12-2015

Examining the Academic, Behavioral, and Financial Effectiveness of In-House Alternative Education Programs Compared to Off-Site Programs: A Quantitative Analysis

Keith A. Hartbauer
Indiana University of Pennsylvania

EXAMINING THE ACADEMIC, BEHAVIORAL, AND FINANCIAL EFFECTIVENESS OF IN-HOUSE ALTERNATIVE EDUCATION PROGRAMS COMPARED TO OFF-SITE PROGRAMS: A QUANTITATIVE ANALYSIS

A Dissertation

Submitted to the School of Graduate Studies and Research

in Partial Fulfillment of the

Requirements for the Degree

Doctor of Education

Keith A. Hartbauer

Indiana University of Pennsylvania

December 2015

Indiana University of Pennsylvania
School of Graduate Studies and Research
Department of Professional Studies in Education

We hereby approve the dissertation of

Keith A. Hartbauer

Candidate for the degree of Doctor of Education

_____ _____
David Piper, Ed.D
Professor of Employment and Labor Relations,
Advisor

_____ _____
Joseph Marcoline, Ed.D
Associate Professor of Professional Studies in
Education

_____ _____
Kelli Paquette, Ed.D.
Professor of Professional Studies in Education

ACCEPTED

_____ _____
Randy L. Martin, Ph.D.
Dean
School of Graduate Studies and Research

Title: Examining the Academic, Behavioral, and Financial Effectiveness of In-House Alternative Education Programs Compared to Off-Site Programs: A Quantitative Analysis

Author: Keith A. Hartbauer

Dissertation Chairperson: Dr. David Piper

Dissertation Committee Members: Dr. Joseph Marcoline
Dr. Kelli Paquette

This study's purpose was to examine the academic, behavioral, and financial effectiveness of Pennsylvania in-house alternative education programs to off-site alternative education programs. Pennsylvania in-house alternative education programs are operated internally by a school district. Off-site alternative education programs are programs where school districts outsource their disruptive youth to county Intermediate Units or Private Provider alternative education programs (AEPs). The population of this study consisted of all students enrolled in alternative education from 2011 -2013 in the Commonwealth of Pennsylvania; groups that were analyzed included in-house/district, private provider, and intermediate unit alternative education programs. The fundamental research questions this study sought to answer are:

- Is there a significant statistical difference in the academic success of students "at-risk" enrolled in an in-house AEP compared to off-site AEPs?
- Is there a significant statistical difference with in-house alternative education programs improving student behavior compared to off-site AEPs?
- Is there a financial difference in educating students "at-risk" internally compared to placing students outside the district in an off-site AEP?

Results of this study were quantitative in nature. Data were analyzed by domains using descriptive statistics, a one-way Analysis of Variance was performed along with Post-hoc tests and a Multiple Comparison test.

Results of this study indicated that there were no statistical significant differences among the three types of alternative education programs with regards to variables tested. This non-significant difference held true for all three years, with the exception of 2011 police interventions. Results allow for the assumption that in-house (District) AEPs have a similar success rate with their students achieving their academic and behavioral goals, compared to off-site (Private Provider, Intermediate Unit). However, data results with regards to average mean scores imply that in-house AEPs are more consistent from year to year in their approach to academic and behavioral outcomes.

Finally, this study examined financial differences between AEPs. Intermediate Unit AEPs had the lowest average cost per day per student. However, the average cost per student per day did not include transportation costs for Private Provider and Intermediate Unit AEPs.

ACKNOWLEDGEMENTS

I gratefully and sincerely acknowledge the guidance, support, and patience of my Committee Chair, Dr. David Piper. I am forever in debt to his willingness to assist me and push me through this dissertation process. Gratitude is also extended to Dr. Joseph Marcoline and Dr. Kelli Paquette, members of my Dissertation Committee. Dr. Marcoline's experience in the educational setting provided great insight for me throughout this process. Dr. Paquette's knowledge and experience with the dissertation formatting has been extremely beneficial to me. I am honored to have had all three of these individuals assist me in my efforts to better understand and analyze alternative education.

Dr. Thomas Loughran agreed to read, suggest, encourage, and provide great feedback for me over the past three years. His willingness to give of his time is beyond appreciated, it will never be forgotten. I must also mention Mrs. Deneen Loughran, my cheerleader away from home. She was always providing support and encouragement along the way.

It is impossible to adequately acknowledge the many contributions of my family and friends. My parents, Charles and Pennie Hartbauer were extremely supportive during this process. A sincere thanks is given to a good friend, Mrs. Lauren Kaszonyi for reading and editing this dissertation. Her professionalism, kindness, and personal sacrifice must be acknowledged.

I must also thank my children, Kory, Kari, Kaitlin, and Kylie for their patience and understanding of my time away from them during this process. Finally, I need to thank my wife Kelly. During this process she lost her father and battled cancer. As our lives were turned upside down this past year, she never wavered in her support of me and my educational goals.

Her typing, editing, formatting, and positive outlook has been my motivation the past three years. I thank her dearly for her unconditional love and support.

TABLE OF CONTENTS

Chapter		Page
1	INTRODUCTION	1
	Definition of Alternative Education	5
	Purpose of Study	8
	Research Questions	8
	Null Hypothesis	8
	Theoretical Framework	9
	Setting of the Research	10
	Significance of Study	11
	Alternative Education Measures	11
	Definition of Terms	13
	Assumptions	15
	Limitations	15
	Summary	16
2	LITERATURE REVIEW	17
	Best Practices for Successful Alternative Education Programs	21
	Characteristics of Ineffective Alternative Education Programs	25
	Students Serviced in Alternative Education Programs	26
	Placement of Students	27
	Effective Academic and Behavioral Strategies in AEPs	29
	Effective Instruction in Alternative Education Programs	30
	Lesson Transitions	31
	Relevance of Instruction	32
	Effective Assessment Strategies in Alternative Education Programs	33
	Effective Behavior Support Programs in Alternative Education Programs	33
	Strategies for Managing Behaviors	34
	Participation Length	36
	Alternative Education Programs Funding	36
	Summary	41
3	METHODOLOGY	43
	Purpose of Study	43
	Research Questions	44
	Research Design	45

Chapter Page

Population 47
Instrumentation 48
Procedures 50
Data Analysis 52
Summary 53

4 DATA AND ANALYSIS 54

Research Question 1 54
Null Hypothesis 1 54
Descriptive Statistics 55
Attendance 61
Student Promotion 65
Transitioning 70
Dropouts 74
Academic Goals 80
Research Question 2 85
Null Hypothesis 2 85
Supporting Behavioral Data 91
Suspensions 91
Police Interventions 96
Expulsions 101
Research Question 3 106
Null Hypothesis 3 106
Summary 108

5 SUMMARY, CONCLUSIONS, RECOMMENDATIONS 111

Research Question 1 112
Research Question 2 114
Research Question 3 116
Implications for Educators 118
Future Research 120
Conclusion 121

REFERENCES 123

LIST OF TABLES

Table		Page
1	Average Number of Core Subjects Passed Descriptives	56
2	Average Number of Core Subjects Passed ANOVA	57
3	Average Number of Core Subjects Passed Test of Homogeneity of Variances	57
4	Average Number of Core Subjects Passed Robust Tests of Equality of Means	58
5	Average Number of Core Subjects Passed Multiple Comparisons	60
6	Average Daily Attendance ANOVA	62
7	Average Daily Attendance Test of Homogeneity of Variances	62
8	Average Daily Attendance Robust Tests of Equality of Means	63
9	Average Daily Attendance Multiple Comparisons	64
10	Average Number of Students Promoted Descriptives	66
11	Average Number of Students Promoted ANOVA	67
12	Average Number of Students Promoted Test of Homogeneity of Variances	67
13	Average Number of Students Promoted Robust Test of Equality of Means	68
14	Average Number of Students Promoted Multiple Comparisons	69
15	Average Number of Students Transitioned Descriptives	71
16	Average Number of Students Transitioned ANOVA	72
17	Average Number of Students Transitioned Test of Homogeneity of Variances	72

Table Page

18 Average Number of Students Transitioned Robust Tests of Equality of Means 73

19 Average Number of Students Transitioned Multiple Comparisons....74

20 Average Number of Student Dropouts Descriptives 76

21 Average Number of Student Dropouts ANOVA 77

22 Average Number of Student Dropouts Test of Homogeneity of Variances 77

23 Average Number of Student Dropouts Robust Tests of Equality of Means....78

24 Average Number of Student Dropouts Multiple Comparisons....79

25 Average Number of Students Meeting Academic Goals Descriptives....81

26 Average Number of Students Meeting Academic Goals ANOVA 82

27 Average Number of Students Meeting Academic Goals Test of Homogeneity of Variances 82

28 Average Number of Students Meeting Academic Goals Robust Tests of Equality of Means....83

29 Average Number of Students Meeting Academic Goals Multiple Comparisons....84

30 Average Number of Students Meeting Behavioral Goals Descriptives....86

31 Average Number of Students Meeting Behavioral Goals ANOVA 87

32 Average Number of Students Meeting Behavioral Goals Test of Homogeneity of Variances 88

33 Average Number of Students Meeting Behavioral Goals Robust Tests of Equality of Means....89

34 Average Number of Students Meeting Behavioral Goals Multiple Comparisons....90

35 Average Number of Students Suspended Descriptives 92

36 Average Number of Students Suspended ANOVA 93

Table Page

37 Average Number of Students Suspended Test of Homogeneity of Variances 93

38 Average Number of Students Suspended Robust Tests of Equality of Means....94

39 Average Number of Students Suspended Multiple Comparisons....95

40 Average Number of Police Interventions Descriptives 97

41 Average Number of Police Interventions ANOVA 98

42 Average Number of Police Interventions Test of Homogeneity of Variances 98

43 Average Number of Police Interventions Robust Tests of Equality of Means....99

44 Average Number of Police Interventions Multiple Comparisons....100

45 Average Number of Students Expelled Descriptives....102

46 Average Number of Students Expelled ANOVA 103

47 Average Number of Students Expelled Test of Homogeneity of Variances....103

48 Average Number of Students Expelled Robust Tests of Equality of Means 104

49 Average Number of Students Expelled Multiple Comparisons....105

50 Average Cost Per Day....107

51 Three-year Average Cost Comparison of AEPs 108

52 Academic Effectiveness Significant Difference at a = .05 109

53 Behavioral Effectiveness Significant Difference at a = .05....110

CHAPTER 1

INTRODUCTION

"You cannot teach anybody anything. You can only help them discover it within themselves."

- Galileo

In the early to mid-1800s, the first public high school was opened in Boston, Massachusetts. Public schooling was created to educate all children with a common educational experience. However, from the conception of public education, there have been people who have chosen not to take part in this type of educational system. These groups have all had their personal reasons for dismissing public education, although most agreed and believed in the importance of developing young children socially, morally, and emotionally.

Horace Mann, a leader in education, implemented the “one best system” in the late 1830’s. This educational system’s goal was to provide cultural diversity and personal uniqueness in order to mold a loyal citizenry and an effective workforce for the growing industrial systems (Miller, 2014). Toward the early twentieth century, the “one best system” was viewed by some as a system that tried to produce a social uniformity among school-aged children. At the turn of the century, educational experts began referring to the “one best system” as “social efficiency.” It was during this time that many people looked for other means to educate because people felt that the “social efficiency” model stifled a child’s individuality, creativity, and spiritual development.

Alternative education philosophies in the early 1900’s were a result of the beliefs of Jean-Jacques Rousseau, Johann Heinrich Pestalozzi, and Fredrich Froebel. Rousseau argued that education should follow the child’s natural growth rather than the demands of society, which, he claimed, tend to thwart all that is organic, natural, and spiritual (Miller, 2014).

Rousseau's, Froebel's, and Pestalozzi's educational philosophies influenced Francis Parker and John Dewey toward the end of the 1800s. Parker and Dewey created the "progressive education movement." Parker's belief was that education should serve the needs of children and conform to their styles of thinking and learning (Miller, 2014).

These beliefs and practices, based on the progressive education movement, held true until the 1960s. It was during this time in the United States that the social justice movement resonated throughout the country. In this era, education was one of many systems that were heavily scrutinized. There were teacher strikes, student demonstrations, and heightened concerns about the public education system.

Scrutinization of public education in the 1960s to early 1970s led to "free schools" – nonpublic schools emphasizing the creation of radical ideas. By the late 1970s, education was viewed as "humanistic" and "holistic." This approach did not last long. By the mid-1980s, traditional values resurfaced in education and politics. During the Reagan administration, "A Nation at Risk" report unfolded. This report persuaded politicians and educators to restructure the educational system on a global spectrum. Politically, "A Nation at Risk" was succeeded by President George Bush's "America 2000," which was then superseded by President Bill Clinton's "Goals 2000." President George W. Bush enacted the "No Child Left Behind Act" (NCLB) which was intended to create more accountability on behalf of the public school system. The NCLB act was expanded by President Barack Obama's administration with the genesis of "Common Core". Common Core emphasized outcome-based education correlating with national standards.

Regardless of one's perspective on today's educational system, there will always be students who struggle to conform in a traditional school environment. Of the 1.2 million

students who drop out each year, and the others who continue to attend school but make little progress toward graduation, many will require creative alternatives in significantly different settings to help them get back on track toward a diploma and a postsecondary credential (Almeida, Steinberg, and Cervantes, 2010). Many students at-risk, those who face a greater risk of not mastering the educational opportunities of the public school system for reasons such as significant discipline issues, poor attendance, ethnicity, poverty, language barriers, and geographic locations, find themselves in alternative high school settings. Often times, districts will remove these students and place them in an off-site educational facility. These alternative education sites often provide smaller class sizes and increased counseling services, while also removing the disruptive behavior from the home district. The development and support of alternative education programs (AEPs) has been growing, as more students became at-risk for school failure (Hughes & Adera, 2006). Through individualized instruction and programming in a supportive environment, students participating in alternative education programs graduate from high school with more frequency (Foley & Pang, 2006).

Realizing that there is a need to educate all students, the researcher has had an avid interest in working with students who are at-risk of not graduating. Delineating students to attend AEPs is one component. However, determining how and where to educate them is a dilemma for many school districts. This researcher was specifically interested in determining how school districts can effectively determine if their choice of AEPs is academically, behaviorally, and financially effective.

One example of an in-house alternative education program is the Thomas Jefferson Alternative Education Program (TJAEP), in a suburban high school in Western Pennsylvania. This program is directed by the researcher and was implemented during the 2010-2011 school

year in the West Jefferson Hills School District. Development and implementation of the TJAEP was three-fold. First, the TJAEP was developed to reduce the amount of students "at-risk" placed outside the district, creating a financial burden on the district. A second purpose was to monitor and analyze the academic achievements of the district's alternative education students. A third objective was to determine the effectiveness of improving student behavior. As the director of the TJAEP, the researcher wanted to determine if there was a difference amongst in-house AEPs and off-site AEPs, with regards to academic success. Coinciding with academic success, the researcher endeavored to discover if a difference in the degree of behavioral success existed between in-house and off-site programs. Finally, the researcher wanted to determine if educating students at-risk internally was more cost effective than outsourcing students to an off-site AEP.

This quantitative study evaluated the academic, behavioral, and financial effectiveness of Pennsylvania in-house AEPs and Pennsylvania off-site AEPs over a three-year period (2011-2013). Indicators for success included behavioral data collected through the Pennsylvania Department of Education's Alternative Education for Disruptive Youth annual reports, from 2011-2013, with students ages 13-19, enrolled in the Commonwealth's AEPs. Results of this study may provide school directors, administrators, and teachers a better understanding of how an in-house alternative education program can impact students at- risk.

On an annual basis, many school districts spend tens of thousands of dollars placing students at-risk into off-site alternative education programs. With the current trend of diminishing school budgets and an increase of identified students at-risk, there are districts choosing to implement their own alternative education program in hopes of defraying costs and maintaining academic rigor (Wolfe, 2008). This trend was the case for the Thomas Jefferson

alternative education program where the results of this study will be useful to the district, as findings can be used to guide the decisions and actions of the stakeholders involved with developing, implementing, and sustaining the alternative education program.

"Alternative education" has been used in the education world to describe various programs and educational experiences not typically found in a traditional public school setting. In the early 1990s, researcher, Dr. Raymond Morley, provided his definition of alternative education:

> Alternative education is a perspective, not a procedure or program. It is based upon the belief that there are many ways to become educated, as well as many types of environments and structures within which this may occur. Further, it recognizes that all people can be educated and that it is in society's interest to ensure that all are educated to at least…a general high school…level. To accomplish this requires that we provide a variety of structures and environments such that each person can find one that is sufficiently comfortable to facilitate progress. (Morley, 1991, p.8)

Demand for these programs grew during the late 1960s and into the 1970s. The goal was to create a school that was more innovative, creative, and progressive in professionals' efforts to allow students the opportunity to achieve success. During the 1980s, however, the idea of alternative education by educators became more focused on students who were either disruptive and/or failing in their home schools (Wolfe, 2008). The Pennsylvania Department of Education defines a disruptive student as a student who poses a clear threat to the safety and welfare of other students or the school staff, who creates an unsafe school environment or whose behavior materially interferes with the learning of other students or disrupts the overall educational process.

Traditional schools are not capable of meeting the needs of all children (Wolfe, 2008). Not all children learn the same way; they develop at different rates, in different communities, and with different support systems (Woods, 2009). A traditional school may have limited resources needed to meet the individual needs of students who exhibit characteristics of a student "at-risk." Every year, many students are in danger of dropping out of traditional schools. This risk can be the result of poor grades, poor attendance, increased competition among students, lack of connection with teachers and administrators, low socio-economic status, teen pregnancy, incarceration, and/or a lack of interest in the curriculum (Wolfe, 2008). Some researchers believe the single most effective educational program for at-risk youth is a small, alternative school because these types of schools provide students with a community of support that may be lacking in their lives (Barr & Parrett, 1997). One approach during the mid-1980s was to place disruptive students outside the district, in order to create classroom environments that are safe. Recognizing the legal responsibility to educate all students, including those deemed "disruptive," alternative education programs, whether on-site (in-house) or off-site (off-site), are utilized to deliver educational services to the chronically suspended or expelled student in virtually every school in America (James-Gross, 2006). There continues to be a need for alternative education, and school districts are beginning to provide their own in-house alternative education programs.

As a result of the No Child Left Behind (NCLB) Act of 2001, there is increased accountability for school districts to provide a high quality education for every child. Beyond the academic advantages of alternative education, such as better student-to-teacher ratio, structured environment, increased academic learning time, and increased informal teacher assessment of student learning, there are also important economic benefits as well. It is known that education improves national and state economies. For instance, according to a 2013 report

from the National Education Association, increasing funding on education balances economic inequalities and reduces poverty, as higher education levels are linked to salaries, tax revenue, and productivity (National Education Association, 2013). Furthermore, higher levels of educational attainment result in higher earnings. The returns on education are an important policy problem which attracts interest from top scholars in a variety of social science disciplines. There is an entire body of work in both economics and sociology on the value of investing in human capital (i.e. education) (Carneiro, Heckman, & Vytlacil, 2011). Research completed by the United States Census Bureau indicates that dropouts earn an annual income of $20,241 ($10,000 less than a high school graduate, and over $36,000 less than a person with a bachelor's degree) (Lynch, 2013). Individuals with a bachelor's degree earned 96 percent more than a high school dropout (Lynch, 2013).

Education also moves citizens away from government support programs. High school graduates need 40% less welfare (Garfinkel, Kelly, & Waldfogel, 2005). Median weekly earnings according to the United States Bureau of Statistics (2014) for an individual without a high school diploma is $472, with a high school diploma $651, and with a bachelor's degree $1,108 (U.S. Bureau of Labor Statistics website, 2014).

There is less spending on social support programs and incarceration costs for individuals with degrees ("Education Pays," 2010). At the local level, school districts are paying, on average, $200 per day, per student to place a child outside the district. The cost per day significantly increases for children who are in the special education program (J. Zupan, personal communication, September, 2012).

Purpose of the Study

The purpose of this quantitative study was to examine the academic, behavioral, and financial effectiveness of Pennsylvania in-house alternative education programs to off-site alternative education programs. Pennsylvania in-house alternative education programs are operated internally by a school district. Off-site alternative education programs are programs where school districts outsource their disruptive youth to county Intermediate Units or Private Provider alternative education programs. Pennsylvania Department of Education (PDE) approved in-house/district alternative education programs across the Commonwealth of Pennsylvania will be compared to Pennsylvania approved off-site (private provider and intermediate unit) alternative education programs. The fundamental research questions this study seeks to answer were:

- Is there a significant statistical difference in the academic success of students "at-risk" enrolled in an in-house AEP, compared to off-site AEPs?
- Is there a significant statistical difference with in-house alternative education programs improving student behavior compared to off-site AEPs?
- Is there a financial difference in educating students "at-risk" internally, compared to placing students outside the district in an off-site AEP?

Null Hypothesis

As developed above, students who are at risk of dropping out of school can find success in alternative education settings. According to Kliener, Porch, & Farris (2002), little knowledge exists about the extent of student success because of limited research. The purpose of this research study was to compare the academic, behavioral, and financial differences of students

enrolled in the Commonwealth of Pennsylvania in-house alternative education programs, compared to off-site alternative education programs

Null Hypothesis 1: *There is no difference in academic success of students "at risk" enrolled in an in-house/district AEP compared to off-site AEPs.* This null hypothesis is derived from the research question: *Is there a difference in the academic success of students "at-risk" enrolled in an in-house/district AEP, compared to off-site AEPs?*

Null Hypothesis 2: *There is no difference with in-house alternative education programs improving student behavior compared to off-site AEPs.* This null hypothesis originated from the research question*: Is there a difference with in-house alternative education programs improving student behavior compared to off-site AEPs?*

Null Hypothesis 3: *There is no financial difference in educating students "at-risk" internally compared to placing students outside the district in an off-site AEP*. This null hypothesis was derived from the research question: *Is there a financial difference in educating students "at-risk" internally, compared to placing students outside the district in an off-site AEP?*

Theoretical Framework

This study was based on the theoretical framework of the research findings by: Keith Wolfe (2008), Richard Korb (2012), and the research team of C. Michael Nelson, Jeffery Sprague, Kristine Jolivette, C. Smith and Tary Tobin (2010). These recognized and published researchers have produced significant findings in alternative education that coincide with this current study.

Wolfe (2008), examined the effectiveness of a site-based alternative education program for at-risk high school students. His research found statistically significant findings with regards

to grades, attendance, and behavior when compared with pre-placement, placement, and post-placement in alternative education programs. He found that grades and attendance were maintained while in the program, but declined after leaving the AEP. His study also implied that behavioral problems decreased while students were in the AEP.

While Wolfe (2008), researched the effectiveness of a site-based alternative education program, Korb investigated what motivates defiant and disruptive youth. In his research, he outlines effective academic and behavioral strategies for students at-risk. Korb's strategies on curriculum, instruction, and assessment can be measured by this current study's indicators for academic and behavioral success (passing core classes, transitioning, meeting academic goals, attendance, and student promotion).

Nelson, Sprague, Jolivette, Smith, and Tobin (2010) have performed extensive research on positive behavior supports in AEPs. Their research on best behavioral practices for successful AEPs created the foundation for this current study's second research question measuring behavioral effectiveness among AEPs. Their findings can be correlated and measured by this study's behavioral indicators (suspensions, expulsions, police interventions, and students meeting behavioral goals).

