THE IMPACT OF POSITIVE BEHAVIORAL INTERVENTIONS AND SUPPORTS ON ACADEMIC ACHIEVEMENT AMONG AFRICAN AMERICAN MALE STUDENTS DIAGNOSED AS EMOTIONALLY DISTURBED

by

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Abstract

There are clearly many issues that need to be addressed when attempting to bring strength and resolve to school districts across the United States. In order to influence the culture of struggling school systems we must effectively manage student behavior within the classroom setting and on the campus at large. In class discipline is paramount for students to engage in active and efficacious learning. When students are identified for special education as emotionally disturbed (ED), their overall academic achievement has been shown to be lower than that of students identified with other disabilities. Additionally, the long-term academic achievement of students identified as ED may also be compromised by discipline issues that often take them out of the academic learning environment. This study will examine whether the African American males referred to special education programs under the diagnoses of emotionally disturbed (ED) are positively influenced by the implementation of positive behavioral interventions & supports (PBIS). Recent literature maintains PBIS is growing in popularity among state departments of education and local systems as an efficient and effective strategy for addressing students’ increasing and intensifying discipline needs.

PBIS has been found to increase the effectiveness of instruction, improve academic performance, and reduce inappropriate behavior (Yeung & McInerney,
2005). Many believe the interventions strategy could be implemented to address discipline issues and student achievement. The problem is there is not sufficient research available involving proactive methods to redirect reoccurring disruptive behavior among African American male students receiving special education services under the diagnosis of emotionally disturbed to improve their educational outcomes.
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TABLE OF CONTENTS

Page

LIST OF TABLES ......................................................................................................................... x
LIST OF FIGURES ....................................................................................................................... xi

CHAPTER 1: INTRODUCTION ................................................................................................. 1
   Overview of Emotionally Disturbed ...................................................................................... 1
   Three Widely Used Definitions ............................................................................................. 3
   The Overrepresentation of African American Males ............................................................ 5
   Disciplinary Practices ........................................................................................................... 7
   Statement of the Problem ..................................................................................................... 11
   Purpose of the Study ............................................................................................................ 12
   Significance of the Study ..................................................................................................... 13
   Definition of Terms ............................................................................................................. 13
   Summary ................................................................................................................................ 15

CHAPTER 2: REVIEW OF THE LITERATURE ...................................................................... 16
   Positive Behavioral and Support ......................................................................................... 16
   School-Wide Positive Behavioral Support .......................................................................... 19
   School-Wide Positive Behavioral Support: Related Research ........................................... 24
   Theoretical Framework ........................................................................................................ 28
   Systematic Factors .............................................................................................................. 34
   Social Reproduction and African American Education ....................................................... 35
   Re-authorized IDEA ........................................................................................................... 39
   School Climate .................................................................................................................... 41
   Classroom Management ..................................................................................................... 42
<table>
<thead>
<tr>
<th>Academic Assessment</th>
<th>Academic Achievement</th>
<th>Academic Outcomes</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>43</td>
<td>45</td>
<td>47</td>
<td>48</td>
</tr>
</tbody>
</table>

CHAPTER 3: METHODOLOGY .......................................................... 50
<table>
<thead>
<tr>
<th>Research Questions</th>
<th>Research Design</th>
<th>Assumptions</th>
<th>Limitations</th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
<td>51</td>
<td>52</td>
<td>52</td>
</tr>
<tr>
<td>Population and Participants</td>
<td>53</td>
<td>Data Collection</td>
<td>54</td>
</tr>
<tr>
<td>Instrumentation</td>
<td>55</td>
<td>Data Analysis</td>
<td>55</td>
</tr>
<tr>
<td>Hypotheses</td>
<td>56</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

CHAPTER 4: RESULTS/OUTCOMES ...................................................... 58
<table>
<thead>
<tr>
<th>Descriptive Statistics</th>
<th>Math Achievement Scores</th>
<th>Language Arts Achievement Scores</th>
<th>Hypotheses Testing</th>
</tr>
</thead>
<tbody>
<tr>
<td>58</td>
<td>59</td>
<td>60</td>
<td>61</td>
</tr>
<tr>
<td>Hypothesis 1</td>
<td>Hypothesis 2</td>
<td>Hypothesis 3</td>
<td>Hypothesis 4</td>
</tr>
<tr>
<td>61</td>
<td>62</td>
<td>64</td>
<td>65</td>
</tr>
<tr>
<td>Results Summary</td>
<td></td>
<td></td>
<td>68</td>
</tr>
</tbody>
</table>

CHAPTER 5: DISCUSSION/SUMMARY/CONCLUSION .................................. 69
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discussion</td>
<td>69</td>
</tr>
<tr>
<td>Summary</td>
<td>71</td>
</tr>
<tr>
<td>Findings</td>
<td>72</td>
</tr>
<tr>
<td>Conclusion</td>
<td>72</td>
</tr>
<tr>
<td>Recommendations for Future Research</td>
<td>75</td>
</tr>
<tr>
<td>REFERENCES</td>
<td>77</td>
</tr>
</tbody>
</table>
# LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table 1</td>
<td>Description of Participating District Characteristics by Group</td>
<td>58</td>
</tr>
<tr>
<td>Table 2</td>
<td>Descriptive Statistics of Emotionally Disturbed (ED) African American Male Math Scores</td>
<td>59</td>
</tr>
<tr>
<td>Table 3</td>
<td>Descriptive Statistics of (ED) African American male Language Arts Scores</td>
<td>60</td>
</tr>
<tr>
<td>Table 4</td>
<td>ANOVA for Math Scores between School Districts A, B, and C</td>
<td>61</td>
</tr>
<tr>
<td>Table 5</td>
<td>Post-Hoc for Math Scores between School Districts A, B, and C</td>
<td>62</td>
</tr>
<tr>
<td>Table 6</td>
<td>Shapiro-Wilk Test of Normality for Math Scores</td>
<td>63</td>
</tr>
<tr>
<td>Table 7</td>
<td>Kruskal-Wallis for Math Scores of District A</td>
<td>63</td>
</tr>
<tr>
<td>Table 8</td>
<td>Kruskal-Wallis for Math Scores of District B</td>
<td>64</td>
</tr>
<tr>
<td>Table 9</td>
<td>ANOVA for Language Arts Scores between School Districts A, B, and C</td>
<td>65</td>
</tr>
<tr>
<td>Table 10</td>
<td>Shapiro-Wilk Test of Normality for Language Arts Scores</td>
<td>66</td>
</tr>
<tr>
<td>Table 11</td>
<td>Kruskal-Wallis for Language Arts Scores of District A</td>
<td>67</td>
</tr>
<tr>
<td>Table 12</td>
<td>Kruskal-Wallis for Language Arts Scores of District B</td>
<td>67</td>
</tr>
</tbody>
</table>
Figure 1. These group depictions represent systems of support not children: (Tertiary Prevention): Special Education (source: www.pbis.org) ........ 20
CHAPTER 1: INTRODUCTION

Failure to make considerable gains in academic achievement and appropriate social behavior has become a significant problem for students receiving special education service. According to Legislative Analyst’s Office (2013), 686,352 students were enrolled in special education classes. Among these students, 25,984 were diagnosed as emotionally disturbed (ED). Gresham (2005) reported students diagnosed with emotional disturbances are underserved and African American males are overrepresented.

Overview of Emotionally Disturbed

In the late 1950s, Eli J. Bower completed a study for the California Department of Education to identify students at risk for emotional disturbances. According to Bower (1959), the terms that could be used to describe emotionally disturbed (ED) students were difficult to define and education services for ED students were problematic. Nonetheless, in his work, Bower (1959) identified a stage continuum of ED behaviors that are as follows: transient, temporary, pervasive or intense, displays of inappropriate behavior and feelings under normal circumstances, generally unhappy and depressed, a tendency to develop illnesses, pains and fears, and are unable to learn, establish, and maintain successful interpersonal relationships in social situations.

Equally important, Bower (1960) authored the federal definition continued today of emotional and behavioral disorders, which was intended to be inclusive of emotional, behavioral, and social problems, regardless of diagnosis, such as autism, schizophrenia, socially maladjusted, and conduct disorder. Among his study findings, Bower (1960) noted that “behavior motivated by unconscious
forces would be characteristic of emotionally disturbed children. The behavior of the emotionally disturbed child is not a choice but a necessity” (p. 24).

As a result of these proposals, parents of students in special education began to testify in front of government officials regarding the difficulties they encountered when searching for a free and appropriate public education for their special needs children. Many organizations challenged this effort; in particular their intent was to prove that parents were to blame for the student’s diagnosis and were negligent for passing the responsibility of educating and disciplining these children onto the school systems (Bower, 1981). During the 1960s and 1970s, known as the “golden age of education” in America, a generation of young enthusiastic teachers focused on school reform and innovations (Hargreaves, 2009).

In 1975, then President Gerald Ford signed into law the Education for All Handicapped Children Act (Public law 94-142), now known as the Individuals Disabilities Education Act (IDEA). The adoption of this civil rights measure ensured that children with disabilities had the right to a free and appropriate public education in the least restrictive environment. For students with disabilities, this initiative was instrumental as it opened the door to general education campuses and classrooms. During the time of the enactment, less than 1% children were diagnosed with a serious emotional disturbance.

Following Bower’s accomplishments, research efforts in the 1980s and 1990s focused on identifying and understanding the learning and behavior characteristics of these students and the nature of their school related impairment (Walker, Shinn, O’Neill, & Ramsey, 1987).
Three Widely Used Definitions

When identifying three widely used definitions for emotional disturbances, a number of jurisdictions and agencies should be considered. Each of these organizations has rules and systems to determine the definition of emotionally disturbed (ED). IDEA is the primary federal law addressing unique educational needs of children with disabilities. The federal government defines emotionally disturbed as:

a condition exhibiting one or more of the following characteristics over a long period of time and to a marked degree that adversely affects a child’s educational performance:

(A) An inability to learn, that cannot be explained by intellectual, sensory, or health factors.
(B) An inability to build or maintain satisfactory interpersonal relationships with peers and teachers.
(C) Inappropriate types of behavior or feeling under normal circumstances.
(D) A general pervasive mood of unhappiness or depression.

The term ED includes children who are schizophrenic, but excludes those that are socially maladjusted, unless it is determined that they are emotionally disturbed (U.S. Department of Education, 2012).

A formal definition of ED is given under the IDEA Act P.L. 105-17. In the IDEA Amendments of 1997, the term “serious” was omitted from the terminology without any legal implications. It was solely intended to eliminate any negative connotations of the term.

An alternative definition for ED was created by the National Mental Health and Special Education Coalition. The coalition, consisting of more than 30 professional organizations, serving children’s mental health needs, proposed the following definition:
i. The term Emotional or Behavioral Disorder means a disability characterized by behavioral or emotional responses in school, so largely different from appropriate age cultural or ethnic norms that they adversely affect educational performance. Educational performance includes academic, social, vocational, and personal skills. Such a disability:

a. Is more than a temporary expected response to stressful events in the environment?

b. Is consistently exhibited in two different settings, at least one of which is school-related; and

c. Is unresponsive to direct intervention in general, or the child’s condition is such that general education interventions would be insufficient.

ii. Emotional and behavioral disorders can co-exist with other disabilities.

iii. This category may include children or youth with schizophrenic disorder, affective disorder, anxiety disorder, or other sustained disorders of conduct or adjustment, when they adversely affect educational performance in accordance with Section (i). (National Mental Health and Special Education Coalition, 2010)

The final definition for emotionally disturbed comes from the Diagnostic and Statistical Manual of Mental Disorders Classification System, Edition Four (DSM-IV) published by the American Psychiatric Association. The DSM-IV gives the following examples of emotional conditions used to classify children as emotionally disturbed: oppositional defiant disorder, bipolar disorder, schizophrenia, and anti-social disorder (American Psychiatric Association, 2000).

A significant controversy exists among special education professionals regarding the definition of a seriously emotionally disturbed student, and the array of problems associated with available treatments and medications. This controversy centers on differentiating among emotional conditions, behavior disorders, social maladjustment, and simple conduct problems (Merrell & Walker, 2004).

Each agency is committed to promoting effective services to students diagnosed as ED. Although the terminology used and relative importance
assigned to certain points varies considerably from one definition to another, it is possible to identify several features that these definitions have in common. There is a general agreement among the definitions proposed by the three agencies that ED refers to a problem that is chronic, i.e. unlikely to rapidly disappear. Moreover, the condition is accompanied by behaviors that could be categorized as extremely unusual and unacceptable because of social and cultural expectations. However, defining ED is open to subjective interpretation and evaluation, especially since special public funds are used to provide services to ED students.

This complex combination of a variety factors including emotional disturbance, psychology, fiscal implications, politics, education, and administering potentially harmful methods for behavior modification introduces further controversy into the treatment of ED. The outcomes are conditions that lead to the cursory education of students who are diagnosed as ED (Martin & Wienke, 1998).

**The Overrepresentation of African American Males**

The African American micro-culture within the United States school system is the macro-culture within emotionally disturbed classrooms throughout America (Wagner, Kutash, Duchnowski, & Epstein, 2005; Wagner et al., 2006). Patton (1998) stated the following in regards to African American males in special education:

The overrepresentation of African American children and youth in special education programs for students with disabilities, severe emotional or behavioral disabilities and mental disabilities has remained a persistent reality even after 20 years of recognition. (p. 25).

Twice as many African American males are receiving services for emotionally disturbance than their white counterparts (Cartledge & Dukes, 2009).

Approximately one in four students with ED is African American, compared with
one in five students from other disability areas and with 1 in 10 students in general education settings (Wagner, Kutash, Duchnowski, Epstein, & Sumi, 2005).

