE Sample showed significantly more improvement in their GPAs than the improvement in the GPAs of the Matched Sample showed. Interestingly, the results of the ANCOVA revealed that there was not a significant difference between the PACE and Matched Samples on their subsequent GPA (cumulative and current). Although the students in the PACE Sample made observable progress in improving their grades, they did not make significantly more progress than the students did in the Matched Sample. Therefore, the null hypothesis for GPA was not rejected.

GPA included the outcome variables of current GPA and cumulative GPA. The researcher used cumulative GPA because it not only represents students' grades over their entire high school careers, but also it is likely to be the best indicator of overall student performance. Further, the researcher used current GPA because it represents current semester grades, and any changes from one semester to another are easily observable. The results showed that, although students who attended the PACE Program did not significantly improve their cumulative and current GPA when compared to the matched students, they did significantly improve their grades over time as evidenced by their prior and subsequent semester gains in both current and cumulative GPAs.

It is common practice for traditional schools to use academic performance, such as GPA, as a quantitative measure of effectiveness; however, a review of research literature revealed that this is not common practice in alternative schools and programs (Ruzzi & Kraemer, 2006; Somers et al., 2004). For the most part, educators and researchers have determined the effectiveness of current practices and methodologies of alternative schools and programs only by measures of attitudes and perceptions of students and teachers, as evidenced in the majority of the published research.

A review of literature confirmed that the PACE Program has incorporated some of the components and best practices indicated in the research to be essential to effective alternative programs. For example, students tended to perform better academically in small classrooms that allow for individualized instruction, consistencies in rules, and more personal teacher interactions with students (Aron & Zweig, 2003; Deblois & Place, 2007; Lehr & Lange, 2003; Quinn & Poirier, 2006; M. Storm & R. Storm, 2004). One important component of the PACE Program was the levels system, which was designed to help students learn how to self-manage their behaviors. According to Tobin and Sprague (2000), programs that allowed students to learn self-management skills, resulted in improved academic performance.

The result of this GPA null hypothesis test affirms the small quantity of research that used academic outcome data to measure the effectiveness of alternative schools and programs. The results in these studies indicated that students who attend alternative schools and programs showed improved academic performance (Clemont et al., 2009; Cox et al., 1995). On the other hand, the results of the hypothesis did not confirm

research that indicated students who attend alternative schools and programs often do better academically than similar students who attend traditional schools (M. Storm & R. Storm, 2004). Most importantly though, the results of this hypothesis test do not confirm the results of several research studies that found that even though students made positive academic changes while they attended short-term alternative programs, the students were not able unable to sustain their positive gains after they returned to a traditional setting (Carruthers & Baenen, 1997; Cox, 1999; Gold & Mann, 1984).

Attendance rate. When the average number of class periods missed by the PACE students was compared over time (prior and subsequent semesters), the number of missed classes decreased in the Semester I PACE Cohort, Semester II PACE Cohort, and in the full PACE Sample. However, based on paired-samples *t* tests, these small improvements in attendance were not statistically significant. While the attendance of PACE students showed a small amount of improvement, the Matched students in the Semester I Matched Cohort showed an observable increase in the average number of class period absences. There were no significant changes in class period absences among the Matched students in the Semester II cohort or in the combined semester cohorts (Matched Sample). Although the PACE Sample showed a slight decrease in absences while the Matched Sample showed a slight increase in absences, the difference is not statistically significant and, therefore, the null hypothesis is not rejected.

The result of the null hypothesis testing offers little evidence of PACE Program effectiveness for this one measured student outcome. The number of PACE absences

was not high at the start of the study, and their attendance improved at the end of the subsequent semester an average of only five class periods.

In addition, although one outcome objective of the PACE Program was to increase attendance rates, because the researcher chose to define attendance rate through use of both excused and unexcused class period absences, there was a missed opportunity to see if there was a decrease in unexcused or a decrease in excused absences. Eaton et al. (2008) reported that students with unexcused absences were twice more likely to participate in risk behaviors than were students with excused absences. Therefore, had the researcher defined the attendance outcome variable differently, it might have shed light on the test results of the GPA, OSS rate, and dropout rate.

Analyzing group averages to determine changes in attendance rates was noted in the limitations section of Chapter 1 because one student out of each semester cohort or sample could be responsible for the total amount of days absent. However, the researcher minimized this effect by using a stratified sampling process to identify students for the Matched Sample who had similar attendance rates. Nevertheless, it surprised the researcher to learn that the number of average class period absences of both PACE and Matched students were relatively low at the start of the study. The literature on at-risk students revealed that within the past decade absenteeism has become an increasingly important issue at local, state, and national levels (Heilbrunn, 2007; Henry & Huizinga, 2007; McCray, 2006). Further, the literature also reported that the number of truancy reduction programs across the nation is continually growing (Heilbrunn, 2007; McCray, 2006). Therefore, it appears that the students who attended the PACE Program during

the 2008-2009 school year and the students who were included in the Matched Sample were not typical of the at-risk students identified in the research literature. Obviously, attendance data needs to be collected on the students before they attend the program to determine if increased attendance rates should remain as an outcome indicator of program effectiveness or changed to an outcome indicator for individual students only.

OSS rate. While the difference in the prior semester and the subsequent semester PACE students' suspension rates was not statistically significant, there was a decrease in the average number of days students in the Semester I and the Semester II PACE Cohorts and in the average number of days the PACE Sample were suspended. The Matched students, on the other hand, showed an increase in the average number of days suspended in the Semester I and the Semester II Matched Cohorts and in the Matched Sample. Once again, the difference between PACE and Matched students' progress in reducing suspensions did not quite reach levels of statistical significance and the null hypothesis was not rejected. Therefore, the result of the hypothesis testing offers little evidence of PACE Program effectiveness for the measured student outcome of reducing the OSS rate.

Although many educators regard OSS as an effective disciplinary strategy (Christle et al., 2004), research revealed that it could negatively affect academic performance and relationships with teachers and school staff (Sprague & Walker, 2000). Suh et al. (2007) identified school suspension as one of the three best predictors of school failure. Studies show that exclusion from school can result in unintended negative consequences for the suspended student. One of these consequences is dropping out (Dupper, Theriot, & Craun, 2009). Interestingly, the Semester I Matched Cohort had a

significant increase in average number of OSS days (23.33) and a significant increase in dropout rate (22.2%). Although it is impossible to conclude that the increase in OSS resulted in the increase in dropout rate of this cohort of students, if the researcher would have approached the data differently, such as determining types of infractions, determining numbers of infractions, and determining number of days given for each infraction, possible relationships among the outcomes of GPA, attendance, and dropping out might have appeared. Further, analyzing group averages to determine changes in OSS rates was noted in the limitations section of Chapter 1 because one student out of each semester cohort or sample could be responsible for the total amount of OSS days. This limitation might have been eliminated had the researcher chosen a different approach to collecting and analyzing the data. The limitation was minimized, however, by using a stratified sampling process to identify students for the Matched Sample who had similar OSS rates.

Research question #2. Will students who attended the PACE Program for one semester during the 2008-2009 school year show a measureable difference in dropout rate at the start of the 2010-2011 school year when compared to a Matched Sample of students who attended a traditional high school setting during this same timeframe?

Dropout rate. The researcher conducted Chi-square analyses for difference in variance on the dropout data. The results showed that students who had attended the PACE Program were more inclined to stay in school than the matched students were, and the null hypothesis was rejected. Specifically, data analysis was conducted on the dropout data to determine whether the dropout rate had changed over time (entire

timeframe of study). The results showed that more students in the Matched Sample than in the PACE Sample dropped out. These results indicate a positive connection between the PACE Program and staying in school. Additional data analysis was conducted to compare the dropout rates of the PACE Sample to the Matched Sample and the results revealed that more students dropped out of the Semester I Matched Cohort and the Matched Sample compared to the number of students in the Semester I PACE Cohort and PACE Sample. The results of this data analysis provided additional evidence of PACE Program effectiveness for the measured student outcome of a decrease in or elimination of dropout rate.