Setting of the Research

In the Commonwealth of Pennsylvania (PA), all alternative education programs must be approved by the Pennsylvania Department of Education (PDE) Alternative Education Disruptive Youth (AEDY) department. This study examined over 100 Pennsylvania approved in-house AEPs and PA approved off-site AEPs.

Significance of the Study

Many in-house AEPs were created to fulfill three specific goals. First, they were designed to bring back students at-risk, who were placed outside the district, into a secluded classroom housed within a district building and provide them with the district's academic rigor. Secondly, in-house programs were implemented to reduce poor student behavior. Finally, the in-house programs were designed to be a means to reduce costs associated with placing students outside of the district.

Research data for this study was quantitative in nature. At the end of every school year, all PDE AEDY approved AEPs must submit their annual report. This report collects data on AEPs academic and behavioral results. However, there is very little research performed on the comparison of in-house AEPs to off-site AEPs. Academic and behavioral data were collected through the archived PDE AEDY annual reports to determine if the alternative education program will have any influence on academics, attendance, and behavior. Financial data was collected through PDE annual expenditure reports related to alternative education, then compared to out-sourcing students to off-site programs.

Results of this study may also help other school districts and administrators across the Commonwealth of PA with the development and implementation of their alternative education program. Additionally, this study may reveal results that are useful to administrators, counselors, and teachers to gain a better understanding of the effects their policies, procedures, and educational strategies have on the behaviors and academics of students at-risk.

Alternative Education Measures

A quantitative analysis using archival data was used to determine AEPs level of effectiveness for the following three indicators: (a) financial costs, (b) academics, and (c)

behavior. Financial effectiveness of in-house AEPs was determined by performing a benefit-cost calculation of the total amount of resources spent on the Alternative Education Program. Financial analysis focused on comparing the yearly expenditures to operate an in-house alternative education program with the cost of placing students outside the district. The analysis focused on the PDE AEDY yearly reports collected on each individual in-house AEPs and off-site AEPs over a three-year period. A three-year period from 2011-2013 was chosen because there were no significant financial changes at the state level for approved AEPs.

The quantitative evaluation of the in-house AEPs academic level of effectiveness was accomplished by analyzing the academics, attendance, grade promotion, and transitions back to the regular educational environment. The components of interest are number of students who passed/received credit in all 4 core subjects, student attendance, academic goals met, student promotions, student transitions, and number of student dropouts. The level of effectiveness was calculated and presented for all AEPs in Pennsylvania and summarized for all significant indicators.

Analysis of in-house AEPs as an effective means for improving students' at-risk behavior was quantitative in nature. The components of interest included behavioral data collected through the PDE AEDY annual reports, from 2011-2013, with students between the ages of 13-19, that involved suspensions, expulsions, drop-outs, and police intervention. Effectiveness levels were calculated and presented for in-house AEPs, along with off-site AEPs, and then summarized for all significant components.

Financial analyses of in-house AEPs were quantitative in nature to determine the level of effectiveness for a district. This analysis was accomplished by comparing and contrasting yearly expenditures that included: (a) salaries, (b) benefits of teachers, (c) and supplies. Total amount

of expenditures were divided by the total number of days that students were placed into in-house AEPs. Data was compared to the average cost per pupil, per day if placed outside the district. Outside placement costs per day was determined by selecting a sampling of 10 off-site AEPs daily fees. Daily fees were totaled then divided to determine an average cost per day rate. There are some off-site AEPs that charge districts a yearly rate per seat in the program. For example, a district may purchase 5 seats for their disruptive youth. Districts can use those seats any way they desire. Depending on the length of stay, a district could use their 5 seats for multiple students as long as they do not overlap or exceed the 5 seat limit at any given time throughout that calendar year. However, if they purchase 5 seats and only place 2 students, the district forfeits the money for the other 3 seats. For the sake of this research study, the financial focus was on a sample size of off-site AEPs that charge on a daily basis. The level of effectiveness was calculated and presented for the in-house AEP population over a three-year period.

Definition of Terms

Alternative Education - A school that addresses the needs of students that typically cannot be met in a regular school, provides nontraditional education, serves as an adjunct to a regular school, or falls outside the categories of regular, special education or vocational education (Aron, 2006).

Alternative Education for Disruptive Youth (AEDY) Program - A program approved by the Pennsylvania Department of Education (PDE) that is designed to support a school's efforts to provide a temporary placement for disruptive students in grades 6 through 12. Students enrolled in a program will continue to make academic progress and work to remedy disruptive behavior through counseling and other behavioral interventions. Unless the seriousness of a student's behavior warrants immediate placement, local programs shall refer and admit students only when

other documented and established methods of discipline have failed, and shall limit enrollment to disruptive students as defined by the Pennsylvania School Code (24 P.S. 19-1901-C (5) (www.education.state.pa.us).

Disruptive Student – A student who poses a clear threat to the safety and welfare of other students or school staff, creates an unsafe school environment, or whose behavior materially interferes with the learning of other students, causing disruption in the educational process (www.education.state.pa.us).

In-House – In-house refers to an education program funded and administered by the home district. This program is housed within one of the district's current school buildings (www.education.state.pa.us).

Level of Effectiveness –Measured by the degree to which objectives are met academically and behaviorally. Level of effectiveness is a measure of how efficient the program was for each independent variable, based on the percentage of students who had success.

Off-site – An institution that is operated by an individual, or a for-profit or not-for-profit entity and is approved by the Pennsylvania Department of Education (PDE) to provide alternative education programs in accordance with the requirements of the Pennsylvania School Code (24 P. S. § 19-1901-C et seq. and 24 P. S. § 19-1901-E et seq.). Off-sites do not have authority to operate a school but are permitted to contract with school districts to provide services for students placed in approved AEDY programs. This approval does not constitute a license or an accreditation (www.education.state.pa.us).

Students at-Risk– Students at-risk refers to those students who face a greater risk of not meeting the requirements for graduation in public schools for reasons such as, significant discipline issues, poor attendance, ethnicity, poverty, and geographic location. These students are

potentially unable to achieve educational success in the traditional public schools (www.education.state.pa.us).

Traditional School – A school that is maintained at public expense for the education of the children of a community or district, and that constitutes a part of a system of free public education commonly including primary and secondary schools (Dictionary.com website, n.d.).

Assumptions

This study explored how PA in-house alternative education programs impacted students' grades and behaviors while providing cost effective programs for their own students. By comparing the Pennsylvania in-house and off-site AEPs, the degree of academic, behavioral, and financial effectiveness was determined.

For the evaluation of all AEPs, it was assumed that the students enrolled in the districts' in-house alternative education programs entered the programs because they could not function within the traditional school settings. It was also assumed that the students did not benefit from prior intervention strategies provided by the districts. This evaluation led to the conclusion that a student at-risk can succeed when enrolled in a district's in-house AEP.

Limitations

Limitations of this study were limited to the total number of Private Provider AEPs and Intermediate Unit AEPs providing daily costs per day to place a student into their alternative education program. Another limitation of this study was financial results for Private Provider and Intermediate Unit AEPs did not include the cost of transporting students, because of the difficulties in ascertaining these records. The study was also limited to the degree of accuracy of each school district's annual report. Suspension and expulsion data were reported by the PDE as a sum total, and were greater than the total number of students enrolled. This data indicates that

there were repeat offenders included in the final sum total. Another limitation of this study is that it did not research how AEPs procedurally move students through their respective programs. Meaning that the academic and behavioral practices for all types of AEPs may not have common assessments, benchmarks, and standards; only final indicator results were used. Data retrieved from the PDE AEDY annual reports relied on the integrity of the program's coordinators submission of data to the PDE-AEDY.

Summary

Educators understand that traditional schools are limited in their resources to meet the needs of every child. Alternative schools offer another avenue for students who are at-risk to achieve success. In summary, this study will allow stakeholders in school districts, and others reading these findings, the opportunity to evaluate the effectiveness of an in-house alternative education program. Results of financial obligations, academic achievement, and behavioral issues will create a clear picture for all parties to develop a course of action that will allow each district to address its students at-risk.

CHAPTER 2

LITERATURE REVIEW

The purpose of this study was to examine the academic, behavioral, and financial effectiveness of Pennsylvania in-house alternative education programs (AEPs) to off-site AEPs. This chapter will review the literature related to the structure of Alternative Education Programs (AEPs), students served in Alternative Education Programs, effective strategies in Alternative Education Programs, and financial issues associated with Alternative Educational Programs. This research included sources such as textbooks, case studies, journal articles, internal sites, and dissertations.

Alternative education philosophies in the early 1900s were a result of the beliefs of Jean-Jacques Rousseau, Johann Heinrich Pestalozzi, and Fredrich Froebel. Rousseau argued that education should follow the child's natural growth rather than the demands of society, which, he claimed, tend to thwart all that is organic, natural, and spiritual (Miller, 2014). These beliefs and practices based on the progressive education movement held true until the 1960s. It was during this time in the United States that the social justice movement resonated throughout the country. In this era, education was one of many systems that were heavily scrutinized. There were teacher strikes, student demonstrations, and heightened concerns about public education system. Thus, the genesis of alternative education began in the mid-1960s and has now developed into a concept that involves a vast variety of learners. When AEPs were first implemented, they were considered a short-term intervention program designed to provide a structured learning environment for students to continue their education and accumulate credits along with obtaining life skills for adulthood (Banks, 2005).

Pennsylvania alternative education programs also started to develop across the Commonwealth during this time period. However, it wasn't until the early 1990s that the Commonwealth started to establish control of these programs. Prior to the Commonwealth governing AEPs, alternative education programs were funded by the local school districts through taxes and state subsidies. It was the "safe schools act" in 1995 that changed the way districts could fund alternative education. A state-level grant program was initiated, allowing for school districts to apply for grant money to off-set the cost of alternative education. Districts choosing to partake in the Commonwealth's grant program are obligated to follow the guidelines set forth by the Pennsylvania Department of Education (PDE). Across the Commonwealth of Pennsylvania, AEPs have experienced a growth. In 2010, there were 614 alternative education programs in operation, in 64 of the 67 counties, enrolling over 30,000 disruptive youth (Education Law Center, 2010). This growth required the PDE to become more active in governing the approved AEPs across the Commonwealth. Pennsylvania Department of Education's involvement included the establishment of guidelines and processes, annual reports, data collection systems, and a support system for both in-house and off-site approved AEPs.

Pennsylvania's rapidly changing public education system involves educating disruptive youth across the Commonwealth. Research regarding these programs and their effectiveness remains limited. There are many forms of AEPs such as charter schools, magnet schools, vocational schools, and schools for disruptive youth. This particular study will focus on AEPs which target disruptive youth. A disruptive student exhibits, to a marked degree, any or all of the following conditions: disregard for school authority, including persistent violation of school policy and rules; display of or use of controlled substances on school property or during school-affiliated activities; violent or threatening behavior on school property or during school-related

activities; possession of a weapon on school property, as defined by Pennsylvania Crimes Code (18 Pa. C.S.A. Section 912 – relating to possession of weapon on school property); commission of a criminal act on school property; misconduct that would merit suspension or expulsion under school policy; and/or habitual truancy (all procedures, including the implementation of a Truancy Elimination Plan must have been implemented and followed prior to placing habitually truant students in Alternative Education for Disruptive Youth programs) (www.education.state.pa.us).

This chapter will discuss the types and structure of AEPs. All school districts face the challenges of meeting children's individual needs. Some students have difficulties succeeding in a traditional educational environment. Districts spend an enormous amount of time and resources on developing strategies to educate these non-conforming students. Often times, public school strategies fail, thus, increasing the chance of a student failing or dropping out of school. District administrators then turn to alternative education options for these students. Alternative education provides districts with an array of strategies within the school system and allows disruptive students the opportunity to work in an environment that is conducive to their learning style. The term "alternative" correlates with programs designed for disruptive students or students at-risk. Raywid (2001) describes three types of alternative programs:

- Type 1 - Academic Alternative - All students can learn if they experience a learning environment that meets their needs and learning styles. Type 1 programs are usually for students needing more individualization and those students looking for an academic challenge or enriched curriculum.
- Type 2 - Alternative Discipline Programs – A final alternative for disruptive students. Focus is on behavior modifications. The goal is usually to segregate,

isolate, and/or reform disruptive students for a specific period of time, usually short term.

- Type 3 - Therapeutic Programs – Assume students need change in order to succeed in mainstream education. This occurs through counseling and other therapeutic supports. These programs are designed for students with emotional problems that create barriers to learning (Raywid, 2001).

Most Type-2 AEPs are short-term programs that focus on behavior modification-correcting student behavior patterns that result in educational failure or disruptive behavior in or out of school (Warren, 2014). These short-term programs are either in-house or off-site AEPs. Districts that outsource their students to off-site AEPs pay a daily cost per student (CPD). These rates can fluctuate depending on the student. A student with an individual education plan (IEP) or a student with special needs can dramatically increase the CPD (Zupan, 2012). Stand-alone AEPS are staffed by their own administrators and teachers and accept students from multiple districts. Their curriculum is usually centered on the core subject areas math, English, science, and social studies (Korb, 2012)). Since curriculum is limited, the time students attend during the day is also reduced compared to traditional education environments of eight hours per day. Corresponding with the core subjects, students receive counseling services for behavioral modification while attending these AEPs.

Not all districts outsource their disruptive students. Many districts, especially rural districts, do not have the option of joining educational consortiums, so they offer their own in-house AEPs. (In-house, or on-site AEPS, are usually staffed by the district's administration and district teachers.) Typically, these programs are designed to simply remove the disruptive student from the traditional education environment. Many schools create a separate and

segregated room for their alternative students. Barr and Parrett (2007) contended that the per pupil cost and pupil-teacher ratio for AEPs should be consistent with other schools. However, this is a task difficult to achieve due to much lower enrollment and the types of counseling and academic interventions required by students at-risk. An in-house AEP enables continuity with regards to curriculum between the AEP and regular education classrooms. This continuity usually creates a better transition for alternative students when re-entering the regular classroom setting. Districts with on-site AEPs have daily access to the alternative student's attendance and academic records, allowing for increased individual attention. In either case, these AEPs have been created to reduce discipline issues, deter dropouts, desegregate classrooms, and enhance school effectiveness (Raywid, 1999).

Best Practices for Successful Alternative Education Programs

Creating supportive school environments requires individualized opportunities to be designed to meet the needs of students at-risk (Foley & Pang, 2006). Districts must understand and plan for the diverse needs of students and families, including social concerns, disabilities, and other individualized issues (Donlon, 2008). Since the majority of alternative education students have poor academic performance, social, and behavioral deficiencies, it is important to create an educational environment for them to succeed. There are eight factors that consistently describe effective AEPs: 1.) caring, knowledgeable adults, 2.) sense of community, 3.) assets approach, 4.) respect for youth, 5.) high expectations for academic achievement and behavior, 6.) holistic, comprehensive, multi-dimensional developmental curriculum, 7.) authentic, engaging learning that connects school and work, 8.) support and long-term follow-up services (Kerka, 2003). Nelson, Sprague, and Tobin (2009) researched and detailed their findings on characteristics that define successful AEPS:

- **Lower student to teacher ratio**. The first effective practice for students in Alternative Education settings is the use of lower student to teacher ratios than typically found in most general education classrooms. The intent of this practice is to provide more personal, individualized time for each student. It is presumed that this increase in individualized time will correspond to higher levels of school engagement, bonding, and commitment than what might be achieved in a more traditional setting.
- **Highly structured classroom**. The second effective practice is a highly structured classroom with behavioral classroom management, where expectations and schedules are explicitly taught and reinforced. Students receive reinforcement contingent on displays of specific behavioral expectations making the inappropriate behavior irrelevant, ineffective, and inefficient. Within a highly structured classroom, prompting and corrective feedback are often temporarily needed until the students are able to self-manage their behavior.
- **Use of positive methods**. Positive methods to encourage appropriate behavior are more effective than punitive measures to decrease inappropriate behavior. For youth in AE settings, positive methods are likely to be more effective at behavioral change as prior exclusionary practices have not successfully produced behavioral change. Positive methods may include behavior specific praise and group contingencies for appropriate behavior.
- **School-based adult mentor.** Students in Alternative Education settings may benefit from a positive relationship with an adult at school. The mentor's responsibilities may include (a) listening, (b) helping the student to solve problems by providing ideas and strategies, and (c) observing, encouraging, and reinforcing appropriate behavior.

- **Functional Behavioral Assessment (FBA).** Students in Alternative Education settings are likely to benefit from the use of FBA as school personnel who have a greater understanding of the triggers and motivations for particular behaviors such that they will be able to make the problem behavior irrelevant, ineffective, and inefficient while making appropriate behavior much more relevant, effective, and efficient through changes in antecedents and consequences while teaching replacement behaviors.
- **Social skills instruction.** Many students in an Alternative Education setting may need to learn various social skills such as: (a) classroom survival (e.g., following directions, asking a question, and dealing with a response of "No"), (b) friendship-making, (c) effective problem and conflict resolution, (d) alternatives to aggression, (e) management of anger, and (f) work-related skills.
- **High quality instruction.** Academic instruction (e.g., academic remediation) is often necessary for students in Alternative Education settings. These students are likely to need additional academic intervention in reading, writing, math, social studies, and science delivered in small groups or individualized with many opportunities to practice new academic skills. Effective academic instruction in Alternative Education is necessary to ensure that students catch up or keep up with their same-grade peers in the typical school setting.
- **Parent involvement.** Parental involvement is a necessary practice including communication with school staff concerning student progress, participation in school activities, and participation in behavior intervention programming. Interventions that include parent involvement in positive ways are likely to have significant positive effects on students in Alternative Education (Nelson, Sprague, Jollivette, Smith, & Tobin, 2009).

Hosley (2003) reported in his survey and analysis of alternative education programs that program processes and goals are viewed equally by teachers and administrators; however, disciplinary programming was statistically more important to teachers. Hosley's survey of teachers and administrators also identified some overriding characteristics of AEPs in Pennsylvania: Programs are generally more than one-half day and often full-day programs; services are provided throughout the 180-day school year; more than 50 percent of students spend at least one-half year in the alternative program, with 23 percent spending a full school year or more; teacher to student ratios are most often 1 teacher to 6 students and the large majority of programs have ratios of 1 teacher to 12 or fewer students; curricula are geared most highly toward academic change and/or behavior change and individualization; a significant number of programs indicate working on balanced multiple foci that include academic, therapeutic, and behavior change; more than 60 percent of the respondents to the teacher survey note that curricula are individually adapted in the alternative setting; in general, career counseling and career curricula appear to be of only modest priority; discipline and behavior change are cited most often as important processes for these programs; 67 percent of respondents name their location as separate from the regular classroom in another building, or a self-contained classroom in the same building, as regular education (Hosley, 2003).

Hosley concluded that the majority of Pennsylvania AEPs are overseen by an administrator who has combined duties. Full-time administrators are rare in Pennsylvania for AEPs. However, Hosley further stated the need for a full-time administrator with regards to decision making responsibilities.

Characteristics of Ineffective AEPs

There are significant differences between successful AEPs and ineffective AEPs. Ann Fitzsimmons-Lovett outlines the requirements of an ineffective AEP. She refers to the 1970s where AEPs took on an appearance that included a growth in socio-economic disadvantaged youth with diverse backgrounds being placed into alternative schools. This appearance created the question "are alternative schools inherently unequal?" Focusing on this concept, Fitzsimmons-Lovett identifies characteristics of ineffective AEPs: large size, punitive focus, coercive approach, limited teacher and student choice, minimum caregiver involvement, inadequate, poorly trained staff; unclear vision, inconsistent operating policies, and little to no community involvement (Fitzsimmons-Lovett, 2011). Fitzsimmons – Lovett research correlates with the Educational Law Center of Pennsylvania's research on alternative education. Alternative education programs that are operated with an emphasis on discipline actually impedes student progress (Education Law Center, 2010).

Coinciding with Fitzsimmons-Lovett's research was a study performed by Quinn and Poirier in 2006. They found that AEPs that did not have administrative support, behavior support and supervision, classroom management, school and work based learning, and a process for screening and referral were found to be less effective (Quinn & Poirier, 2006). Lack of formal training to work with this particular student population, staff development and clear expectations from 'sending schools' seemed to convey to staff members that they had to rely on their own personal training and educational philosophies, rather than on research-based best practices (Hoge, Liaupsin, Umbreit, and Ferro, 2014). Another component of ineffective AEPs is the lack of flexibility and the inability to break from the traditional school structure (Tobin & Sprague, 2000). Individual student needs should be addressed by AEPs and they should not try

to make the student fit the program. AEPs that are not flexible with curriculum and instruction are less likely to succeed (Wolfe, 2008).

Students Serviced in Alternative Education Programs

Alternative education (AE) settings such as residential and juvenile justice facilities and self-contained schools are complex settings for students with unique academic and behavioral needs (McDaniel, Jolivette, and Ennis, 2014). Understanding the types and structures of AEPs is important; however, equally as important are the types of students placed in AEPs (Korb, 2012). Students at-risk are students who face a greater risk of not mastering the educational opportunities of public schools for reasons such as significant discipline issues, poor attendance, ethnicity, poverty, and geographic location. Developing an understanding and sense of empathy for disruptive/and/or/defiant students will enhance students' ability to be academically successful. The definition of an unruly student is as follows:

> *Difficult or impossible to discipline, control, or rule; resistant to control, fails to submit to rule or control; rebels against authority; one obstinately bent on having his/her own way; willfully and often pervasively departs from what is desired, expected or required.* (Korb, 2012, p. 2)

The aforementioned issues are considered to be the major factors that keep students from graduating. Wolfe (2008) identified in his dissertation *Examining the Effectiveness of a Site-based AEP for At-Risk High School Students* the general factors that put students at risk:

Personal factors that put students at risk	Social/family factors that put students at risk	School factors that put students at risk
• Drug/alcohol use/abuse • Pregnancy • Member of racial minority • Court involvement • Learning disabilities • Attention deficit and hyperactivity disorders • Low self-esteem • Mental illness • Lack of internal motivation • English as a second language	• Dysfunctional family • Lack of parental regard for education • Sibling/parent dropout • Low socioeconomic status	• Poor academic performance • Attendance/absenteeism • Lack of respect for authority • Lack of available and adequate counseling opportunities • Poor self-control • Disregard for rules or laws • Grade retention for one or more years

Placement of Students

The Pennsylvania Department of Education (PDE) guidelines for placing students into alternative education are clearly outlined (www.education.state.pa.us). PDE states that a disruptive student who exhibits any or all of the following conditions can be placed into alternative education: disregard for school authority, including persistent violation of school policy and rules; display of or use of controlled substances on school property or during school-affiliated activities; violent or threatening behavior on school property or during school-related activities; possession of a weapon on school property, as defined by Pennsylvania Crimes Code (18 PA. C.S.A. Section 912 – relating to possession of weapon on school property); commission of a criminal act on school property; misconduct that would merit suspension or expulsion under school policy; and/or habitual truancy (all procedures, including the implantation of a Truancy Elimination Plan must have been implemented and followed prior to placing habitually truant students in AEDY programs) (www.education.state.pa.us). Initial intent of the PDE's placement criteria was to limit AEPs to students who commit serious violations. According to research

performed by the Educational Law Center of Pennsylvania (2010) only 19.3% of students enrolled in AEPs across the Commonwealth were placed for "violent behavior" and "possession of a weapon." Forty percent of AEP students were placed for lesser infractions such as "disregard for authority" and "misconduct that would merit suspension or expulsion" (Education Law Center, 2010).