Hale-Benson (1989) suggested that unique factors contribute to the greater prevalence of African American students among those with emotional and behavioral disabilities. For African American students, much of the concern centers on attempting to meet academic, psychological, and vocational needs. Darling-Hammond (1997) expressed the following:

Clearly issues of power and privilege contribute to the continuation of poor schooling for many children, and the effects of racism and classroom cannot be ignored. Yet in my work, I have also come to believe that much of the reason for the current sorry state of many schools is a genuine lack of understanding on the part of policy makers and practitioners about what is needed to produce schools that can teach for understanding and the contexts of a complex pluralistic society. (p. xvii).

From the inception of IDEA, Congress has been concerned about both over and under identification of children with disabilities. African American males are obviously overrepresented (Henley, Ramsey, & Algozzine, 2002). With this in mind, Harry and Anderson (1994) conducted a study on the effects of IDEA, revealing that, since the beginning of its enactment, African American males have been over identified as suffering from emotional disturbances and have consequently been incorrectly placed in special education.

Concerns about misidentification center on the perceived over identification of African American male students. According to Apling (2001), while African Americans accounted for about 15% of the population aged 6-21; they comprised about 20% of students identified with disabilities, of which 25% are identified as emotionally disturbed. Comparatively the Data Accountability Center (2009) reports while African Americans comprised 15.07% of the U.S. student population in 2007, they accounted for 20.5% of all special education students. The category
of ED presented a sobering picture, as African Americans comprised 28.92% of ED students, which is nearly double their percentage in the U.S. student population.

Apling (2001) suggested the higher rates may be partly explained by cultural diversity. As teacher perceptions play a key role in determining ED, it is understandable that more students are identified as having emotional behavior problems after they begin school and start exhibiting discipline problems (Harry & Anderson, 1994). Weinstein, Tomlinson-Clarke, and Curran (2004) mentioned one possibility for the more common placement of African American males in special education programs is potential fear from Caucasian female teachers of African American males. It is important to revisit Hale-Benson’s (1982) research which revealed many teachers referred African American students to special education based on whether they posed a threat to the classroom setting.

Feistritzer (2011) asserted that teaching is still an overwhelmingly female occupation. The profession is also strikingly white. Despite much attention and some effort to get more males into K-12 teaching, the public school teaching force in the United States continues to be female dominant and trending upward. 84% of public school teachers were female in 2011. This is up from 82% in 2005, 74% in 1996, 71% in 1990, and 69% in 1986 (Feistritzer, 2011).

**Disciplinary Practices**

There has been research studies performed on relationships between African Americans and rates of school disciplinary action such as suspensions and expulsions. Many can be used to support Darling-Hammond’s power and privilege hypothesis. One of the many examples, Skiba, Eckes, and Brown (2009) revealed African Americans in particular are suspended more or expelled in far greater numbers than their white counter parts. Programs have not provided certain
necessary conceptual values needed to evaluate student outcomes (Elkind, & Sweet, 2004). The research of Smith and Sandhu (2004) revealed the need for improvement in methods aimed at specifically dealing with behavior and discipline problems at schools and offers positive approaches to prevention.

Controversy continues as arguments resume determining principles and best practices for individual students that present a threat to the health of oneself or others. Ryan and Peterson (2004) reported the use of physical restraint and seclusion procedures that can be employed as a form of behavioral intervention.

The U.S. Department of Education (2012) defines physical restraint as:

A personal restriction that immobilizes or reduces the ability of a student to move his or her torso, arms, legs, or head freely. The term physical restraint does not include a physical escort. Physical escort means a temporary touching or holding of the hand, wrist, arm, shoulder, or back for the purpose of inducing a student who is acting out to walk to a safe location. (p. 10)

The U.S. Department of Education (2012) defines seclusion as:

The involuntary confinement of a student alone in a room or area which the student is physically prevented from leaving. It does not include a timeout, which is a behavioral management technique that is part of an approved program, involves the monitored separation of the students in a non-locked setting and is implemented for the purpose of calming. (p. 10)

The research performed by Ryan and Peterson (2004) goes on to state that while restraint and seclusion interventions have historically been used at psychiatric residential settings, in recent years, such measures tend to be more commonly used in public schools, particularly with the mandate of “zero exclusion” resulting from P.L. 94-142 that required students with disabilities no longer be isolated in separate facilities and made educational institutions provide a free, appropriate public education allowing students that are emotionally disturbed or display behavior problems to be educated in the least restrictive environment possible under the “zero reject principle.”
Subsequently, regardless of disability, special education students who are involved in serious misconduct are being disciplined in generally a similar manner to regular education students. The Individuals with Disabilities Education Act “plays a limited role in affecting schools’ ability to properly discipline students” (U.S. Government Accountability Office, 2001). In the 1980s, legislation reaffirmed emphasis on states’ rights and local autonomy (Hallahan & Kauffman, 2003). Thus, the expression in loco parentis became reality with many state courts giving public school officials authority to exercise the same degree of control over a student that a parent is exercised. Primarily being restraint or coercion (DeMitchell, 2008).

Research in the field of mental health demonstrated that intervention practices that require seclusion and restraint, as well as other aversive behavioral strategies, are dangerous. To help better understand seclusion, restraint, and how the interventions have become issues of concern, one needs to look back to the special education student who had been excluded from general education opportunities in the past. Examining the attitudes and revisiting the practices they had been exposed to without educational aim (Arthur, Beecher, Death, Dockett, & Farmer, 2008). Aversive practices are defined as an application of noxious, painful, or intrusive stimuli, or activities intended to induce pain (Prohibition of Corporal Punishment and Aversive Interventions, 2006). Among those in common usage are electrical skin shock, ice application, hitting, slapping, pinching, kicking or other similar stimuli; any form of noxious painful, intrusive or intrusive spray, inhalant or tastes; withholding sleep, shelter, bedding, bathroom facilities or clothing; contingent food programs that include withholding meals or limiting essential nutrition or hydration or intentionally altering staple food or drink in order to make it distasteful; the placement of a child unsupervised or
unobserved in a room from which the student cannot egress without assistance (Prohibition of Corporal Punishment and Aversive Interventions, 2006).

The experience of repeated aversive behavioral strategies have well known psychological effects, many of which have been reported in psychiatric literature including nightmares, intrusive thoughts, avoidance behaviors, marked startle responses, and mistrust (Mohr, Petti, & Mohr, 2003). Individuals that develop these symptoms continue to experience aspects of the punishing assault long after the incident has ended. Aversive interventions are recognized cause of symptoms of post-traumatic stress disorder among patients in mental health settings. Moreover, individuals with the greatest physical and psychological vulnerabilities, the least social support, and the greatest frequency of aversive experiences are considered to have the worst prognosis for trauma recovery (Bloom, 2002).

Irrespective of whether the users of aversive and intrusive interventions intend for these practices to serve as educational or therapeutic, the effect on their target is the same. What makes these techniques questionable is the prohibition of corporal punishment, which applies broadly to educational stakeholders (Turnbull, Wilcox, Turnbull, Sailor, & Wickham, 2001). According to Amos (2004), the interventions are disturbing and morally repugnant “aversive” practices used by the disciplinarian to obtain a desired response. The Secretary of Education Anne Duncan recorded the following:

As many reports have documented, the use of restraint and seclusion can have very serious consequences, including, most tragically, death. Furthermore, there continues to be no evidence that using restraint or seclusion is effective in reducing the occurrence of the problem behaviors that frequently precipitate the use of such techniques. Schools must do everything possible to ensure all children can learn, develop, and participate in instructional programs that promote high levels of academic achievement. To accomplish this, schools must make every effort to structure safe environments and provide a behavioral framework, such as
the use of positive behavioral interventions and supports, that applies to all children, all staff, in all places in the school so that restraint and seclusion techniques are unnecessary (U.S. Department of Education, 2012).

Positive Behavioral Interventions and Supports (PBIS) is an implementation framework that is designed to enhance academic and social behavior outcomes for all students by (a) emphasizing the use of data for informing decisions about selection, implementation, and progress monitoring of evidence-based behavioral practices; and (b) organizing resources and systems to improve durable implementation. Today, 16,000 school teams have been trained on PBIS implementation framework, there are 3 states with more than 60% of schools involved in PBIS implementation, 9 states with more than 40%, and 16 states with more than 30% (Sugai & Simonsen, 2012). Bambara, Janney, and Snell (2015) added that PBIS is a behavior modification program that focuses on the way environment or context interacts with students’ biology, psychology, and learning experiences. The PBIS perspective is the belief that a person’s behavior is a function of the interaction between the person and the environment. Another core feature of PBIS is behavior problems cannot be simply removed; instead, students can learn other ways to achieve their wants, needs, and desired outcomes.

**Statement of the Problem**

Educational resources in California have been, and will likely continue to be, limited and strained. Thus, it is critical that instructional strategies and behavioral supports are validated and empirically sound. Particularly, with respect to students in need of behavioral supports (Ryan, Pierce, & Mooney 2008). Educators “must be able to accommodate students with significant learning and behavioral problems, teach in communities that are unable to support the school, and work under conditions that are often counterproductive to teaching and learning” (Lewis & Sugai, 1999, p. 1). Discipline related factors are among the
top concerns of the general public, and teachers are concerned that they lack the necessary knowledge and skills to educate students with challenging behavior (National Association of School Psychologists, 2002). Historically inappropriate behavior and willful misconduct have been a part of the school systems across the United States. However, in today’s society because of these actions many schools are unable to meet the academic needs for a great number of their students. Teachers are challenged to provide supportive learning environment while experiencing behaviors that stifle favorable atmospheres (Gable, Hester, Hendrickson, & Sze, 2005). Under these circumstances, students fail to receive appropriate instruction and leave school unprepared for life. As a result, there has been an outcry requesting more effective discipline procedures and demands concerning discipline systems (Sherrod, Getch, & Ziomek-Daigle, 2009).

For this reason, educational leaders are beginning to collaborate and research different programs to create strategies that address discipline effectively and improve academics for both regular and special education students.

**Purpose of the Study**

The purpose of this quantitative study is to investigate and determine whether participation in a PBIS program leads to increased academic achievement in math and language when implemented, for African American male students diagnosed as ED. In order to meet this aim, this study will examine three school districts that belong to the same Special Education Local Plan Area (SELPA) in Southern California utilizing PBIS.

Through an analysis of the archival aggregated data gathered, this study will investigate whether PBIS has an encouraging impact on ED male students of African American heritage. The school districts were chosen as subjects of this investigation, because they have a significant number of African American male
students diagnosed as emotionally disturbed within its student population. Significant improvements for this population of student may be an indicator for policymakers to begin with fidelity, the implementation of PBIS nationwide.

**Significance of the Study**

This study contributes to the current body of research by examining the impact different disciplinary interventions have on students with ED. This is an important issue to understand, given that schools are under growing pressure to improve the academic achievement of all students. As the American public becomes more aware of the growing problems of ED youth, questions regarding the causes and solutions to ED are increasingly being directed toward those who have been given the responsibility of educating the ED students. According to Lassen, Steele, and Sailor (2006), discipline problems are the major issue hampering academic and social progress of the special education student populations.

Thus, by investigating the means for improving discipline among ED students, this study aims to inform policy on appropriate strategies that could achieve positive consistent growth among at risk and special needs students. Education stakeholders, parents, teachers, and school administrators in particular, may also benefit from the findings this study yields, as it may provide advice on negating the discipline problems that consume majority of the instructional time within schools. In addition, within their schools, education officials may use this information to help create a climate conducive to student success.

**Definition of Terms**

*Academic achievement:* The status of students who pass the standardized state assessment examinations at grade level academically (Gratz, 2010).
**Cultural capital:** Cultural capital is defined within this study as forms of knowledge, skills, education, and advantages that a person possesses, which give a person a higher status in society (Bourdieu & Passeron, 1977).

**Cultural reproduction:** Within this study, cultural reproduction is defined as the reproduction of the powers existent in society through subsequent generations (Bourdieu & Passeron, 1977).

**Individuals with Disabilities Act (IDEA):** Within this study, the IDEA refers to “the law ensuring services to children with disabilities throughout the nation. IDEA governs how states and public agencies provide early intervention, special education, and related services to more than 6.5 million eligible infants, toddlers, and youth with disabilities. Infants and toddlers with disabilities (birth-2) and their families receive early intervention services under IDEA Part C. Children and youth (ages 3-12) receive special education-related services under IDEA Part B” (U.S. Department of Education, 2004).

**No Child Left Behind:** The federal education act signed in 2002 by President George W. Bush. Its two over-arching goals were to close the achievement gap between whites and minorities, and to mandate that 100% of elementary and secondary grade students score proficient in math and English-Language Arts by the year 2014 (Shirvani, 2009).

**Positive Behavioral Interventions & Supports (PBIS):** Systematic approach to establish the social environment and positive behavioral school climate for a school to be an effective learning environment (Sugai et al., 2000).

**School climate:** Social atmosphere created by all staff. Students feel free to explore, learn and share ideas (Marzano, 2003)

**Special education student:** In this study, a special education student is a student identified as receiving special education services. However, not all study
participants will have special needs, such as learning disabilities, emotional and behavioral disorders, developmental disabilities, and other special needs. A student receiving special education services is treated and taught according to her IEP (Individuals with Disabilities Education Act, 2004).

**Social reproduction:** Within this study, social reproduction is defined as the processes that sustain or perpetuate characteristics of a given social structure or tradition over a period of time (Bourdieu & Passeron, 1977)

**Summary**

In chapter 1, the researcher introduced an overview of the study, its significance, and its purpose. Chapter 2 will provide the reader a review of the previous research related to the major constructs that underscore the study. In Chapter 3, the researcher will describe the methodology, including the research design, research questions, population, sample, data collection procedures, and data analysis methods. Chapter 4 presents the results of the collected data analyzed. The thesis ends with Chapter 5, which concludes the study and summarizes its key findings.
CHAPTER 2: REVIEW OF THE LITERATURE

In order to provide further understanding of African Americans diagnosed as emotionally disturbed (ED), special education law, and other school related issues such as an overview of ED, factors contributing to ED, history of disciplinary practice, social reproduction, and the African American school climate, academic assessment, academic achievement, theoretical framework, positive behavioral supports, school-wide positive behavioral supports are included in this chapter.