Because students in the Semester I PACE Cohort had the opportunity to complete three semesters at their traditional home schools after they attended the PACE Program while students in the Semester II PACE Cohort had the opportunity to complete only two semesters, the dropout data collection timeframe was acknowledged as a limitation in Chapter 1. However, the fact that more students in the Semester I Matched Cohort dropped out than students in the Semester I PACE Cohort could be interpreted as evidence that the skills and behaviors honed during their PACE Program experience were successfully transferred and sustained.

In addition, a review of literature pointed out that term definitions and methods for measuring and reporting dropout rates can vary from state to states (Prevatt & Kelly, 2003). These differences have resulted in reporting inconsistencies and confusing interpretations; these differences have also contributed to the lack of quantitative dropout program evaluation research (Mulroy, 2008; Princiotta & Reyna, 2009). Therefore,

although there appeared to be a connection between attending the PACE Program and staying in school, the reader should use caution when comparing these results to the results of other studies that analyzed dropout data.

According to the literature, certain risk factors appear to have considerable impact on whether a student will decide to drop out of school (Honigsfeld & Dunn, 2009; S. Suh & J. Suh, 2007). A particularly noteworthy study in S. Suh and J. Suh (2007) determined that the three risk factor categories of low GPA, low SES, and behavioral problems have the greatest impact on a student's decision to drop out. Based on a review of dropout research literature, it was not surprising that the students who dropped out of school in this study tended to share some common characteristics. For example, students in the S. Suh and J. Suh (2007) study were mostly from families with economic disadvantages (71%) and did not have an IEP (71%). In addition, the majority of the students that dropped out were Black (57%), nonresidents (57%), and male (57%).

Implications and Recommendations for Practitioners

Alternative schools and programs vary widely in purpose and structure due in part to differences in their target populations and in part to differences in the intended outcomes for the students (Lange & Sletten, 2002). Research also suggested that, although some researchers have conducted effectiveness studies, it is difficult to generalize the results of these studies across settings because alternative schools and programs tend to serve homogeneous populations in a wide variety of settings (Gable et al., 2006; Lange & Sletten, 2002). In addition, there appeared to be several obstacles to conducting alternative school and program effectiveness research.

Continuous assessment and evaluation is vital to the success of alternative schools and programs (J. Dugger & C. Dugger, 1998; Gregg, 1999; Lange & Sletten, 2002). The researcher believes, however, that it requires the systematic collection of both qualitative and quantitative outcome data because this type of data provides the evidence needed to support school or program claims (whether it be reducing dropout, increasing achievement, increasing attendance, enhancing self-esteem, or some combination of these claims). The literature, however, reported that many alternative schools and programs do not keep accurate attendance, grades, discipline referrals, and dropout records (Gilson, 2006; Lange & Sletten, 2002; Prevatt & Kelly, 2003). Furthermore, some programs that educational authorities considered successful do not have any type of viable outcome data to support their claims. Other programs that are considered successful by educational authorities have viable outcomes data, but cannot provide definitive evidence as to which program component or best practice contributed to their effectiveness (Clark, 1991).

Although the PACE Program has kept accurate attendance and grade records, there has never been any quantitative program outcome data collected and analyzed. Therefore, the program has no reliable evidence to support effectiveness. However, the district program evaluator is currently collecting quantitative and qualitative evidence because the school district has scheduled a summative program evaluation in 2011. In terms of formative evaluation, the district program evaluator administered one attitude and perception survey to students who attended the program during the first semester of the 2009-2010 school year, but the researcher could find no evidence that the results were documented or used in any meaningful way.

Program implementation was not a specific focus of the study, although based on the personal observations of the researcher, the PACE Program has incorporated the majority of the components and best practices of what the research revealed are essential to effective alternative programs. These included a warm, caring, friendly and personalized (Lehr & Lange, 2003; Loflin, 2002) student centered environment (Aron & Zweig, 2003; Lange & Sletten, 2002; Raywid, 1994) with small classrooms that allow for individualized instruction, consistencies in rules, and highly personal teacher interactions with students (Aron & Zweig, 2003; Deblois & Place, 2007; Kaillio & Sanders, 1999; Quinn & Poirier, 2006). In addition, the teachers in the PACE Program used a level system to help students identify and change their behaviors. Research indicated that classrooms that maintained strict structure with clear rules and expectations, and teachers who have a behavior management plan that allowed students to learn self-management skills, resulted in improved academic performance (Tobin & Sprague, 2000). In addition, the literature review revealed that high academic and behavior expectations, as well as relevant and rigorous curriculum (Aron & Zweig, 2003; Barr & Parrett, 2001; Fitzsimons Hughes et al., 2006; Leone & Drakeford, 1999; Quinn & Rutherford, 1998; Tobin & Sprague, 2000) were essential elements of effective schools. Students in the PACE Program receive all of these.

A review of the research literature provided abundant evidence that assessing students for risk factors is a crucial component of alternative schools and programs. Personal, family, and other school-related risk factors appear to predict or occur concurrently with the school-related risk factors of academic failure and dropout (Aron,

2006; Gleason & Dynarski, 2002; Hammond et al., 2007; Honigsfeld & Dunn, 2009; Pallas, 1989; Slavin & Madden, 1989; Somers et al., 2004; Suh et al., 2007). The PACE Program, however, did not have a documented method for assessing or evaluating students for risk factors other than the traditional methods schools currently use to assess school-related risk factors. Further, several research studies suggested that schools and programs that enroll at-risk students who display certain risk factors such as aggression or drug use should keep them separate from at-risk students that they enroll who are only behind academically. It was unfortunate for the students in the PACE Program that there was not enough facility space to keep the behaviorally at-risk students separated from the academically at-risk students.

To address these issues, school districts should answer the following questions before they enroll students who exhibit high-risk behaviors into their alternative schools and programs: How do the characteristics of students relate to the program? What effect do these characteristics have on the examination of an effective program? For example, what does success look like for students with high-risk behaviors? Finally, what data should be collected to facilitate how that success translates to the traditional methods of reporting meaningful outcome expectations?

Recommendations for Future Research

Recommendations for future research emerged from the current study and are identified in this section. They are as follows: using different types of data, outcome measures, and study designs, extending the study timeframe, examining different types of extrinsic rewards, and examining how voluntary versus involuntary attendance affects

student outcomes.

While the findings reported in the GPA portion of this study provide a small amount of encouraging evidence that the PACE Program is effective, there were limits in this study's methodology associated with the small quantity of academic achievement data sets available for analysis. Therefore, one recommendation for future research is to include different types of achievement data such as standardized test results, course grades (first and second semester grades of year-long courses if students start or complete the course in the PACE Program), and subject area common assessments (same as those that are used in the traditional schools).

In addition, collecting and analyzing student attitudinal and perceptional data would be one way to expand the current research. Combining this type of data with quantitative data would only serve to complement this study because it would provide the researcher, the school district, and the PACE Program with additional information and insight that might help explain the test results. Attitudinal and perceptional data could also be collected from PACE Program teachers, administrators, counselor, and parents; the same type of data could also be collected from the teachers, administrators, counselors, and parents in traditional schools. Beyond the school-related outcome measures that were used in this study, other types of outcome measures such as those that measure social, emotional, and behavioral functioning could be included to add more depth. Collecting and analyzing this additional type of data would yield greater insight into the effectiveness of the program. The PACE Program is also an ideal site to conduct a case study or to conduct action research.

Because the timeframe during which the study was conducted is not viewed as a serious limitation, extending the timeframe for data collection could provide additional data that would allow the researcher the ability to make stronger inferences about program effectiveness. Conducting a correlation or a causal comparative study might yield important insights and conclusions about a possible relationship between attendance in the program and student outcomes.