Every student placed into an AEP is unique. Therefore, successful AEPs address the student issues or concerns (usually behavior or attendance) and develop programs that are individually implemented for that child's needs. Effective behavioral practices for students with emotional/behavioral disorders (E/BD) are critical (Flower, McDaniel, & Jolivette, 2001). Often times, school districts place students with E/BD into AEPs because they do not have the resources or intervention programs in place to handle this type of student. Suspensions, expulsions, academic failure, retention, and school dropout are common experiences of students with E/BD (Flower et al., 2001). However, the negative trajectory does not end there for many of these students. Instead, many students with E/BD become adults who experience unemployment (Zigmond, 2006), substance abuse, and incarceration (Quinn & Poirer, 2004). This negative cycle of behavior reinforces the need for early intervention. The most logical place for these interventions to be implemented is in a school system (Flower et al., 2001). Alternative education programs within a school system must be designed to be flexible in order to meet the individual needs of the at-risk student (Tobin & Sprague, 2000). Tobin and Sprague found that a major shortcoming in AEPs was the lack of flexibility and the inability to break away from the traditional school structure. Many students are placed in AEPs because of behavioral or attendance concerns, flexibility within the AEP is paramount. The academic needs must co-exist with counseling services in order to address the behavioral issues. Length of stay in

an AEP must also remain flexible. A stay too short may not be able to correct the issues at hand, whereas a stay too long could impede the academic progress of the child. Research has indicated the importance of scheduling flexibility to meet the individual needs of the child. A study by Duke and Griesdorn (1999) included schools in which the scheduled day is reduced, as many students at-risk have difficulty focusing on instruction for the length of a normal day. Although flexible schedules permit schools to better accommodate the needs of its students, most school districts continue to use a single rigidly established meeting time per day (Wolfe, 2008).

Effective Academic and Behavioral Strategies in AEPs

As mentioned earlier, AEPs are usually designed to be short-term intervention programs. Academic success of AEPs correlates to the curriculum, instruction, assessment, counseling support, placement time, and facilities (Dean, Hubbell, Pitler, & Stone, 2012). Correlating the aforementioned areas to academic success can easily be measured by using the following indicators: percentage of students passing core classes and receiving credit, percentage of students transitioning to the next sequential grade, percentage of students returning to the traditional educational environment, and percentage of students graduating. Successful AEPs understand that a one-size-fits-all curriculum will not work for the majority of students placed into an alternative education setting. A creative approach by administrators and teachers in the organization of the curriculum around the individual needs of each student will produce favorable academic outcomes.

Initial steps in developing a creative curriculum include determining how the curriculum will be delivered. For example, some AEPs use supplemental programs such as Study Island or A-Plus Learning. These on-line programs are aligned to the state standards and do not require a teacher to be physically present. Some AEPs use a blended approach to deliver the curriculum.

A school's academic courses are inputted into online software. Alternative students receive instruction online from teachers. These teachers also meet with the students periodically to address any concerns. Whatever type of curriculum delivery is selected, it needs to be altered from the traditional environment where students at-risk have already been unsuccessful.

A second component to AEPs curriculum understands that the curriculum needs to focus on individual skills and career training that will prepare students for post-high school employment. Since most students are kinesthetic learners, the curriculum should allow for activities where students can create projects or work on assignments with other students (Brookhart, 2008). Even the most disruptive students find it easier to stay focused and engaged when they are allowed some freedom to work with others (Korb, 2012).

Most AEPs have small teacher-to-student ratios that allow for more latitude to change, adapt, and create curricula for their students (Gilbert, 2010). This curricula latitude is also vital, because there are often age and grade differences within the AEP's classroom. Because of these differences, Henrich (2005) believed that an AEP's curriculum should include innovative course selection, self-paced learning, a focus on vocations, and elements of social skill building. In addition to Henrich's research, the Principal's Partnership (Muir, 2004) discussed curriculum characteristics that were shared by successful AEPs. These characteristics include: technology integrated throughout the curriculum; college and career preparation; hands-on, project-based learning; authentic assessment of student work; work that has a connection to students' interests (Muir, 2004).

Effective Instruction in Alternative Education Programs

Coinciding with curriculum strategies, the way in which teachers deliver the instruction to students at-risk is of equal importance. This instruction begins with the lesson design. Many

disruptive students or students at-risk have problems concentrating, especially at the beginning of class (Feinstein, 2004). Using entry or focus activities as a classroom management and instructional tool helps to alleviate a lot of the disruptions. Focus activities engage the students as soon as they enter the classrooms and create environments that emphasize academics. When students enter a classroom that has reliable and consistent expectations of what is needed to succeed and consistent access to the requisite materials, valuable learning can take place (Korb, 2012). Students' success in the classroom coincides with a well-structured lesson that has all of its materials and objectives in place before the student arrives (Hoffman, 2007). Every minute of the class period needs to be planned in order to minimize idle time. Idle time (or unstructured time) is an opportunity for disruptive students to misbehave. Understanding the importance of keeping disruptive students on task is a key component for an alternative education teacher.

Lesson Transitions

Teachers who use effective transitions within a lesson understand that a disruptive student's attention span is not very long. Changing instructional delivery methods every 10-15 minutes, and using multiple instructional approaches like small group activities, whole class activities, projects, and online activities to reach the day's objective is helpful in maintaining class control (Korb, 2012).

Along with lesson design, differentiated instruction is a key ingredient to achieving academic and behavioral success for students enrolled in an AEP. All students learn in their own unique and individual ways and at different paces. Effective AEPs understand the concept of differentiated learning and incorporate this practice into their classroom. It is important to develop curricula and lessons that allow for each individual to be successful. Differentiated learning will provide students with multiple options to understand and master the desired concept

(Narvaez, 2010). Students in AEPs enter with an array of needs; therefore, teachers must be willing and able to engage students in instruction through different modalities by addressing differing interests and using varied rates of instruction, along with varying degrees of complexity (Wolfe, 2008). Students are placed into AEPs because they were not successful in the traditional educational environment. Reasons why they were not successful must be explored by the AEPs staff and a new educational plan needs to be implemented. This new plan must be individualized and tailored to each student placed in alternative education in order to produce a more positive learning environment.

Relevance of Instruction

Another component to effective instruction in alternative settings is the instruction's relevance to the learner. A student's ability to relate to instruction can directly or indirectly affect his academic and behavioral performance. AEPs are the last resort for students at-risk to obtain a viable education and become productive citizens in society. AEPs should focus on what is important to the learner. Inspiring unmotivated students requires tying their interests and desires to learning opportunities (Searle, 2013). It is well documented that learning increases when the content relates to the interest of the learner (Cleveland, 2011); (Searle, 2013); (Korb, 2012); (Dean, Hubbell). AEPs need to be cognizant of the fact that they should not spend the majority of the day attempting to remediate academic deficiencies. Ample time must be given to allow students the opportunity to explore concepts that interest them and provide them the tools to build upon their strengths. Altering the delivery of curriculum and instruction to the demands of the individual student demonstrates legitimate care for each student (Hoffman, 2007). The more emotional and psychological connections a teacher has with each student, the more likely a positive bond will be formed between teacher and student. Understanding the driving forces in a

student's life will provide teachers with powerful information to address student behavior (Feinstein, 2004).

Effective Assessment Strategies in Alternative Education Programs

When instruction is relevant to the student, he becomes more engaged in the learning process. Once engaged, he becomes motivated to control his academic and behavioral outcomes. Research has shown that students learn in different ways; therefore, they should also be assessed in different ways. According to Korb (2012), student control is rated as the highest motivator for student learning. Korb believed that students should be given an avenue to obtain what they want, a passing grade. Korb asserts that educators must provide their students with control of their grades, ultimately creating a path for students to soar as high as they can through supplemental extra learning (Korb, 2012). Most students at-risk are poor test takers; however, they can be assessed in other ways to determine if they understand a concept.

Successful AEPs assess students through portfolios, projects, small group assignments, and narrative appraisals instead of traditional assessments such as multiple choice, fill in the bland, and true/false tests (Wolfe, 2008). Providing multiple assessments for students at-risk to demonstrate their knowledge of a basic concept creates more opportunities for academic success. Multiple assessment methods also give a more complete and accurate view of each student and where that student is in achieving stated targets (McMunn, Schenck, & McColskey, 2003).

Effective Behavior Support Programs in Alternative Education Programs

Curriculum, instruction, and assessment strategies are crucial to an AEP's success. However, it is the behavioral support programs that produce effective long term change for alternative education students (Elliot, 2010). Researchers have found lower rates of school drop-outs occur if there is a positive school climate, if a sense of belonging is fostered, and if

systematic efforts are made to assist students to succeed in school (Lehr, Johnson, Bremer, Cosio, & Thompson, 2004). Indicators that measure an AEPs behavioral success include: percentage of students meeting established behavioral goals, number of suspensions and expulsions, number of times police intervention was required, and number of students who dropped out and did not re-enroll (Elliot, 2010). Drop-out rates for students with emotional or behavioral disabilities is approximately twice that of general education students (Colvin, 2007). Students challenged about their behavior and provided with choices for better responses, demonstrate fewer outbursts of defiant and disruptive behavior (Colvin, 2007). Understanding this process, one could conclude that behaviors can be learned. This concept of learned behaviors can be enhanced through structured behavioral strategies.

Strategies for Managing Behaviors

Alternative education teachers can improve the opportunities for success within their classroom by strategically preparing seat assignments, offering clearly stated expectations and consequences, maximizing parental contact, creating creative curriculum alternatives, and devising contingency plans (Colvin, 2007). Hoffman Kaser (2007) states that the fewer the rules, the more likely students with behavioral problems are to follow through with expectations. Coinciding with fewer rules, daily performance sheets for each student allows the student to monitor and control his/her own behaviors (Kaser, 2007). Daily performance sheets allow students to earn points throughout the day in order to maintain a certain level of behavior. Students may lose points for being disruptive, defiant, using inappropriate language, refusing to work, etc. When a student does not obtain enough daily points, he understands the consequences that will be administered. Giving students the power of choice minimizes disruptive outcomes.

Whereas behavioral strategies and the power of choice are critical factors in any AEP, so too are the supplemental life-skill opportunities that need to be provided by AEPs. The life-skills component of AEPs is important in developing students to be productive, contributing members of society. Many alternative education students are deficient in this area. Through small group and individualized counseling sessions, AEPs can enhance self-esteem and career readiness. The more opportunities to learn job preparation skills (writing a cover letter, résumé, and job application), the more likely students are going to be successful when entering the work force. Alternative education students' ability to understand basic job skills, like arriving to work on time, maintaining good attendance, developing communication skills, and wearing proper attire, will improve their chances of sustaining a job and becoming productive citizens in society.

Aforementioned behavioral strategies can positively impact students with behavior problems. This impact can be measured by performing a pre- and post-behavioral assessment test when the disruptive student enters and exits the AEP. One such test is the BASC-2 test. This test is a comprehensive set of rating scales and forms. The BASC-2 involves and analyzes input from teachers, parents, and the student. The results of this data allow one to understand the behaviors and emotions of the child being tested. This triangulation method of gathering data and analyzing behavior from the individual, teacher, and parent provides a more complete view of a student's behavior. The BASC-2 is an effective way to measure behavior with highly interpretable scales that are grounded in theory and research. This test is ideally suited for identifying behavior problems required by Individuals with Disabilities Education Act (IDEA) and for developing functional behavior assessments (FBAs) and Individualized Education Plans (IEPs).

Participation Length

Another aspect involving effective strategies in AEPs that needs to be considered is the length of time a student will participate in the program. The PDE requires that all approved AEPs offer at least 20 hours per week of academic instruction. They must also operate 5 days per week and 180 days per year. Any program operating less than 990 hours must receive approval annually from the PDE. Hosley (2003) found in his research that timeframes in AEPs across the state of PA can be broken down into four categories: less than 9 weeks, 9-18 weeks, more than 18 weeks, but less than a year, and one school year or more. Hosley also discussed that both rural and urban AEPs' length of participation most often succeed during a 9 week period. Only 25% of rural AEP and 18% of urban AEP students participated less than nine weeks. AEPs in which students participated for over one year also differed among urban and rural programs: 24.8% for urban and 14% for rural AEPs.

Hosley concludes that these differences may be a result of time spent per day in the AEP. His research findings show that rural AEPs spend between 3.5-6 hours in instruction per day compared to urban students spending less than 3.5 hours per day. Thus, the more time per day spent by rural AEPs may explain the shorter participation terms.

Alternative Education Programs Funding

Time spent in AEPs is not only an academic concern; it is also a financial concern for districts. Educating students at-risk in an alternative setting is a crucial decision for district stakeholders. Is there a significant financial difference for districts to educate their own alternative students compared to out-sourcing them? Determining whether or not to send students at-risk to outside placements or to provide on-site alternative education within the district is the major question that must be addressed. This decision usually results in districts

analyzing the cost per-pupil per-day (CPD) for educating students at-risk. The issue of funding AEPs often creates a cognitive dissonance between district educational leaders and school finance departments. District financial personnel often argue that the cost of running AEPs is too great because the programs target a small population and divert limited financial resources from the general education program (Wolfe, 2008). The Center for Rural Pennsylvania (CRP) last report on the Commonwealth of Pennsylvania's AEPs occurred during the years of 2000-2005. This report determined that the PA AEDY programs across the Commonwealth showed a significant increase (83 percent) in students needing to be serviced in AEPs. From 2000-2003, state funding was at its highest level ($26.2 million). In 2004 and 2005, the CRP reported that state funding for these programs decreased. In 2004 and 2005, the funding was cut by 21 percent to $20.6 million (Hosley, Hosley, Thein, 2009). As funding decreased in 2004 and 2005, the percentage of students needing alternative education services declined by 32 percent. When analyzing the 2006-2007 AEDY funding awards, the Center for Rural Pennsylvania revealed that: 43 percent of awards went to rural school districts and 57 percent went to urban school districts; rural school districts received a total of $3.2 million in awards, 21 percent of the total appropriation provided to school district, and urban school districts received $12.2 million in awards, or 79 percent of the total appropriation provided to school districts; 505 of the 599 awards were less than $50,000; 64 awards were between $50,000 and $100,000; 30 awards of more than $100,000 were allocated, including a $2.6 million award to the School District of Philadelphia and a $337,554 award to the Pittsburgh School District; 5 percent of the awards comprised more than 38 percent of the total AEYD appropriation; and all of the awards for more than $100,000 went to urban school districts or intermediate units (Hosley, Hosley, & Thein, 2009).

Financing AEPs in small rural districts compared to larger urban districts also differ. Districts with small student bodies have a limited tax base and fewer students who need an AEP. Thus, decreased enrollment becomes cost prohibitive. Since urban school districts have a larger student population involved in AEPs and funding is distributed on a per student basis, they receive more money from the state. Rural districts need to be cognizant of the funding allocations (Hosley, Hosley, & Thein, 2009). If rural districts do not have enough students enrolled in their programs, it may not be cost effective for them to operate their own AEPs. At the local level, school districts are paying on average $150 per day per student to place a child outside the district. The CPD significantly increases for children who require special education services (J. Zupan, personal communication, September 2012). Because of these costs, districts need to determine if they have enough AEP students to warrant and sustain an in-house AEP. Another factor in this decision understands what research has suggested, smaller class sizes are critical to the success of an AEP. Smaller class sizes means smaller teacher-student rations, therefore, increasing the per pupil cost.

Two suburban school districts in Montgomery County, Pennsylvania, decided to educate their own students instead of placing them outside the district. Both districts incurred costs in the millions to educate and transport their students to another AEP. North Penn's director of student services, Louis J. Rusnock, stated that it was more cost-effective and more flexible to educate their own AE students. H. Nicholas Chubb, the assistant superintendent of the Souderton School District, created an AEP that provided a better transition for AE students to re-enter the general education program. Rusnock estimated that North Penn would pay about $17,000 this school year in tuition for each of the district's 64 students (Sanders, 2002). His plan to internalize the district's AEP would save the district approximately $13,000 per student.

Rusnock's proposal to the North Penn Board of Education projected $136,000 savings the first year and another $155,000 the second year.

In the Souderton School District, Chubb said that the district paid $21,000 per student excluding transportation for its 36 AE students. Chubb's plan to contract internally with Lakeside Alternative School would decrease the district's AE budget by $200,000 the first year (Sanders, 2002).

Both districts are structured differently. However, each district chose to bring their students at-risk back to their district. It is the belief of these districts that their newly structured AEPs will not only be more cost-effective, but will also increase the curriculum rigor, improve transitioning, and rehabilitate student behaviors.

Although short-term costs for educating students at-risk may be high, the skills, counseling, and lessons learned in AEPs allow students at-risk to be self-sufficient upon graduation. The short-term costs to graduate students at-risk pay dividends compared to long-term potential costs of dropouts. High school drop-out rates are increasing across the nation as nearly 7,000 students drop out of school a day in the United States (Alliance for Excellent Education, 2011). Annually, that totals 1.2 million students who do not graduate with their peers as scheduled (Alliance for Excellent Education, 2011). Barton (2005) found high school matriculation peaked at 77.1% in 1969 at the national level. By 2000, the completion rate dropped to 64.9%, and the graduation rate continued to decrease to about 66% through 2004. This decrease in graduation rates is alarming because it costs communities and states a significant amount of money. Education also moves citizens away from government support programs. High school graduates need 40% less welfare (Garfinkel, Kelly, & Waldfogel, 2005). High school dropouts cost society up to $8,000 more in average welfare and aid than high school

graduates (Baum & Pavea, 2004). Furthermore, there is less spending on social support programs and incarceration costs for individuals with degrees (Education Pays, 2010).

Individuals, society, and the local, state, and national economy benefit from increased graduation rates. Compared to a high school dropout, a single high school graduate yields a public benefit of over $200,000 more in lower government spending and higher tax revenues (Levin, 2007). Estimates from the United States Census Bureau indicate that dropouts bring in annually $20,241, $10,000 less than a high school graduate, and over $36,000 less than a person with a bachelor's degree (Lynch, 2013). Individuals with higher degrees yield higher wages (Alliance for Excellent Education, 2011). In addition to higher wages benefiting local, state, and national economies, high school graduates live longer (Muennig, 2005); are less likely to be teen parents (Haveman, Wolfe, & Wilson, 2001); and are more likely to raise educated children who graduate from high school (Wolfe & Haveman, 2002). High school graduates are also less likely to commit crimes (Raphael, 2004) or to rely on government services such as health care, food stamps, and housing assistance ((Garfinkel, Kelly, & Waldfogel, 2005). There are also fewer employment opportunities that can provide the wages and benefits necessary for dropouts to live without state assistance. According to the United States Bureau of Labor Statistics, the unemployment rate for high school dropouts in March 2014 was 11 percent, compared to 7.5 percent of high school graduates and 4 percent for individuals with a bachelor's degree (U.S. Bureau of Labor Statistics website, 2014). A single high school dropout will end up costing taxpayers an average of $292,000 over a lifetime (Breslow, 2012). Young adults with just a high school diploma earned 62 percent of the typical salary of college graduates (Yen, 2014). For instance, college graduates ages 25-32 who are working full time typically earn about $17,500 more annually than employed young adults with just a high school diploma (Yen, 2014). A

typical high school graduate's earnings fell more than $3,000, from $31,384 in 1965 to $28,000 in 2013 (Yen, 2014). Median weekly earnings according to the United States Bureau of Statistics (2014) for an individual without a high school diploma is $472, high school diploma $651, and a bachelor's degree $1,108 (U.S. Bureau of Labor Statistics website, 2014).

Understanding that the financial ramifications of students dropping out of high school affect local, state, and national economies, many states provide school districts grant money specifically designated to support the needs of at-risk youth. The PDE recognized this need and allocated $26 million for AEPs in 2002, a dramatic increase from the $11 million in 2001. Although some states provide funding, districts should not rely entirely upon these grants to fund their programs. Districts facilitating their own on-site AEPs should have the allocated resources to sustain their program once the state grant expires.

The PDE understands the long-term economic value of educating students at-risk. Increasing spending on education balances economic inequalities and reduces poverty, as higher education levels are linked to better salaries, tax revenue, and productivity (National Education Association, 2004). Returns on education are an important policy problem which attracts interest from top scholars in a variety of social science disciplines. There is an entire body of work in both economics and sociology on the value of investing in human capital (i.e., education) (Carneiro, Heckman, & Vytlacil, 2011).

Summary

The literature review suggests that school districts understand the pressures and dwindling resources to educate all students in a traditional setting. Therefore, the process of identifying students at-risk and creating effective curriculum, instruction, assessment, and counseling strategies for these students is imperative not only to the district, but also to society.

School districts are held accountable for providing a safe, nurturing, and positive educational environment for all students. The literature suggests that there is a need to develop programs of support that provide interventions for students at-risk. How districts choose to educate their students at-risk often times is determined by finances. Each district must perform its own cost analysis to determine if it is feasible to provide alternative education in-house or place their students in an off-site program. Size of school, location, and tax base are significant factors in determining how districts will educate their students at-risk. Chapter 3 discusses the methodology used to determine the effectiveness of alternative education programs.

CHAPTER 3

METHODOLOGY

Chapter three provides a description of the methodology used to examine the effectiveness of in-house Alternative Education Programs (AEPs) as it compares to off-site AEPs. Chapter 3 begins with the review of the purpose of this study, research questions, and research design. The second component of this chapter provides a description of the quantitative research design that describes the population, instrumentation, data collection methods, and data analysis method.

Purpose of the Study

The purpose of this quantitative study was to examine the academic, behavioral, and financial effectiveness of Pennsylvania in-house alternative education programs to off-site alternative education programs. Pennsylvania in-house alternative education programs are operated internally by a school district. Off-site alternative education programs are programs where school districts outsource their disruptive youth to county Intermediate Units or Private Provider alternative education programs. Pennsylvania Department of Education (PDE) approved in-house alternative education programs across the Commonwealth of Pennsylvania will be compared to Pennsylvania approved off-site alternative education programs.

Financial analysis focused on comparing the average cost of placing students outside the district. First, the financial effectiveness of Pennsylvania (PA) in-house AEPs was determined by performing a cost-benefit calculation of the total amount of resources spent on alternative education programs. In order to eliminate a possible variance issue when comparing AEPs, the researcher investigated the annual financial reports for district/ in-house programs and 35 off-site (Private Provider and Intermediate Unit) AEPs. Another consideration involving the financial

analysis was the cost of placing a student with an IEP into an AEP compared to a regular education student. Since the cost of placing a student with an IEP is higher than a traditional student placement, the researcher classified the population by using a range. Alternative education programs enrolling less than 25 percent of their students as special education were eliminated from the study. Also, AEPs that enrolled 75 percent or higher special education students were also eliminated from this study. Thus, the population investigated involved AEPs that had special education enrollments ranging between 25 – 75 percent. Possible data variances were decreased by creating a more balanced and reasonable approach to comparing financial effectiveness of AEPs. Second, effectiveness of in-house programs in terms of academics, attendance, and behavioral outcomes were determined by comparing the end-of-the-year data collected over a three-year period to outside the district off-sites during the same three-year period. Both of these samples were also compared to the population average in the form of Pennsylvania state benchmarks. Using the results of this research, this study on in-house AEPs expands the limited research-based literature regarding in-house AEPs. The literature review in this study provides a foundation for the following research questions.