Positive Behavioral Support

During the 1980s, it became evident that an improved selection and implementation of behavior interventions for students with behavior problems was required. In response and driven by the controversy surrounding the use of techniques based on aversive consequences with people whom have developmental disabilities, PBIS emerged. Researchers at the University of Oregon began a series of applied demonstrations, research studies, and PBIS evaluation projects. These efforts indicated that greater attention should be directed toward prevention, research-based practices, data-based implementation, professional development, and student outcomes (Sugai & Simonsen, 2012). This new mindset reshaped the field through the introduction of an ecological perspective, which states that behavior is not in an organism, but emergent over time from its relationships with other organisms and the social and physical environment (Bronfenbrenner, 1989). This notion manifest itself in PBIS with the idea that the focus of the intervention is to change the problem context not problem behavior. PBIS aims to change methods in order to redesign an individual’s living environment, with the goal of enhancing individual’s quality of
life, while minimizing his/her problem behavior. PBIS includes skills that increase the likelihood of success and personal satisfaction in normative academic, work, social, recreational, community, and family settings (Carr et al., 2002). Among its critical features, PBIS came to include the closely related concepts of ecological validity, social validity, and environmental integrity, ensuring that behavior and behavior change would be conceptualized in the real-life, real-time contexts in which it emerges. Moreover, in order to account for the multiple factors encompassed by an ecological perspective, the field also made a commitment to incorporate “multiple theoretical perspectives,” ensuring that the research methodologies and orientations most suitable to a particular level or angle of investigation could be brought to bear, leaving behind the monolithic theoretical perspective (Amos, 2004, p. 264). In this way, PBIS took the logical and crucial step of incorporating the science of behavior into its comprehensive ecological perspective.

PBIS encompasses educational methods that can be used to teach, strengthen, and expand positive behavior. It comprises all initiatives that can be used to increase opportunities for the display of positive behavior. The key features of positive behavior are outlined below:

1. Comprehensive lifestyle changes and improved quality of life should be the goals of any intervention and be defined based on the values of those receiving support.

2. Interventions and supports are to be seen and implemented from a long-term, life span perspective.

3. Interventions must possess ecological validity, in that strategies of interventions and support must be feasible, relevant to, and effective in real life settings and situations.
4. Principal stakeholders (such as parents, teachers, friends, employers, and siblings) should function as collaborators and partners in the development and implementation of interventions and support plans.

5. Social validity must be a primary and pervasive criterion of effective procedures and intended outcomes.

6. Interventions should be developed with an understanding that ensuring fidelity with respect to support and sustainability requires attention to system variables.

7. Support plans must be developed with a comprehensive emphasis on prevention, and an acknowledgement that active and functional intervention occurs when problem behaviors are not present.

8. Support plans should be (a) based on assessment of medical, behavioral, and educational variables; (b) guided by principles drawn from behavioral and biomedical science; and (c) evaluated through overt measurement impact.

9. An appreciation that optimal effectiveness requires utilization of knowledge derived from a variety of methodological practices.

10. A pragmatic understanding that contributions to the development of effective interventions and supports derived from multiple theoretical perspectives (Carr et al., 2002).

Over the past two decades, research and service provision for individuals with developmental disabilities has made a dramatic shift away from deficit-based, remediation-oriented, reactive models. The old assumption that the primary goal of intervention is to change an individual’s behavior has given way to a deepening understanding that improvement of an individual’s quality of life must precede, or at least coexist with, attempts to engage and directly influence particular aspects of behavior. Researchers and service providers have thus provided enough evidence,
which prompted the development of a database containing the information on the
aforementioned approach.

These efforts offered a firm rationale to support the disengagement from the
erlier “readiness model,” which presumed that certain skills and behaviors must
be acquired incrementally in more restrictive or clinical settings before an
individual’s quality of life issues could be addressed. Thus, research and practice
has focused on a new appreciation of the ways in which richer, typical
environments serve to support the emergence of more flexible, self-directed
behavior (Amos, 2004).

As the field of education embraces the task of adopting evidence-based
practices, ongoing discussions will be appropriate about the standards format for
determining whether an intervention is supported by data on its effectiveness
(Horner, Sugai, & Anderson, 2010). Presently, PBIS not only positions itself as
the study of an evolving phenomenon, but also operates with the awareness that
science itself is an evolving phenomenon worthy of continued reevaluation and
scrutiny.

In essence, there is growing interest in Positive Behavioral Interventions &
Supports (PBIS) among state departments of education and local systems as an
efficient and effective strategy for addressing students increasing and intensifying
discipline needs. PBIS has been found to increase the effectiveness of instruction,
improve academic performance, and reduce inappropriate behavior (Yeung &
McInerney, 2005).

School-Wide Positive Behavioral Supports

There is a gallimaufry of discipline programs available to schools, all
designed to improve current discipline policies and practices (Games & Menlove,
2003). School-wide positive behavioral supports exemplifies a longitudinal
research program originating in the fields of special education and school psychology that has produced an extensive national database encompassing an evidence-based set of practices applicable to general education as well as special education students including those with severe disabilities.

Figure 1 illustrates the multi-level approach offered to all students in school.

![Figure 1](image.png)

*Figure 1. These group depictions represent systems of support not children: (Tertiary Prevention): Special Education (source: www.pbis.org)*

For many years, educators have struggled with redirecting than finding and implementing the appropriate strategies to best discipline disruptive special education students and best manage their entire time spent at school (Sugai, & Horner, 2002). In support of this effort, Horner et al. (2010) suggested that school-wide positive behavioral supports (SWPBS) can help serve children
through direct intervention and developing teachers’ practices that encourage appropriate behaviors. The National Council on Disability (2008) has indicated that “educators are increasingly aware of the need to provide lower-performing students with extra supports to allow them to learn to high standards” (p. 62).

Owing to the evident gap in the school system relating to the research to practice relationship, researchers believed that a system like this would help the integration of correct strategies for teachers to implement in their classes in a consistent manner. In short, a change in the school system is necessary in order to place a greater emphasis on support structures within the school, district, region, and state level, with the aim of helping children with social behavior problems and learning disabilities.

The fundamentals of SWPBS are firmly rooted in an applied behavior analytic tradition and a solid body of research focusing on behavior of the individual and the environmental contexts in which the individual behaviors are observed (Sugai & Horner, 2006). Applied behavior analysis is the systematic application “of principals of operant psychology to problems and issues of social importance” (Carr et al., 2002). SWPBS operationalizes the school-based prevention and a public health perspective, which emphasizes a three-tier continuum of interventions that range from preventing the development of problem behavior (primary) to reducing the impact or intensity (secondary or tertiary) of problem behavior occurrences (Sugai & Horner, 2006).

Implementing a SWPBS program in school requires five features: creating a leadership team, obtaining school-wide support for the program, developing data driven action procedures, arranging for high-fidelity implementation, and conducting formative, data based scrutiny (Sugai & Horner, 2002). The first level of support within the SWBPS process is the establishment of a universal or social
behavior curriculum that applies to all students and staff, across all settings. In this tier, school teams identify current major and minor problem behaviors found across and within specific school settings and propose pro-social replacements. Across replacement behaviors, common themes or rules emerge, which are also positively stated. Replacement behaviors are linked to core rules and are explicitly taught across the entire school.

Similar to academic behavior, students also receive feedback on social skill use through instructive corrections when errors occur. Similarly, positive feedback is offered when appropriate social behavior is demonstrated. Within the universal system, school teams also review current data collection efforts, develop consistency within those retained, and develop additional systems that will allow teams to monitor impact of the universal curriculum related to problem identification. Additionally, universal systems help to identify those students who are not successful or responding to universal supports. In the second level of support, the focus is on students who are not responding to universal supports but are not displaying intense and chronic behavioral problem. Thus, Tier II strategies help in identifying students whose behaviors require more intensive support that (a) remain linked to school-wide expectations, (b) follow and instructional model, (c) include alterations in classroom management or instructional delivery, (d) provide additional social skill instruction in small, more focused group, and (e) add additional organization structures through self-management or mentoring interventions. This is followed by Tier III, which consists of school-wide positive behavioral support strategies that focus on individual behavior plans. Similar to Tier II, the critical distinction within a school-wide positive behavioral supports process versus traditional individualized support is the connection and linkage to the universal system. For example, all individual plans are linked to the school-
wide expectations process for identifying students in need of individualized supports. The individualized plans follow the school’s established decision-making protocol for those students that require supports beyond those that are universal. In addition, they help plan development processes that are embedded within the larger school-wide positive behavioral supports team logic (Lewis, Jones, Horner, & Sugai, 2010).

In sum, SWPBS emerges when positive behavioral supports is used with the student body and involved staff in the implementation. Studies involving SWPBS have been conducted over the past 15 years. For example, Lewis et al. (2010) reviewed previous studies that explored how the education system and its schools are responding to children with social behavior problems and learning disabilities. Their findings suggested that SWPBS is a valuable option for schools engaged in assisting children with behavioral problems. Horner et al. (2010) published research findings indicating that SWPBS can help serve children through direct intervention and training teachers on how to properly put in practice the right behaviors. In a similar study conducted by Ross and Horner (2007), the focus was on teachers of children exhibiting anti-social behaviors, whose views on the relationship between SWPBS and perceived levels of teacher stress and efficacy were sought. Their findings revealed that the level of SWPBS implementation has a significant effect on teacher efficacy only, as no relationship with teaching-related stress could be established.

More specifically, in this study, teacher efficacy was higher in the sample that had a high score in SWPBS implementation. In subsequent research performed on SWPBS by McIntosh, Filter, Bennett, Ryan, and Sugai (2010), the sustainability of SWPBS was found to become problematic. Thus, the authors proposed that it must be developed carefully in order to achieve its long-term
success. Prior research revealed that five factors affected program sustainability, namely contextual fit, priority, effectiveness, efficiency, and continuous regeneration (McIntosh et al., 2013). The data are also available on the sustainability success rates for schools that have been maintaining fidelity of implementation after three years of SWPBS. These findings indicate that a certain level of fidelity is necessary in order to produce the best outcomes. Nonetheless, the research discussed in previous sections clearly illustrates the value of positive behavioral supports in various settings and on different populations.

**School-Wide Positive Behavioral Support: Related Research**

Research on school-wide positive behavioral supports and its impact on student outcomes is plentiful. One study (Horner et al., 2010) investigated previous studies that examined how the education system and its schools are responding to children with social behavior problems and learning disabilities. The article suggests that SWPBS is an option which schools can take up in assisting children with behavioral problems. The methodology is a three tiered system involving concepts from applied behavior analysis and related fields. With the implementation of this system, schools can develop their staff and aid in intervention of children. Horner and his colleagues suggested that school-wide positive behavioral supports can help serve children through direct intervention and develop teachers with skills to properly put in practice the right behaviors. Because of a gap in the school system relating to research to practice relationship, a system like this will help integration of correct strategies or teachers to implement in their class in a consistent manner. In short, there needs to be a change in the school system with an emphasis on support structures within the school, district, region and state level to help children (Horner et al., 2010).
Using a collaborative, team approach is necessary to develop a successful culture. Kalke, Glanton, and Cristalli (2007) performed research entitled Positive Behavior Intervention: Using Strength-Based Approaches to Enhance the Culture of Care in Residential and Day Treatment Education Environments. The school site in this study had a system in place and found the intervention of PBIS to be flexible enough to implement in their approach. Public schools have been introduced to PBIS and have shown positive results according to other literature.

Three school sites were used in this study and the combination of PBIS and Cornell University’s Therapeutic Crisis Intervention were implemented within the schools’ philosophy, in hopes to observe a reduction in problem behavior, student referrals and safety holds. The following are the methods used in the three sites study of the PBIS implementation. The first site employed PBIS as an intervention in March of 2002 while the others followed in March of 2004. The collected baseline data were student behavioral problems. The PBIS teams centered on the school’s strengths and worked on improving other areas in order to prevent behavioral incidences and out of class time. The team’s staff and students helped on a behavioral matrix which defined expectations, behaviors, and positive language. The school’s physical environment has visual reminders of PBIS expectations. Internally, the staffs at each site are given lists of positive reinforcement rewards such as acknowledgment tokens used for purchases at a campus store, increased privileges, and fun activities. The staff is trained using Cornell University’s Therapeutic Crisis Intervention. The data were collected through surveys, tracking safety holds, student aggression and behavioral problems. Since the implementation of PBIS, the findings revealed a reduction of safety holds, significantly, in the three sites. Along with this, all three sites had a decrease in support room referrals by about 64%, when compared to the data
collected from 2005 through 2006 (Kalke et al., 2007). There are many studies available regarding the effects of positive behavioral supports on student behavior. However, there are fewer studies on teacher perspective of the implementation of positive behavioral supports and the relationship between SWPBS effects on perceived levels of teacher stress and efficacy.

Ross and Horner (2007) recorded that children with anti-social behavior have difficulty with academic success. The barriers to academic achievement can be influenced by limited support from families, schools, and the community. School-wide positive behavioral support is a framework using research-based principles and behavioral supports to reduce problem behavior and improve school climate. Research has shown that school-wide positive behavioral supports have beneficial outcomes for academic achievement, aggression, and crime. Teacher efficacy involves a teacher’s confidence to encourage positive behavior in students. Teachers with high efficacy believe their teaching makes a difference. Teacher efficacy can be a predictor of effective teaching. In the Ross and Horner (2007) study, four middle schools in Oregon with similar socio-economic backgrounds participated. Schools were evaluated for SWPBS using School-Wide Evaluation Tool. Scores above 80 were considered in the high implementation group and those below 80 fell under the low implementation group. Five teachers in each of the four schools were randomly given measures of teacher stress and efficacy. The study revealed a significant effect level of SWPBS implementation on teacher efficacy but none on teaching stress. Teacher efficacy was higher in the sample that had a high score in SWPBS implementation (Ross & Horner, 2007).