According to the program director and the teachers of the PACE Program, the level system is an integral component because it helps them monitor behaviors while it helps students change behaviors. However, according to Deci et al. (2001), extrinsically rewarding students does not always result in intrinsically motivated students. Conversely, other literature reported that, if used appropriately, it does (Witzel & Mercer, 2003). Although controversial and possibly questionable in a school setting, conducting experimental research using a control group might allow a researcher to determine what types of extrinsic rewards produce the highest degree or percentage of behavior change.

The PACE Program was designed for, and currently serves, three distinct groups of at-risk high school students: students who have volunteered and are invited into the program; students who are serving long-term, out-of-school suspensions; and students who are placed into the program by the school district superintendent because of their extensive behavior histories (M. Barolak, personal communication, March 2, 2009). Because this program serves three distinct groups of students, future research may include a longitudinal analysis of data from students in each of these groups to see if students who have chosen to be in the program are ultimately more successful than are

students who are placed into the program.

It is important to note, however, that no matter what type of study is conducted, because the PACE Program is a small setting whose population is largely homogeneous, it will be hard to generalize the results to a different setting and to a larger population. This is, and always will be, a problem that is inherent to any research conducted on alternative schools and programs (Lange & Sletten, 2002).

Conclusion

Public alternative high schools and programs across the county vary widely in both their design and purpose. Because of these variations, it has been a challenge for scholars, practitioners, and researchers to define, explore, and analyze their effectiveness (Henrich, 2005; Lange & Sletten, 2002; Rix & Twining, 2007; Tobin & Sprague, 2000). This is unfortunate because it is the researcher's opinion that this variability is the result of school districts attempting to meet the wide variety of students' needs. However, the noticeable lack of current quantitative student outcome research creates serious limitations for public school districts. As districts seek to develop effective alternative schools and programs that meet the diverse needs of at-risk students, they are unable to include research based best practices and components to implement the new accountability standards of NCLB (Aron & Zweig, 2003; Cable et al., 2009; Gilson, 2006; Lehr et al., 2009; Quinn & Poirier, 2006).

The researcher designed the current study to address and to help fill the noticeable gap in a limited body of current evaluation research. Therefore, to measure the effectiveness of a short-term in-district public high school alternative program, the

current study used the quantitatively measureable school-related outcomes of GPA (cumulative and current), attendance rate, OSS rate, and dropout rate to evaluate the PACE Program using an objectives-oriented approach to formative program evaluation.

The results of this study did not show any significant differences between the PACE and Matched Samples on the outcome variables of GPA (cumulative and current), attendance rate and OSS rate. However, compared to the Matched students, PACE students were significantly less likely to drop out of school. It is important to note, however, that when the GPAs of the PACE Sample were compared to the Matched Sample, although the difference did not prove to be statistically significant, the students who attended the PACE Program showed observable improvement in their GPAs after they returned to their home school. These results did not support the conclusions drawn from earlier referenced research of Carruthers and Baenen (1997), Cox (1999), and Gold and Mann (1984).

The statistical tests that were conducted in this study on the outcome variables of GPA (cumulative and current), attendance rate, and OSS rate did not prove to be significant at the .05 expectancy level and, therefore, these results could be interpreted as a lack of the effectiveness of the PACE Program. On the other hand, because dropout was considered in the literature to be the ultimate response to school disengagement (Hammond et al., 2007; Tyler & Lofstrom, 2009), the statistically significant difference between the dropout rate of the PACE Sample and the Matched Sample could be interpreted as evidence of the PACE Program's effectiveness.

After reviewing the research literature and conducting this study, the researcher concludes that it is imperative for school districts to evaluate their alternative schools and programs on a regular and ongoing basis. In addition, the researcher also believes that alternative education practitioners should routinely collect, analyze, and quantify student outcome data to reveal evidence of school and program effectiveness. They should also collect qualitative data to help interpret and explain the quantitative analysis results. Further, it is important for short-term programs that are attempting to reengage students disenfranchised from traditional settings to use traditional outcomes as measures of effectiveness. However, the use of additional effectiveness indicators is also important for the students who will eventually return to a traditional setting. Due to the wide varieties of risk factors that at-risk students exhibit, it is equally important to find alternative ways to evaluate the effectiveness of alternative schools and programs that serve students who will never return to a traditional school setting. These types of evaluations are vital in order to garner both educational and political audience's support for alternative schools and programs.

In sum, the researcher believes that this study is significant to a broad community of alternative education practitioners and researchers because it helps fill a gap in the limited research literature by using quantifiable student outcomes as measures of student success in a short-term alternative program designed to help students at-risk of academic failure or dropping out. Within a more specific context, although a summative evaluation of the PACE Program was not the specific focus of this study, because the researcher chose to conduct an outcomes-based formative evaluation, the results can be used as one

measure of the program's effectiveness. Therefore, the results of this study are significant to the school district, because officials can include them as evidence in their summative evaluation of the program. The researcher also believes that the results of this study are significant to the four traditional district high schools because, to date, no one has collected and analyzed any PACE Program student outcome data to see if the program is making a difference in the success of students after they return to those schools. Finally, the researcher believes that the results of this study are especially significant to the PACE Program, because the researcher knows firsthand that both administrator and faculty spend enormous amounts of time and emotional energy to meet all their students' needs.

Chapter 2 of this study began with a stanza from the Emma Lazarus poem which is engraved on the Statue of Liberty: "Give me your tired, your poor, your huddled masses, yearning to breathe free. The wretched refuse of your teeming shore, send these, the homeless, tempest-tossed to me: I lift my lamp beside the golden door" (Mottaz, 2002, p. 9). Although Lazarus wrote this poem in 1883 as a promise of a better life for immigrants to the United States, her words are also applicable today to the need for a commitment to alternative options for at-risk students. Despite the fact that the results of this study suggested that not all objectives of the program were met, the researcher believes that the program director and teachers are truly dedicated to meeting the needs of their at-risk students. Each day, they "lift their lamps" (Mottaz, 2002, p. 9) for the tired, poor and homeless students who walk through the "golden door" (Mottaz, 2002, p. 9) of the PACE Program.

References

Ahearn, E. (2004). *Alternative schools and students with disabilities: Current status and emerging issues*. Project Forum. U.S. Department of Education. National Association of State Directors of Special Education. Retrieved from http://nasdse.org/forum.htm

Aron, L. Y. (2003). *Towards a typology of alternative education programs: A compilation of elements from the literature.* Washington DC: The Urban Institute Retrieved from http://www.urban.org/url.cfm?ID=410829

Aron, L. Y. (2006). *An overview of alternative education.* Washington DC: U.S. Department of Labor, National Center on Education and the Economy. Retrieved from the Urban Institute website: http://www.urban.org/url.cfm?ID=411283

Aron, L. Y., & Zwieg, J. M. (2003). *Educational alternatives for vulnerable youth: Student needs, program types, and research directions*. Washington DC: The Urban Institute. Retrieved from http://www.urban.org/url.cfm?ID=410898

Arroyo, A. A., Rhoad, R., & Drew, P. (1999). Meeting diverse student needs in urban schools: Research-based recommendations for school personnel. *Preventing School Failure, 43*(4), 145-153.

Ashford, R. W. (2000). Can zero tolerance keep our schools safe? *Principal, 80*(2), 28-30.

Aud, S., Hussar, W., Planty, M., Snyder, T., Bianco, K., Fox, M., …Drake, L. (2010). *The Condition of Education 2010* (NCES 2010-028).Washington, DC: U.S. Department of Education. Retrieved from National Center for Education Statistics website: http://nces.ed.gov

Barr, R. & Parrett, W. (1997). *How to create alternative, magnet and charter schools that work.* Bloomington, Indiana: National Educational Service. Retrieved May 9, 2009 from http://learningalternatives.net/

Barr, R. D. & Parrett, W.H. (2001). *Hope fulfilled for at-risk and violent youth: K-12 programs that work* (2nd ed.). Needham Heights, MA: Allyn and Bacon.

Barton, P. E. (2006). The dropout problem: Losing ground. *Educational Leadership, 63*(5), 14-18.