Research Questions

The following research questions were utilized for this study:

- Is there a significant statistical difference in the academic success of students "at-risk" enrolled in an in-house AEP - compared to off-site AEPs?
- Is there a significant statistical difference with in-house alternative education programs improving student behavior compared to off-site AEPs?
- Is there a financial difference in educating students "at-risk" internally, compared to placing students outside the district in an off-site AEP?

Research Design

A quantitative approach to this study was used rather than a qualitative approach to gather archived data from the Pennsylvania Department of Education (PDE) alternative education disruptive youth (AEDY) reports. Academic and behavioral archived data was collected from Pennsylvania in-house AEPs and Pennsylvania off-site AEPs. The study examined the in-house AEPs and compared results to off-site AEPs to determine the academic, behavioral, and financial effectiveness of the Commonwealth of Pennsylvania approved AEPs. A quantitative approach to formal research utilized objective information collected to make inferences about a problem. Data generated from the Pennsylvania Department of Education annual reports provided the quantitative data used to obtain information about the effectiveness of in-house AEPs. Using a qualitative assessment of the AEP, while providing for an in-depth depiction of specific student experiences in AEPs, would necessarily be limited to the availability of a relatively small number of students. In contrast, a quantitative approach allowed us to consider student outcomes at a more aggregate level. While both types of methodology were likely to provide important insight into the issue, the latter provided the more efficient approach to address the current set of research questions geared toward assessing the effectiveness of in-house AEPs, compared to off-site AEPs, and its impact on academic advancement, attendance, and behavioral goals.

Academic data used to determine the effectiveness of an AEP included: average daily attendance, average number of students meeting their individual goals, average number of students transitioning to the next sequential grade, average number of students transitioning to the traditional educational environment, average number of students who dropped out, and the average number of students receiving credit in four core subjects. One indicator of an AEP's

academic effectiveness is daily attendance records. Successful AEPs have similar characteristics that increase student attendance rates. Lower student teacher ratio, highly structured classrooms, positive discipline models, school-based adult mentor, functional behavior assessments, social skills instruction, high quality instruction, and parent involvement are characteristics that enhance student attendance and academic success (Nelson, Sprague, and Tobin, 2009). Coinciding with characteristics that improve attendance, Dean, Hubbell, Pitler, and Stone (2012) have researched the benefits of counseling support for students at-risk. Students setting and meeting individual goals can be related to AEPs that implement effective counseling and goal setting strategies. Organizing the curriculum and student goals around the individual needs of each student produces favorable academic outcomes. Student success leads to students transitioning to the next sequential grade or returning to the traditional educational environment. Both of these types of transitions are indicators of academic success. Transitioning is correlated with effective instruction. Korb (2012) researched and concluded that the number one indicator in student achievement is the instruction provided by a teacher. An alternative education student's transitioning success begins with a teacher's lesson design, lesson transitions, and the relevance of instruction (Hoffman, 2007). When the aforementioned characteristics are imbedded into an AEP, transitioning success will increase. When students transition they also obtain credits. Accumulating credits in core subject areas is another way to measure academic success. AEPs that implement effective assessment strategies by incorporating multiple assessments understand that students can learn concepts in non-traditional ways (Wolfe, 2008). Providing multiple assessments for students at-risk to demonstrate their knowledge of a concept, creates more opportunities for obtaining academic credit (McMunn, Schenck, and McColskey, 2003).

Behavioral data were also collected for this study by using archival data from PDE using average number of students who met their behavioral goals, average numbers of suspensions, average number of expulsions, and average number of police interventions as indicators for success. Behavioral support programs are critical for alternative education programs in order to produce long term change (Elliot, 2010). Researchers have found lower rates of school drop-outs occur if there is a positive school climate, if a sense of belonging is fostered, and if systematic efforts are made to assist students to succeed in school (Lehr, Johnson, Bremer, Cosio, & Thompson, 2004). Drop-out rates for students with emotional or behavioral disabilities is approximately twice that of general education students (Colvin, 2007). Analyzing discipline such as suspensions, expulsions, and police intervention gave the researcher another indicator for evaluating AEPs. Alternative education programs that have strategies in place to manage behaviors minimize disruptive outcomes (Elliot, 2010).

Population

Representatives for this study included alternative education programs across the state of Pennsylvania. Participants of this study consisted of PDE approved in-house AEPs and off-site AEPs, during the years of 2011-2013. There were 361 district alternative education programs and 43 off-site alternative education programs, and 16 intermediate unit AEPs evaluated in this study. For the purpose of comparison, a ratio of AEPs was used based on the percentage of special education students enrolled in their respective programs. Alternative education programs with less than 25% and greater than 75% special education enrollment were excluded from this study. A second population using the aforementioned criteria was drawn consisting of students enrolled in off-site AEPs across the Commonwealth during the same three year span. Off-site AEPs are educational facilities that school districts use to outsource their disruptive youth. This

represents a population benchmark for our purposes. Alternative education records that were analyzed involved archival data on students aged 13-19 enrolled in grades 8-12.

Instrumentation

Academic and behavioral data were collected through the Pennsylvania Department of Education AEDY end-of-the-year reports. Data method collections were chosen because the PDE AEDY is the official governing body of AEPs in the state of Pennsylvania. All approved Pennsylvania AEPs must submit their end of the year reports to the PDE AEDY for review.

Academic, attendance, and behavioral data for this study were collected from the PDE AEDY annual reports, analyzed for determining the effectiveness of the in-house AEPs. Identical data were used to compare in-house AEPs to the off-site AEPs. The collection of data was divided into the following outcomes for the years 2011-2013:

- Average total number of AEDY students served each year
- Average daily attendance for AEDY student population each year
- Average number of students who met established behavioral goals on their individual behavior plan while in this program each year
- Average number of students who met established individual academic goals while in this program each year
- Average number of students promoted to 8^{th}-11^{th} grade or graduated from 12^{th} grade each year
- Average number of students who transitioned to the regular school setting due to success in meeting established academic and behavioral goals each year
- Average number of students who dropped out and did not re-enroll in any educational program each year

- Average number of total suspensions from the program by grade level each school year
- Average number of total expulsions from the program by grade level each school year
- Average number of times police intervention, of any type, was required for students by grade level each school year
- Average number of students who passed/received credit in all 4 core subjects (English, math, science, social studies) each school year

A one-way analysis of variance (ANOVA) was used to determine the level of statistical significance when comparing average outcomes of in-house AEPs to average outcomes of off-site AEPs over a three-year period. To determine the significant difference in mean outcomes between in-house AEPs and off-site AEPs, a one-way ANOVA was performed. To test whether the variance in scores was the same for each of the groups a Levene's test for homogeneity of variance was performed. If the Levene's test significance level was less than .05 the assumption of variability would be violated. If violated, a Robust Tests of Equality of Means was conducted. The two tests that were chosen were the Welch and Brown-Forsythe. Finally, if a significant difference was found in the overall ANOVA, a Multiple Comparisons test was performed. This allowed the researcher to determine exactly where the differences among groups occur.

Financial data was collected from Pennsylvania Department of Education / Bureau of Budget and Fiscal Management's annual financial reports (AFRs). Pennsylvania school districts' AFRs for alternative education expenditures were retrieved for the years 2011-2013. The off-site AEPs cost per day (CPD), per student to be enrolled in their AEP was also collected. AEPs data collected included:

1. How many alternative education students were enrolled in the alternative education program for the years 2011-2013?
2. How many average total days were spent in the alternative education program by your students?
3. What was the average amount of money spent on alternative education during the years 2011-2013?

A cost-benefit calculation was performed for each AEP to determine if there was a monetary financial difference between programs.

Data collected on the financial effectiveness of in-house AEPs was determined by a district's exact figures from the district's annual financial report (AFR). These figures included teacher salaries, benefits, and supplies. Data was calculated as the cost per pupil per day (CPD) to have a student placed in a district operated in-house AEP compared to the CPD it would cost the district if their students were placed in an off-site AEP. Off-site placement costs were determined by using the average cost per day, per student from 35 off-site AEPs in the Commonwealth of Pennsylvania that consist of 25 -75% special education enrollment. Since this financial analysis was based on total average expenditures and not a sample of data, it was ultimately a "yes" or "no" answer with regards to the financial effectiveness of in-house AEPs; there was no need for a -"*p*"- value or significance level. Therefore, the analysis of this data was a pure benefit-cost calculation and not a statistical test.

Procedures

In this study, the researcher set out to compare in-house alternative education programs to off-site AEPs across the Commonwealth of Pennsylvania. Archival data from 2011-2013 was collected in three phases for this research. The first phase involves the collection and analysis of

academic data average outcomes from in-house AEPs to determine if the mean outcome was equal to the average mean outcome for off-site AEPs with regards to academic benchmarks. Mean outcomes were chosen over actuals because of the large student population in both the Pittsburgh and Philadelphia alternative schools. Data was retrieved from the PDE AEDY annual reports during the years 2011-2013. Data was collected by the researcher and placed into an Excel spreadsheet before being imported into the Statistical Products and Services Solutions (SPSS) to calculate and analyze. An ANOVA was used to determine the level of significance when comparing averages of in-house AEPs to averages of off-site AEPs across each outcome.

A one-way ANOVA was used in the second phase to determine the level of significance when comparing the mean outcome of behavioral benchmarks for in-house AEPs to the mean outcomes of off-site AEPs. Data was collected from the PDE AEDY annual reports, placed into an Excel spreadsheet, and inputted in SPSS for calculations and analysis. Comparing means across different samples (in-house and off-site) the researcher chose to perform a one-way ANOVA to determine the level of significance across each outcome academics and behavior of all approved PDE AEDY programs in the Commonwealth of Pennsylvania.

Data collection in the third phase involved the researcher determining the average number of students placed in in-house AEPs during the three year period 2011-2013 and their average length of stay. The researcher then calculated the average total days spent in AEPs, and compared it with the average cost per day it would cost a district to place these students outside the district for alternative education services. The final average CPD to place students outside a district with an off-site AEP was compared to the average annual cost to run the in-house AEPs, with regards to a district's annual financial report (AFR) expenditure on alternative education. Annual costs are provided by the PDE annual reports. Off-site AEPs average expenditures were

determined by the average cost of 26 Private Provider and 9 Intermediate Units student placement fees. One limitation to this study is that the researcher was only able to retrieve financial data from 35 Off-site AEPs. All other Off-site AEPs had costs that couldn't be ascertained as all alternative education costs. Taking this limitation into consideration, the researcher used averages as stated earlier in the instrumentation section of this study. The financial analysis was ultimately a "yes" or "no" answer with regards to the financial effectiveness of in-house AEPs; the analysis of this data was a pure benefit-cost calculation and not a statistical test.

Data Analysis

Collection of data for this study was from a three-year period and began with the creation of an Excel spreadsheet for Pennsylvania in-house AEPs and off-site AEPs. Each AEP was identified as an in-house or off-site for organizational purposes. Excel spreadsheets were divided into columns which included the aforementioned 13 dependent variables used to compare in-house AEPs average mean outcomes to off-site AEPs. Significant levels were determined by a one-way analysis of variance.

Analysis of this study's conclusion was conducted with an alpha level of a =.05. There was a total of 361 district AEPs in which data was collected. There were a total of 43 private provider AEPs and 16 intermediate unit AEPs from which data was collected. Statistical power of this quantitative research was strengthened by having a sample size greater than 100 AEP programs. Quantitative sample sizes greater than 100 participants exceed the numbers suggested by Creswell. An ANOVA referencing academics and behavior averages are reported, which are appropriate for comparing the average variance between different groups with the variability

within each group (Creswell, 2012). An "*F*" ratio was calculated, which represents the average variance between the groups divided by the average variance within the groups (Creswell, 2012).

Data analysis using a benefit-cost calculation of in-house expenditures, against the cost of tuition per student being placed in an outside AEP, was the final component in this research project.

Summary

Chapter 3 reviewed the purpose of the study, research questions, and research design. This chapter also provided a description of the data collection, methods, and data analyses. The purpose of the study was to determine academic, behavioral, and financial effectiveness of Pennsylvania in-house AEPs compared to off-site AEPs in the Commonwealth of Pennsylvania. Data was collected from the students enrolled in the approved Commonwealth's alternative education programs and the PDE AEDY annual reports from across the Commonwealth of Pennsylvania. Chapter 4 will discuss the result of the data analysis described in Chapter 3.

CHAPTER 4

DATA AND ANALYSIS

This quantitative study was conducted to compare the academic, behavioral, and financial effectiveness of Pennsylvania in-house alternative education programs to off-site alternative education programs. Pennsylvania in-house/district alternative education programs are operated internally by a school district. Off-Site alternative education programs are programs where school Districts outsource their disruptive youth to county Intermediate Units or Private Provider alternative education programs. Pennsylvania Department of Education (PDE) approved in-house alternative education programs across the Commonwealth of Pennsylvania were compared to Pennsylvania approved Off-Site alternative education programs. This study collected data over a three year period (2011-12, 2012-13, and 2013-14). Throughout the remainder of this study, the years researched will be referred to as 2011, 2012, and 2013. During these three-years, there were 42 private provider AEPs, 16 Intermediate Unit AEPs, and 311 District AEPs analyzed. Total number of alternative education students analyzed during the three-year study are as follows: Private Provider AEPs 14,474 (2011), 11,870 (2012), 9,667 (2013); Intermediate Units (IUs) 2,191 (2011), 1,998 (2012), 1,144 (2013); In-House/District 12,214 (2011), 9,872 (2012), 8,453 (2013). Academic and behavioral data results encompassed a total of 71,883 alternative education students from 2011-2013. This study addressed three research questions:

- Research question 1: *Is there a difference in academic success of students "at-risk" enrolled in an in-house/district AEP, compared to off-site AEPs?*
- Null Hypothesis: *There is no difference in academic success of students "at-risk" enrolled in an in-house/district AEP, compared to off-site AEPs.*

Indicators of academic success such as core subjects passed, attendance, grade promotion, transitioning, dropouts, and academic goals are supported in chapter 3 by Nelson, Sprague, and Tobin (2009), Dean, Hubbell, Pitler, and Stone (2012), Korb (2012), Hoffman (2007), Wolfe (2008), and McMunn, Schenck, and McColskey (2003).

To test the first hypothesis, the researcher conducted a series of tests including a one-way analysis of variance (ANOVA), Homogeneity of Variance, and a Robust Tests of Equality of Means test, (Welch and Brown-Forsythe test). Results were derived by comparing the mean percentage of students receiving credit over a three-year period for three different types of alternative education programs total core subjects passed (i.e. in-house, off-site, and intermediate units).

Descriptive statistics for total core subjects passed for 2011, 2012, and 2013 are described narratively below and also reported numerically. In 2011 there were 42 private provider AEPs, 16 intermediate unit AEPs, and 311 district AEPs analyzed. Private Providers had an average of 54.81% total core subjects passed, with a standard deviation of 21.41%. Intermediate Units had an average of 64.59% passed, with a standard deviation of 22.76%. Districts had an average of 55.03% pass all four core subjects, with a standard deviation of 26.62%. In 2012 there were 38 private provider AEPs, 13 intermediate unit AEPs, and 316 district AEPs analyzed. Private Providers had an average of 61.15% total core subjects passed, with a standard deviation of 17.67%. Intermediate Units had an average of 61.72% passed, with a standard deviation of 16.51%. Districts had an average of 56.88% pass all four core subjects, with a standard deviation of 27.71%. In 2013 there were 34 private provider AEPs, 12 intermediate unit AEPs, and 321 district AEPs analyzed. Private Providers had an average of 59.60% total core subjects passed, with a standard deviation of 20.71%. Intermediate Units had

an average of 54.24% passed, with a standard deviation of 27.26%. Districts had an average of 58.57% pass all four core subjects, with a standard deviation of 28.79%. District AEPs were the only group to increase in mean scores every year, while IUs had the highest mean in 2011, but decreased in mean scores the following two years. Both District and Private Provider AEPs started with lower mean scores in 2011; however both groups improved the following two years while the IU AEPs declined.

Table 1

Average Number of Core Subjects Passed Descriptives

		N	Mean	Std Deviation
Average number of core subjects passed 2011	Private Providers	42	.5481	.2141
	Intermediate Units	16	.6459	.2276
	Districts	311	.5503	.2666
	Total	369	.5542	.2597
Average number of core subjects passed 2012	Private Providers	38	.6115	.1767
	Intermediate Units	13	.6172	.1651
	Districts	316	.5688	.2771
	Total	367	.5749	.2653
Average number of core subjects passed 2013	Private Providers	34	.5960	.2071
	Intermediate Units	12	.5424	.2726
	Districts	321	.5857	.2879
	Total	367	.5852	.2804

The researcher first tested for differences between means across units. A one-way analysis of variance (ANOVA) between groups was conducted for each year to explore the impact of academic success, as measured by total core subjects passed. Participants were divided into three groups according to their educational placement (Private Providers, IUs, and In-House/District AEPs). In 2011, no statistical significant differences were observed across units in terms of average number of core subjects passes: F (2,366) = 1.045, p = .353. Also, the

researcher observed no statistical significant differences between units for number of core subjects passes in. 2012: (F (2, 364) = .609, p = .544), or 2013: (F (2, 364) = .165, p = .848).

Table 2

Average Number of Core Subjects Passed One-Way ANOVA

		Df	Mean square	F	Sig.
Average number of core subjects passed 2011	Between Groups	2	.070	1.045	.353
	Within Groups	364	.067		
	Total	366			
Average number of core subjects passed 2012	Between Groups	2	.043	.609	.544
	Within Groups	364	.071		
	Total	366			
Average number of core subjects passed 2013	Between Groups	2	.013	.165	.848
	Within Groups	364	.079		
	Total	366			

One-way ANOVA results are based on the assumption of homogeneity of variances. However, based on Levene's test for homogeneity of variances, the data violates this assumption for 2012 (.001) and 2013(.031).

Table 3

Average Number of Core Subjects Passed Test of Homogeneity of Variances

	Levene Statistic	df1	df2	Sig.
Average number of core subjects passed 2011	2.076	2	366	.127
Average number of core subjects passed 2012	7.449	2	364	.001
Average number of core subjects passed 2013	3.515	2	364	.031

Since the Homogeneity Test of Variances statistics indicated a violation to the assumption for 2012 and 2013, the researcher then tested this directly in order to test the null hypothesis to verify that there is no significant difference. A Robust Tests of Equality of Means was performed, using a Welch and Brown-Forsythe test. For 2011, researcher observed test statistics F=1.32 (p = .280) and F=1.39 (p=.258), respectively, for the Welsh and Brown-Forsythe test statistics, which are not statistically significant at the $p < .05$ level. For 2012, the test yielded p-values of .328 and .275 also not statistically significant at the $p < .05$ level. Similarly, for 2013, p-values were .829 and .808 again no statistically significant at .05. These results are also reported in table 4. These results which are not unexpected given the previous one-way ANOVA results, do not allow the researcher to reject the null hypothesis of no difference, at a = .05 level of significance. The conclusion of this test reveals no significant difference in total core subjects passed between Private Providers, Intermediate Units, and district AEPs.

Table 4

Average Number of Core Subjects Passed Robust Tests of Equality of Means

		Statistic[a]	df1	df2	Sig.
Average core subjects passed 2011	Welch	1.321	2	34.751	.280
	Brown-Forsythe	1.390	2	50.239	.258
Average core subjects passed 2012	Welch	1.158	2	30.522	.328
	Brown-Forsythe	1.323	2	53.301	.275
Average core subjects passed 2013	Welch	0.189	2	25.106	.829
	Brown-Forsythe	0.215	2	28.465	.808

[a] Asymptotically F distributed

While the prior set of results did not establish a basic result of differences between provider types, the researcher compared each AEP to each other in a pairwise manner. This test

will allow for direct comparison between each set of AEPs. This set of analysis was performed using a multiple comparison of all three AEPs. This test analyzed individual differences in means between Private Providers, Intermediate Units, and Districts. In 2011, $t = .052$; $p > .99$ in mean number of core subjects passed between Private Providers and Districts. Despite the large point estimate, the researcher could not reject the null of no difference ($p = .602$) in the mean number of core subjects passed between Private Providers and Intermediate Units at $a = .05$, or between Districts and IUs ($p = .455$) at $a = .05$. Data results for 2012 and 2013 indicated the same results of no significant difference among AEPs. Thus, the researcher was unable to reject the null hypothesis of no differences in outcomes across types of AEPs for any of the three years, and this implies that there are no significant differences among mean core subjects by category each year.

Table 5

Average Number of Core Subjects Passed Multiple Comparisons

Dependent Variable	Type of Alternative Education Program	Type of Alternative Education Program	Mean Difference	Standard Error	Sig.
Average number of total core subjects passed 2011	Private Providers	Intermediate Units	-0.0978	.0763	.602
		Districts	-0.0022	.0427	1
	Intermediate Units	Private Providers	0.0978	.0763	.602
		Districts	0.0956	.0665	.455
	Districts	Private Providers	0.0022	.0427	1
		Intermediate Units	-0.0956	.0665	.455
Average number of total core subjects passed 2012	Private Providers	Intermediate Units	-0.0056	.0853	1
		Districts	0.0427	.0456	1
	Intermediate Units	Private Providers	0.0056	.0853	1
		Districts	0.0483	.0751	1
	Districts	Private Providers	-0.0427	.0456	1
		Intermediate Units	-0.0483	.0751	1
Average number of total core subjects passed 2013	Private Providers	Intermediate Units	0.0536	.0943	1
		Districts	0.0103	.0507	1
	Intermediate Units	Private Providers	-0.0536	.0943	1
		Districts	-0.0433	.0826	1
	Districts	Private Providers	-0.0103	.0507	1
		Intermediate Units	0.0433	.0826	1

Note: The mean difference is significant at the 0.05 level.

To strengthen the research on academic success, the researcher considered multiple other outcomes, including attendance, grade promotion, transitioning, dropouts, and students achieving their academic goals. To do this, the researcher conducted similar tests including one-way ANOVA, Test of Homogeneity of Variances, Robust Test of Equality of Means, and a Post Hoc test using multiple comparisons between units.

Attendance

Descriptive statistics for attendance for 2011, 2012, and 2013 are described narratively below and also reported numerically. In 2011 there were 42 private provider AEPs, 16 intermediate unit AEPs, and 311 district AEPs analyzed. Private Providers had an average of 77.87% attendance, with a standard deviation of 11.60%. Intermediate Units had an average attendance of 79.90%, with a standard deviation of 6.81%. Districts had an average attendance of 78.89%, with a standard deviation of 13.35%. In 2012 there were 38 private provider AEPs, 13 intermediate unit AEPs, and 316 district AEPs analyzed. Private Providers had an average attendance of 76.65%, with a standard deviation of 13.54%. Intermediate Units had an average attendance of 70.73%, with a standard deviation of 20.12%. Districts had an average attendance of 79.17%, with a standard deviation of 12.85%. In 2013 there were 34 private provider AEPs, 12 intermediate unit AEPs, and 321 district AEPs analyzed. Private Providers had an average attendance of 78.44%, with a standard deviation of 14.79%. Intermediate Units had an average attendance of 73.91%, with a standard deviation of 7.33%. Districts had an average attendance of 78.88%, with a standard deviation of 14.13%. Mean score results indicate that IUs were highest in 2011, but dropped in 2012, and increased a little in 2013. Intermediate Units fluctuated more than District and Private Provider AEPs. District AEPs remained the most consistent all three years with regards to attendance.