Benedict, Horner, and Squires (2007) examined the effects of positive behavior supports in preschool. The study was named Assessment and Implementation of Positive Behavior Support in Preschools. Research has
suggested that the preschool period is an important period during which problem behaviors begin to develop (Webster-Stratton, 2002). Positive behavioral supports (PBS), which address challenging behavior, currently do not have very much research in the area of early childhood settings (Duda, Dunlap, Fox, Lentini, & Clarke, 2004).

The Benedict, Horner, and Squires (2007) study adds to the limited amount of research in early childhood setting PBS implementation. Fifteen preschools from the Pacific Northwest were selected for this study. The preschools in this study included Head Start preschools and early childhood special education serving preschools. To evaluate the critical features of PBS that were implemented in the preschools, a preschool-wide evaluation tool was used during pre-assessment. For four of the classrooms, using a multiple baseline design, PBS consultation with a PBS consultant occurred after the pre-assessment as the independent variable. Three features that were provided feedback during consultation included (a) classroom materials, (b) transition, and (c) classroom routines. Problem behavior exhibited by the children and the number of PBS implementation practices were the dependent variables. PBS consultation and social validity was assessed by providing the PBS consultation questionnaire, containing Likert scales, and open ended questions to the preschool teachers. The study results show, on average, 30.79% of the preset features were implemented in the 15 PBS classrooms. There was an increase in critical PBS features in the four classrooms that received consultation. The number of features implemented changed from 39.63% to 52.22%, 14.26% to 50%, 35.37% to 64.44%, and 38.52% to 63.33% for the four classrooms. Visual analysis revealed that for all of the classrooms, there was an increase in PBS practices. No changes in problem behaviors were found as low rates of problem behavior were found across all
conditions. Results of the PBS consultation questionnaire overall revealed that PBS consultation was rated as excellent by teachers (Benedict et al., 2007).

**Theoretical Framework**

Positive Behavioral Interventions & Supports is rooted in the field of behaviorism, a term coined by John Watson (Kendler, 1987). In Watson’s view, mental life as traditionally conceived simply did not exist. Rather, Psychology should embrace behavior as its subject matter and rely on experimental observation of that subject matter as its method (Moore, 2011). Simply stated the central idea in behaviorism means a science of behavior is possible. The early work of Pavlov, Thorndike, and Skinner in behaviorism was critical to the development of the field of applied behavioral science, upon which PBIS is based. PBIS “is an applied behavioral science that uses methods to expand an individual’s behavior repertoire, and systems change methods to redesign individual’s living environment” to enhance the quality of life and to minimize problem behaviors (Carr et al., 2002, p. 4).

According to McLeod (2007a) this is not a new phenomenon. One of the first researchers to manipulate behavior was Russian physiologist Ivan Pavlov in 1902. During Pavlov’s experiments, he noticed that canines expecting food would begin to salivate when he entered the room. Thus, Pavlov became interested in manipulating the canine’s response. After several trials, Pavlov learned that the canine’s salivation response is an unconditioned response (UCR), in a sense that it does not require learning, but rather elicits an automatic response. Thus, in order to better understand the UCR, Pavlov decided to further manipulate the canine’s response by ringing a bell.

After exposing the canine to the sound of a bell prior to providing the food, Pavlov was able to teach the dog a new behavior. The bell sounds were
considered by Pavlov to be a neutral stimulus that does not produce an automatic response. However, by associating the sound with the food, the dogs started to respond to the former by salivating. Given its groundbreaking findings, Pavlov’s study is considered the foundational work in what is now known as classical conditioning, which was instrumental in the field of behaviorism. In classical conditioning, a neutral stimulus turns into a conditioned stimulus (Slavin, 2003). Today, classical conditioning is instrumental in the field of behavioral psychology, due to its ability to manipulate behavior.

Edward Thorndike is considered the father of educational psychology and is best known for his research, which served as a foundation for studies on operant conditioning (Wood, Wood, & Boyd, 2005). Operant conditioning is the term used to describe the effects of employing pleasant and unpleasant consequences in order to change behavior (Miltenberger, 2008). Thorndike believed that human behavior is predictable and usually manifested as a response to certain stimuli within the environment (Thorndike, 1898). Thorndike’s law of effect is stated below:

When several responses made to the same situation, those which are accompanied or closely followed by satisfaction to the animal will, other things being equal, be more firmly connected with the situation, so that, when it recurs, they will be more likely to recur; those which are accompanied or closely followed by discomfort to the animal will, other things equal, have their connections with that situation weakened, so that, when it recurs, they will be less likely to occur. The greater the satisfaction or discomfort, the greater the strengthening or weakening of the bond, an act that is followed by a favorable affect is more likely to be repeated in similar situations; an act that is followed by unfavorable affect is less likely to be repeated. (Thorndike, 1911, p. 244)

The improvement of the quality of life through the introduction of goals and positive reinforcement are the objectives of PBIS. In an attempt to negate the environment that stimulates behavior problems, designing methods for decreasing
stimulants and increasing preferred behavior support has evolved over the years, to include several theoretical perspectives from applied behavior analysis. However, the root of PBIS stems from B.F. Skinner’s operant conditioning theory (Carr et al., 2002).

B. F. Skinner, a leading advocate on how people are to be treated, introduced the behaviorist theory. Skinner (1989) focused the attention of researchers and practitioners on the relationships between behavior and its consequences. In the late 1950s, Skinner introduced the concept of operant conditioning, which originated from the previously proposed affect theory, developed by Thorndike (McLeod, 2007b). As previously noted, operant conditioning is based on using pleasant and unpleasant consequences to change behavior (Slavin, 2003).

According to Skinner (1968),

The application of operant conditioning to education is simple and direct. Teaching is the arrangement of contingencies, which expedite learning, hastening the appearance of behavior which would otherwise be acquired slowly or making sure of the appearance of behavior which otherwise never occur. (p. 64)

The behavioral theories that emerged following the work of Pavlov, Thorndike, and Skinner were paramount to the development of applied behavior analysis, upon which positive behavioral supports is based (Sugai & Horner, 2002). Skinner suggested that schools change their discipline strategies through positive reinforcement (Hjelle & Zeigler, 1981).

At the beginning of the new millennium, the United States Census reported one-third of all people living in America were of African American, Native American, or Latino culture. The cultural differences gave strong implications for designing and implementing an appropriate behavior support system program. The differences in their view of inappropriate and appropriate behavior proved to be a
challenging dilemma. The following literature review provides a glimpse into the elements PBIS works to address.

Changing demographics of our country as a whole, challenges our schools to continuously evolve to meet the needs of our diverse school population. Inherent to each school aged child in the United States, is access to a high quality educational experience regardless of race or social background. The influence of race, class, and culture play in our classrooms every day, yet many teachers who are well meaning and committed to helping all students learn, are not well informed on how these differences play out and are ill equipped to structure teaching and learning arrangements in their classrooms that build on students’ cultural knowledge and strengths (Howard, 2007).

Tileston and Darling (2008) wrote that if we truly want to raise the learning levels of our students, we must first know the culture from which they come. Teachers must become culturally sensitive and responsive in their educational practices. They must know how the culture learns, the value it places on education, and how, within the culture, motivation is triggered. This does not mean that teachers have to study all the different cultures identified in our country, but they have to know the culture of the students in their classroom and of the neighborhoods that surround them.

The home is the first classroom and the source from which students draw background knowledge and experience. Therefore, families can and do have a positive influence on how well their children do in school. In fact, family involvement appears to have a protective effect on student learning. That is, the longer families stay meaningfully involved in their children’s education, the more likely their children will be successful in school (Rapp & Duncan, 2012).
It is therefore important to create instructional relevance for students of diverse cultures to make content meaningful and the learning experience positive and relevant. Humans are cultural beings. We learn to communicate and understand our world through the sharing of language, customs, behaviors, beliefs and values. Therefore, our cultural experiences and values shape the way we see ourselves and what we think is important (Tileston & Darling, 2008). They help form our worldview.

The relationship between biological and psychological aspects of human development is widely recognized. Parenting is an important determinant of aggressive, delinquent behavior among adolescents in general, and among African Americans in particular. Vespa, Lewis, and Kreider (2013) reported that 44% of African American families are headed by a married couple.

Steinberg’s (2001) study on parenting found adolescents who were raised in families characterized by an authoritative parenting style are healthier and more competent than those who experienced non-authoritative parenting. Other parenting research has suggested that dysfunctional homes in which the parents have arrest records or history of violent behaviors are particularly likely to foster delinquency and lack of social competence among their children (Eddy & Poehlmann, 2010). Consequently, conduct problems can stem from deficits in care giving, whereby multiple problems can occur in early childhood (Wagner, Kutash, Duchnowski, Epstein, & Sumi, 2005). There is a marked paucity of research that has examined the impact of parenting on the development of self-esteem among African American adolescents (Mcloyd, Cauce, Takeuch, & Wilson, 2002). A great deal of concern continues to be prevalent on the absence of fathers from African American families. Wilson-Jones (2003) performed research and revealed African American students who had not repeated a grade received more support...
from parents who were active in their education than those that repeated a grade. African American males who identified their parents as their role models maintained higher achievement, realized positive school experiences, and were consistently motivated, whereas those with no role models exhibited the most problematic behaviors and had the most negative school outcomes (Williams, 2002).

The African American population has experienced an increase in single parent families headed by females. Kotwal and Prabhakar (2009) found that single mothers often have limited financial resources, experience greater social isolation, and have fewer coping resources than mothers in a two-parent family, which may limit their ability to monitor, communicate, and supervise their children effectively. Single parent status has been associated with social and emotional problems, delinquency, poverty, and other negative outcomes for African American children.

Parents who were once victims of socioeconomic hardships often remain alienated from society and lack a formal education. Thus it is not surprising that their children follow the same pattern of behavior. Single parents tend to be less able to support their children’s schooling through supervision and monitoring of their schoolwork and may have lower expectations regarding their children’s school achievements (Brandon, Higgins, Pierce, Tandy, & Sileo, 2010).

A study performed by Glover (2011) on this topic suggests children born to mothers that have high levels of stress during pregnancy can be underdeveloped, suffer from withdrawal symptoms, birth defects that cause learning disabilities, and behavioral problems (Glover, 2011). In many cases, all or many of the aforementioned symptoms are present and create a co-morbidity of disorders. Environment factors, such as family relationships, have often been blamed for
behavior difficulties, primarily parent/child relationships. In fact, many advocates believe that severe behavior problems children exhibit stem from early negative interaction between mother and child (Hallahan & Kauffman, 2003).

**Systematic Factors**

According to the California Department of Education (2013), 705,279 students received special education services in California. According to the statistics, among the students in the school age group 3-22, 7.56% are diagnosed as ED. These students were found to be absent on an average of 18 days per school year. Moreover, these students are eight times more likely to succumb to teenage pregnancy than their emotionally healthy peers. According to Hockenberry (2014), in 2011 approximately 68,815 youth were incarcerated in the United States. Nearly 50% of youth in juvenile justice settings qualified for special education services under the label of ED (Quinn, Rutherford, Leone, Osher, & Poirier, 2005).

Prevalence of students with ED tends to fluctuate considerably depending on several identified factors. The nature of the definition and the criteria used to identify students has a major impact on the rate of identification and the number of students identified as suffering from ED. Higher prevalence rates are reported for “mild” rather than “severe” forms of emotional disorders. In addition, identification rates are lower for girls and young women, compared to their male counterparts. Clearly, gender is an important factor in ED prevalence reports, as more than three-fourths of all ED students are male. This is the highest proportion of male to female population with respect to any disability. One interpretation of this data is that girls are better adjusted than boys. It is far more likely, however, that cultural experience plays a significant role (Brauner & Stephens, 2006).
Social Reproduction and African American Education

In order to fully understand the previous literary concepts, it is valuable to discuss Social Reproduction Theory and its relationship to African American education. Pierre Bourdieu, a French sociologist and anthropologist, is recognized for the development of Social Reproduction Theory. Bourdieu believed that social reproduction of dominant cultural values takes place in educational settings (Monkman, Ronald, & Theramene, 2005).

Bourdieu (1973) explained that the specific role of the sociology of education is assumed once it has established itself as the science of relations between cultural reproduction and social reproduction. This occurs when it endeavors to determine the contribution made by the educational system to the reproduction of the structure of power relationships and symbolic relationships between classes by contributing to reproduction of the structure of the distribution of cultural capital among these classes.

Bourdieu (1986) revealed cultural capital can exist in the embodied, the objectified, and the institutionalized state. The embodied cultural capital is conveyed at home. This is where children gain skills and confidence to participate within the framework of the dominant culture. The objectified state stems from exposure to books, art, and vocabulary, which increase potential for success. Finally, the institutionalized state is characterized by attributes that are set apart in a form of objectification, which leads to class achievement, educational credentials, and degrees. Bourdieu believed that the transmission of cultural capital is not a static event, as it involves the habitus, which is a way of viewing the world, a socially constituted system of cognitive and motivating structures. Similar to cultural capital, habitus is transmitted within the home.
Similarly, Banks (1996) argued that, as a result of lack of cultural capital within mainstream academic knowledge, minority students have struggled in the past and continue to struggle in the present. Minorities of lower socioeconomic status, for example, often bear a negative response to the educational setting as a response to the rejection by the society their parents experience as they embrace a holistic attitude toward conventional forms of society.

Therefore, negative behaviors and inability to understand appropriate reactions in educational settings limits their potential for success in the classroom (Banks, 2002). Presently, a number of dominant American cultural values and African American values are often at odds. As Holloway (1990) pointed out, many cultural values prevalent in the African American communities originated in West Africa and are thus differ from those held by the mainstream society.