Beken, J. A., Williams, J., Combs, J. P., & Slate, J. R. (2009). At-risk students at traditional and academic alternative school settings: Differences in math and English performance indicators. *Florida Journal of Educational Administration & Policy, 3*(1), 49-61. Retrieved from University of Florida's College of Education, Educational Administration and Policy website: http://www.jfeap.org

Benigni, M. D., & Moylan, J. (2008). No safety net required: How one high school meets the needs of the disenfranchised student. *The American School Board Journal*. Retrieved April, 5, 2009 from http://www.NSBA

Brandt, R. (1993). Overview: Yes, children are still at risk. *Educational Leadership, 50*(4), 3-3. Retrieved from http://www.ascd.org/publications/educational-leadership/dec92/vol50/num04/Yes,-Children-Are-Still-At-Risk.aspx

Brown, J. H., & Brown, D. (2005). Why 'at risk' is at risk. *American School Board Journal, (ASBJ),192*(11), 44-46. Retrieved from http://www.NSBA

Butler, C., Reed, D., & Robles-Pina, R. (2005). High school students' perceptions regarding truancy and related delinquent behaviors: Impact on students with special disabilities. *Journal of At-Risk Issues, 11*(2), 33-38.

Byrnes, J. (2004). *At-Risk Students*. The Gale Group. Retrieved September 3, 2009, from http://www.education.com/reference/article/at-risk-students/

Cable, K. E., Plucker, J. A., & Spradlin, T. E. (2009). Alternative schools: What's in a name? *Education Policy Brief, 7*(4), 1-12. Retrieved from Indiana University, Center for Evaluation & Education Policy website: http://www.ceep.indiana.edu

Cancio, E., & Johnson, J. W. (2007). Level systems revisited: An impact tool for educating students with emotional and behavioral disorders. *International Journal of Behavioral Consultation and Therapy*, *3*(4), 512–527.

Capuzzi, D., & Gross, D. R. (Eds.). (2004). *Youth at risk: A prevention resource for counselors, teachers, and parents* (4th ed.). Alexandria, VA: American Counseling Association.

Carnine, L., & Barnett, J. H. (2004). *Alternative education: A continued examination of how states are addressing alternative education in their schools*. Arkansas Education Report Vol,1, Issue 1, University of Arkansas, Office for Education Policy. Retrieved from http://www.uark.edu/ua/oep/AER/1_1_Alternative.pdf

Carruthers, W., & Baenen, N. (1997). *Did the alternative educational program for students with long-term suspensions make a difference?* Eye on evaluation.

Evaluation and Research Report No. 98. Raleigh, NC: Wake County Public School System. Department of Evaluation and Research.

Carver, P. R., & Lewis, L. (2010). *Alternative schools and programs for public school students at risk of educational failure: 2007–08* (NCES 2010–026).

. Washington, DC: U.S. Department of Education. Retrieved from National Center for Education Statistics website: http// nces.ed.gov/pubsearch/pubsinfo. asp?pubid=2000062

Cataldi, E. F., Laird, J., & KewalRamani, A. (2009). *High school dropout and completion rates in the United States: 2007* (NCES 2009-064). Washington, DC: U.S. Department of Education. National Center for Education Statistics, Institute of Education Sciences. Retrieved from http://nces.ed.gov/pubsearch/pubsinfo. asp?pubid=2009064

Chalker, C. S. (1996). *Effective alternative education programs: best practices from planning through evaluating.* Lancaster, Pennsylvania, United States: Technomic Publishing Company Inc.

Christie, K. (2006). Counting the truants. *Phi Delta Kappan*, 87(7), 485-486.

Christle, C., Nelson, C. M., & Jolivette, K. (2004). School characteristics related to the use of suspension. *Education and Treatment of Children, 27*(4), 509-526. Retrieved from Wilson Web. WN: 0431503477013.

Clark, T. A. (1991). Evaluation: The key to reflective management of school reform for at-risk students. *Urban Education, 26*(1), 105-117.

Clemont, K., Chamberlin, M., & Foxx, S. (2009). *2007-2008 Survey of students in alternative education programs*. Indiana Department of Education, Indiana University, Center for Evaluation and Education Policy. Retrieved from Indiana Department of Education website: http://www.doe.in.gov/alted/

Coates, D., & Tyson, N. (2009). *"Five-Year Enrollment Projections* [Memorandum]. November, pp. 1-12.

Cole, C. (2006). *Closing the achievement gap series: Part III. What is the impact of NCLB on the inclusion of students with disabilities?* (Education Policy Brief. Vol. 4 No. 11). Retrieved from Indiana University, Center for Evaluation & Education Policy website: http://ceep.indiana.edu

Conner, E., & McKee, J. (2008). Dropout challenges: Pathways to success. *Principal Leadership, 9*(3), 38-43. Retrieved from http://naesp.org/

Cox, S. M. (1999). An assessment of an alternative education program for at-risk delinquent youth. *Journal of Research in Crime & Delinquency, 36*(3), 323-336.

Cox, S. M., Davidson, W. S., & Bynum, T. S. (1995). A meta-analytic assessment of delinquency-related outcomes of alternative education programs. *Crime & Delinquency, 41*(2), 219-234.

Creswell, J. W. (2003). *Research Design: Qualitative, quantitative, and mixed approaches* (2nd ed.). Thousand Oaks, CA: Sage.

Croninger, R. G., & Lee, V. E. (2001). Social capital and dropping out of high school: Benefits to at-risk students of teachers' support and guidance. *Teachers College Record, 103*(4), 548–581.

Cruz, L., & Cullinan, D. (2001). Awarding points: Using levels to help children improve behavior. *Teaching Exceptional Children, 33*(3), 16-23.

Davis, W. E., Brutsaert-Durant, L., & Lee, R. M. (2001). *Current status of alternative education programs in Maine: Impact upon policies and practices for students with disabilities and students considered to be "at-risk"*. Orono, ME: The University of Main, College of Education and Human Development Institute for the Study of Students At Risk. Retrieved from http://www.umaine.edu/issar/

Day, S. L. (2002). Real kids. Real risks: Effective instruction of students at risk of failure. *NASSP Bulletin*, *86*(632), 19-32.

de Anda, D. (2007). Intervention research and program evaluation in the school setting: Issues and alternative research designs. *Children & Schools, 29*(2), 87-94.

Deblois, R., & Place, P. (2007). Alternatives for struggling learners. *Principal Leadership, 7*(8), 38-42.

Deci, E. L., Koestner, R., & Ryan, R. M. (2001). Extrinsic rewards and intrinsic motivation in education: Reconsidered once again. *Review of Educational Research, 7*(1), 1-27.

Dugger, J., & Dugger, C. (1998). An evaluation of a successful alternative high school. *High School Journal, 81*(4), 218-228.

Dupper, D. R., Theriot, M. T., & Craun, S. W. (2009). Reducing out-of-school suspensions: Practice guidelines for school social workers. *Children & Schools*, *31*(1), 6-14.

Eaton, D. K., Brener, N., & Kann, L. K. (2008). Associations of health risk behaviors with school absenteeism. Does having permission for the absence make a difference? *Journal of School Health, 78*(4), 223-229. Retrieved from http://ASHA.org

Farrell, D. T., Smith, S. W., & Brownell, M. T. (1998). Teacher perceptions of level system effectiveness on the behavior of students with emotional or behavioral disorders. *Journal of Special Education, 32*(2), 89-98.

Finlay, K. A. (2005). *Gender differences among truant youth*. National Center for School Engagement. Colorado Foundation for Families and Children. Denver, CO. Retrieved from http://www.schoolengagement.org

Finlay, K. A. (2006). *Quantifying school engagement: Research report*. National Center for School Engagement. Colorado Foundation for Families and Children. Denver, CO. Retrieved from http://www.schoolengagement.org

Fitzsimmons Hughes, A., Baker, P., Criste, A., Huffty, J., Link, M., Piripavel, C.… Xander, S. (2006). L. M. Bullock , R. A. Gable, & K. J. Melloy (Eds.). *Effective practices of meeting the needs of students with emotional and behavioral disorders in alternative settings*. Arlington VA: The Council for Exceptional Children. Retrieved from http://www.cec.sped.org

Fizzell, R., & Raywid, M. A. (1997). If alternative schools are the answer…What's the question? *Reaching Today's Youth, 1*(2), 7-9.