A one-way analysis of variance (ANOVA) was conducted for attendance each year, to explore the impact of academic success, as measured by attendance. For 2011, the data showed no significant difference between units in terms of attendance (F (2,366) = .174; p = .841). There was no significant difference in attendance between units in 2012 (F (2, 364) = 3.012; p = .050), along with no significant difference in 2013 (F (2, 365) = .729; p = .483). This means the

researcher could not reject a null hypothesis of no differences among mean daily attendance by category.

Table 6

Average Daily Attendance One-Way ANOVA

		df	Mean Square	F	Sig.
Average Daily Attendance 2011	Between Groups	2	29.190	.174	.841
	Within Groups	366	168.080		
	Total	368			
Average Daily Attendance 2012	Between Groups	2	527.323	3.012	.050
	Within Groups	364	175.100		
	Total	366			
Average Daily Attendance 2013	Between Groups	2	143.770	.729	.483
	Within Groups	365	197.104		
	Total	367			

One-way ANOVA results are based on the assumption of homogeneity of variances. However, based on Levene's test for homogeneity of variances, the data does not violate this assumption for 2011 (.077), 2012 (.419), and 2013(.247).

Table 7

Average Daily Attendance Test of Homogeneity of Variances

	Levene Statistic	df1	df2	Sig.
Average daily attendance 2011	2.586	2	366	.077
Average daily attendance 2012	.872	2	364	.419
Average daily attendance 2013	1.402	2	364	.247

Since the Homogeneity Test of Variances statistics indicated no violation to the assumption for the three years, the researcher for clarity purposes tested this directly in order to test the null hypothesis that there is no significant difference. A Robust Tests of Equality of Means was performed, using a Welch and Brown-Forsythe test. Results in 2011(p=.720 and p=.738), 2012 (p=.218 and p=.182), and 2013 (p=.113 and p=.359) do not allow the researcher to reject the null at the $\alpha = .05$ level of significance. Thus, concluding there is no significant difference in total attendance between Private Providers, Intermediate Units, and District AEPs.

Table 8

Average Daily Attendance Robust Tests of Equality of Means

		Statistic[a]	df1	df2	Sig.
Average Daily Attendance 2011	Welch	.332	2	39.453	.720
	Brown-Forsythe	.305	2	76.425	.738
Average Daily Attendance 2012	Welch	1.618	2	25.897	.218
	Brown-Forsythe	1.825	2	24.842	.182
Average Daily Attendance 2013	Welch	2.362	2	27.590	.113
	Brown-Forsythe	1.044	2	54.182	.359

[a] Asymptotically F distributed

A multiple comparison of all three AEPs was performed by the researcher. Attendance results indicate that there are no significant differences at the α =.05 level between Private Providers and district AEPs for all three years p = .880 (2011), p=.508 (2012), and p=.983 (2013), consistent with the one-way ANOVA results. There are also no significant differences between Private Providers and Intermediate Units for all three years, p = .855 (2011), p = .346 (2012), and p = .601 (2013). There were also no significant differences between Intermediate Units and Districts for the three years analyzed, p = .951 (2011), p = .064 (2012) and p =.452 (2013). Therefore, the researcher concluded that all three AEPs are similar in attendance rates

across all three years. Thus, the researcher was unable to reject the null hypothesis of no differences in outcomes across types of AEPs for any of the three years, and this implies that there are no significant differences among mean attendance by category each year.

Table 9

Average Daily Attendance Multiple Comparisons

Dependent Variable	Type of Alternative Education Program	Type of Alternative Education Program	Mean Difference	Standard Error	Sig.
Average daily attendance 2011	Private Providers	Intermediate Units	-2.0290	3.8088	.855
		Districts	-1.0271	2.1312	.880
	Intermediate Units	Private Providers	2.0290	3.8088	.855
		Districts	1.0019	3.3234	.951
	Districts	Private Providers	1.0271	2.1312	.880
		Intermediate Units	-1.0019	3.3234	.951
Average daily attendance 2012	Private Providers	Intermediate Units	5.9218	4.2517	.346
		Districts	-2.5255	2.2720	.508
	Intermediate Units	Private Providers	-5.9218	4.2517	.346
		Districts	-8.4474	3.7447	.064
	Districts	Private Providers	2.5255	2.2720	.508
		Intermediate Units	8.4474	3.7447	.064
Average daily attendance 2013	Private Providers	Intermediate Units	4.5233	4.6964	.601
		Districts	-0.4431	2.4991	.983
	Intermediate Units	Private Providers	-4.5233	4.6964	.601
		Districts	-4.9665	4.1278	.452
	Districts	Private Providers	0.4431	2.4991	.983
		Intermediate Units	4.9665	4.1278	.452

Note: The mean difference is significant at the 0.05 level.

Student Promotion

Descriptive statistics for student promotion for 2011, 2012, and 2013 are listed narratively below and also numerically. In 2011 there were 42 private provider AEPs, 16 intermediate unit AEPs, and 311 district AEPs analyzed. Private Providers had an average of 64.66% total student promotions, with a standard deviation of 16.13%. Intermediate Units had an average of 74.48% promoted, with a standard deviation of 16.57%, and Districts had an average of 62.64% promoted, with a standard deviation of 24.95%. In 2012 there were 38 private provider AEPs, 13 intermediate unit AEPs, and 316 district AEPs analyzed. Private Providers had an average of 68.20% students promoted, with a standard deviation of 13.71%. Intermediate Units had an average of 66.70% promoted, with a standard deviation of 17.05%, and Districts had an average of 65.80% promoted, with standard deviation of 24.42%. In 2013 there were 34 private provider AEPs, 12 intermediate unit AEPs, and 321 district AEPs analyzed. Private Providers had an average of 64.43% students promoted, with a standard deviation of 19.87%. Intermediate Units had an average of 67.00% promoted, with a standard deviation of 21.35%, and Districts had an average of 63.30% promoted, with a standard deviation of 28.23%.

Table 10

Average Number of Students Promoted Descriptives

		N	Mean	Std Deviation
Average number of students promoted 2011	Private Providers	42	.6466	.1613
	Intermediate Units	16	.7448	.1657
	Districts	311	.6264	.2495
	Total	369	.6338	.2389
Average number of students promoted 2012	Private Providers	38	.6820	.1371
	Intermediate Units	13	.6670	.1705
	Districts	316	.6580	.2442
	Total	367	.6608	.2329
Average number of students promoted 2013	Private Providers	34	.6443	.1987
	Intermediate Units	12	.6700	.2135
	Districts	321	.6330	.2823
	Total	367	.6352	.2732

A one-way analysis of variance (ANOVA) was run for student promotion each year to explore the impact of academic success, as measured by student promotion results. Each year 2011, 2012, and 2013 the results of ANOVA were not statistically significant at the $p < .05$ level. In 2011: F (2,366) = 1.944, p = .145, 2012: F (2, 364) = 0.184, p = .832, and 2013: F (2, 364) = 0.126, p = .882. This implies that p value all three years demonstrates that there are no differences among mean students promoted by category each year.

Table 11

Average number of students promoted One-Way ANOVA

		df	Mean square	F	Sig.
Average number of students promoted 2011	Between Groups	2	.110	1.944	.145
	Within Groups	366	.057		
	Total	368			
Average number of students promoted 2012	Between Groups	2	.010	.184	.832
	Within Groups	364	.055		
	Total	366			
Average number of students promoted 2013	Between Groups	2	.009	.126	.882
	Within Groups	364	.075		
	Total	366			

One-way ANOVA results are based on the assumption of homogeneity of variances. However, based on Levene's test for homogeneity of variances, the data violates this assumption for 2011 (.010), 2012 (.001) and 2013(.024).

Table 12

Average Number of Students Promoted Test of Homogeneity of Variances

	Levene Statistic	df1	df2	Sig.
Average number of students promoted 2011	4.673	2	366	.010
Average number of students promoted 2012	6.889	2	364	.001
Average number of students promoted 2013	3.781	2	364	.024

Since the Homogeneity Test of Variances statistics indicated a violation to the assumption for all three years, the researcher then tested this directly in order to test the null

hypothesis that variances between the groups are all the same. A Robust Tests of Equality of Means was performed, using a Welch and Brown-Forsythe test. Welch and Brown-Forsythe *p* results 2011 (.036 and .030) allow the researcher to reject the null at the .05 level of significance for 2011. However, results in 2012 (.665 and .688), and 2013 (.082 and .811) suggest that there is no statistical significant difference in student promotions between Private Providers, Intermediate Units, and District AEPs.

Table 13

Average Number of Students Promoted Robust Tests of Equality of Means

		Statistic[a]	df1	df2	Sig.
Average number students promoted 2011	Welch	3.626	2	34.413	.036
	Brown-Forsythe	3.734	2	58.952	.030
Average number students promoted 2012	Welch	.414	2	29.921	.665
	Brown-Forsythe	.378	2	38.536	.688
Average numbers students promoted 2013	Welch	.193	2	25.883	.825
	Brown-Forsythe	.210	2	37.429	.811

[a] Asymptotically *F* distributed

While the prior set of results did not establish a basic result of differences between provider types in 2012 and 2013, the researcher would also like to compare each AEP to each other in a pairwise manner. A multiple comparison of all three AEPs was performed by the researcher. Student promotion *p* results 2011 (1.0), 2012 (1.0), and 2013 (1.0) indicate that there are no significant differences between Private Providers and District AEPs for all three years. There are also no significant differences (*p* values) between Private Providers and Intermediate Units for all three years, 2011 (.485), 2012 (1.0), and (1.0). Also, *p* results indicate no significant differences between Intermediate Units and Districts for the three years analyzed 2011 (.160), 2012 (1.0), and 2013 (1.0). Therefore, the researcher concludes that there are no differences at

the .05 level between Districts, intermediate Units, and Private Providers. Thus, the researcher was unable to reject the null hypothesis of no differences in outcomes across types of AEPs for any of the three years, and this implies that there are no differences among mean promotions by category each year.

Table 14

Average Number of Students Promoted Multiple Comparisons

Dependent Variable	Type of Alternative Education Program	Type of Alternative Education Program	Mean Difference	Standard Error	Sig.
Average student promotions 2011	Private Providers	Intermediate Units	-0.0981	.0700	.485
		Districts	0.0201	.0391	1
	Intermediate Units	Private Providers	0.0981	.0700	.485
		Districts	0.1183	.0610	.160
	Districts	Private Providers	-0.0201	.0391	1
		Intermediate Units	-0.1183	.0610	.160
Average student promotions 2012	Private Providers	Intermediate Units	0.0150	.0750	1
		Districts	0.0240	.0400	1
	Intermediate Units	Private Providers	-0.0150	.0750	1
		Districts	0.0090	.0660	1
	Districts	Private Providers	-0.0240	.0400	1
		Intermediate Units	-0.0090	.0660	1
Average student promotions 2013	Private Providers	Intermediate Units	-0.0256	.0919	1
		Districts	0.0113	.0494	1
	Intermediate Units	Private Providers	0.0256	.0919	1
		Districts	0.0369	.0805	1
	Districts	Private Providers	-0.0113	.0494	1
		Intermediate Units	-0.0369	.0805	1

Note: The mean difference is significant at the 0.05 level.

Transitioning

Descriptive statistics for students transitioning for 2011, 2012, and 2013 are listed narratively below and also numerically. In 2011 there were 42 private provider AEPs, 16 intermediate unit AEPs, and 311 district AEPs analyzed. Private Providers had an average of 25.84% students transitioning, with a standard deviation of 15.88%. Intermediate Units had an average of 23.91% transition, with a standard deviation of 12.75%, and Districts had an average of 27.11% transition with a standard deviation of 22.05%. In 2012 there were 38 private provider AEPs, 13 intermediate unit AEPs, and 316 district AEPs analyzed. Private Providers had an average of 27.26% students' transition, with a standard deviation of 12.22%. Intermediate Units had an average of 28.33% transitions, with a standard deviation of 15.89%, and Districts had an average of 23.94% transition with a standard deviation of 23.94%. In 2013 there were 34 private provider AEPs, 12 intermediate unit AEPs, and 321 district AEPs analyzed. Private Providers had an average of 30.08% students' transition, with a standard deviation of 18.38%. Intermediate Units had an average of 28.73% transition, with a standard deviation of 19.37%, and Districts had an average of 32.31% transition with a standard deviation of 26.71%. Results across the means for all three years indicate that District AEPs achieve higher transition rates than Private Provider and IUs.

Table 15

Average Number of Students Transitioned Descriptives

		N	Mean	Std Deviation
Average number of students transitioned 2011	Private Providers	42	.2584	.1588
	Intermediate Units	16	.2391	.1275
	Districts	311	.2711	.2205
	Total	369	.2683	.2109
Average number of students transitioned 2012	Private Providers	38	.2726	.1222
	Intermediate Units	13	.2833	.1589
	Districts	316	.3089	.2394
	Total	367	.3043	.2276
Average number of students transitioned 2013	Private Providers	34	.3008	.1838
	Intermediate Units	12	.2873	.1937
	Districts	321	.3231	.2671
	Total	367	.3199	.2581

A one-way analysis of variance (ANOVA) was conducted for students transitioning each year to explore the impact of academic success, as measured by transitioning. Each year 2011, 2012, and 2013 the *p* results of ANOVA were not statistically significant. In 2011: F (2,366) = .227, p = .797, 2012: F (2, 364) = .488, p = .614, and 2013: F (2, 364) = .213, p = .809. This implies that there are no significant differences among mean students transitioned by category each year. However, District AEPs are higher all three years in total mean scores.

Table 16

Average Number of Students Transitioned One-Way ANOVA

		df	Mean square	F	Sig.
Average number of students transitioned 2011	Between Groups	2	.010	.227	.797
	Within Groups	366	.045		
	Total	368			
Average number of students transitioned 2012	Between Groups	2	.025	.488	.614
	Within Groups	364	.052		
	Total	366			
Average number of students transitioned 2013	Between Groups	2	.014	.213	.809
	Within Groups	364	.067		
	Total	366			

One-way ANOVA results are based on the assumption of homogeneity of variances. However, based on Levene's test for homogeneity of variances, the data violates this assumption for 2011 (.008), 2012 (.000), and 2013 (.007).

Table 17

Average Number of Students Transitioned Test of Homogeneity of Variances

	Levene Statistic	df1	df2	Sig.
Average number of students transitioned 2011	4.898	2	366	.008
Average number of students transitioned 2012	9.027	2	364	.000
Average number of students transitioned 2013	5.042	2	364	.007

Since the Homogeneity Test of Variances statistics indicated a violation to the assumption for all three years, the researcher then tested this directly in order to test the null

hypothesis that they are all the same. A Robust Tests of Equality of Means was performed, using a Welch and Brown-Forsythe test. Significant differences were unfounded for all three years, 2011 (.624 and .643), 2012 (.323 and .340), and 2013 (.709 and .690). These results do not allow the researcher to reject the null at the .05 level of significance. Results suggest no significant differences amongst groups in total students transitioning.

Table 18

Average Number of Students Transitioned Robust Tests of Equality of Means

		Statistic[a]	df1	df2	Sig.
Average number of students transitioned 2011	Welch	.478	2	38.387	.624
	Brown-Forsythe	.444	2	72.783	.643
Average number of students transitioned 2012	Welch	1.173	2	30.512	.323
	Brown-Forsythe	1.110	2	38.341	.340
Average number of students transitioned 2013	Welch	.348	2	26.118	.709
	Brown-Forsythe	.375	2	38.800	.690

[a] Asymptotically *F* distributed

Using a Post Hoc Test the researcher performed a multiple comparison of all three AEPs. Student transition results indicate that there are no significant differences between Private Providers and district AEPs for all three years, 2011(1.0), 2012 (1.0), 2013 (1.0). There are also no significant differences between Private Providers and Intermediate Units for 2011(1.0), 2012 (1.0), and, there is no significant difference in 2013 (1.0). Results indicate no significant differences between Intermediate Units and Districts for the three years analyzed 2011 (1.0), 2012 (1.0), 2013 (1.0). Concluding there are no transitioning differences at the $p < .05$ level between Districts, Intermediate Units, and Private Providers. Thus, the researcher was unable to reject the null hypothesis of no differences in transition outcomes across types of AEPs for any

of the three years, and this implies that there are no differences among mean student transitions by category each year.

Table 19

Average Number of Students Transitioned Multiple Comparisons

Dependent Variable	Type of Alternative Education Program	Type of Alternative Education Program	Mean Difference	Standard Error	Sig.
Average number of students transitioned 2011	Private Providers	Intermediate Units	0.0193	.0621	1
		Districts	-0.0127	.0347	1
	Intermediate Units	Private Providers	-0.0193	.0621	1
		Districts	-0.0320	.0541	1
	Districts	Private Providers	0.0127	.0347	1
		Intermediate Units	0.0320	.0541	1
Average number of students transitioned 2012	Private Providers	Intermediate Units	-0.0107	.0732	1
		Districts	0.0363	.0391	1
	Intermediate Units	Private Providers	0.0107	.0732	1
		Districts	-0.0256	.0645	1
	Districts	Private Providers	0.0363	.0391	1
		Intermediate Units	0.0256	.0645	1
Average number of students transitioned 2013	Private Providers	Intermediate Units	0.0135	.0868	1
		Districts	-0.0223	.0466	1
	Intermediate Units	Private Providers	-0.0135	.0868	1
		Districts	-0.0358	.0760	1
	Districts	Private Providers	0.0223	.0466	1
		Intermediate Units	0.0358	.0760	1

Note: The mean difference is significant at the 0.05 level.

Dropouts

Descriptive statistics for dropouts for 2011, 2012, and 2013 are listed narratively below and also numerically. In 2011 there were 42 private provider AEPs, 16 intermediate unit AEPs,

and 311 district AEPs analyzed. Private Providers had an average of 7.03% students' dropout, with a standard deviation of 4.80%. Intermediate Units had an average of 6.63% dropouts, with a standard deviation of 5.53%, and Districts had an average of 8.70% dropout with a standard deviation of 12.94%. In 2012 there were 38 private provider AEPs, 13 intermediate unit AEPs, and 316 district AEPs analyzed. Private Providers had an average of 7.72% students' dropout, with a standard deviation of 5.20%. Intermediate Units had an average of 6.41%dropout, with a standard deviation of 4.25%, and Districts had an average of 7.06% dropout with a standard deviation of 10.06%. In 2013 there were 34 private provider AEPs, 12 intermediate unit AEPs, and 321 district AEPs analyzed. Private Providers had an average of 5.31% students' dropout, with a standard deviation of 4.82%. Intermediate Units had an average of 12.31% dropouts, with a standard deviation of 26.78%, and Districts had an average of 6.92% dropouts with a standard deviation of 12.54%. Results of average mean scores indicate that District AEPs decrease in dropout rates every year tested. Private Provider AEPs fluctuate from year to year, while Intermediate Unit AEPs double their dropout rate in 2013.

Table 20

Average Number of Student Dropouts Descriptives

		N	Mean	Std Deviation
Average number of student dropouts 2011	Private Providers	42	.0703	.0480
	Intermediate Units	16	.0663	.0553
	Districts	311	.0870	.1294
	Total	369	.0842	.1205
Average number of student dropouts 2012	Private Providers	38	.0772	.0520
	Intermediate Units	13	.0641	.0425
	Districts	316	.0706	.1006
	Total	367	.0711	.0951
Average number of student dropouts 2013	Private Providers	34	.0531	.0482
	Intermediate Units	12	.1231	.2678
	Districts	321	.0692	.1254
	Total	367	.0695	.1274

A one-way analysis of variance (ANOVA) was conducted for students dropping out of school each year. Three-year results demonstrate that in 2011: F (2,366) = .540, p = .583, 2012: F (2, 364) = .117, p = .890, and 2013: F (2, 364) = 1.347, p = .261. The results of ANOVA were not statistically significant. This implies that there are no differences among mean student dropouts by category each year.

Table 21

Average Number of Student Dropouts One-Way ANOVA

		Df	Mean square	F	Sig.
Average number of student dropouts 2011	Between Groups	2	.008	.540	.583
	Within Groups	366	.015		
	Total	368			
Average number of student dropouts 2012	Between Groups	2	.001	.117	.890
	Within Groups	364	.009		
	Total	366			
Average number of student dropouts 2013	Between Groups	2	.022	1.347	.261
	Within Groups	364	.016		
	Total	366			

One-way ANOVA results are based on the assumption of homogeneity of variances. However, based on Levene's test for homogeneity of variances, the data violates this assumption for 2011 (.007), 2012 (.023), and 2013(.011).

Table 22

Average of Number of Student Dropout Test of Homogeneity of Variances

	Levene Statistic	df1	df2	Sig.
Average number of student dropouts 2011	5.000	2	366	.007
Average number of student dropouts 2012	3.803	2	364	.023
Average number of student dropouts 2013	4.547	2	364	.011

Since the Homogeneity Test of Variances statistics indicated a violation to the assumption for all three years, the researcher then tested this directly in order to test the null hypothesis that variances are all the same. A Robust Means of Equality Test was performed. Data from the Welch and Brown-Forsythe Test indicate no significant difference in dropout rates for all three years tested, 2011 (.210 and .133), 2012 (.653 and .684), and 2013 (.270 and .567). The Brown-Forsythe reflects that there is a strong indication of no difference, at $a = .05$ level.

Table 23

Average Number of Student Dropouts Robust Tests of Equality of Means

		Statistic[a]	df1	df2	Sig.
Average number of student dropouts 2011	Welch	1.617	2	44.498	.210
	Brown-Forsythe	2.069	2	83.163	.133
Average number of student dropouts 2012	Welch	.431	2	34.616	.653
	Brown-Forsythe	.382	2	74.331	.684
Average number of student dropouts 2013	Welch	1.375	2	26.412	.270
	Brown-Forsythe	.594	2	12.329	.567

[a] Asymptotically *F* distributed

Continuing with the process of using a Post Hoc Test the researcher performed a multiple comparison of all three AEPs. Student dropout results indicate that there are no significant differences between Private Providers and district AEPs for all three years, 2011 (1.0), 2012 (1.0), and 2013 (1.0). There are also no significant differences between Private Providers and Intermediate Units for all three years, 2011 (.1.0), 2012 (1.0), 2013 (.307). Results also indicate no significant differences between Intermediate Units and Districts for the three years analyzed, 2011 (1.0), 2012 (1.0), and 2013 (.452). Concluding there are no dropout differences at $a = .05$ level between Districts, Intermediate Units and Private Providers. Thus, the researcher was unable to reject the null hypothesis of no differences in outcomes across types of AEPs for any

of the three years, and this implies that there are no differences among mean student dropouts by category each year.

Table 24

Average Number of Student Dropouts Multiple Comparisons

Dependent Variable	Type of Alternative Education Program	Type of Alternative Education Program	Mean Difference	Standard Error	Sig.
Average dropouts 2011	Private Providers	Intermediate Units	0.0039	.0354	1
		Districts	-0.0167	.0198	1
	Intermediate Units	Private Providers	-0.0039	.0354	1
		Districts	-0.0206	.0309	1
	Districts	Private Providers	0.0167	.0198	1
		Intermediate Units	0.0206	.0309	1
Average dropouts 2012	Private Providers	Intermediate Units	0.0131	.0306	1
		Districts	0.0065	.0163	1
	Intermediate Units	Private Providers	-0.0131	.0306	1
		Districts	-0.0065	.0270	1
	Districts	Private Providers	-0.0065	.0163	1
		Intermediate Units	0.0065	.0270	1
Average dropouts 2013	Private Providers	Intermediate Units	-0.0700	.0427	.307
		Districts	-0.0161	.0229	1
	Intermediate Units	Private Providers	0.0700	.0427	.307
		Districts	0.0539	.0374	.452
	Districts	Private Providers	0.0161	.0229	1
		Intermediate Units	-0.0539	.0374	.452

Note: The mean difference is significant at the 0.05 level.