For example, the American worldview and culture encourages “individualism, competition, material accumulation, nuclear families, and religion as distinct from other parts of culture, and mastery over nature” (Day-Vines, Patton, & Baytops, 2003, p. 43; Sue & Sue, 2003). In contrast to the dominant culture, many African Americans embrace “the significance of collective over the individual, kinship and affiliation, extended families, spirituality, connectedness, harmony with nature, and holistic thinking” (Asante & Gudykunst, 1989; Nobles, 1991; Day-Vines et al., 2003, p. 43).

Failure of social and school structure can be caused do to the reactions and misunderstanding to the culturally conditioned behaviors of students by teachers (Neal, McCray, Webb-Johnson, & Bridgest, 2003). This failure explains teachers’ lack of cultural responsiveness, which can result in students experiencing psychological discomfort and low academic achievement. This may result in such
students exhibiting antisocial personalities, which may lead to academic failure. In the same fashion Ladson-Billings (2001) argued:

Students of color may become alienated from the schooling process because schooling often asks children to be something or someone other than who they really are. School processes ask them to dismiss their community and cultural knowledge. It erases things that the students hold dear. (p. 14)

As suggested by Luster and Mcadoo (1994), African American children by virtue of belonging to a subculture (culture within a culture) may have difficulty adjusting to norm expectations associated with the majority culture. Personal conflicts may arise when the two are at conflict. In general, when routines are complex and unwanted in nature, that form of cultural capital is rejected by the minority citizens (Bourdieu, 1986). According to the findings reported by Irving and Hundley (2008) Bourdieu’s findings are valid, results of their recent study found African American males living in a culture of mistrust and oppositional attitudes that serves to undermine their educational success.

Howard (2010) discussed the impact of culture on every aspect of everyday living. He defined culture as

a constellation of values, morals, norms, customs, ways of being, ways of knowing, and traditions that provide a general design for living and is passed from generation to generation and serves as a pattern for interpreting reality. (p. 51)

He further discussed the negative effects of cultural discontinuity that many diverse students experience from home to school, pointing out that, despite this versatile sense of reality, misconceptions and misinterpretations prevail. Furthermore, according to Howard, there is a lack of knowledge among educators regarding how to approach culture within classroom settings and lamented on school failures of African American males, eluding not only does failure in school have implication for them in pre-K through 12 schools, and higher education, but
more disturbingly the widespread failure has a direct correlation with the quality of life they face after an unsuccessful school experience.

The failure on behalf of the teachers to understand and appropriately react to students’ culturally conditioned behaviors can lead to school and social failures. In particular, teachers’ lack of cultural responsiveness can result in African American males’ psychological discomfort and low achievement. As a result, African American students may become alienated from the schooling process, as they feel that they need to be something or someone other than who they really are.

The struggle with confronting these issues asks African Americans to dismiss portions of their community and cultural knowledge. African American children, by virtue of belonging to this culture within a culture, may have difficulty adjusting to the norms associated with cultural capital. Personal conflicts may arise and difficulty adjusting may set in, as evidenced by their disproportionately high number in special education schools and the achievement gap (Howard, 2010). According to Bourdieu, the education systems of industrialized societies function in such a way as to legitimate class inequalities. Success in the education system is facilitated by possession of cultural capital higher class habitus and the obtainment of other mechanisms of Social Reproduction (Sullivan, 2002).

Bourdieu (1980) briefly described mechanisms:

The study of mechanisms that tend to ensure reproduction of the structure of relationships between classes carefully selected and modified by an for individual ascent is not incompatible with the permanence of structures, and is even capable of contributing to social stability in the way conceivable in societies based upon democratic ideals. Thus, it may help to perpetrate the structure of class relations. (p. 257)
The mechanism of social reproduction aims to “perpetuate and reproduce structured social inequalities in society is based on the effective transmission of family based parental endowments to the offspring” (Tzanakis, 2011, p. 76). Bourdieu reasoned parents pass onto their offspring cultural, social, human, and physical capital that affect the offspring’s occupational and educational achievement (as cited in Tzanakis, 2011, p. 76).

Bourdieu argued that the elite cultural capital passed onto the children has been rewarded by teachers and schools such that they are assisting in the structure of elitist standards that are unfavorable to lower class children (as cited in Tzanakis, 2011, p.76). Bourdieu’s theory of social reproduction offers a paradigm of class analysis, to be capable of explaining persistent inequalities in educational stratification, despite state efforts at educational expansion. Bourdieu stressed that mechanisms of social domination and reproduction were primarily focused on bodily know how and competent practices in the social world (Bourdieu, 1973).

**Re-authorized IDEA**

Re-authorization of the Individuals with Disabilities Education Act in 1997 provided support for opportunities to educate students with disabilities in the general education classroom to the extent appropriate and defined additional safeguarding for students and their parents. The re-authorized version included the following: (a) continuing to receive services, even if they have been expelled from school; (b) extending the age for preschool developmental delay category through age 9; (c) having greater access to the general curriculum; (d) allowing special education teachers and general education teachers to co-teach; (e) requiring a regular education teacher to be a member of the IEP team; (f) taking part in statewide and district-wide assessment; (g) requiring a proactive behavior management plan to be included in the students’ IEP if the student with disability
had a behavior problem; (h) requiring states to offer medication as a voluntary option to parents and educators to resolve differences; and (i) limiting the conditions under which attorneys can collect fees under the IDEA (Thurlow, Elliot, & Ysseldyke, 1998). The revised version of IDEA (2004) highlighted three major disciplinary amendments. (1) Unique circumstances: schools will now be allowed to consider any unique circumstances on a case-by-case basis when determining whether to order a change in placement or child the disability violates a code of student conduct. (2) Early intervening services: The new idea places a greater emphasis on the use of free referral services to minimize over identification and prevent unnecessary referrals special education. School districts will now be allowed to use up to 15% of their federal funds annually, combined with other bonds, to develop and implement or coordinate early intervening services. These services are for students in all grades, with a focus on K-3, who have not been identified as special education and related services, but “need additional academic and behavioral supports to succeed in a general education environment.” This includes among such allowable services: (a) professional development for teachers and other school staff to deliver scientifically-based academic and behavioral interventions; and (b) providing educational and behavioral evaluation, services, and supports including scientifically based literacy instruction. (3) over identification and disproportionality: states will not only be required to keep track of how many minority students are being identified for special education, the amount of time spent in general education settings, and the number of discipline referrals, they will also be required to provide “comprehensive, coordinated, early intervention programs” for children in groups that are determined to be overrepresented. This effort will be tied early intervention services for students show difficulty with developing basic reading
skills. The districts must also make the public aware of what they’re doing to address the overrepresentation problem by establishing clear targets and indicators (IDEA, 2004).

**School Climate**

Presently, American classrooms are abounding with diversity. Thus, educational leaders are challenged to provide a supportive learning environment that effectively meets the needs of all the students, especially those with behavioral disabilities, this can only be accomplished by creating an engaging and stimulating atmosphere that is conducive to learning. Given their diversity and the complexity of their needs, engaging heterogeneous groups of students in effective learning presents a clear challenge to educators. Meeting this challenge requires familiarity with students who possess a wide range of cognitive, physiological, and social abilities (Terry & Irving, 2010).

The concept of school climate is very frequently used in academic research, but it lacks a commonly agreed upon definition (Johnson & Stevens, 2006). This discussion to formalize the concept of school climate has seen contributions from Brookover (1978), who defined it as a social system of shared norms and expectations, Sergiovanni (1996), who likened school climate to the set of norms and expectations that others have for kids, Fisher and Fisher (1990), who describe it as the psychosocial context through which teachers operate, and Johnson, Johnson, and Zimmerman (1996) who simply define it as the students’ perceptions of the personality of their own school.

Yet another field of educational research, stemming from the area of educational administration, has a slightly different take on school climate and is wholly based on the premise that schools exist as formal organizations (Rentoul & Fraser, 1983). The research on school climate, and its purported effect on student
outcomes and achievement, has delved into the realm of studying both students and instructors’ attitudes as how they relate to achievement. Initial studies on climate demonstrated the phenomenon to be directly linked to “characteristics like size, resources and teacher student ratios” (Johnson & Stevens, 2006, p. 112).

Furthermore, research has consistently proven that there is a statistically significant relationship that exists between this shared system of norms and expectations, perspectives of students, teachers, and also administrators (Brookover, 1978). Analysis in this study was performed on 4th grade student achievement tests and the results had profound implications: It was shown that this concept of school climate was just as good, it now a better predictor of achievement than ethnicity or socio-economic status. While similar results and outcomes have been tested and determined by Hoy and Hannum (1997). Fisher and Fraser (1991) contended that additional studies on the perceptions and attitudes of the teachers towards school climate would fill a gap that exists in the research.

**Classroom Management**

Effective management of classroom discipline is one fundamental element that positively influences student achievement (Bradshaw, Reinke, Brown, Bevans, & Leaf, 2008). According to Marshall (2005), the subject of discipline is often confused with classroom management. Marshall states that classroom management deals with how things are done. In contrast to classroom management, Marshall describes discipline as being the responsibility of the student. Sutherland and Wehby (2001) add that a major deterrent to academic achievement is discipline and classroom disruption on behalf of the student. Throughout the United States there is an increased awareness of the detrimental effects poor classroom management has on student achievement. Gregory et al.
(2010) have indicated minority students, particularly African Americans and those with disabilities, are disciplined more than their white counterparts with suspensions and special education referrals. Knitzer, Steinberg, and Fleisch (1990) reviewed the best practices and found that programs and classes for ED students often re-create factors that were central in developing the conditions that led to the students’ original diagnosis.

**Academic Assessment**

Student academic success in California and the rest of the nation is typically measured by how well students perform on standardized tests. On January 8th of 2002, President George W. Bush signed into law the bipartisan act of Congress best known at the No Child Left Behind Act (NCLB) (No Child Left Behind, 2002). With the enactment of NCLB, the United States entered a new era of high stakes education and accountability. The goals of the act were to reauthorize a number of federal programs aiming at improving student performance in the United States and to increase the standards of accountability for all levels of our K-12 educational system. Accountability is described in the NCLB act as a comprehensive system developed by state and local education agencies that sets the high learning goals for all students, frequently assesses their educational progress, and provides focused intervention for those students whose progress is not deemed appropriate. The law provided some flexibility for states in terms of testing, but was clear about outcomes. First a state would have to forego some federal funding if they chose not to participate. The legislation also expects school districts and schools to improve performance. The standard to be “adequate yearly progress,” all students (95%) are expected to participate in this testing. When initially written, NCLB only permitted 1% to take an alternate test. Two years ago that standard was changed to 3%, but it still meant that at least 75% of
special education student would be taking the same test as their general education peers (Webster-Stratton, Reid, & Hammond, 2001).

The Center for Assessment and Research defines assessment as a process of collecting valuable information to improve educational programs and demonstrate effectiveness of programs and curricula. Assessment also focuses on student learning and development outcomes and it can be a useful tool to collect student data for both information and diagnostic purposes. When assessment is done for diagnostic purposes it is called pre-assessments (Oberg, 2010). Oberg further states that pre-assessment help teachers “front load” their lesson preparation by utilizing data gathered about students in their instructional planning stage.

In addition to paper and pencil assessment, Oberg proposes another form of assessment known as performance assessment. Performance assessment offers a variety of ways for students to demonstrate what they know about content, as well as elucidate students’ additional skills sets within the classroom (Oberg, 2010). Oberg further states that when performance assessments are added to teachers’ current repertoire of pre-assessment tools, they help refine teachers’ knowledge of their students so they can create robust, motivating lessons attuned to their students’ strengths and needs. Fitting assessment to students, linking assessment to instruction, and differentiating both instruction and assessment is crucial in our classrooms as students may not be able to show all they know with a traditional paper and pencil test (Tomlinson, 2007). Classroom assessment is much more than tests, rubrics, and giving grades. Assessments are an integral part of instruction and effective classroom assessment is relevant to immediate learning (Carr & Harris, 2001).
Academic Achievement

Research has shown that Positive Mental Health is associated with academic achievement. Given data estimates that 10% to 21% of individuals under the age of eighteen need mental services. A small percentage of youth who receive mental health services receive it through school. Research reveals that understanding mental health symptoms could lead to early detection and advance the services that could be provided. According to a study, nearly 85% of children receiving community based mental health services reported having experienced symptoms of mental health problems in the classroom. Disruptive behavior problems are the most common form of mental health issues experienced by school age children (Kessler, Demler, & Frank, 2005).

An inability to learn, which cannot be explained by intellectual, sensory, or health factors is one extraordinary facet which adversely affects educational performance of students diagnosed as emotionally disturbed (IDEA, 2014). The idea that children and youth with emotional or behavioral disorders tend to be particularly bright is a myth. Research clearly shows that the average student with emotional or behavioral disorder has an IQ in the dull normal range around 90 and that relatively few score above the bright normal range. Compared to the normal distribution of intelligence, more children with emotional or behavioral disorders fall into ranges of slow learner and mild retardation (Hallahan & Kauffman, 2003).

The majority students with ED are also underachievers at school as measured by standardized tests (Kauffman, 2001). Usually, they are achieving below the level expected for their chronological age and they seldom advanced academically. In fact, after a 7-year study Greenbaum, Graham, and Scales (1996) concluded many ED students lacked basic reading and mathematical skills, and seem to be incompetent in these areas as many are often unable to apply their
skills to everyday problems. The researcher noted that the percentage of students below sufficient increased 31%.

Following a cross sectional study on the academic achievement of K-12 students with ED, Nelson, Benner, Lane, and Smith (2004) established three principal findings. First, students with ED experience significant academic deficits relative to that of the norm group. Second, their sample revealed academic levels that remain stable in the areas of language and reading, while mathematics appeared to broaden over time. Above all, only the students diagnosed as ED failed to improve academically across the K-12 age span. Thirdly, aggressive acting out (externalizing) behaviors exhibited by the students diagnosed as ED was related to their academic achievement.