Foley, R. M., & Pang, L. S. (2006). Alternative education programs: Program and student characteristics. *High School Journal, 89*(3), 10-21.

Formative Evaluation (n.d). Retrived December 10, 2010, from http://www.education.com/definition/formative-evaluation

Fraenkel, J. R., & Wallen, N. E. (2009). *How to design and evaluate research in education.* New York, New York, United States: McGraw-Hill.

Gable, R., Bullock, L., & Evans, W. (2006). Changing perspectives on alternative schooling for children and adolescents with challenging behavior. *Preventing School Failure, 51*(1), 5-9. doi:10.3200/PSFL.51.1.5-0

Gilson, T. (2006). Alternative high schools*:* What types of programs lead to the greatest level of effectiveness? *Journal of Educational Research & Policy Studies*, *6*(1), 48-66.

Gleason, P., & Dynarski, M. (2002). Do we know whom to serve? Issues in using risk factors to identify dropouts. *Journal of Education for Students Placed at Risk*, *7*(1), 25–41.

Gold, M., & Mann, D. W. (1984). *Expelled to a friendlier place: A study of effective of alternative schools*. Ann Arbor: The University of Michigan Press.

Gregg, S. (1999). Creating effective alternatives for disruptive students. *Clearing House*, *73*(2), 107-113.

Hallfors, D., Cho, H., Brodish, P. H., Flewelling, R., & Khatapoush, S. (2006). Identifying high school students "at risk" for substance use and other behavioral problems**:** Implications for prevention. *Substance Use & Misuse, 41*,1-15. doi:10.1080/10826080500318509

Hallfors, D., Vevea, J. L., Iritani, B., Cho, H., Khatapoush, S., & Saxe, L. (2002). Truancy, grade point and sexual activity: A meta-analysis of risk indicators for youth substance use. *Journal of School Health, 72*(5), 205-211.

Hammond, C., Linton, D., Smink, J., & Drew, D. (2007). *Dropout risk factors and exemplary programs* [Technical report]. Clemson, S.C: National Dropout Prevention Center/Network and Communities in Schools, Inc. Retrieved from http://www.dropoutprevention.org

Hampden-Thompson, G., Warkentien, S., & Daniel, B. (2009). *Course credit accrual and dropping out of high school, by student characteristics*. (NCES 2009-035). Washington, DC: U.S. Department of Education, National Center for Education Statistics, Institute of Education Sciences. Retrieved from http://nces.ed.gov/

Heilbrunn, J. Z. (2005). *The legal and economic implications of truancy: Executive summary.* Denver, CO: The National Center for School Engagement. Retrieved from http://www.schoolengagement.org

Heilbrunn, J. Z. (2007). *Pieces of the truancy jigsaw: A literature review*. Denver, CO: National Center for School Engagement. Retrieved from http://www.school engagement.org

Henrich, R. (2005). Expansion of an alternative school typology. *Journal of At Risk Issues, 11*(1), 25-37.

Henry, K. L., (2007). Who's skipping school: Characteristics of truants in 8th and 10th grade. *Journal of School Health, 77*(1), 29-35.

Henry, K. L., & Huizinga, D. H. (2005). *The effect of truancy on the onset of drug use and delinquency*. Paper presented on Nov. 16 at the 57th Annual Meeting of the American Society of Criminology, Toronto, Ontario.

Henry, K. L., & Huizinga, D. H. (2007). Truancy's effect on the onset of drug use among urban adolescents placed at risk [Abstract]. *Journal of Adolescent Health, 40*(4), 358. Retrieved from http://www.jahonline.org/article/S1054

Henry, K. L., & Thornberry, T. P. (2010). Truancy and escalation of substance use during adolescence. *Journal of Studies on Alcohol and Drugs, 71,* 115-124.

Heward, W. L. (2003). *Exceptional children: An introduction to special education*. Upper Saddle River, NJ: Pearson Education, Inc.

Honigsfeld, A., & Dunn, R. (2009). Learning-style responsive approaches for teaching typically performing and at-risk adolescents. *The Clearing House, 82*(5), 220-224.

Hurst, D., Kelly, D., & Princiotta, D. (2004). *Educational attainment of school dropouts 8 years later* (NCES 2005–026). Washington, DC: U.S. Department of Education, National Center for Education Statistics. Retrieved from http://nces.ed.gov

Janosz, M., Archambault, I., Morizot, J., & Pagani L. (2008). School engagement Trajectories and their differential predictive relations to dropout. *Journal of Social Issues, 64*(1), 21–40.

Jerald, C. D. (2006). *Identifying potential dropouts: Key lessons for building an early warning data system*. Achieve and Jobs for the Future. Retrieved from http://www.achieve.org/files/FINAL-dropouts_0.pdf

Jimerson, S. R., Pletcher, S. M., Graydon, K., Schnurr, B. L., Nickerson, A. B., & Kundert, D. K. (2006). Beyond grade retention and social promotion: Promoting the social and academic competence of students. *Psychology in the Schools, 43*(1), 85-97. doi:10.1002/pits

Johnson, A. F., & Perkins, G. W. (2009). What we know about at-risk students: Important considerations for principal and counselor leadership. *NASSP Bulletin, 93*(2), 122-134. doi:10.1177/0192636509340692

Johnston, C., Cooch, G., & Pollard, C. (2004). A rural alternative school and its effectiveness for preventing dropouts. *The Rural Educator*, *25*(3), 25-29.

Johnston, B., & Wetherill, K. (1998). HSJ special issue introduction alternative schooling. *High School Journal, 81*(4), 177.

Kaillio, B., & Padula, D. (2001). Alternative school curriculum. *Catalyst for Change, 30*(3), 19, 28-29.

Kaillio, B. R. & Sanders, E. T. (1999). An alternative school collaboration model. *American Secondary Education, 28*(2), 27-36.

Kellmayer, J. (1998). Building educational alternatives for at-risk youth: A primer. *High School Magazine*, *6*(2), 26-31.

Kim, J.-H. (2006). For whom the bell tolls: Conflicting voices inside an alternative high school. *International Journal of Education and the Arts, 7*(6). Retrieved from http://ijea.asu.edu

Kim, J.-H., & Taylor, K. A. (2008). Rethinking alternative education to break the cycle of educational inequality and inequity. *The Journal of Educational Research, 101*(4), 207-219.

Kleiner, B., Porch, R., & Farris, E. (2002). *Public alternative schools and programs for students at risk of eduction failure: 2000-01* (NCES 2002-04). Washington, DC: U.S Department of Education. Retrieved from National Center for Education Statistics website: http//nces.ed.gov/pubSearch/pubsinfo.asp?pubid=2002004

Kochhar-Bryant, C. A., & Lacey, R. (2005). *Alternative education as a quality choice for youth: Preparing educators for effective programs*. Persistently Safe Schools 2005: The National Conference of the Hamilton Fish Institute On School And Community Violence. Retrieved from the George Washington University website: http://gwired.gwu.edu/

Kraemer, J., & Ruzzi, B. B. (2001). Alternative education cannot be left behind. *Education Week, 21*(6), p. 43, 56. Retrieved from http://www.edweek.org/ew/articles/2001/10/10/06kraemer.h21.html

Krezmien, M. P., Leone, P. E., & Achilles, G. M. (2006). Suspension, race, and disability: Analysis of statewide practices and reporting. *Journal of Emotional and Behavioral Disorders, 14*(4), 217-226.

Lacey, R., & Sobers, M. (2005). The need for motivated and highly qualified teachers in alternative education. *International Journal on School Disaffection*, *3*(2), 33-38.