Academic Goals

Descriptive statistics for students meeting their academic goals for 2011, 2012, and 2013 are listed narratively below and also numerically. In 2011 there were 42 private provider AEPs, 16 intermediate unit AEPs, and 311 district AEPs analyzed. Private Providers had an average of 63.76% students meet their academic goals with a standard deviation of 16.29%. Intermediate Units had an average of 63.17% meet academic goals with a standard deviation of 20.90%, and Districts had an average of 60.96% achieve academic goals with a standard deviation of 24.36%. In 2012 there were 38 private provider AEPs, 13 intermediate unit AEPs, and 316 district AEPs analyzed. Private Providers had an average of 63.85% students meet their academic goals with a standard deviation of 14.31%. Intermediate Units had an average of 58.80% meet academic goals with a standard deviation of 17.44%, and Districts had an average of 62.84% achieve academic goals with a standard deviation of 24.05%. In 2013, there were 34 private provider AEPs, 12 intermediate unit AEPs, and 321 district AEPs analyzed. Private Providers had an average of 65.57% students meet their academic goals with a standard deviation of 15.31%. Intermediate Units had an average of 63.17% meet academic goals with a standard deviation of 19.16%, and Districts had an average of 61.85% achieve academic goals with a standard deviation of 26.87%. Descriptive results of average mean scores indicate that Private Provider AEPs achieved higher success rates of students meeting academic goals all three years, when compared to Intermediate Unit and District AEPs.

Table 25

Average Number of Student Meeting Academic Goals Descriptives

		N	Mean	Std Deviation
Average number of students meeting academic goals 2011	Private Providers	42	.6376	.1629
	Intermediate Units	16	.6317	.2090
	Districts	311	.6096	.2436
	Total	369	.6138	.2341
Average number of students meeting academic goals 2012	Private Providers	38	.6385	.1431
	Intermediate Units	13	.5880	.1744
	Districts	316	.6284	.2405
	Total	367	.6280	.2300
Average number of students meeting academic goals 2013	Private Providers	34	.6557	.1531
	Intermediate Units	12	.6317	.1916
	Districts	321	.6185	.2687
	Total	367	.6224	.2578

A one-way analysis of variance (ANOVA) was run for students achieving their academic goals for each year. Each year 2011: F (2,366) = .312, p = .732, 2012: F (2, 364) = .235, p = .791, and 2013: F (2, 364) = .327, p = .722, results of the one-way ANOVA were not statistically significant. This implies that there are no significant differences among mean academic goals subjects by category each year. However, there are mean score differences among groups.

Table 26

Average Number of Students Meeting Academic Goals One-way ANOVA

		df	Mean square	F	Sig.
Average number of students who met academic goals 2011	Between Groups	2	.017	.312	.732
	Within Groups	366	.055		
	Total	368			
Average number of students who met academic goals 2012	Between Groups	2	.013	.235	.791
	Within Groups	364	.053		
	Total	366			
Average number of students who met academic goals 2013	Between Groups	2	.022	.327	.722
	Within Groups	364	.067		
	Total	366			

One-way ANOVA results are based on the assumption of homogeneity of variances. However, based on Levene's test for homogeneity of variances, the data violates this assumption for 2011 (.018), 2012 (.003), and 2013(.001).

Table 27

Average Number of Students Meeting Academic Goals Test of Homogeneity of Variances

	Levene Statistic	df1	df2	Sig.
Average number of students meeting academic goals 2011	4.044	2	366	.018
Average number of students meeting academic goals 2012	5.769	2	364	.003
Average number of students meeting academic goals 2013	6.725	2	364	.001

Since the Homogeneity Test of Variances statistics indicated a violation to the assumption for all three years, the researcher then tested this directly in order to test the null hypothesis that

variances are all the same. A Robust Means of Equality Test was performed. Data from the Welch and Brown-Forsythe Test indicate no significant difference in students achieving their academic goals for all three years tested, 2011 (.606 and .635), 2012 (.653 and .642), and 2013 (.487 and .522) at the $p = .05$ level.

Table 28

Average Number of Students Meeting Academic Goals Robust Tests of Equality of Means

		Statistic[a]	df1	df2	Sig.
Average number of students meeting academic goals 2011	Welch	.508	2	35.496	.606
	Brown-Forsythe	.459	2	42.779	.635
Average number of students meeting academic goals 2012	Welch	.432	2	29.530	.653
	Brown-Forsythe	.448	2	38.331	.642
Average number of students meeting academic goals 2013	Welch	.740	2	26.751	.487
	Brown-Forsythe	.662	2	33.704	.522

[a] Asymptotically *F* distributed

After determining the results of the Robust Tests of Equality of Means, the researcher continued to decipher the results of students achieving their academic goals by running a Post Hoc Test, performing a multiple comparison of all three AEPs. Students achieving academic goals indicate that there are no significant differences between Private Providers and District AEPs for all three years, 2011 (1.0), 2012 (1.0), and 2013 (1.0). There are also no significant differences between Private Providers and Intermediate Units for all three years, 2011 (1.0), 2012 (1.0) and 2013 (1.0). Results also indicate no significant differences between Intermediate Units and Districts for the three years analyzed, 2011 (1.0), 2012 (1.0), and 2013 (1.0). Concluding there are no academic goal differences at $a = .05$ level between Districts, Intermediate Units, and Private Providers. Thus, the researcher was unable to reject the null hypothesis of no differences in achieving academic goal outcomes across types of AEPs for any

of the three years, and this implies that there are no differences among mean academic goals by category each year.

Table 29

Average Number of Students Meeting Academic Goals Multiple Comparisons

Dependent Variable	Type of Alternative Education Program	Type of Alternative Education Program	Mean Difference	Standard Error	Sig.
Average number of students meeting academic goals 2011	Private Providers	Intermediate Units	0.0059	.0689	1
		Districts	0.0279	.0385	1
	Intermediate Units	Private Providers	-0.0059	.0689	1
		Districts	0.0220	.0601	1
	Districts	Private Providers	-0.0279	.0385	1
		Intermediate Units	-0.0220	.0601	1
Average number of students meeting academic goals 2012	Private Providers	Intermediate Units	0.0504	.0740	1
		Districts	0.0100	.0395	1
	Intermediate Units	Private Providers	-0.0504	.0740	1
		Districts	-0.0403	.0652	1
	Districts	Private Providers	-0.0100	.0395	1
		Intermediate Units	0.0403	.0652	1
Average number of students meeting academic goals 2013	Private Providers	Intermediate Units	0.0239	.0867	1
		Districts	0.0371	.0465	1
	Intermediate Units	Private Providers	-0.0239	.0867	1
		Districts	0.0132	.0759	1
	Districts	Private Providers	-0.0371	.0465	1
		Intermediate Units	-0.0132	.0759	1

Note: The mean difference is significant at the 0.05 level.

Results of this study related to academic success indicate that there is no significant difference between Private Provider AEPs and In-House/District AEPs. Variables used to measure this concept (core subjects passed, attendance, grade promotion, transition, dropouts,

and academic goal achievement) were supported in chapter 2 and 3 of this study. Results indicate that in-house/district AEPs perform similar to Private Provider AEPs academically. This study also demonstrated that there is no statistical difference between Private Provider AEPs and Intermediate Unit AEPs with regards to academic success. Similar findings of no statistical significant differences were reported when comparing In-House/District AEPs to Intermediate Unit AEPs. However, Private Provider AEPs scored higher in mean scores all three years tested.

Along with academic results, this study also investigated behavior differences among the three types of AEPs.

- Research Questions 2: *Is there a difference with in-house alternative education programs improving student behavior compared to off-site AEPs?*
- Null Hypothesis 2: *There is no difference with in-house alternative education programs improving student behavior compared to off-site AEPs.*

To answer the second null hypothesis, the researcher conducted a series of tests that included a one-way analysis of variance (ANOVA), Test of Homogeneity of Variances, Robust Tests of Equality of Means table, and Welch and Brown-Forsythe. Results were determined by comparing the means over a three-year period for three different types of alternative education programs total number of students meeting their behavioral goals.

Descriptive statistics for behavioral goals over a three-year period are reported as follows: In 2011, there were 42 private provider AEPs, 16 intermediate unit AEPs, and 311 district AEPs analyzed. Private Providers had an average of 62.58% students achieving their

behavioral goals with a standard deviation of 19.88%. Intermediate Units had an average of 61.68% with a standard deviation of 22.35%, and Districts had an average of 60.78% students achieving their behavioral goals with a standard deviation of 25.07%. In 2012 there were 38 private provider AEPs, 13 intermediate unit AEPs, and 316 district AEPs analyzed. Private Providers had an average of 58.65% meet their behavioral goals with a standard deviation of 19.41%. Intermediate Units had an average of 55.90% with a standard deviation of 24.05%, and Districts had an average of 59.92% students achieving their behavioral goals with a standard deviation of 24.64%. In 2013 there were 34 private provider AEPs, 12 intermediate unit AEPs, and 321 district AEPs analyzed. Private Providers had an average of 59.54% meeting their behavioral goals with a standard deviation of 19.48%. Intermediate Units had an average of 66.29% with a standard deviation of 11.46%, and Districts averaged 60.53% students achieving their behavioral goals with a standard deviation of 25.97%.

Table 30

Average Number of Students Meeting Behavioral Goals Descriptives

		N	Mean	Std Deviation
Average number of students meeting behavioral goals 2011	Private Providers	42	.6258	.1988
	Intermediate Units	16	.6168	.2235
	Districts	311	.6049	.2507
	Total	369	.6078	.2438
Average number of students meeting behavioral goals 2012	Private Providers	38	.5865	.1941
	Intermediate Units	13	.5590	.2405
	Districts	316	.5592	.2464
	Total	367	.5965	.2409
Average number of students meeting behavioral goals 2013	Private Providers	34	.5954	.1948
	Intermediate Units	12	.6629	.1468
	Districts	321	.6053	.2597
	Total	367	.6063	.2513

Similar to the first null hypothesis, the researcher tested for differences between means across units. A one-way analysis of variance (ANOVA) was run for each year, 2011: F (2,366) = .148, p = .863, 2012: F (2, 364) = .209, p = .812, and 2013: F (2, 364) = .337, p = .714. All three years, 2011, 2012, and 2013, the results of ANOVA were not statistically significant. This implies that there are no differences among mean behavioral goals by category each year.

Table 31

Average Number of Students Meeting Behavioral Goals One-Way ANOVA

		df	Mean square	F	Sig.
Number of students who met behavioral goals 2011	Between Groups	2	.009	.148	.863
	Within Groups	366	.060		
	Total	368			
Number of students who met behavioral goals 2012	Between Groups	2	.012	.209	.812
	Within Groups	364	.058		
	Total	366			
Number of students who met behavioral goals 2013	Between Groups	2	.021	.337	.714
	Within Groups	364	.063		
	Total	366			

One-way ANOVA results are based on the assumption of homogeneity of variances. However, based on Levene's test for homogeneity of variances, the data violates this assumption for 2013 (.030).

Table 32

Average Number of Students Meeting Behavioral Goals Test of Homogeneity of Variances

	Levene Statistic	df1	df2	Sig.
Average number of students meeting behavioral goals 2011	2.107	2	366	.123
Average number of students meeting behavioral goals 2012	1.538	2	364	.216
Average number of students meeting behavioral goals 2013	3.548	2	364	.030

Since the Homogeneity Test of Variances statistics indicated a violation to the assumption for 2013, the researcher then tested this directly in order to test the null hypothesis that the variances are all the same. A Robust Tests of Equality of Means was performed, using a Welch and Brown-Forsythe Test. The Welch Test indicated that there is no statistical significant difference all three years, 2011 (.820), 2012 (.804), and 2013 (.418) at the $p < .05$ level. These results do not allow the researcher to reject the null at the .05 level of significance. Results suggest that there is no significant difference in the number of students who achieved their behavioral goals between Private Providers, Intermediate Units, and district AEPs. The Brown-Forsythe Test also strongly suggests that there are no statistical differences at the $p < .05$ level.

Table 33

Average Number of Students Meeting Behavioral Goals Robust Tests of Equality of Means

		Statistic[a]	df1	df2	Sig.
Average number of students meeting behavioral goals 2011	Welch	.199	2	34.572	.820
	Brown-Forsythe	.190	2	47.072	.827
Average number of students meeting behavioral goals 2012	Welch	.220	2	27.505	.804
	Brown-Forsythe	.248	2	33.064	.782
Average number of students meeting behavioral goals 2013	Welch	.900	2	27.293	.418
	Brown-Forsythe	.670	2	53.691	.516

[a] Asymptotically *F* distributed

Another source of analysis the researcher performed was a multiple comparison of all three AEPs. After determining the results of the Robust Tests of Equality of Means, the researcher continued to decipher the results of students achieving their behavioral goals by running a Post Hoc Test, performing a multiple comparison of all three AEPs. Students achieving behavioral goals indicate that there are no significant differences between Private Providers and District AEPs for all three years, 2011 (1.0), 2012 (1.0), and 2013 (1.0). There are also no significant differences between Private Providers and Intermediate Units for all three years, 2011 (1.0), 2012 (1.0) and 2013 (1.0). Results also indicate no significant differences between Intermediate Units and Districts for the three years analyzed, 2011 (1.0), 2012 (1.0), and 2013 (1.0). This concluded that there are no behavioral goal differences at $a = .05$ level between Districts, Intermediate Units and Private Providers. Thus, the researcher was unable to reject the null hypothesis of no differences in behavioral goal outcomes across types of AEPs for any of the three years, and this implies that there are no differences among mean behavioral goals by category each year.

Table 34

Average Number of Students Meeting Behavioral Goals Multiple Comparisons

Dependent Variable	Type of Alternative Education Program	Type of Alternative Education Program	Mean Difference	Standard Error	Sig.
Average number of students meeting behavioral goals 2011	Private Providers	Intermediate Units	0.0090	.0718	1
		Districts	0.0209	.0401	1
	Intermediate Units	Private Providers	-0.0090	.0718	1
		Districts	0.0119	.0626	1
	Districts	Private Providers	-0.0209	.0401	1
		Intermediate Units	-0.0119	.0626	1
Average number of students meeting behavioral goals 2012	Private Providers	Intermediate Units	0.0274	.0775	1
		Districts	-0.0127	.0414	1
	Intermediate Units	Private Providers	-0.0274	.0775	1
		Districts	-0.0401	.0683	1
	Districts	Private Providers	0.0127	.0414	1
		Intermediate Units	0.0401	.0683	1
Average number of students meeting behavioral goals 2013	Private Providers	Intermediate Units	-0.0674	.0845	1
		Districts	-0.0099	.0454	1
	Intermediate Units	Private Providers	0.0674	.0845	1
		Districts	0.0575	.0740	1
	Districts	Private Providers	0.0099	.0454	1
		Intermediate Units	-0.0575	.0740	1

Note: The mean difference is significant at the 0.05 level.

In conclusion, results indicate that there is not a statistically significant difference in the continuous dependent variables across the three groups (private provider, Intermediate unit, and district) for all three years.

Supporting Behavioral Data

To support the researcher's study on analyzing alternative education student behavior as it relates to Private Providers, Intermediate Units, and Districts, the researcher performed a one-way ANOVA, Robust Means of Equality test, and a Post Hoc test using multiple comparisons on three other variables (suspensions, expulsions, and police intervention).

Suspensions

Descriptive statistics for total suspensions for 2011, 2012, and 2013 are listed narratively below and also numerically. In 2011 there were 42 private provider AEPs, 16 intermediate unit AEPs, and 311 district AEPs analyzed. Private Providers had an average of 63.98% total students suspended with a standard deviation of 97.13%. Intermediate Units had an average of 56.99% suspended with a standard deviation of 68.43%, and Districts had an average of 65.09% suspended with a standard deviation of 108.7%. In 2012 there were 38 private provider AEPs, 13 intermediate unit AEPs, and 316 district AEPs analyzed. Private Providers had an average of 73.58% total suspensions with a standard deviation of 106.6%. Intermediate Units had an average of 62.67% suspended with a standard deviation of 112.0%, and Districts had an average of 66.69% suspended with a standard deviation of 116.2%. In 2013 there were 34 private provider AEPs, 12 intermediate unit AEPs, and 321 district AEPs analyzed. Private Providers had an average of 47.70% students suspended with a standard deviation of 70.37%. Intermediate Units had an average of 32.63% suspended with a standard deviation of 35.10%, and Districts had an average of 53.95% suspended with a standard deviation of 111.5%. Average suspensions were difficult to interpret because PDE identified the total number of suspensions reported. There were more suspensions than students, indicating that there were repeat offenders recorded in the sum total. Results however, indicate that all three AEPs had

dramatic decreases in average mean score from 2012 to 2013. Private Provider AEPs decreased their suspension rates each year tested, while Intermediate Unit AEPs fluctuated more than the other two AEPs. District AEPs results were similar in 2011 and 2012, with a 9% decrease in 2013.

Table 35

Average Number of Students Suspended Descriptives

		N	Mean	Std Deviation
Average number of students suspended 2011	Private Providers	42	.6398	.9713
	Intermediate Units	16	.5699	.6843
	Districts	311	.6509	1.0874
	Total	369	.6461	1.0586
Average number of students suspended 2012	Private Providers	38	.5358	1.0667
	Intermediate Units	13	.6267	1.1200
	Districts	316	.6669	1.1620
	Total	367	.6726	1.1483
Average number of students suspended 2013	Private Providers	34	.4770	.7037
	Intermediate Units	12	.3263	.3510
	Districts	321	.5395	1.1150
	Total	367	.5267	1.0663

Similar to behavioral goals, the researcher tested for differences between means across units. A one-way ANOVA was run for each year, 2011: F (2,366) = .045, p = .956, 2012: F (2, 364) = .071, p = .931, and 2013: F (2, 364) = .271, p = .763. Over the three-year period, the results of one-way ANOVA were not statistically significant. This implies that there are no statistical differences among mean students suspended by category each year.

Table 36

Average Number of Students Suspended One-Way ANOVA

		Df	Mean square	F	Sig.
Average number of students suspended 2011	Between Groups	2	.051	.045	.956
	Within Groups	366	1.127		
	Total	368			
Average number of students suspended 2012	Between Groups	2	.095	.071	.931
	Within Groups	364	1.326		
	Total	366			
Average number of students suspended 2013	Between Groups	2	.309	.271	.763
	Within Groups	364	1.142		
	Total	366			

One-way ANOVA results are based on the assumption of homogeneity of variances. However, based on Levene's test for homogeneity of variances, the data did not violate this assumption for all three years. For clarity and consistency purposes the researcher performed the Test of Homogeneity of Variances.

Table 37

Average Number of Students Suspended Test of Homogeneity of Variances

	Levene Statistic	df1	df2	Sig.
Average number of suspensions 2011	.365	2	366	.695
Average number of suspensions 2012	.061	2	364	.941
Average number of suspensions 2013	1.173	2	364	.311

Since the Homogeneity Test of Variances statistics did not indicate a violation to the assumption for the three year period, the researcher again tested this directly for clarity purposes, in order to test the null hypothesis that variances are all the same. Welch *F* results demonstrate in 2011 (.907), 2012 (.924), and 2013 (.221) that there is not a significant difference at $a = .05$ level. These results do not allow the researcher to reject the null hypothesis of no difference at the .05 level of significance. Brown-Forsythe *F* results are similar to the Welch Test, 2011 (.933), 2012 (.925), and 2013 (.430). Results suggest there is no significant difference in the number of students who were suspended between Private Providers, Intermediate Units, and District AEPs.

Table 38

Average Number of Students Suspended Robust Tests of Equality of Means

		Statistic[a]	df1	df2	Sig.
Average number of students suspended 2011	Welch	.097	2	36.720	.907
	Brown-Forsythe	.069	2	70.747	.933
Average number of students suspended 2012	Welch	.079	2	27.147	.924
	Brown-Forsythe	.078	2	38.904	.925
Average number of students suspended 2013	Welch	1.577	2	35.214	.221
	Brown-Forsythe	.854	2	70.088	.430

[a] Asymptotically *F* distributed

After determining the results of the Robust Tests of Equality of Means, the researcher continued to decipher the results of student suspensions by running a Post Hoc Test, performing a multiple comparison of all three AEPs. Student suspensions indicate that there are no significant differences between Private Providers and District AEPs for all three years, 2011 (1.0), 2012 (1.0), and 2013 (1.0). There are also no significant differences between Private Providers and Intermediate Units for all three years, 2011 (1.0), 2012 (1.0) and 2013 (1.0).

Results also indicate no significant differences between Intermediate Units and Districts for the three years analyzed, 2011 (1.0), 2012 (1.0), and 2013 (1.0). Results suggest there are no suspension goal differences at *a* = .05 level between Districts, Intermediate Units, and Private Providers. Thus, the researcher was unable to reject the null hypothesis of no differences in outcomes across types of AEPs for any of the three years, and this implies that there are no differences among mean suspensions by category each year.

Table 39

Average Number of Students Suspended Multiple Comparisons

Dependent Variable	Type of Alternative Education Program	Type of Alternative Education Program	Mean Difference	Standard Error	Sig.
Average number of students suspended 2011	Private Providers	Intermediate Units	0.0698	.3118	1
		Districts	-0.0111	.1744	1
	Intermediate Units	Private Providers	-0.0698	.3118	1
		Districts	-0.0809	.2720	1
	Districts	Private Providers	0.0111	.1744	1
		Intermediate Units	0.0809	.2720	1
Average number of students suspended 2012	Private Providers	Intermediate Units	0.1090	.3699	1
		Districts	0.0689	.1976	1
	Intermediate Units	Private Providers	-0.1090	.3699	1
		Districts	-0.0401	.3258	1
	Districts	Private Providers	-0.0689	.1976	1
		Intermediate Units	0.0401	.3258	1
Average number of students suspended 2013	Private Providers	Intermediate Units	0.1506	.3587	1
		Districts	-0.0625	.1927	1
	Intermediate Units	Private Providers	-0.1506	.3587	1
		Districts	-0.2131	.3141	1
	Districts	Private Providers	0.0625	.1927	1
		Intermediate Units	0.2131	.3141	1

Note: The mean difference is significant at the 0.05 level.

Police Interventions

Descriptive statistics for total police interventions for 2011, 2012, and 2013 are listed narratively below and also numerically. In 2011 there were 42 private provider AEPs, 16 intermediate unit AEPs, and 311 district AEPs analyzed. Private Providers had an average of 9.39% police interventions with a standard deviation of 11.84%. Intermediate Units had an average of 32.22% police interventions with a standard deviation of 52.69%, and Districts had an average of 10.08% police interventions with a standard deviation of 21.12%. In 2012 there were 38 private provider AEPs, 13 intermediate unit AEPs, and 316 district AEPs analyzed. Private Providers had an average of 7.40% police interventions with a standard deviation of 13.38%. Intermediate Units had an average of 13.07% police interventions with a standard deviation of 12.11%, and Districts had an average of 8.57% police interventions with a standard deviation of 20.58%. In 2013 there were 34 private provider AEPs, 12 intermediate unit AEPs, and 321 district AEPs analyzed. Private Providers had an average of 17.34% police interventions with a standard deviation of 57.51%. Intermediate Units had an average of 21.24% police interventions with a standard deviation of 27.68%, and Districts had an average of 12.07% police interventions with a standard deviation of 42.34%. Results indicate that Intermediate Unit AEPs have higher police interventions across means all three years. Intermediate Unit AEPs also fluctuate the most over the three year period. District AEPs were the most consistent in mean scores over the testing period.