Hallahan and Kauffman (2003) suggested that for many students with learning disabilities their motivation and ability to deal with challenges and problems in life are a contributing factor to the level of academic achievement. They typically do not respond quickly and positively to well-meaning adults who attempt to care for them and try to be helpful. Algozine and Ysseldyke (2006) reasoned that this limits their productive time in school. Under these circumstances, ED students fail to receive appropriate instruction and leave school unprepared for life. The educational resources in California have been, and will likely continue to be, limited and strained. Thus, it is critical that instructional strategies and behavioral supports are validated and empirically sound, in particular with respect to meeting the needs of ED populations (Ryan, Pierce, & Mooney, 2008).

The numbers tell a grim story. Landrum, Tankersley, and Kauffman (2003) reported, among the students with disabilities, those exhibiting ED had the lowest graduation rates and the highest dropout rates. More recently, the 36th Annual
Report to Congress on Implementation of the Individuals with Disabilities Education Act, 2014 indicated that 20.5% of students categorized as ED leave school before receiving their diploma (Office of Special Education and Rehabilitative Services, 2014).

**Academic Outcomes**

A comprehensive study conducted by the Education Trust-West (2013) investigated how African American youth fare in Los Angeles County schools. The name of the study is: *At a Crossroads: A Comprehensive Picture of How African-American Youth Fare in Los Angeles County Schools*. Their samples were comprised of exclusively African American students. To lead this study, the state selected assembly member Sandra Swanson to form a committee on the status of boys and men of color. The study focused on academic outcomes of African American students. Their first assessment was elementary performance. They found that by the second grade “disadvantages in access to early education opportunities contribute to lower levels of academic achievement among African-American students” (Education Trust-West, 2013, p. 3).

The study stated, 50% of the African American students scored proficient or advanced in math and language arts on California standard tests, compared to 78% of white students. Similar trends are seen in math proficiency rates, more than twice as many white and Asian students scored proficient or advanced. Fourth-grade scores were even more astonishing, four times as many African American fourth-graders fall into the below basic and far below basic categories. Education Trust-West (2013) also utilized a sample of African American students from secondary school and found that advancing to the next grade does not mean advancing in academic achievement. The researchers found another shocking
outcome. Student performance declines and achievement gaps exist, one grade to the next.

The study revealed that by the end of high school, for every four white students who achieved proficiency in algebra II only one African American reached proficiency. They also found only 60% of African American middle school students in Los Angeles County took algebra I in the eighth grade, a subject considered the “gatekeeper” to eligibility into California public universities.

Consequently, by the end of high school, 12% of African American students score proficient in algebra II. The study compiled overall performance by districts. In some districts African American scores are the average range however, in many other districts the scores are worse. For the most part, the high achieving districts have low percentage numbers of African American student population and low-income students. The researcher’s study concluded by affirming the vast majority of African American students in Los Angeles County are underserved and underperforming (Education Trust-West, 2013).

Summary

Positive Behavioral Interventions & Supports (PBIS) is an applied science that uses educational systems change methods to enhance quality of life and minimize problematic behavior. PBIS evolved within the field of developmental disabilities and emerged from three major sources: applied behavior analysis, the normalization/inclusion movement, and person centered values. Elements of PBIS were found in other approaches, its uniqueness comes from the fact that it integrates the following critical features into a cohesive whole: comprehensive lifestyle changes, life span perspective ecological validity, stakeholder participation, validity, systems change and multi component intervention, emphasis on prevention, flexibility in scientific practices, and multiple theoretical
perspectives. These characteristics are likely to produce evolution of PBIS with respect to assessment practices, intervention strategies, training, and extension populations. The approach reflects a more general trend in the social sciences and education away from pathology-based models to a positive model that stresses personal competence and environmental integrity (Carr et al., 2002).
CHAPTER 3: METHODOLOGY

This chapter describes the methodology and procedures used to analyze the possible impact of Positive Behavioral Interventions and Supports (PBIS) on academic achievement of emotionally disturbed African American male students. The researcher also describes the demographics of each school district along with applicable characteristics of the students in the study. In addition, the instruments utilized and their validity and reliability are described. Last, the researcher discusses the proposed data collection, analysis procedures, and the steps taken to protect the ethical rights of the participants. The aim of the present study is not to target individuals or groups, but rather address practices and processes pertaining to African American male students diagnosed as emotionally disturbed (ED). The results reported here are intended to be supportive, rather than punitive. In sum, the goal is to provide assistance and insights that will help guide educators of the United States and abroad to better educate students diagnosed with ED.

This study will aim to investigate and address the following research questions:

**Research Questions**

How do positive behavioral interventions & supports positively affect math assessment outcomes among ED African American male students diagnosed as emotionally disturbed?

How do positive behavioral interventions & supports positively affect English Language Arts assessment outcomes among ED African American male students diagnosed as emotionally disturbed?
How do the implementation stages of positive behavioral interventions & supports compare between group’s academic achievements among ED African American male emotionally disturbed students?

**Research Design**

The design for this study is quantitative. This type of “approach is one in which the investigator primarily uses post positivist claims for developing knowledge,… employs strategies of inquiry,… and collects data on predetermined instruments that yield statistical data” (Creswell, 2003, p. 18). This quantitative study used a causal-comparative analysis to determine reasons or causes of an existing condition for pre-existing student groups then flesh out academic achievement levels based on aggregated data used for the investigation. In this study, the research examined the implementation of PBIS at three districts that are members of the same Special Education Local Plan Area (SELPA) in Southern California. These districts were chosen because they serve a substantial number of special education African American male students diagnosed as emotionally disturbed.

The researcher compared the aggregated archival data of ED African American male students: Group 1 District A, students who participated in a fully implemented PBIS program; Group 2 District B, students who received PBIS at the initial implementation stage; and Group 3 District C, students who received no PBIS. District C is currently at the exploration/adoptation stage.

A comparison of the means and variance was conducted, both within the three groups and between the three groups. The independent variable for this task was the behavioral modification treatment received or behavioral modification treatment not received. Student standardized achievement scores are the dependent variables for the research. The study included three school districts in
Southern California, which have implemented PBIS programs at different stages of development during the 2010 through 2013 standardized testing years.

The study utilized aggregated archival data and compared student outcomes from the exploration/adopter stage, initial stage, and the full implementation stage. The goal of the study was to determine if the language and math scores for ED African American male students’ are positively impacted by the exploration stage, are the same ED African American students’ positively impacted by the initial stage, and are the same specification of students’ impacted by full implementation stage. In other words, did their scores significantly increase or decrease after implementation of PBIS. The aggregated data was also utilized to compare the achievement of the students participating in PBIS to the students not participating in PBIS. All of this information was collected from the participating districts, as well as the California Department of Education website.

Assumptions

This study is based on the following assumptions: all participants have been correctly identified as African American male students receiving special education services after being diagnosed as emotionally disturbed; the participants SELPA, school district, or school uses positive behavioral supports in various forms; all participating institutions are accurately reporting on all discipline incidents; and there is a need to improve programs to address the academic and discipline issues facing public schools today.

Limitations

This study will be limited to three school districts within a Southern California SELPA. The sample participants are limited to emotionally disturbed African American males and focuses solely on the subjects of language arts and
Thus, the findings reported here do not pertain to other students attending this school or educational settings and cannot be generalized. Popham (1993) teaches that while statistical sampling and analysis can point towards the existence of significant relationships and likelihood of certain occurrences, it would be impossible to predict with 100% certainty the direct occurrence of one event as a function of another related event.

**Population and Participants**

The Special Education Plan Area (SELPA) in this study is located in Southern California. The SELPA is governed by the Superintendent’s Counsel, which is comprised of the 10 superintendents that constitute the 10 school districts in the SELPA. The overall purpose of the SELPA is to ensure that quality special-education programs and services are available throughout the region to meet the individual needs of special education students. The SELPA office distributes funds to member districts in accordance with the SELPA’s Funding Allocation Plan. Its primary goal is to promote success for all learners in the region served by the SELPA. The region has a total population of approximately 500,000. The main work sources within the region are aerospace and farming. The number of citizens with their high school diploma is 13.65% and 8% of the population hold higher education degrees.

For the purpose of this research and to protect the confidentiality of those subjects participating, three districts will be issued unidentifiable corresponding letters. The district in the study providing PBIS at the full implementation stage using a well-practiced design is referred to as District A. The district in the study currently on the initial phase of PBIS, working out details and moving toward improvements of implementation, will be referred to as District B. The district at
the exploration/adopter stage making decisions on whether to commit to PBIS will be referred to as District C.

A purposeful sampling method was used to select subjects in this study. Purposeful sampling selects information rich cases for in-depth study, size and specific cases depend on the study purpose (Patton, 1990). The population being all African American male students diagnosed as emotionally disturbed currently attending or have attended District A, District B, and District C. All districts were in good standings regarding state assessment and other regulations.

**Data Collection**

A letter of permission to collect the archival aggregated data from the participating districts was obtained from the district school board, superintendents, and or principles at each site using telephone and electronic mail. Using the demographic roster for the three districts participating in this study, African American males diagnosed as emotionally disturbed were identified. The assessment scores for language arts and math were obtained from the participating districts using aggregated data. Individual student participant and district information were hidden and no distinguishing names were used to protect the districts’ and students’ anonymity. Upon collection of the aggregated data, they were entered into a SPSS program.

Permission was given by the school board and or school officials. A multitude of strategies were in place to ensure the protection of the subjects involved in the study: absolutely no names or individually identifiable characteristics were used in the research for both the students and districts. Only the researcher inputted the data into the necessary statistical analysis program. Data information was always kept in a secure location. Finally, the researcher
obtained human subjects submission permission before collecting the necessary data.

**Instrumentation**

Ryan and Thompson (2002) defined aggregated data as data not limited to patient, but data that are tracked across time, across organization, across patient populations, or cross some other variable. Aggregated data was used when fleshing out assessments scores in math and language arts then utilized to determine if there is a relationship between PBIS and ED African American male students’ academic achievement. Instrument for this portion of the research were accumulated by archival aggregated data on a computer-based tracking program. Once all the aggregated data were uprooted and unveiled, the researcher employed the Statistical Package for Social Science (SPSS) and began the disaggregation process. According to the National Center for Mental Health (2012) disaggregating data means breaking down information into smaller subpopulations this process is a valuable resource to help plan appropriate programs, decide which evidence-based interventions to select, appropriate limited resources where they are needed most, and see important trends in behavior and achievement.

**Data Analysis**

Data analysis for this study was guided by identifying the mean difference within and between the groups independent variable on the dependent variable. For this study the dependent variables are math and language arts achievement scores. Positive Behavioral Interventions and Supports is the independent variable for this research. These variables were then coded and entered into the appropriate database. ANOVA (a comparison of the means) was the data analysis utilized both within and between the groups to determine the effect of PBIS on math and
language arts achievement scores during the 2010-2013 testing years. The statistical means compared the districts participating in PBIS and the district not participating in PBIS. Central tendencies were determined for all data and descriptive statistics received examination prior to inferential analysis in order to select the comparison of means test utilized. Upon completion of data analysis, the results were scrutinized and included in chapter 4.

**Hypotheses**

The following research hypotheses will be tested.

**Hypothesis 1:** The math achievement scores of emotionally disturbed (ED) African American males at school districts with Positive Behavioral Interventions and Supports (PBIS) will be better than those school districts without PBIS.

**Hypothesis 2:** The more time that Post Behavioral Intervention Support has been implemented by a school district, the better the math achievement scores of emotionally disturbed African American males in that district will be over a 4-year period between 2010 and 2014.

**Hypothesis 2a:** The math achievement scores of ED African American males at full PBIS implementation school District A over the 2010, 2011, 2012, and 2013 test years have improved.

**Hypothesis 2b:** The math achievement scores of ED African American males at initial PBIS implementation school District B over the 2010, 2011, 2012, and 2013 test years have improved.

**Hypothesis 3:** The language arts achievement scores of emotionally disturbed (ED) African American males at school districts with Positive Behavioral Interventions and Supports (PBIS) will be better than those school districts without PBIS.
**Hypothesis 4**: The more time that Post Behavioral Interventions and Supports has been implemented by a school district, the better the language arts achievement scores of emotionally disturbed African American males in that district will be over a 4-year period between 2010 and 2014.

**Hypothesis 4a**: The language arts achievement scores of ED African American males at full PBIS implementation school District A over the 2010, 2011, 2012, and 2013 test years have improved.

**Hypothesis 4b**: The language arts achievement scores of ED African American males at initial PBIS implementation school District B over the 2010, 2011, 2012, and 2013 test years have improved.
CHAPTER 4: RESULTS/OUTCOMES

This study is an investigation of the impact of Positive Behavioral Interventions and Supports (PBIS) on emotionally disturbed African American male students’ math and language arts achievement scores in three Southern California school districts. In this study the three school districts were in varying phases of PBIS implementation. This chapter contains the statistical analysis results that address the research hypotheses. It is divided into three sections: Descriptive Statistics, Hypothesis Testing, and Results Summary.

Descriptive Statistics

There are three school districts in Southern California for this study. Of the three school districts included, two had implemented PBIS programs and one had not during the 4-year period of 2010 through 2013. School District A was in the full phase of PBIS implementation, school District B was in the initial phase of PBIS implementation, and school District C was in the exploratory phase of PBIS implementation. Table 1 is a characteristic report of the three districts. The descriptive statistics are divided into two sections: Math Achievement Scores and Language Arts Achievement Scores.