Lamdin, D. J. (1996). Evidence of student attendance as an independent variable in education production functions. *Journal of Educational-Research, 89*(3), 155-62.

Lange, C. M., & Lehr, C. A. (1999). At-risk students attending second change programs: Measuring performance in desired outcome domains. *Journal of Education for Students Place at Risk*, *4*(2), 173-192.

Lange, C. M., & Sletten, S. J. (2002). *Alternative education: A brief history and research synthesis.* Alexandria, VA: National Association of State Directors of Special Education. Retrieved from the ERIC database. (ED 462 809)

Lawson, H. A. (2009). A research and development framework for the school drop-out problem. *Advances in school mental health promotion, 2*(1), 56-67. Retrieved from http://www.schoolmentalhealth.co.uk/

Lehr, C. A., & Lange, C. M. (2000). Students at risk attending high schools and alternative schools: Goals, barriers, and accommodations. *Journal of At-Risk Issues*, *6*(2), 11-21.

Lehr, C. A., & Lange, C. M. (2003). Alternative schools serving students with and without disabilities: What are the current issues and challenges? *Preventing School Failure, 47*(2), 59-65.

Lehr, C. A., Lanners, E. J., & Lange, C. M. (2003). *Alternative schools: Policy and legislation across the U.S.* (Research Report #1). Retrieved from University of Minnesota, Institute on Community Integration website: http://ici.umn. edu/alternativeschools/

Lehr, C. A., Moreau, R. A., Lange, C. M., & Lanners, E. J. (2004). *Alternative schools: Findings from a national survey of the states*. (Research Report #2). Retrieved from University of Minnesota, The College of Education and Human

Development website: http://ici.umn.edu/alternativeschools/ publications/alt_schools_report2.pdf

Lehr, C. A., Tan, C. S., & Ysseldyke, J. (2009). Alternative schools. A synthesis of state-level policy and research. *Remedial and Special Education , 3*(1), 19-32. doi: 10.1177/0741932508315645

Leone, P., & Drakeford, W. (1999). Alternative education: From last chance to a proactive model. *The Clearing House, 73*(2), 86-89.

Loflin, J. (2002). *Alternative education's spoiled image: When it happened, how it happened, why it happened, and what to do about it*. Minneapolis, MN: International Association of Learning Alternatives (IALA). Retrieved August 15, 2010, from http://www.learningalternatives.net.

MacGillivary, H., & Erickson. G. (2006). *Truancy in Denver: Prevalence, effects and interventions.* Denver, CO: National Center for School Engagement. Retrieved from http://www.schoolengagement.org/TruancypreventionRegistry/

Martin, N., & Brand, B. (2006). *Federal, state, and local roles supporting alternative education.* American Youth Policy Forum. Washington, DC: U.S. Department of Labor. Retrieved National Center on Education and the Economy website: http://www.ncee.org/

McCall, J. H. (2003). When successful alternative students "disengage" from regular school. *Reclaiming Children and Youth, 12*(2), 113-117.

McCray, E. D. (2006). It's 10 a.m.: Do you know where your children are? The

persisting issue of school truancy intervention. *Intervention in School and Clinic, 42*(1), 30–33.

McKee, J., & Conner, E. (2007). Alternative schools, mainstream education. *Principal Leadership (High School Ed.), 8*(4), 44-9. Retrieved from http://naesp.org/

McMillan, J., & Schumacher, S. (2001). *Research in education. A conceptual Introduction* (5th ed.). New York: Addison Wesley Longman.

Mertens, D. M. (2005). *Research and evaluation in education and psychology: Integrating diversity with quantitative, qualitative, and mixed methods* (2nd ed.). Thousand Oaks, CA: Sage.

Miller, R. (2004). A brief history of alternative education. *Education Revolution*. Retrieved June 23, 2010, from http://www.educationrevolution.org/history.html

Missouri Department of Elementary and Secondary Education. (2009). *Dropout Rates –Trends*. Retrieved July 1, 2010, from http://www.dese.mo.gov/dropoutprevention/dop_rates.htm

Missouri Student Success Network. (2003)**.** *Survey of at-risk services.* University of Missouri, Office of Social and Economic Data Analysis. Retrieved from http://www.mssn.org/research.shtm

Mohr, W. K., Olson, J. N., Martin, A., Pumariega, A. J., & Branca, N. (2009). Beyond point and level systems: Moving toward child-centered programming. *American Journal of Orthopsychiatry, 79*,(1), 8-18. doi:10.1037/a0015375.

Mottaz, C. (2002). *Breaking the cycle of failure.* Lanham, MD, United States: Scarecrow Press.

Mulroy, P. T. (2008). *School related factors and experiences that influence high school graduation rate*. Available from Pro Quest Dissertations and Theses database. (UMI No. 3336420).

Munoz, M. A. (2002). *Facing the challenges of at-risk students in urban school districts: The impact of an attendance and dropout prevention program in a non-traditional school*. Louisville, KY: Jefferson County Public Schools. Retrieved from the ERIC database. (ED463364)

Myers, J. L., Well, A. D., & Lorch, R. F. (2010). *Research Design and Statistical Analysis* (3rd Ed.). New York, NY: Routledge.

National Alternative Education Association. (2009). *Exemplary practices in alternative education: Indicators of quality programming.* Retrieved June 10, 2010, from National Alternative Education Association website: http://the-naea.org

National Commission on Excellence in Education. (1983). *A nation at risk.* Washington, D.C: U.S. Department of Education. Retrieved from http://www.ed.gov/pubs/NatAtRisk/index.html

National Governors Association, Center for Best Practices. (2001). *Setting high academic standards in alternative Education* (Issue Brief). Washington, DC: Author. Retrieved from NGA website: http://www.nga.org/cms/home/nga-center-for-best-practices/

National Research Council and National Academy of Education. (2011). *High school dropout, graduation, and completion rates: Better data, better measures, better decisions*. In R. M. Hauser & J. A. Koenig (Eds.). Washington, DC: Center for Education. Division of Behavioral and Social Sciences and Education. Retrieved from National Academies Press website http://www.nap.edu/catalog/13035.html

Neumann, R. A. (1994). A report from the 23rd international conference on alternative education. *Phi Delta Kappan, 75*, 547-549.

Nichols, J. D., & Steffy, B. E. (1999). An evaluation of success in an alternative learning programme: Motivational impact versus completion. *Educational Review, 51*(3), 207-219.

No Child Left Behind. (2002). No Child Left Behind Act of 2001, 20 U.S.C. 6301.

Paglin, C., & Fager, J. (1997). *By request…alternative schools: Approaches for students at risk*. Northwest Regional Laboratory. Portland, OR. Retrieved from Eric database. (ED431042)

Pallas, A. J. (1989). *Making schools more responsive to at-risk students*. ERIC/CUE Digest No. 60. (ED316617). Retrieved from http://ericdigests.org/pre-9214/risk.htm

Parkway School District. (2009). Retrieved May 15, 2009, from Parkway School District Website: http://www.pkwy.k12.mo.us/

Parkway School District. (2010). Retrieved April 23, 2010, from Parkway School District website: http://www.pkwy.k12.mo.us/

Peterson, R. L., & Smith, C. R. (2002). *Dealing with behaviors perceived as unacceptable in schools: The interim alternative education program*. In L. M Bullock & R. A. Gable (Eds.). Arlington VA,: The Council for Exceptional Children. Retrieved from http://www.cec.sped.org.

Powell, D. (2003). Demystifying alternative education: considering what really works. *Reclaiming Children and Youth, 12*(2), 68-70.