Table 40

Average Number of Police Interventions Descriptives

		N	Mean	Std Deviation
Average number of police interventions 2011	Private Providers	34	.0939	.1184
	Intermediate Units	12	.3222	.5269
	Districts	321	.1008	.2112
	Total	367	.1074	.2240
Average number of police interventions 2012	Private Providers	42	.0740	.1338
	Intermediate Units	16	.1307	.1211
	Districts	311	.0857	.2058
	Total	369	.0863	.1959
Average number of police interventions 2013	Private Providers	38	.1734	.5751
	Intermediate Units	13	.2124	.2768
	Districts	316	.1207	.4234
	Total	367	.1294	.4367

Police interventions were analyzed by the researcher to determine differences between means across units. A one-way ANOVA was run for each year, 2011: F (2,366) = 5.866, p = .003, 2012: F (2, 364) = .493, p = .611, and 2013: F (2, 364) = .489, p = .613. During 2011, the results of the one-way ANOVA were statistically significant. This implies that there are statistically significant differences among mean police interventions by category during the 2011 school year. However, results also indicate that there was not a statistical significant difference among mean police interventions by category in 2012 and 2013.

Table 41

Average Number of Police Interventions One-Way ANOVA

		df	Mean square	F	Sig.
Average number of police interventions 2011	Between Groups	2	.287	5.866	.003
	Within Groups	366	.049		
	Total	368			
Average number of police interventions 2012	Between Groups	2	.019	.493	.611
	Within Groups	364	.038		
	Total	366			
Average number of police interventions 2013	Between Groups	2	.094	.489	.613
	Within Groups	364	.191		
	Total	366			

One-way ANOVA results are based on the assumption of homogeneity of variances. However, based on Levene's test for homogeneity of variances, the data violates this assumption for 2011.

Table 42

Average Number of Police Interventions Test of Homogeneity of Variances

	Levene Statistic	df1	df2	Sig.
Average number of police interventions 2011	8.277	2	366	.000
Average number of police interventions 2012	.804	2	364	.448
Average number of police interventions 2013	.399	2	364	.671

Since the Homogeneity Test of Variances statistics indicated a violation to the assumption in 2011, the researcher then tested this directly in order to test the null hypothesis that the variances are all the same. A Robust Tests of Equality of Means was performed, using a Welch and Brown-Forsythe Test. Welch results in 2011 (.354), 2012 (.306), and 2013 (.485) demonstrate no significant difference at a = .05 level. Brown-Forsythe results also do not show a statistically significant difference over the three-year period, 2011 (.176), 2012 (.360), and 2013 (.625). These results do not allow the researcher to reject the null at the .05 level of significance. Results suggest that there is not a significant difference in the number of police interventions between Private Providers, Intermediate Units, and district AEPs.

Table 43

Average Number of Police Interventions Robust Tests of Equality of Means

		Statistic[a]	df1	df2	Sig.
Average number of police interventions 2011	Welch	1.084	2	24.851	.354
	Brown-Forsythe	1.999	2	12.542	.176
Average number of police interventions 2012	Welch	1.220	2	38.577	.306
	Brown-Forsythe	1.038	2	68.839	.360
Average number of police interventions 2013	Welch	.742	2	28.299	.485
	Brown-Forsythe	.474	2	55.161	.625

[a] Asymptotically *F* distributed

A multiple comparison of all three AEPs was performed by the researcher. Results indicate that there are significant differences between Private Providers and Intermediate Unit AEPs for 2011(.007). However, there are no significant differences between Private Providers and Intermediate Units during 2012 (.978) and 2013 (1.0). There were also no significant differences between Private Providers and Districts for all three years 2011 (1.0), 2012 (1.0), and 2013 (1.0). However, there were significant differences between Intermediate Units and

Districts in 2011 (.002). During 2012 (1.0) and 2013 (1.0), there was no statistical significant differences between Intermediate Units and Districts. Since results of the multiple comparisons demonstrate that there are significant differences in some sub categories, the researcher can reject the null hypothesis of no difference in police interventions.

Table 44

Average Number of Police Interventions Multiple Comparisons

Dependent Variable	Type of Alternative Education Program	Type of Alternative Education Program	Mean Difference	Standard Error	Sig.
Average number of police interventions 2011	Private Providers	Intermediate Units	-0.2282	.0742	0.007
		Districts	-0.0068	.0398	1
	Intermediate Units	Private Providers	0.2282	.0742	0.007
		Districts	0.2213	.0650	0.002
	Districts	Private Providers	0.0068	.0398	1
		Intermediate Units	-0.2213	.0650	0.002
Average number of police interventions 2012	Private Providers	Intermediate Units	-0.0566	.0576	0.978
		Districts	-0.0116	.0322	1
	Intermediate Units	Private Providers	0.0566	.0576	0.978
		Districts	0.0449	.0502	1
	Districts	Private Providers	0.0116	.0322	1
		Intermediate Units	-0.0449	.0502	1
Average number of police interventions 2013	Private Providers	Intermediate Units	-0.0389	.1405	1
		Districts	0.0527	.0751	1
	Intermediate Units	Private Providers	0.0389	.1405	1
		Districts	0.0917	.1237	1
	Districts	Private Providers	-0.0527	.0751	1
		Intermediate Units	-0.0917	.1237	1

Note: The mean difference is significant at the 0.05 level.

Expulsions

Descriptive statistics for total expulsions for 2011, 2012, and 2013 are listed narratively. In 2011 there were 42 private provider AEPs, 16 intermediate unit AEPs, and 311 district AEPs analyzed. Private Providers had an average of 10.31% total expulsions with a standard deviation of 45.76%. Intermediate Units had an average of .72% expelled with a standard deviation of 1.73%, and Districts had an average of 3.55% expelled with a standard deviation of 15.06%. In 2012 there were 38 private provider AEPs, 13 intermediate unit AEPs, and 316 district AEPs analyzed. Private Providers had an average of 6.26% total expulsions with a standard deviation of 18.73%. Intermediate Units had an average of 1.22% expelled with a standard deviation of 3.14%, and Districts had an average of 19.42% expelled with a standard deviation of 293.7%. In 2013 there were 34 private provider AEPs, 12 intermediate unit AEPs, and 321 district AEPs analyzed. Private Providers had an average of 1.91% total expulsions with a standard deviation of 3.39%. Intermediate Units had an average of .42% expelled with a standard deviation of .0104, and Districts had an average of 1.86% expelled with a standard deviation of 6.57%. Average suspensions were difficult to interpret because PDE identified the total number of suspensions reported. There were more suspensions than students, indicating that there were repeat offenders recorded in the sum total. Results reported in mean scores imply that Intermediate Unit AEPs had the lowest scores each year tested. Also, Private Provider AEPs mean scores decreased all three years. District AEPs had the most fluctuation over the three year period.

Table 45

Average Number of Students Expelled Descriptives

		N	Mean	Std Deviation
Average number of students expelled 2011	Private Providers	42	.1031	.4576
	Intermediate Units	16	.0072	.0173
	Districts	311	.0355	.1506
	Total	369	.0420	.2073
Average number of students expelled 2012	Private Providers	38	.0626	.1873
	Intermediate Units	13	.0122	.0314
	Districts	316	.1942	2.9379
	Total	367	.1741	2.7266
Average number of students expelled 2013	Private Providers	34	.0191	.0339
	Intermediate Units	12	.0042	.0104
	Districts	321	.0186	.0657
	Total	367	.0182	.0623

The researcher continued to test and investigate differences between means across units. A one-way analysis of variance (ANOVA) was run for each year, 2011: F (2,366) = 2.217, p = .110, 2012: F (2, 364) = .063, p = .939, and 2013: F (2, 364) = .313, p = .731. All three years the results of the one-way ANOVA were not statistically significant for expulsions. This implies that there are no differences among mean students expelled by category each year.

Table 46

Average Number of Students Expelled One-Way ANOVA

		df	Mean square	F	Sig.
Average number of students expelled 2011	Between Groups	2	.095	2.217	.110
	Within Groups	366	.043		
	Total	368			
Average number of students expelled 2012	Between Groups	2	.471	.063	.939
	Within Groups	364	7.473		
	Total	366			
Average number of students expelled 2013	Between Groups	2	.001	.313	.731
	Within Groups	364	.004		
	Total	366			

One-way ANOVA results are based on the assumption of homogeneity of variances. However, based on Levene's test for homogeneity of variances, the data violates this assumption for 2011 (.002).

Table 47

Average Number of Students Expelled Test of Homogeneity of Variances

	Levene Statistic	df1	df2	Sig.
Average number of students expelled 2011	6.353	2	366	.002
Average number of students expelled 2012	.247	2	364	.782
Average number of students expelled 2013	1.429	2	364	.241

Since the Homogeneity Test of Variances statistics indicated a violation to the assumption in 2011, the researcher then tested this directly in order to test the null hypothesis

that variances are all the same. A Robust Tests of Equality of Means was performed, using a Welch and Brown-Forsythe test. Welch results, 2011 (.008) and 2013 (.006), allow the researcher to reject the null at the .05 level of significance. Results in 2012 (.165) the null cannot be rejected by the researcher at the .05 level. Brown-Forsythe results differ from the Welch Test. Results 2011(.377), 2012 (.466), and 2013 (.242) indicate that there is not a significant difference in the number of expulsions between Private Providers, Intermediate Units, and district AEPs at the $p < .05$ level.

Table 48

Average Number of Students Expelled Robust Tests of Equality of Means

		Statistic[a]	df1	df2	Sig.
Average number of students expelled 2011	Welch	5.163	2	91.502	.008
	Brown-Forsythe	.999	2	42.718	.377
Average number of students expelled 2012	Welch	1.837	2	99.687	.165
	Brown-Forsythe	.764	2	330.323	.466
Average number of students expelled 2013	Welch	5.636	2	58.996	.006
	Brown-Forsythe	1.445	2	81.686	.242

[a] Asymptotically *F* distributed

When comparing the AEPs with a Post Hoc Test, using multiple comparisons, there was not a significant difference in expulsions between Private Providers and Intermediate Units in 2011 (.344), 2012 (1.0) and 2013 (1.0). Also, there is not a significant difference at the .05 level between Private Providers and Districts for all three years 2011 (.142), 2012 (1.0), and 2013 (1.0). Results indicated that there is not a significant difference among Intermediate Units and District AEPs with regards to expulsion over the three year period, 2011 (1.0), 2012 (1.0), and 2013 (1.0). Thus, the researcher was unable to reject the null hypothesis of no differences in outcomes across types of AEPs for any of the three years, and this implies that there are no

differences among mean students expelled by category each year.

Table 49

Average Number of Students Expelled Multiple Comparisons

Dependent Variable	Type of Alternative Education Program	Type of Alternative Education Program	Mean Difference	Standard Error	Sig.
Average number of students expelled 2011	Private Providers	Intermediate Units	0.0959	.0607	0.344
		Districts	0.0675	.0339	0.142
	Intermediate Units	Private Providers	-0.0959	.0607	0.344
		Districts	-0.0283	.0529	1
	Districts	Private Providers	-0.0675	.0339	0.142
		Intermediate Units	0.0283	.0529	1
Average number of students expelled 2012	Private Providers	Intermediate Units	0.0504	.8783	1
		Districts	-0.1316	.4693	1
	Intermediate Units	Private Providers	-0.0504	.8783	1
		Districts	-0.1820	.7736	1
	Districts	Private Providers	0.1316	.4693	1
		Intermediate Units	0.1820	.7736	1
Average number of students expelled 2013	Private Providers	Intermediate Units	0.0149	.0209	1
		Districts	0.0005	.0112	1
	Intermediate Units	Private Providers	-0.0149	.0209	1
		Districts	-0.0144	.0183	1
	Districts	Private Providers	-0.0005	.0112	1
		Intermediate Units	0.0144	.0183	1

Note: The mean difference is significant at the 0.05 level.

This study's final component that was investigated by the researcher involved cost analysis of the three types of AEPs.

- Research Question 3: Is there a financial difference in educating students "at-risk" internally compared to placing students outside the district in an off-site AEP?
- Null Hypothesis 3: *There is no financial difference in educating students "at-risk" internally compared to placing students outside the district in an off-site AEP.*

Analysis of the third null hypothesis required the researcher to calculate the average number of students enrolled in three separate AEPS for each year (2011, 2012, and 2013). Since the research indicated that the average stay for an alternative student in an alternative education program is 90 days, the researcher multiplied the average enrolled students for each AEP times 90 to determine how many average days each AEP had students enrolled. To determine total cost per day for Private Providers, the researcher obtained financial information from 26 Private Providers. The researcher then averaged the 26 private provider costs, which resulted in an average of $120 day. There were 9 Intermediate Units that provided financial information. Average cost per day for Intermediate Units was $70 a day. District financial data were retrieved from the Pennsylvania Department of Education / Bureau of Budget and Fiscal Management's annual financial reports (AFRs). Pennsylvania school districts' AFRs total allotment for alternative education expenditures was retrieved for the years 2011-2013. That total expenditures for alternative education were averaged and divided by the average length of enrollment (90 days). This created the average cost per day, which was then divided by the average number of students enrolled in district AEPs, creating the average cost per day per student.

District descriptive statistics for average total cost per day for 2011, 2012, and 2013 are reported narratively and numerically below. Average district expenditures per year equaled $401,063.28 (2011), $377,877.51 (2012), and $281,872.42 (2013). District average cost per day results are recorded as $4,456.26 (2011), $198.63 (2012), and $3,131.91 (2013). District average cost per day per student results are $114.26 (2011), $135.43 (2012), and $120.46 (2013). Results indicate that districts cost per day per student was at its lowest in 2011, increased to its highest total in 2012, then decreased again in 2013.

Table 50

District Average Cost Per Day

	Average Cost/Year	Average Cost/Day	Average Cost/Day/Student
2011	$401,063.28	$4,456.26	$114.26
2012	$377,877.51	$4,198.63	$135.43
2013	$281,872.42	$3,131.91	$120.46

A three-year average cost comparison was performed by the researcher to demonstrate average cost per day per student across all three types of AEPs. Although district three-year average expenditures were slightly higher than private provider AEPs, there were larger differences among district and intermediate unit AEPs. However, these average costs do not include transportation costs to attend private provider and intermediate unit AEPs.

Table 51

Three-year Average Cost Comparison of AEPs

	District Average	Private Provider Average	Intermediate Unit Average
2011-2013	$123	$120[a]	$70[a]

[a]cost does not include transportation

Summary

Results of the statistical analysis used to determine the outcome of the first null hypothesis indicate that with the exception of grade promotion in 2011, and attendance in 2012, 2013, there are no statistically significant differences between Private Providers, Intermediate Units, and District AEPs. This statistical evidence suggests that In-House/District alternative education students successfully pass their four core subjects at similar rates to off-site AEPS. Statistically, there is no significant difference in the continuous dependent variables across the three groups (Private Provider, Intermediate Unit, and District) for all three years. However, average means scores imply that District AEPs are the only AEP to increase every year with respect to core subjects passed. District AEPs are also more consistent with their attendance results when comparing average means scores of all three types of AEPs. Results across the means for all three years indicate that District AEPs achieve higher transition rates than Private Provider and IUs. This same pattern holds true with comparing average dropout mean scores, as Districts had fewer dropouts than Private Provider and Intermediate Unit AEPs all three years.

Results of this research allow for the assumption that District/In-house AEPs achieve better mean score results across variables tested, with the exception of academic goals. They do not have a statistically significant rate of academic success when compared to off-site AEPs, therefore the answer to the first research question is no. “Is there a significant statistical

difference in academic success of students ‘at risk’ enrolled in an in-house (District) AEP, compared to off-site (Private Provider) AEPs.

Table 52

Multiple Comparisons Test of Academic Effectiveness Significant Difference at a = .05

	Private Provider:IU	Private Provider:District	IU:District
Total Core	No	No	No
Attendance	No	No	No
Academic Goals	No	No	No
Student Promotions	No	No	Yes
Transitioning	No	No	No
Dropouts	No	No	No

Similar to these findings of academic success, the results and data indicate that the second null hypothesis involving behavior also demonstrates no statistically significant difference with the dependent variable (behavior goals). This non-significant difference held true for all three years. Results allow for the assumption that in-house (District) AEPs have a similar success rate with their student achieving their behavioral goals, when compared to off-site (Private Provider).

These findings can also be supported by the analysis of three other dependent variables: suspensions, expulsions, and police interventions (2012, 2013). In each scenario, over the three year period (2011, 2012, and 2013), In-House/District AEPs had a similar rate of suspensions, police interventions, and expulsions. The only exception was police interventions in 2011 were found to be significant between Intermediate Units and Districts, and also between Intermediate Units and Private Providers. Therefore, it can be suggested that In-House/District AEPs meet their students’ behavioral goals at a similar rate as Off-Site (Private Provider) AEPs. This provides a no answer to the researcher’s second research question “Is there a significant

statistical difference with In-House/District AEPs improving student behavior compared to Off-Site (Private Provider) AEPs"?

Table 53

Multiple Comparisons Test of Behavioral Effectiveness Significant Difference at a = .05

	Private Provider:IU	Private Provider:District	IU:District
Behavioral Goals	No	No	No
Suspensions	No	No	No
Police Intervention	Yes [a]	No	Yes [a]
Expulsions	No	No	No

[a] 2011 significant difference

Analyzing financial data on all three AEP's total expenditures was the basis for the third null hypothesis. This study set out to answer the research question "Is there a financial difference in educating students 'at-risk' internally, compared to placing students outside the district in an off-site (Private Provider) AEP?" Since this financial analysis was based on total expenditures, excluding transportation costs and not on a sample of data, it resulted in similar costs among In-House/District AEPs and Private Provider AEPs. Intermediate Units recorded the lowest average cost per day results.

CHAPTER 5

SUMMARY, CONCLUSIONS, RECOMMENDATIONS

This study sought to examine the effectiveness of in-house alternative education programs (AEPs) as they compare to off-site AEPs. Alternative education programs' effectiveness was measured by comparing archival quantitative academic, behavioral, and financial data over a three-year period. Pennsylvania Department of Education (PDE) approved in-house AEPs across the Commonwealth of Pennsylvania were compared to PDE approved off-site AEPs and PDE approved Intermediate Unit AEPs.

Results of this current study will be used to expand the limited research-based literature regarding in-house AEPs. Research supported the idea that traditional schools are not capable of meeting the needs of all children (Wolfe, 2008). Researchers believe the single most effective educational program for at-risk youth is a small alternative school because these types of programs provide students with a community of support that may be lacking in their lives (Barr & Parrett, 1997). Results of this current study will assist other school administrators with the development, implementation, and analysis of their alternative education program. Furthermore, this study provides educators with a better understanding of educational needs for students at-risk. Finally, the current study provides central office personnel with the factual data to determine if an in-house AEP is an effective means of educating their students at-risk. Aforementioned literature provides a foundation for this chapter; it is organized and presented according to the three fundamental research questions the researcher sought to answer:

- Research Question 1 - *Is there a significant statistical difference in the academic success of students "at-risk" enrolled in an in-house AEP, compared to off-site AEPs?*

- Research Question 2 - *Is there a significant statistical difference with in-house alternative education programs improving student behavior compared to off-site AEPs?*
- Research Question 3 - *Is there a financial difference in educating students "at-risk" internally, compared to placing students outside the district in an off-site AEP?*

Research Question 1: Is there a significant statistical difference in the academic success of students "at-risk" enrolled in an in-house AEP compared to off-site AEPs?

Mean score results imply that District AEPs were the only AEP to increase every year with respect to core subjects passed. District AEPs were also more consistent with their attendance results when comparing means scores of all three types of AEPs. Results across the means for all three years indicate that District AEPs achieve higher transition rates than Private Provider and IUs. This same pattern holds true with comparing average dropout mean scores, as Districts had fewer dropouts than Private Provider and Intermediate Unit AEPs all three years. Results of this research allow for the assumption that District/In-house AEPs achieve better mean score results across variables tested, with the exception of academic goals.

Although, when measuring statistical academic significance, results of this study indicated that there were no statistical significant differences among the three types of alternative education programs with regards to total core subjects passed, attendance, transitioning, dropouts, and academic goals. This, therefore, demonstrates that in-house/district AEPs were similar to Private Provider and Intermediate Unit AEPs when implementing effective academic strategies, as outlined by Kerka (2003) and Nelson, Sprague, and Tobin (2009). Even though there were no statistical significant differences among the three types of AEPs, there were indications among the means that can be considered as noteworthy.

When analyzing the mean scores for total core subjects passed there appears to be inconsistencies with Private Provider and Intermediate Unit results over the three year period when comparing this to In-House/District AEPs mean scores of 55%, 56.8%, and 58.5%. In-House/Districts also showed growth each year, whereas Intermediate Unit AEPs declined every year (64%, 61%, and 54%). Private Provider AEPs made a 5% increase the first year, and then dropped the final year (54%, 61%, and 59%). Accumulating credits in core subject areas is another way to measure academic success.

Transitioning and grade promotion were measured in this current study. Korb (2012) researched and concluded that the number one indicator in student achievement is the instruction provided by a teacher. An alternative education student's transitioning and promotion success begins with a teacher's lesson design lesson transitions, and the relevance of instruction (Hoffman, 2007). When lesson design and relevance of instruction is imbedded into an AEP, transitioning success will increase. When students transition, they also obtain credits and earn grade promotions. Both of these types of transitions were indicators of academic success. When reviewing the mean scores over the three-year period for students transitioning, the results indicated that both Private Provider and District AEPs improved every year. District mean scores (27%, 30%, and 32%) were higher than Private Provider (25%, 27%, and 30%) and Intermediate Unit AEPs (23%, 28%, and 28%) each year. Mean scores from this study may imply that District AEPs consistently produce better results with their students at-risk with regards to grade promotions.

Throughout this study, it has been documented that there has been limited research on the academic effectiveness of AEPs. However, the researcher was able to find studies that identified effective strategies for educating students at-risk. Nelson, Sprague, and Tobin (2009) outlined

lower student-teacher ratio, highly structured classrooms, positive discipline models, school-based adult mentor, functional behavior assessments, social skills instruction, high quality instruction, and parent involvement as characteristics that enhance student attendance and academic success. Organizing the curriculum and student goals around the individual needs of each student produces favorable academic outcomes. When analyzing the mean scores of students achieving academic goals across all three AEPs over the three-year period, there is evidence that Private Provider (63%, 63%, and 65%) and In-House/District (61%, 62%, and 61%) AEPs achieve consistent results. Student success leads to students transitioning to the next sequential grade or returning to the traditional educational environment. Academic success of AEPs is associated also with curriculum, instruction, assessment, counseling support, placement time, and facilities (Dean, Hubbell, Pitler, & Stone, 2012). Linking curriculum, instruction, assessment, counseling, placement time, and facilities to academic success can easily be measured by using the following indicators: percentage of students passing core classes and receiving credit, percentage of students transitioning to the next sequential grade, percentage of students returning to the traditional educational environment, and percentage of students graduating.