Table 1

<table>
<thead>
<tr>
<th>District</th>
<th>Population</th>
<th>C</th>
<th>A/A</th>
<th>H</th>
<th>Other</th>
<th>E/D</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>8951</td>
<td>40.5%</td>
<td>14.9%</td>
<td>40.3%</td>
<td>4.3%</td>
<td>42%</td>
</tr>
<tr>
<td>B</td>
<td>14430</td>
<td>43.8%</td>
<td>18.2%</td>
<td>33.9%</td>
<td>3.9%</td>
<td>82%</td>
</tr>
<tr>
<td>C</td>
<td>19581</td>
<td>43.5%</td>
<td>14.8%</td>
<td>38.3%</td>
<td>5.4%</td>
<td>73%</td>
</tr>
</tbody>
</table>

C = Caucasian, A/A = African American, H = Hispanic, E/D = Economically Disadvantaged
Math Achievement Scores

Table 2 is a report of the descriptive statistics of the math achievement scores used in this study. The table lists the sample size, mean, standard deviation, variance, skewness, and kurtosis of the dependent math score variable split into the four test years spanning from 2010 through 2013 for each of the three school districts.

Table 2

Descriptive Statistics of Emotionally Disturbed (ED) African American Male Math Scores

<table>
<thead>
<tr>
<th>School District</th>
<th>Test Year</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Variance</th>
<th>SK</th>
<th>Kurtosis</th>
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<tbody>
<tr>
<td>A</td>
<td>2010</td>
<td>8</td>
<td>2.88</td>
<td>1.356</td>
<td>1.839</td>
<td>-0.165</td>
<td>-0.166</td>
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<tr>
<td></td>
<td>2011</td>
<td>19</td>
<td>2.55</td>
<td>0.943</td>
<td>0.889</td>
<td>-0.445</td>
<td>-0.823</td>
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<tr>
<td></td>
<td>2012</td>
<td>12</td>
<td>2.58</td>
<td>1.311</td>
<td>1.720</td>
<td>0.363</td>
<td>-0.759</td>
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<tr>
<td></td>
<td>2013</td>
<td>9</td>
<td>2.89</td>
<td>1.167</td>
<td>1.361</td>
<td>0.975</td>
<td>-0.808</td>
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<tr>
<td>B</td>
<td>2010</td>
<td>10</td>
<td>3.40</td>
<td>1.075</td>
<td>1.156</td>
<td>-1.020</td>
<td>2.256</td>
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<tr>
<td></td>
<td>2011</td>
<td>12</td>
<td>3.00</td>
<td>1.348</td>
<td>1.818</td>
<td>0.000</td>
<td>-0.792</td>
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<tr>
<td></td>
<td>2012</td>
<td>11</td>
<td>2.64</td>
<td>1.362</td>
<td>1.855</td>
<td>-0.060</td>
<td>-2.072</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2013</td>
<td>7</td>
<td>3.00</td>
<td>1.414</td>
<td>2.000</td>
<td>0.000</td>
<td>-1.200</td>
</tr>
<tr>
<td>C</td>
<td>2010</td>
<td>28</td>
<td>2.14</td>
<td>1.044</td>
<td>1.090</td>
<td>0.957</td>
<td>0.794</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2011</td>
<td>36</td>
<td>1.97</td>
<td>0.941</td>
<td>0.885</td>
<td>1.148</td>
<td>1.852</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2012</td>
<td>15</td>
<td>2.13</td>
<td>0.990</td>
<td>0.981</td>
<td>0.719</td>
<td>-0.113</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2013</td>
<td>46</td>
<td>1.85</td>
<td>0.918</td>
<td>0.843</td>
<td>0.855</td>
<td>-0.101</td>
</tr>
</tbody>
</table>

N = sample size; SK = skewness
Language Arts Achievement Scores

Table 3 is a report of the descriptive statistics for the language arts achievement scores used in this study. The table lists the sample size, mean, standard deviation, variance, skewness, and kurtosis of the dependent language arts score variable split into the four test years spanning from 2010 through 2013 for each of the three school districts.

Table 3

<table>
<thead>
<tr>
<th>School District</th>
<th>Test Year</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Variance</th>
<th>SK</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>2010</td>
<td>10</td>
<td>3.00</td>
<td>1.247</td>
<td>1.556</td>
<td>-0.430</td>
<td>0.171</td>
</tr>
<tr>
<td></td>
<td>2011</td>
<td>12</td>
<td>2.25</td>
<td>1.357</td>
<td>1.841</td>
<td>1.032</td>
<td>-0.047</td>
</tr>
<tr>
<td></td>
<td>2012</td>
<td>11</td>
<td>2.12</td>
<td>1.446</td>
<td>2.091</td>
<td>-0.676</td>
<td>-1.062</td>
</tr>
<tr>
<td></td>
<td>2013</td>
<td>9</td>
<td>2.08</td>
<td>1.481</td>
<td>2.194</td>
<td>-0.781</td>
<td>-1.077</td>
</tr>
<tr>
<td>B</td>
<td>2010</td>
<td>12</td>
<td>2.67</td>
<td>1.231</td>
<td>1.515</td>
<td>0.416</td>
<td>-0.449</td>
</tr>
<tr>
<td></td>
<td>2011</td>
<td>14</td>
<td>2.79</td>
<td>1.251</td>
<td>1.566</td>
<td>0.743</td>
<td>-0.584</td>
</tr>
<tr>
<td></td>
<td>2012</td>
<td>9</td>
<td>2.56</td>
<td>1.333</td>
<td>1.778</td>
<td>-0.152</td>
<td>1.400</td>
</tr>
<tr>
<td></td>
<td>2013</td>
<td>10</td>
<td>3.20</td>
<td>1.135</td>
<td>1.289</td>
<td>-0.478</td>
<td>0.552</td>
</tr>
<tr>
<td>C</td>
<td>2010</td>
<td>37</td>
<td>2.46</td>
<td>1.325</td>
<td>1.755</td>
<td>0.509</td>
<td>-0.975</td>
</tr>
<tr>
<td></td>
<td>2011</td>
<td>29</td>
<td>1.83</td>
<td>1.037</td>
<td>1.076</td>
<td>1.399</td>
<td>1.910</td>
</tr>
<tr>
<td></td>
<td>2012</td>
<td>30</td>
<td>2.30</td>
<td>1.055</td>
<td>1.114</td>
<td>0.852</td>
<td>0.245</td>
</tr>
<tr>
<td></td>
<td>2013</td>
<td>35</td>
<td>2.34</td>
<td>1.349</td>
<td>1.820</td>
<td>0.545</td>
<td>-1.134</td>
</tr>
</tbody>
</table>

N = sample size; SK = skewness
Hypotheses Testing

Hypothesis 1

The math achievement scores of emotionally disturbed (ED) African American males at school districts with Positive Behavioral Interventions and Supports (PBIS) will be better than those school districts without PBIS.

Null hypothesis, $H_0$: Math score means for Districts A, B, and C are equal.

Alternative hypothesis, $H_a$: Not all means are equal.

Table 4 displays the ANOVA math achievement score means comparison between Districts A, B, and C during the 2010 through 2013 testing period.

Table 4

<table>
<thead>
<tr>
<th>Test Year</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>2.067</td>
<td>2</td>
<td>1.033</td>
<td>20.666</td>
<td>**</td>
</tr>
<tr>
<td>Within Groups</td>
<td>0.450</td>
<td>9</td>
<td>0.050</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2.516</td>
<td>11</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

ns = not significant, * $P \leq 0.05$, **$P \leq 0.01$

The data show that there is a very significant difference in math achievement scores for emotionally disturbed African American males between Districts A, B, and C, thus rejecting the null hypothesis.

Table 5 displays a Post-Hoc multiple means comparisons of math achievement scores between Districts A, B, and C. The data show that the math achievement scores for emotionally disturbed African American males at District C where PBIS has not been implemented are very significantly lower than
emotionally disturbed African American males at District A and B where PBIS has been implemented.

Table 5

Post-Hoc for Math Scores between School Districts A, B, and C

<table>
<thead>
<tr>
<th>District 1 - District 2</th>
<th>Mean Difference</th>
<th>Standard Error</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>District C - District A</td>
<td>-0.70250</td>
<td>0.15811</td>
<td>**</td>
</tr>
<tr>
<td>District C - District B</td>
<td>-0.98750</td>
<td>0.15811</td>
<td>**</td>
</tr>
<tr>
<td>District A - District B</td>
<td>-0.28500</td>
<td>0.15811</td>
<td>ns</td>
</tr>
</tbody>
</table>

ns = not significant, * P ≤ 0.05, **P ≤ 0.01

Hypothesis 2

The more time that Post Behavioral Interventions and Supports has been implemented by a school district, the better the math achievement scores of emotionally disturbed African American males in that district will be over a 4-year period between 2010 and 2013.

Table 6 is a compilation of the Shapiro-Wilk Test of Normality results for the math achievement scores of school Districts A and B for test years 2010-2013. The results show not all the data are normally distributed. The non-parametric Kruskal-Wallis one-way analysis of variance test was utilized to test Hypothesis 2.

Hypothesis 2a: The math achievement scores of ED African American males at full PBIS implementation school District A over the 2010, 2011, 2012, and 2013 test years have improved.

Null hypothesis, H₀: Math score means for District A are equal.

Alternative hypothesis, Hₐ: Not all means are equal.
Table 6

**Shapiro-Wilk Test of Normality for Math Scores**

<table>
<thead>
<tr>
<th>School District</th>
<th>Test Year</th>
<th>df</th>
<th>Statistic</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>2010</td>
<td>8</td>
<td>0.882</td>
<td>ns</td>
</tr>
<tr>
<td></td>
<td>2011</td>
<td>19</td>
<td>0.850</td>
<td>**</td>
</tr>
<tr>
<td></td>
<td>2012</td>
<td>12</td>
<td>0.920</td>
<td>ns</td>
</tr>
<tr>
<td></td>
<td>2013</td>
<td>9</td>
<td>0.776</td>
<td>*</td>
</tr>
<tr>
<td>B</td>
<td>2010</td>
<td>10</td>
<td>0.866</td>
<td>ns</td>
</tr>
<tr>
<td></td>
<td>2011</td>
<td>12</td>
<td>0.927</td>
<td>ns</td>
</tr>
<tr>
<td></td>
<td>2012</td>
<td>11</td>
<td>0.770</td>
<td>**</td>
</tr>
<tr>
<td></td>
<td>2013</td>
<td>7</td>
<td>0.952</td>
<td>ns</td>
</tr>
</tbody>
</table>

ns = not significant, * P ≤ 0.05, **P ≤ 0.01

Table 7 displays the Kruskal-Wallis math achievement score means rank results for District A over the 2010 through 2013 testing period. The data show that District A has not shown any improvement in math achievement scores for emotionally disturbed African American males as a result of implementing PBIS for 4 years, thus supporting the null hypothesis.

Table 7

**Kruskal-Wallis for Math Scores of District A**

<table>
<thead>
<tr>
<th>Test Year</th>
<th>N</th>
<th>Mean Rank</th>
<th>df</th>
<th>H</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>08</td>
<td>24.94</td>
<td>3</td>
<td>1.128</td>
<td>ns</td>
</tr>
<tr>
<td>2011</td>
<td>19</td>
<td>26.53</td>
<td></td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2012</td>
<td>12</td>
<td>21.25</td>
<td></td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2013</td>
<td>9</td>
<td>24.17</td>
<td></td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>48</td>
<td></td>
<td></td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

ns = not significant, * P ≤ 0.05, **P ≤ 0.01
**Hypothesis 2b:** The math achievement scores of ED African American males at initial PBIS implementation school District B over the 2010, 2011, 2012, and 2013 test years have improved.

Null hypothesis, $H_0$: Math score means for District B are equal.

Alternative hypothesis, $H_a$: Not all means are equal.

Table 8 displays the Kruskal-Wallis math achievement score means rank results for District B over the 2010 through 2013 testing period. The data show that District B has not shown any improvement in math achievement scores for emotionally disturbed African American males as a result of implementing PBIS for four years, thus supporting the null hypothesis.

**Hypothesis 3**

The language arts achievement scores of emotionally disturbed (ED) African American males at school districts with Positive Behavioral Interventions and Supports (PBIS) will be better than those school districts without PBIS.

Null hypothesis, $H_0$: Language arts score means for Districts A, B, and C are equal.

Alternative hypothesis, $H_a$: Not all means are equal.

Table 8

*Kruskal-Wallis for Math Scores of District B*

<table>
<thead>
<tr>
<th>Test Year</th>
<th>N</th>
<th>Mean Rank</th>
<th>df</th>
<th>H</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>10</td>
<td>23.85</td>
<td>3</td>
<td>1.533</td>
<td>ns</td>
</tr>
<tr>
<td>2011</td>
<td>12</td>
<td>20.25</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2012</td>
<td>11</td>
<td>17.73</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2013</td>
<td>7</td>
<td>20.50</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>40</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

$ns = not significant, * P ≤ 0.05, **P ≤ 0.01$
Table 9 displays the ANOVA language arts achievement score means comparison between Districts A, B, and C during the 2010 through 2013 testing period. The data show language arts achievement scores of emotionally disturbed African American males at District A and B are not better than those at District C as a result of having implemented PBIS, thus supporting the null hypothesis.

Table 9

<table>
<thead>
<tr>
<th>Test Year</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>0.721</td>
<td>2</td>
<td>0.360</td>
<td>3.0173</td>
<td>ns</td>
</tr>
<tr>
<td>Within Groups</td>
<td>1.022</td>
<td>9</td>
<td>0.114</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1.743</td>
<td>11</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

ns = not significant, * P ≤ 0.05, **P ≤ 0.01

**Hypothesis 4**

The more time that Post Behavior Intervention and Support has been implemented by a school district, the better the language arts achievement scores of emotionally disturbed African American males in that district will be over a 4-year period between 2010 and 2013.

Table 10 is a compilation of the Shapiro-Wilk Test of Normality results for the language arts achievement scores of school Districts A and B for test years 2010-2013. The results show not all the data are normally distributed. The non-parametric Kruskal-Wallis one-way analysis of variance test was utilized to test Hypothesis 4.