Prevatt, F., & Kelly, F. D. (2003). Dropping out of school: A review of intervention programs. *Journal of School Psychology, 41*(5), 377-395. doi:10.1016/S0022-4405(03)00087-6

Princiotta, D., & Reyna, R. (2009). *Achieving gradation for all. A governor's guide to dropout prevention and recovery*. Washington, DC: NGA Center for Best Practices. Retrieved from NGA website: http://www.nga.org/center

Quinn, M. M., & Poirier, J. M. (2006). *Study of effective alternative education programs: A final grant report*. Washington DC: American Institutes for Research. Retrieved from American Institutes for Research website: http://www.AIR.ORG

Quinn, M. M., Poirier, J. M., Faller, S. E., Gable, R. A., & Tonelson, S. W. (2006). An examination of school climate in effective alternative programs. *Preventing School Failure, 51*(1), 11-17.

Quinn, M. M., & Rutherford Jr, R. B. (1998). *Alternative programs for students with social, emotional, or behavioral problems.* Arlington, VA:The Council for Exceptional Children. Retrieved from http://cec.sped.org

Raffaele Mendez, L. M., Knoff, H. M., & Ferron, J. F. (2002). School demographic variables and out-of-school suspension rates: A quantitative and qualitative analysis of a large, ethnically diverse school district. *Psychology in the Schools, 39*, 259-277.

Rausch, M. K., & Skiba, R. J. (2004). *Unplanned outcomes: Suspensions and expulsions in Indiana.* Retrieved from http://ceep.indiana.edu/ChildrenLeftBehind

Raywid, M. A. (1981). The first decade of public school alternatives. *Phi Delta Kappan, 62*(8), 551-553.

Raywid, M. A. (1994). Alternative schools: The state of the art. *Educational Leadership, 52*(1), 26-31.

Raywid, M. A. (1998). The journey of the alternative schools movement: Where it's been and where it's going. *High School Magazine, 6*(2), 10-14.

Raywid, M. A. (1999). History and issues of alternative schools. *The Education Digest, 64*(9), 47-51.

Raywid, M. A. (2001). What to do with students who are not succeeding, *Phi Delta Kappan, 82*(8), 582-584.

Reimer, M. S., & Cash, T. (2003). *Alternative schools: Best practices for development and evaluation*. Clemson, SC: National Dropout Prevention Center/Network. Retrieved from http://www.droputprevention.org

Reimer, M. S., & Dimock, K. (2005). *Best practices and model truancy programs*. Denver, CO: The National Center for School Engagement. Retrieved from http://www.schoolengagement.org/Truancyprevention

Reimer, M., & Smink, J. (2005). *Information about the school dropout issue: Selected facts & statistics*. National Dropout Prevention Center/Network. Retrieved from http://www.droputprevention.org

Rix, J., & Twining, P. (2007). Exploring education systems: Towards a typology for future learning. *Educational Research, 49*(4), 329-341. doi:10.1080/00131880 701717180

Roby, D. E. (2004). Research on school attendance and student achievement: A study of Ohio schools. *Educational Research Quarterly, 28*(1), 3-14.

Ruzzi, B. B., & Kraemer, J. (2006). *Academic programs in alternative education: An overview*. Washington, DC: U. S. Department of Labor. Retrieved from National Center on Education and the Economy website: http://www.ncee.org/wp content/uploads/2010/04/AcademicProg.pdf

Sagor, R. (1999). Equity and excellence in public schools: The role of the alternative School. *Clearing House, 73*(2), 72-75.

Santmire, M. (2009). Implementing tertiary-positive behavior supports in alternative schools for students with emotional and behavioral disorders. Available from Pro Quest Dissertations and Theses database. (UMI No. 3361095)

Seeley, K. (2008). *Truancy and connections to bad outcomes & best practices*. Presentation at the March 2008 Policy Forum—Truancy: The Absent Epidemic. Office of State Superintendent of Education, District of Columbia. Retrieved from http://www.seo.dc.gov/seo/frames.asp?doc=/seo/lib/seo/services/ pra/ken_seely_policy_forum_washingtonmarch08.pdf

Sekayi, D. N. (2001). Intellectual indignation: Getting at the roots of student resistance in an alternative high school program. *Education, 122*(2), 414-422.

Settles, D., & Orwick, B. (2003). *Alternative education: Past, present and next steps.* Richmond, KY: Kentucky Center for School Safety Clearinghouse. Retrieved from http://www.kysafeschools.org/clear/pdfs-docs/AltEdLit.pdf

Sinclair, M., Christenson, S., & Thurlow, M. (2005). Promoting school completion of urban secondary youth with emotional or behavioral disabilities. *Exceptional Children, 71*(4), 465-482.

Skiba, R., & Rausch, M. K. (2004). *The relationship between achievement, discipline, and race: An analysis of factors predicting ISTEP scores*. Retrieved from Indiana University, Center for Evaluation and Education Policy website: http://www.iub.edu/~safeschl/ChildrenLeftBehind/pdf/2D.pdf

Skiba, R.J., & Rausch, M. K. (2006). Zero tolerance, suspension, and expulsion: Questions of equity and effectiveness. In C. M. Evertson & C. S.Weinstein (Eds.), *Handbook of classroom management: Research, practice, and contemporary issues* (pp. 1063—1089). Mahwah, NJ: Lawrence Erlbauni.

Skiba, R. J., & Sprague, J. (2008). Safety without suspensions. *Educational Leadership, 66*(1), 38-43.

Slavin, R. E., & Madden, N. A. (1989). What works for students at risk: A research synthesis. *Educational Leadership, 46*(5), 4-13.

Sloat, E. A., Audas, R. P., & Willms, J. D. (2007). Evaluating programs for at-risk adolescents: Toward an outcome-based assessment framework. *Journal of Education For Students Placed At Risk, 12*(4), 459–476.

Somers, C. L., Owens, D., & Pilliawsky, M. (2004). A study of high school dropout prevention and at-risk ninth graders' role models and motivations for school completion. *Education, 130*(2), 348-355.

Sparks, E., Johnson, J. L., & Akos, P. (2010). Dropouts: Finding the needles in the haystack. *Educational Leadership,* February, 46-49. Retrieved from http://www.ascd.org

Sprague, J., & Walker, H. (2000). Early identification and intervention for youth with antisocial and violent behavior. *Exceptional Children, 99*, 367-379.

Storm, M., & Storm, R. (2004). *Evaluation of the Oklahoma alternative education program*. Persistently Safe Schools: The National Conference of the Hamilton Fish Institute on School and Community Violence. Retrieved from http://www.hamfish.org/conference/2004/proceedings/25Storm.pdf

Suh, S., & Suh, J. (2007). Risk factors and levels of risk for high school dropouts. *Professional School Counseling*, *10*(3), 297-306. Retrieved from http://www.schoolcounselor.org

Suh, S., Suh, J., & Houston, I. (2007). Predictors of categorical at-risk high school dropouts. *Journal of Counseling & Development*, *85,* 196-203. Retrieved from http://www.schoolcounselor.org

Sum, A., Khatiwada, I., McLaughlin, J., & Palma, S. (2009). *The consequences of*

dropping out of high school. Retrieved from Northeastern University, Center for Labor Market Studies website: http://www.clms.neu.edu/publication/documents/

Sutphen, R. D., Ford, J. P., & Flaherty, C. (2010). Truancy interventions: A review of the research literature. *Research on Social Work Practice, 20*(2), 161-171. doi:10.1177/1049731509347861

Theriot, M. T., Craun, S. W., & Dupper, S. R. (2009). Multilevel evaluation of factors predicting school exclusion among middle and high school students. *Children and Youth Services Review, 32*(1), 13-19. doi:10.1016/j.childyouth.2009.06.009

Thurlow, M. L, Sinclair, M. F, & Johnson, D. R. (2002). *Students with disabilities who drop out of school: Implications for policy and practice* (Issue Brief #2, Vol.1). Retrieved from University of Minnesota, National Center on Secondary Education and Transition website: http://www.ncset.org

Tissington, L. D. (2006). History: Our hope for the future. *Preventing School Failure, 51*(1), 19-25.