Coinciding with academic effectiveness, this study also sought out to determine if there was a significant difference in behavioral data among Private Providers, Intermediate Units, and In-House/District AEPs:

Research Question 2: Is there a significant statistical difference with in-house alternative education programs improving student behavior compared to off-site AEPs?

Results of this study indicated that there was a statistical significant difference in police interventions in 2011. This research also indicated that there were no significant differences

among private providers and in-house/district AEPs in behavioral goals, suspensions, and expulsions. Results also demonstrate that there is no difference in these variables when comparing private providers to IUs. There was no significant difference between IUs and in-house/districts for the aforementioned benchmarks. However, there was a significant difference with police interventions during the 2011 school year.

Benchmarks were analyzed by the researcher to determine if there were significant behavioral differences among the three types of AEPs included: behavioral goals, suspensions, police interventions, and expulsions. In 2007, Hoffman and Kaser discuss strategies that manage behavior. AEPs with fewer rules were more likely to have students conform to the expectations (Hoffman, Kaser, 2007). Seat assignments, clear expectations and consequences, parental contact, creative curriculum, and contingency plans were effective strategies in managing behavior of students at-risk (Colvin, 2007). Results of this study's mean scores suggest that in-house/district AEPs were more consistent and successful over the three-year period, when analyzing students who met their behavioral goals. District AEPs registered scores of 60% (2011), 59.9% (2012), and 60% (2013). Private Providers were next with scores of 62% (2011), 58% (2012), and 59% (2013). Intermediate units were the most inconsistent when measuring behavioral goals met. Intermediate Unit results ranged between 61% (2011), 55% (2012), and 66% (2013). However, there were significant strategic differences between successful AEPs and ineffective AEPs. Characteristics of ineffective AEPs include: large size; punitive focus; coercive approach; limited teacher and student choice; minimum caregiver involvement; inadequate poorly trained staff; unclear vision; inconsistent operating policies; and little to no community involvement (Fitzsimmons-Lovett, 2011). These ineffective characteristics may be attributed to why Intermediate Unit AEPs were inconsistent from year to year in average mean

scores for suspensions 56% (2011), 62% (2012), 32% (2013), and police interventions 32% (2011), 13% (2012), and 21% (2013).

Possible explanations to these mean score results is the mere fact that in-house/district AEPs have a better understanding of their own students compared to off-site AEPs. Understanding a student's background, home life, academic records, and behavior records increase the probability of establishing positive relationships. Positive relationships produce positive results.

Academics and behavior were vital components in educating students at-risk; however, how districts chose to educate their students at-risk oftentimes is determined by finances. Results of this study will provide school districts with a quantitative analysis to determine if it is feasible to provide alternative education in-house or out-source their disruptive students to an off-site program. Determining whether or not to send students at-risk to outside placements or to provide on-site alternative education within the district is the major question that must be addressed. This decision usually results in districts looking at the cost per-pupil per-day (CPD) for educating students at-risk. The issue of funding AEPs often creates a cognitive dissonance between district educational leaders and school finance departments. District financial personnel often argue that the cost of running AEPs is too great because the programs target a small population and divert limited financial resources from the general education program (Wolfe, 2008). District's dilemma on educating their alternative education students led to the researcher's third question:

Research question 3: Is there a financial difference in educating students "at-risk" internally compared to placing students outside the district in an off-site AEP?

A three-year average cost comparison was performed by the researcher to demonstrate average cost per day per student across all three types of AEPs. Although district three-year average expenditures were slightly higher than private provider AEPs, there were larger differences among district and intermediate unit AEPs. However, these average costs do not include transportation costs to attend private provider and intermediate unit AEPs.

Results of this three year study indicate that in-house/district AEPs average cost per day is similar to off-site AEPs. Transportation costs were included for in-house/district AEPs but were not added to the expenditure results for off-site AEPs. Since some of the limitations in this study indicated that certain financial data was difficult to ascertain an assumption cannot be made that in-house AEPs were more cost effective. However, all AEPs save society money by graduating students at-risk and moving them away from government support programs; high school graduates need 40% less welfare (Garfinkel, Kelly, & Waldfogel, 2005).

In comparing mean scores, this study suggests that in-house/district AEPs were more consistent in their academic and behavioral results. Along with this consistency, they were similar in cost. Therefore, if the statistically significant results measured were similar for all three types of AEPs and the mean scores indicate in-house/district AEPs were more consistent an assumption would indicate that it is beneficial for districts to educate their own alternative education students.

Determining the average cost per day among all three AEPs was a limitation to this study. Since the researcher was unable to obtain exact costs for all private providers and Intermediate Units, an average cost was used for this study.

Implications for Educators

Educators and other stakeholders reviewing this study will be able to analyze the statistical similarities and the mean differences to implement, change, and improve the way they educate students at-risk. Results of this study coincide with the literature that suggests that school districts understand the pressures and dwindling resources to educate all students in a traditional setting. Therefore, the process of identifying students at-risk and creating effective curriculum, instruction, assessment, and counseling strategies for these students is imperative not only to the district, but also to society. School districts are held accountable for providing a safe, nurturing, and positive educational environment for all students. This study implies that there is a need to develop programs of support that provides interventions for students at-risk. Statistically all three types of AEPs were performing similarly with respect to academics and behavior results. However, there is a pattern of mean scores that implies that in-house AEPs produce more consistent results with regards to academics and behavior. Districts were the only AEP to increase every year in core subjects passed. They were the most consistent with regards to attendance. Students enrolled in district AEPs transition back to the regular educational environment at a higher rate along with having fewer dropouts. Although these results were not statistically significant, they were noteworthy enough to compare to the theoretical research of Korb (2012). Korb's research produced effective strategies for defiant students to achieve academic success. This study's academic indicators coincide with Korb's academic strategies. Therefore, an assumption can be made that since district AEPs achieved better mean score results across variables tested, it is more academically advantageous for districts to provide their own AEP. By running their own program, districts can control who is teaching their children, curriculum being implemented, how students were assessed, and how the

instruction is delivered. Controlling these variables increases consistency (Korb, 2012). This consistency is evident in this study's mean score results.

Behavioral mean scores from this study were similar to the academic mean scores. District mean scores were more consistent over the three-year period with regards to students meeting their behavioral goals, student suspensions, and police interventions. These indicators were analyzed as a result of the research performed by the team of Nelson, Sprague, Tobin, Jolivette, and Smith. Their extensive research on positive behavioral supports in AEPs can provide an assumption for stakeholders that district AEPs achieve more consistent results across variables tested. Again, the behavioral mean scores and the statistically significant police intervention indicator allow educators to imply that district AEPs provide more consistent behavioral results for students at-risk.

Districts choose to educate their students at-risk oftentimes is determined by finances. This study's results provided evidence that in-house AEPs average cost per day without factoring in transportation costs, is similar to Private Provider AEPs. An educator or decision maker can view the similarities in cost per day expenditures, add transportation costs, and surmise that an In-House AEP would be more financially effective. However, each district must perform its own cost analysis to determine if it is feasible to provide alternative education in-house or place their students in an off-site program. Size of school, location, and tax base were significant factors in determining how districts will educate their students at-risk.

Board members, central office administration, and educators can use the financial results of this study to determine if it is feasible to run their own AEP. However, as the researcher discovered in this study, there were many factors that influence alternative education costs. Limitations of this study with regards to transportation expenditures results can only provide an

assumption that over a three-year period on average; it is more cost effective to educate alternative students internally, compared to outsourcing them to off-site programs. Financing AEPs in small, rural districts compared to larger, urban districts also differ. Districts with small student bodies have a limited tax base and fewer students who need an AEP. Thus, decreased enrollment becomes cost prohibitive. Since urban school districts have a larger student population involved in AEPs and funding is distributed on a per student basis, they receive more money from the state. Rural districts need to be cognizant of the funding allocations (Hosley, Hosley, & Thein, 2009). If rural districts do not have enough students enrolled in their programs, it may not be cost effective for them to run their own AEPs.

Future Research

With limited research on the differences among various AEPs, this study will allow future researchers an opportunity to expand upon the reported results. Based on the findings and implications of this study, the researcher would recommend several areas for future research. First, it would be recommended to further investigate why in-house/district AEPs did not significantly differ from off-site AEPs academically and behaviorally, but produced more consistent results over time. A more in-depth program analysis surveying teachers, students, counselors, and parents may provide valuable information that goes beyond this study. Secondly, the researcher recommends that a financial analysis of similar AEPs such as rural to rural, suburban to suburban, and urban to urban, comparisons may provide more insight above and beyond the results of this study. Additional research would be to survey district superintendents to determine their philosophies on alternative education, ultimately trying to determine if superintendents view alternative education as a financial concern or an academic concern. A fourth recommendation would be to compare total suspensions and total expulsions

per student across the various types of AEPs. A fifth suggestion for research would be to survey communities to determine their thoughts about educating the disruptive students in their district. Should they be placed outside the district? Should the district be responsible for providing their education within the walls of their schools? Does the community perception align with the district philosophy regarding alternative education? Finally, future research may want to investigate procedures and practices across all types of AEPs to determine if more accountability and common practices need to be implemented. Increasing the commonality and accountability for academic and behavioral results for all AEPs is an area that educators and legislators need to be more cognizant of in the future.

Conclusion

As Galileo once observed, "You cannot teach anybody anything. You can only help them discover it within themselves." Realizing that there is a need to educate all students, the researcher had an avid interest in working with students who were at-risk of not graduating. Delineating students to attend AEPs was one component. However, determining how and where to educate them is a dilemma for many school districts. This researcher was specifically interested in determining how school districts can effectively determine if their choice of AEPs is academically, behaviorally, and financially effective.

Results of this quantitative study, using archival data from the Commonwealth of Pennsylvania's Department of Education, identified that there is no statistical significant difference between Private Provider AEPs, Intermediate Unit AEPs, and In-House/District AEPs, with regards to academics, behavior, and finances. However, the data results imply that In-House AEPs were more consistent with their results over the three-year period with regards to academic and behavioral outcomes. When analyzing the average cost per day between the three

programs, the In-House/District AEPs were financially similar to Private Providers and higher than Intermediate Unit AEPs over all three years.

Results of this study's comparisons of AEPs across the Commonwealth of Pennsylvania will provide factual data based on theoretical research for all stakeholders involved in alternative education. This information will allow the stakeholders to make educated and informed decisions about their respective alternative education programs. However, this research study has had a profound effect on the researcher. Most educators become involved in the teaching profession because they wanted to make a positive difference in young people's lives. This study emphasized that there were no quick fixes for students at-risk. Success is a systems approach that involves educators at all levels to genuinely care and pursue alternatives to assist students. Educational strategies revealed in this study will open doors to new perspectives. It is the researcher's hope that this study will lead educators to a practical and effective solution for the students at-risk in their district.

References

Almeida, C., Le, C., Steinberg, A., & Cervantes, R. (2010). *Reinventing alternative education: an assessment of current state policy and how to improve it*. Washington, D.C.: Jobs For the Future.

American Institutes for Research. (2007). *Study of effective alternative education programs: final grant report*. Washington, D.C.: U.S. Department of Education.

Aron, L. (2006). *An overview of alternative education.* National Center on Education and the Economy. Washington, D.C.

Banks, J. (2005). Education and diversity. *Social Education, 69*, 34-40. Teacher's College Press.

Barr, R. D., & Parrett, W. H. (1995). *Hope at last for at-risk youth*. Boston, MA: Allyn & Bacon.

Barr, R. D., & Parrett, W. H. (1997). *How to create alternative, magnet, and chart schools that work*. Bloomington, IN: National Education Service.

Barr, R. D., & Parrett, W. H. (2007). Saving our students, saving our schools: *50 proven strategies for revitalizing at-risk students and low-performing schools.* (2nd ed.). Thousand Oaks, CA: Corwin Press.

Baum, & Pavea (2004). Education pays. *Closing the education gap: Benefits and costs*.

Benefits of high education for individuals and society. [Entire issue]. (2010). Retrieved from http://trends.collegeboard.org/downloads/education_pays_2010.pdf

Breslow, J. M. (2012, September 21). By the numbers: dropping out of high school. *Frontline Education*. Retrieved from www.pbs.org

Brookhart, S. M. (2008). *How to give effective feedback to your students.* Alexandria, VA: ASCD

Carneiro, P., Heckman, J. J., & Vytlacil, E. J. (2011). Estimating marginal returns to education. *American Economic Review*, *101(6*), 2754-2781.

Cleveland, K. (2011). *Teaching boys who struggle in school.* Alexandria, VA: ASCD

Colvin, G. (2007). *7 Steps for developing a proactive school-wide discipline plan*. Thousand Oaks, CA: Corwin Press.

Creswell, J. W. (2012). *Educational research: planning, conducting, and evaluating quantitative and qualitative research* (4th ed.). Boston, MA: Pearson Education, Inc.

Dean, C.H., Hubbell, E.R., Pitler, H., & Stone, B.J. (2012). *Classroom instruction that works: Research-based strategies for increasing student achievement* (2nd ed.). Alexandria, VA: ASCD

Dictionary.com website. (n.d.). www.dictionary.com

Donlon, J. D. (2008). *Alternative education: understanding program effectiveness to meet the needs of at-risk youth* (Doctoral dissertation).

Duke, D. L., & Griesdorn, G. (1999). Considerations in the design of alternative schools. *The Clearing House, 73*(2), 89-93.

Elliott, J. G. (2010). An evaluation of a classroom-based intervention to overcome working memory difficulties and improve long-term academic achievement. *Journal of Cognitive Education & Psychology,* 9(3), 227-250.

Feinstein, S.G. (2004). *Secrets of the teenage brain: Research-based strategies for reaching and teaching today's adolescents.* Thousand Oaks, CA: Corwin Press.

Fitzsimmons-Lovett, A. (Ed.). (2011). History and characteristics of ineffective and effective alternative schools. Retrieved from www.dignityinschools.org

Flower, A., McDaniel, S. C., & Jolivette, K. (2001). A literature review of research quality and effective practices in alternative education settings [supplemental material]. *Education and treatment of children*, *34*(4), 489-510.

Foley, R. M., & Pang, L. (2006). Alternative education programs: Program and student characteristics. *The High School Journal*, *89*(3), 10-22.

Garfinkel, I., Kelly, B., & Waldfogel, J. (2005, Oct. 24-25). Public Assistance Programs: How Much Could be Saved with Improved Education? *Social Costs of Inadequate Education*.

Gilbert, J. (2010). *Faculty voices: Giving timely student feedback.* Retrieved from http://web.byui.edu/LearningAndTeaching/post/2010/02/Faculty-Voices-Giving-Timely-Student-Feedback.aspx

Hall, D. (2005, June). Getting honest about grad rates: How states play the numbers and students lose. *Washington, DC: Education Trust*.

Haveman, R., Wolfe, B., & Wilson, K. (2001). Childhood events and circumstances influencing high school completion. *Demography 28*, 1.

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

Hoffman Kaser, C. (2007). *Series on highly effective practices - Classroom expectations 3. Establishing and teaching classroom expectations*. Retrieved from http://education.odu.edu/esse/research/series/expectations.shtml

Hoge, M. R., Liaupsin, C. J., Umbreit, J., & Ferro, J. B. (2014). Examining placement considerations for students with emotional disturbance across three alternative schools. *Journal of Disability Policy Studies*, *24*, 218-226.

Hosley, N. S. (2003). *Survey and analysis of alternative education programs* [analysis]. Harrisburg, PA: Pennsylvania General Assembly.

Hughes, A. F., & Adera, B. (2006). Education and day treatment opportunities in schools: Strategies that work. *Preventing School Failure, 51,* 26-31.

Illinois State Board of Education (1996). Safe at school...A public promise. A plan for restoring safety and order in Illinois schools.

James-Gross, L. A. (2006). *Best practices among alternative education programs: a study of the Illinois regional safe school program* (Doctoral dissertation). Retrieved from

Kerka, S. (2003). *Alternatives for at-risk and out-of-school youth* (Report No. ED-99-CO-0013). Washington, DC: Government Printing Office.

Korb, R. (2012). . In (Ed.), *Motivating defiant and disruptive students to learn* (pp. 2-15). Thousand Oaks, CA: Corwin.

Lehr, C. (2004). Alternative school and students with disabilities: identifying and understanding the issues. *NCSET, 3*(6).

Lehr, C. A., Johnson, D. R., Bremer, C. D., Cosio, A., & Thompson, M. (2004). Increasing rates of school completion: Moving from policy and research to practice. *National Center on Secondary Education and Transition, U.S. Department of Education, Office of Special Education Programs*.

Lynch, M. (2013, November 6). High School Dropout Rate: Causes and Costs [Blog post]. Retrieved from http://blogs.edweek.org/edweek/education_futures/2013/11/high_school_dropout_rate_causes_and_costs.html

McDaniel, S. C., Jolivette, K., & Ennis, R. P. (2014). Barriers and facilitators to integrating SWPBIS in alternative education settings with existing behavior management systems. *Journal of Disability Policy Studies*, *24*, 247-256.

McMunn, N., Schenck, P., & McColskey, W. (2003). *Standards-based assessment, grading, and reporting in classrooms: Can district training and support change teacher practice?* Chicago, IL: American Educational Research Association.

Miller, R. (2014). *Self-organizing revolution: common principles of the educational alternatives movement*. Brandon, VT: Holistic Education Press.

Morley, R. E. (1991). *Alternative education*. Clemson, SC: Clemson University, National Dropout Prevention Center.

Muennig, P. (2005, October). Health returns to education interventions. In,. Symposium conducted at the Teacher's College, Columbia University, New York, NY. Retrieved from www.all4ed.org

Muir, M. (2004, 11/22/2004). Research brief: alternative schools. *The Principals Partnership*,1-4.

National Center for Education Statistics. (2002). Washington, DC: Government Printing Office.

National Center for Educational Statistics. (2008). *Washington, DC: U.S. Department of Education*. Washington, DC: Government Printing Office.

National Center for Education Statistics. (2008). Fast facts. *National Center for Education Statistics*. Retrieved from http:/nces.ed.gov/fastfacts/display.asp?id=77

National Education Association. (2004). The effects of state public k-12 education expenditures on income distribution. *National Education Association*. Retrieved from http://www.nea.org/assets/docs/HE/expenditures.pdf

National Education Association. (2004). The k-12 education in the U.S. economy. It's impact on economic development, earning, and housing values. *National Education Association*. Retrieved from http://www.nea.org/assets/docs/HE/economy.pdf

Narvaez, M. L., & Brimijoin, K. (2010). *Differentiation at work, K-5: Principles, lessons, and strategies.* Thousand Oaks, CA: Corwin Press

Nelson, C. M., Jolivette, K., Leone, P. E., & Mathur, S. R. (2010). Meeting the needs of at-risk and adjudicated youth with behavioral challenges: the promise of juvenile justice. *Behavioral Disorders, 36*(1), 70-80

Nelson, C. M., Sprague, J. R., Jolivette, K., Smith, C. R., & Tobin, T. J. (2009). Positive behavior support in alternative education, community-based mental health, and juvenile justice settings. In W. Sailor, G. Dunlap R. H. Horner, & G. Sugai (Eds.), *Handbook of positive behavior support* (pp. 465-4960). New York: Springer

Nichols, J. D., & Utesch, W. E. (1998). An alternative learning program: effects on student motivation and self-esteem. *The Journal of Educational Research, 91*, 272-278.

Our Position & Actions on Education Funding (2013). In *National Education Association*. Retrieved from http://www.nea.org/home/1295.htm

PDE. (2014a). Office for Safe School. Retrieved October 10, 2014, from http://www.education.state.pa.us/portal/server.pt/community/office_of_elementary_secondary_education/7209/office_for_safe_schools/1152067

Quinn, M. M., & Poirer, J. M. (2004). Linking prevention research with policy: examining costs and outcomes of the failure to prevent emotional and behavioral disorders. In *Handbook of research in emotional and behavioral disorders*. New York, NY: Guilford.

Raphael, S. (2004). *The socioeconomic status of black males: the increasing importance of incarceration*. Berkley, CA: Goldman School of Public Policy.

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*, 582-584.

Retrieved from www.cbcse.org/media/download_gallery/leeds_reports_final_jan2007.pdf

Safe at school...a public promise. (1996). A plan for restoring safety and order in Illinois schools.

Sanders, J. Q. (2002, April 28). On alternative education, districts revise course. North Penn and Souderton have decided to school troubled students locally rather than send them to outside programs. Financial factors are a reason. *The Inquirer*. Retrieved from www.philly.com

Searle, M. (2010). *What every school leader needs to know about RTI.* Alexandria, VA: ASCD

Silver, R. W., Strong, H. F., & Perini, M. J. (2000). *So each may learn: integrating learning styles and multiple intelligences*. Alexandria, VA: Association for Supervision and Curriculum Development.

The benefits of high education for individuals and society. [Entire issue]. (2010). Retrieved from http://trends.collegeboard.org/downloads/education_pays_2010.pdf

The costs and benefits of an excellent education for all of America's children. (2007). Retrieved from http://www.cbcse.org/media/download_gallery/Leeds_Report_Final_Jan2007.pdf

The High Cost of High School Dropouts: What the Nation Pays for Inadequate High Schools. (2011). Retrieved from www.all4ed.org

Tobin, T., & Sprague, J. (1999). Alternative education programs for at-risk youth: issues, best practices, and recommendations. *Oregon School Study Council Bulletin*, *42*(4), 6-19.

Tobin, T., & Sprague, J. (2000). Alternative education strategies: reducing violence in school and the community. *Journal of Emotional and Behavioral Disorders*, *8*(3), 177-186.

Tomlinson, C. (2001). The differentiated classroom: responding to the needs of all learners. *Association for Supervision and Curriculum Development* U.S. Department of Education (2002). *The no child left behind act of 2001: executive summary*. Washington, D.C.

U.S. Bureau of Labor Statistics website. (2014). www.bls.gov

Wang, M. C., & Reynolds, M. C. (1995). *Making a difference for students at risk: trends and alternatives*. Thousand Oaks, CA: Crowin Press.

Warren, P. (2007). *Improving alternative education in California* [Report]. Sacramento, CA: LAO Publications.

Wehlage, G. G., Rutter, R. A., Smith, G. A., Lesko, N., & Fernandez, R. R. (1989). *Reducing the risk: schools as communities of support*. Philadelphia, PA: Falmer Press.

Wolfe, B. L., & Haveman, R. H. (2002). *June*. Paper presented at the Federal Reserve Bank of Boston, Boston, MA.

Wolfe, K. S. (2008). *Examining the effectiveness of a site-based alternative education program for at-risk high school students* (Doctoral dissertation).

Woods, P. A., & Woods, G. J. (2009). *Alternative education for the 21st century: philosophies, approaches, visions*. New York, NY: Palgrave Macmillan.

Yen, H. (2014, February 11). High-school diploma worth 62 cents to the college dollar. *The Seattle Times*. Retrieved from www.seattletimes.com

Young, T. (1990). *Public alternative education*. New York, NY: Teachers College Press.

Young, T. W. (1990). *Characteristics of effective public alternative schools*. New York, NY:

Zigmond, N. (2006). Twenty-four months after high school: Paths taken by youth diagnosed with severe emotional and behavioral disorders. *Journal of Emotional and Behavioral Disorders*, *14*, 99-107.