**Hypothesis 4a:** The language arts achievement scores of ED African American males at full PBIS implementation school District A over the 2010, 2011, 2012, and 2013 test years have improved.
Null hypothesis, $H_0$: Language arts score means for District A are equal.

Alternative hypothesis, $H_a$: Not all means are equal.

Table 10

*Shapiro-Wilk Test of Normality for Language Arts Scores*

<table>
<thead>
<tr>
<th>School District</th>
<th>Test Year</th>
<th>df</th>
<th>Statistic</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>2010</td>
<td>10</td>
<td>0.873</td>
<td>ns</td>
</tr>
<tr>
<td></td>
<td>2011</td>
<td>12</td>
<td>0.810</td>
<td>*</td>
</tr>
<tr>
<td></td>
<td>2012</td>
<td>11</td>
<td>0.814</td>
<td>*</td>
</tr>
<tr>
<td></td>
<td>2013</td>
<td>9</td>
<td>0.790</td>
<td>*</td>
</tr>
<tr>
<td>B</td>
<td>2010</td>
<td>12</td>
<td>0.931</td>
<td>ns</td>
</tr>
<tr>
<td></td>
<td>2011</td>
<td>14</td>
<td>0.844</td>
<td>*</td>
</tr>
<tr>
<td></td>
<td>2012</td>
<td>9</td>
<td>0.826</td>
<td>*</td>
</tr>
<tr>
<td></td>
<td>2013</td>
<td>10</td>
<td>0.933</td>
<td>ns</td>
</tr>
</tbody>
</table>

ns = not significant, * $P \leq 0.05$, **$P \leq 0.01$

Table 11 displays the Kruskal-Wallis language arts achievement score means rank results for District A over the 2010 through 2013 testing period. The data show that District A has not shown any improvement in language arts achievement scores for emotionally disturbed African American males as a result of implementing PBIS for 4 years, thus supporting the null hypothesis.

**Hypothesis 4b**: The language arts achievement scores of ED African American males at initial PBIS implementation school District B over the 2010, 2011, 2012, and 2013 test years have improved.

Null hypothesis, $H_0$: Language arts score means for District B are equal.

Alternative hypothesis, $H_a$: Not all means are equal.
Table 11

*Kruskal-Wallis for Language Arts Scores of District A*

<table>
<thead>
<tr>
<th>Test Year</th>
<th>N</th>
<th>Mean Rank</th>
<th>df</th>
<th>H</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>10</td>
<td>22.05</td>
<td>3</td>
<td>3.064</td>
<td>ns</td>
</tr>
<tr>
<td>2011</td>
<td>12</td>
<td>16.67</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2012</td>
<td>11</td>
<td>23.45</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2013</td>
<td>9</td>
<td>24.94</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>42</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

ns = not significant, * P ≤ 0.05, ** P ≤ 0.01

Table 12 displays the Kruskal-Wallis language arts achievement score means rank results for District B over the 2010 through 2013 testing period. The data show that District B has not shown any improvement in language arts achievement scores for emotionally disturbed African American males as a result of implementing PBIS for 4 years, thus supporting the null hypothesis.

Table 12

*Kruskal-Wallis for Language Arts Scores of District B*

<table>
<thead>
<tr>
<th>Test Year</th>
<th>N</th>
<th>Mean Rank</th>
<th>df</th>
<th>H</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>12</td>
<td>21.54</td>
<td>3</td>
<td>1.684</td>
<td>ns</td>
</tr>
<tr>
<td>2011</td>
<td>14</td>
<td>22.43</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2012</td>
<td>9</td>
<td>20.83</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2013</td>
<td>10</td>
<td>27.50</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>45</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

ns = not significant, * P ≤ 0.05, ** P ≤ 0.01
**Results Summary**

The hypotheses in this study were tested using ANOVA when comparing the mean scores between school Districts A, B, and C or the non-parametric Kruskal-Wallis comparison of means test when comparing the mean scores within school Districts A and B. The data show that the math achievement scores for emotionally disturbed African American males at District C where PBIS has not been implemented are very significantly lower than emotionally disturbed African American males at District A and B where PBIS has been implemented. Language arts achievement scores of emotionally disturbed African American males at District A and B are not better than those at District C as a result of having implemented PBIS. In addition, the data show that both District A and District B have not shown any improvement in both math and language arts achievement scores for emotionally disturbed African American males as a result of implementing PBIS over the 2010-2013 time period.
CHAPTER 5: DISCUSSION/SUMMARY/CONCLUSION

The overriding purpose of this study was to determine the relative importance of Positive Behavioral Interventions & Supports as a behavioral management system to improve the academic scores of African American males diagnosed as emotionally disturbed. To accomplish this goal, it became necessary to reach out to three school districts in Southern California that serviced this student population for a specified period of time.

Determining what emotionally disturbed means and how the term is connected to education and the African American male assumed a high degree of importance during the literature review performed for this particular study. Similar to that effort, it became important to reach a clear understanding of positive behavioral interventions & supports and how deeply rooted the concepts are to the field of behaviorism. In order to forge forward and assemble the study components, it became vital to develop a research design encompassing interaction between Positive Behavioral Interventions & Supports (PBIS) and the academic scores of emotionally disturbed African American male students’. After these fundamental steps put together, the research began to progress forward. This chapter reports the discussion, summary, findings, conclusion and recommendations that resulted from the research.

Discussion

In today’s society American schools are facing tremendous challenges. The education process is often confronted with addressing discipline policies to combat the growing number of students needing reliable, sustainable behavior intervention. In many schools throughout the United States, Positive Behavioral Interventions & Supports (PBIS) has been implemented to positively impact
academic achievement scores among struggling students. PBIS is designed to eliminate those challenges with effective means that decrease problem behavior and improve school climate by altering one’s environment, behavior repertoire and ultimately improving academic learning (Sugai & Horner, 1999).

In this study the Mathematics and English-Language Arts assessment results of African American male students diagnosed as emotionally disturbed (ED) at three school districts were compared. This study utilized a quantitative causal comparative research design to scrutinize the academic achievement level in language arts and mathematics of ED African American male students attending three selected districts in Southern California. Two of the three districts had implemented Positive Behavioral Interventions & Supports. The third district had not participated in the PBIS program. Pre-existing archival data was then used to answer the research questions.

According to the literature, a study performed by Lassen et al. (2006) exposes discipline as one of the most pressing issues for schools today. For many years, methods such as suspension, expulsions, and corporal punishment were standard disciplinary action for disruptive students (Henson, 1986). Corresponding research has shown that a suspension is not an effective means of reducing the problem behavior that it supposed to reduce (Advancement Project/Civil Rights Project, 2000; McCord, Widom, Bamba, & Crowell, 2000b; McFadden & Marsh, 1992). Christle, Nelson, and Jolivette (2004) reported suspension rates were positively correlated with board violations, enrollment in Federal Free and Reduced Lunch Program, law violations, retention rate, and dropout rate, whereas it negatively correlated with school attendance, academic achievement, and Caucasian ethnic background. The Office of Special Education and Rehabilitative Services (2011) revealed ED African American students were
given out of school suspensions two and a half more times than other ethnic
groups. In turn, the likelihood of academic success becomes improbable.

Thus, ED student achievement levels distinguish themselves and display
achievement scores far below their general education counter parts. In this day
and age, schools are being employed to apply PBIS because the program is
particularly effective at decreasing the willful misconduct of disruptive
inappropriate students who require disciplinary action. This study investigates the
influence of PBIS on the achievement scores of ED African American male
students. McIntosh, Flannery, Sugai, Braun, and Cochrane (2008) reported school
environments and academic instruction as a way of decreasing risk factors in
transition from middle school to high school to prevent failure.

Bradshaw, Koth, Thorton, and Leaf (2009) also suggested an increase in
student academic achievement. Horner et al. (2010) adds that positive behavioral
interventions & supports can help serve children through direct intervention and
developing teachers on how to properly put in practice the right behaviors because
of a gap in school systems relating research to practice relationship. A system like
PBIS will help the integration of correct strategies for teachers to implement in
their classes in a consistent manner. In short, there needs to be a change in the
system and emphasis on support structures within the school, district, region and
state levels, in order to help children.

Summary

A research proposal was developed and electronically mailed to education
officials of the participating districts. These districts were chosen because of their
Southern California location and the fact that they provided educational services
for emotionally disturbed African American males. All respondents were asked to
retrieve from their archival data the California modified assessments scores from
English/Language Arts and Mathematics obtained by African American males diagnosed as emotionally disturbed. The research also used the California Department of Education’s Dataquest to provide district demographics and student performance statistics. Through the use of these outlets, archival data was collected that addressed the research for this dissertation. Upon all districts reporting their data, the Statistical Package for Social Science was utilized to begin analytics. Data analysis for this study was guided by identifying the mean difference within and between the groups. Central tendencies were determined for all data, and descriptive statistics were examined prior to inferential analysis to select the mean test utilized. The test used for this quantitative study was ANOVA or the non-parametric Kruskal-Wallis comparison of means test which led to the findings.

**Findings**

The results revealed that those school districts where Positive Behavioral Interventions and Supports were implemented had very statistically significant higher math achievement scores than the school district that did not have a PBIS program. In regards to language arts achievement scores, there were no statistically significant difference at school districts with PBIS and those without PBIS programs. In addition, the results revealed that once PBIS had been implemented there is no statistically significant subsequent improvement in either math or language arts achievement scores year over year.

**Conclusion**

The findings of this research give way to an enormous amount of opportunity. Results of the research give a peek into the educational world of African American males diagnosed as emotionally disturbed, a world considered
by educational leaders as the most difficult assignment to produce positive change. This subset of students in years past has shown a perplexity to yield the worst social and academic scores of any population of student in school demographics. The findings indicate PBIS addresses disconnect between the school and at risk students. PBIS through its policies and protocol has developed a collective culture of trust that allows for students to express themselves without fear of losing their cultural identity by giving impoverished students, at risk students, special needs students, and students of every race, creed, or culture the self-esteem to achieve academically. Even more so, the interventions remove the personal views of all parties involved, including administration, teachers, and students, which traditionally have outweighed the surge for success. When PBIS is implemented with honor and fidelity decisions are made based on what the system calls for and are based on the protocol provided by the guidance of PBIS. Therefore, the authoritative struggle is removed from the relationships in education while the system allows all parties to choose the correct alternative. The aim of the system is to dictate interventions between student and educator in order to foster and cultivate the want to be successful.

Furthermore, this study contributes to the research conducted on the extraordinary phenomena that is the educational practices concerning African American males diagnosed as emotional disturbed. However, this study has a more considerable degree of importance than most of the previous studies due to the fact that it extrapolates much more meaning than just academic performance of African American males with an ED diagnosis. When considering the dilemma of our public schools, it is very difficult not to appreciate the possibilities PBIS brings to the forefront of education. Within the overall academic climate of American public schools, the norm for students with an ED diagnosis is that they
score below the 25th percentile on reading and math as measured by standardized testing (Lane, Barton-Arwood, Nelson, & Wehby, 2008). The overwhelming majority of research performed on ED African American males produced outcomes unfavorable for this population with minimal stability or security. At this point in American history, education is at a crossroads in terms of effective service for this populace. Currently the constant changes in rules, regulations, strategies, and systems have damaged the quality of the product produced by what was once a beneficial prolific dogma. Traditionally the utilization of this systematic pedagogy achieved world leading outcomes and the American education system stood tall and strong. School personnel were expected to use effective strategies to intervene and prevent or minimize inappropriate behavior.

This study found through analysis of the data that math achievement scores of African American male students diagnosed as emotionally disturbed were statistically significant when PBIS was utilized as a behavior management system. PBIS is a behavior modification program designed upon conception to improve socially significant human behavior using positive reinforcement, stimulus control, and contingency management (Dunlap, 2006). The higher math levels for ED African American males were achieved by districts that had implemented PBIS. The language arts scores achieved had no statistically significant difference. However, the numbers did reveal the two school districts having implemented PBIS as having consistently average scores over the 4-years of data, and the district that had no PBIS implementation had extreme fluctuation in its scores year to year. One can argue that the study performed by Fordham and Ogbu (1986) may give cultural insight into the fluctuating scores of many African American students; the study reveals an impact in the African American social experience that predisposes many African American students to lower their standards and
aspirations for schooling because they believe that high academic achievement only benefits white, middle class students. Put more simply, such achievement comes to be perceived as “acting white.” Others argue the issue is not achievement but resistance to the notion of cultural default to be accepted by the work force. That which is regarded as normal or regular, namely white middle class speech patterns, dress, musical taste and interactional styles, align with cultural default. PBIS creates positive educational climates which help to overcome the preceding obstacles, and is meeting the needs of school districts across the United States. Many educators, parents, and policy makers believe it may be the answer to close the achievement gap.

Future research should study whether ED African American males exiting a lengthy stay from a positive behavioral interventions & supports program and moving into a traditional school program has an impact on academic performance. This information could lead to more PBIS in Title I schools and positively affect the achievement gap. Future studies should replicate this study and incorporate the affect PBIS has on student expulsion and suspension rate. This may help educators to better understand the impact suspension and expulsion have on student self-esteem and academic performance. It would be beneficial to perform a longitudinal study on ED African American males’ academic growth and life after school to show trends of personal struggles and personal growth. The findings would lead to educators giving more attention to ED student outcomes and would allow for planned intervention for those in dire straits. No longer are educational institutions forced to choose between unfavorable alternatives.

**Recommendations for Future Research**

The following are recommendations for future research.
1. Researching the impact of Positive Behavioral Interventions and Supports on math and language arts achievement scores of emotionally disturbed African American males at school District C should the district implement PBIS by comparing the years before PBIS implementation to the years in which PBIS is implemented.

2. Replicating the study at school districts where larger more diverse sample data exist can provide results that are more generalizable to the population and possibly offer different conclusions.

3. Researching the impact of Positive Behavioral Interventions and Supports on office discipline referrals of emotionally disturbed African American male students of school districts in the same Special Education Local Plan Area.
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