Tobin, T., & Sprague, J. (1999). *Alternative education programs for at-risk youth: Issues, best practices, and recommendations.* Bulletin, 42(4).University of Oregon, College of Education, Oregon School Study Council. Retrieved from ERIC database. (ED432805)

Tobin, T., & Sprague, J. (2000). Alternative education strategies: Reducing violence in school and the community. *Journal of Emotional & Behavioral Disorders, 8*(3), 177-187. Retrieved from http://ebx.sagepub.com

Tyler, J. H., & Lofstrom, M. (2009). Finishing high school: Alternative pathways and dropout recovery. *The Future of Children, 19*(1), 77-103. Retrieved from http://www.futureofchildren.org

U.S. Department of Education, (2000). *A Guide to the Individualized Education Program.* Washington DC: Office of Special Education and Rehabilitative Services. Retrieved from http://ed.gov/parents/needs/speced/iepguide/

U.S. Department of Education. (2002). *Characteristics of the 100 largest public elementary and secondary school districts in the United States: 2000-01* (NCES 2002-351). Washington, DC: U.S Department of Education. Retrieved from National Center for Educational Statistics website: http://nces.ed.gov/pubs2002/2002351.pdf

Unruh, D., Bullis, M., Todis, B., Waintrup, M., & Atkins, T. (2007). Programs and practices for special education students in alternative education settings. *Research to Practice Brief 6*(1). Retrieved from National Center on Secondary Education and Transition website: http://ncset.org

VanderVen, K. (2009). Why focusing on control backfires: A systems perspective. *Reclaiming Children and Youth, 17*(4), 8-12. Retrieved from http://www.reclaiming.com

Vucina, T., & Becirevic, I. Z. (2007). Risk factors and protective factors for adolescent substance use. *Review of Psychology, 14*, 59-72.

White, H. R., Violette, N. M., Metzger, L., & Stouthamer-Loeber, M. (2007). Adolescent risk factors for late-onset smoking among African American young men. *Nicotine & Tobacco Research, 9,* 153-161.

Wirt, J., Choy, S., Rooney, P., Provasnik, S., Sen, A., & Tobin, R. (2004). *The condition of education 2003* (NCES 2003–067). Washington, DC: U.S. Department of Education. Retrieved from National Center for Education Statistics website: http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2003067

Witzel, B. S., & Mercer, C. D. (2003). Using rewards to teach students with disabilities: Implications for motivation. *Remedial and Special Education, 24*(2), 88-96.

Yazzie-Mintz, E. (2010). *Charting the path from engagement to achievement: A report on the 2009 high school survey of student engagement.* Retrieved from University of Indiana, Center for Evaluation & Education Policy website: http://ceep,indiana edu/hssse

Yeide, M., & Kobrin, M. (2009). *Truancy literature review.* Washington DC: U.S. Department of Justice. Office of Juvenile Justice and Delinquency Prevention. Retrieved from http://www.2.dsgonline.com/dso2/Truancy%20Literature%20 Review.pdf

Young, T. W. (1990). *Public Alternative Education*. New York: Teacher's College Press.

Zweig, J. M. (2003). *Vulnerable youth: Identifying their need for alternative educational settings.* Washington, DC: The Urban Institute. Retrieved from http://www.urban.org/

Appendix A

Table A1

Perceptions of Biggest Challenges in Working with Students at Risk of School Failure

Categorization of Challenges	N[ab]	Percent
Lack of parental involvement – no family support – negative influence at the home.	173	27.3%
Limited resources – funding – staff time – facilities.	116	18.3%
Inadequate training for staff – lack of support or understanding – need for staff development.	51	8.0%
Student low self-esteem – motivation – attitude –behavior/discipline – responsibility.	144	22.7%
Poor student attendance/truancy – keeping them in school.	40	6.3%
Limited communication between service providers – limited coordination of services.	13	2.1%
Student working below grade level – lack of academic – limited academic skills.	15	2.4%
Need for early identification of at risk student and need for early intervention.	18	2.8%
Influence of drugs and alcohol.	13	2.1%
Transient students and problems of students moving from district to district.	9	1.4%
Organizational issues – Too many needs in one classroom - lack of organizational support	11	1.7%
Need to be a trusting relationship with the student.	10	1.6%
Need for mental health support.	7	1.1%
Lack of appropriate student information.	3	0.5%
Need more support from other agencies – outside support.	11	1.7%

Note: [a]Total number of responses = 634. [b]Respondents could select up to three challenges. Adapted from MSSN, 2003, "Perceptions of biggest challenges in working with students at risk of school failure" p. 15- table 4

Appendix B

Figure B1. Daily Report Card

Daily Report Card

Student Name: Date:

Advisor: Level:

	AM Ad.	1	2	3	L	H	4	5	6	PM Ad.
Follow classroom rules (1 pt.)										
Be prepared for class (1 pt.)										
Speak with permission (1 pt.)										
Begin/Stay on task (1 pt.)										
Keep hands and feet to self (1 pt.)										
Follow directions (1 pt.)										
Use appropriate language/tone/volume (1 pt.)										
Target Behavior #1 (2 pts.)										
Target Behavior #2 (2 pts.)										
									Productivity (3 pts.)-->	
Points Earned										
Points Possible	6	11	11	11	7	7	11	11	11	14

Target Behavior #1

Target Behavior #2

Figure B2. PACE Friday Sheet

PACE Friday Sheet

Student Name: Dates covered: to:

Advisor/Phone number:

PERIOD	Points Possible	FRIDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY
Level:						
AM Advisory	10					
First	11					
Second	11					
Third	11					
Lunch/Hall	14					
Fourth	11					
Fifth	11					
Sixth	11					
PM Advisory	10					
Total	100	0	0	0	0	0
Did day count toward level advancement?						

BEHAVIOR CODES AND POINT VALUES:

A. Follow classroom rules (1 pt.)
B. Be prepared for class (1 pt.)
C. Speak with permission (1 pt.)
D. Begin/Stay on task (1 pt.)
E. Keep hands and feet to self (1 pt.)
F. Follow directions (1 pt.)
G. Use appropriate language/tone/volume (1 pt.)
H. Target Behavior #1 (2 pts.)
I. Target Behavior #2 (2 pts.)
J. Incomplete/Missing assignments (1 pt.)
K. Restroom / water (pts. vary)
L. Sleeping/No Participation (all pts.)
M. Removal from class (all pts.)

TARGET BEHAVIORS

1) 2)

TEACHER COMMENTS:

PARENT COMMENTS/**SIGNATURE**:

Figure B3. Level 0 Consequences

Level System

Level 0

OBJECTIVE:

Student will accept consequences for their actions.

PRIVILEGES:

1. None

PLACEMENT:

1. Student will be issued a lunch detention for their initial movement onto **level 0**. Repeated placement in this level will generally result in increasing degrees of removal from the normal classroom environment/daily schedule.
   - 1 Day Lunch Detention
   - 3 Day Lunch Detention
   - 1 Day In-School Suspension
   - 3 Day In-School Suspension
   - 1 Day Out of School Suspension
   - 3 Day Out of School Suspension
   - Extended Out of School Suspension
   - Restrictions
   - Parent meeting

The above listed consequences will be used at the PACE staff's discretion and may not follow the order in which they are listed.

PROMOTIONAL CRITERIA:

1. Student completes all work provided by teachers during his or her time outside the normal classroom environment.
2. Student demonstrates behavior appropriate for return to level 1.

Vitae

Rebecca Warren is the current the principal of Fern Ridge, an alternative high school, and the principal of PACE and PATH (alternative high school programs) and of REACH a middle school alternative program for the Parkway School District, in St. Louis County, Missouri. Although Rebecca has been principal of Fern Ridge for the past three years, she is currently finishing her first year as principal of the three alternative programs. She was an assistant principal at Central High School, in the Parkway School District, for nine years prior to obtaining her current position. Rebecca also taught science for six years at Marquette High School in the Rockwood School District. She anticipates earning her Ed.D. in Educational Administration from Lindenwood University in 2011 and she earned her Master's degree in Educational Administration from Lindenwood University in 1999 and earned a Bachelor's degree in Biology from Webster University in 1993.