

LIMITED LEARNING: THE EFFECTS OF STUDENT SUSPENSIONS AND EXPULSIONS  
ON MIDDLE SCHOOL ACADEMIC ACHIEVEMENT

A Dissertation

by

EDNA LAURA DELGADO

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MPA, University of Houston, 2001

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This dissertation meets the standards for scope and quality of  
Texas A&M University-Corpus Christi and is hereby approved.

Randall Bowden, PhD  
Chair

Sherrye Garrett, Ed D  
Committee Member

Karen McCaleb, PhD  
Committee Member

Gregory Buck, PhD  
Graduate Faculty Representative

December 2014

## ABSTRACT

Discipline has been a part of schools since schools were first developed. Consequences, including exclusionary discipline, are necessary to maintain an effective learning environment. In Texas, administrators can assign one of four exclusionary discipline practices for misbehavior. However, researchers argue that the assignment of exclusionary discipline consequences has failed to modify misbehavior, and that these practices have increased misconduct as the child disengaged from school, became frustrated, and further misbehaved. Students missed valuable instruction due to the exclusionary discipline consequences. This practice raised the question of how well these students performed on high-stakes testing. Thus, the problem investigated in this study was the effects of exclusionary discipline practices on middle school student academic achievement as measured by the Texas Assessment of Knowledge and Skills (TAKS).

This study used descriptive research and considered eight research questions to examine the hypothesized relationship between exclusionary discipline practices and the academic achievement of middle school students. The study relied on archived TAKS performance and exclusionary discipline data from the Texas Education Agency from the 2010-2011 school year. The study used ANOVA and *t*-tests to determine statistical significance of the hypothesized relationship(s) at the  $p < .05$ .

Results found that participants who experienced any exclusionary discipline scored lower than the state average in all grades in both reading and mathematics. The largest mean difference occurred in eighth grade mathematics where participants that experienced any exclusionary discipline scored an average of two points above the minimum standard. Participants that

experienced any exclusionary discipline and were of low socioeconomic status also scored lower than the state average in all grades in both reading and mathematics.

Based on findings from this study, implications included possible increased awareness among administrators of the discipline gap created in part by the effects exclusionary discipline has on the academic achievement of middle school students. Recommendations for future research included: (a) moderating effects of gender; SES status, and special education status; (b) studying successful In-School Suspension (ISS) programs; and (c) examining the informed level of administrators with regards to effects of disciplinary exclusion practices on academic achievement.

## DEDICATION

I dedicate my dissertation to my mother, Celia Carrillo, my husband, Frank, and my two sons, Frankie and Aaron. Mom, it is because of you that I have always believed that I could achieve anything I wanted. Though I know you are always with me, I look forward to telling you all about this journey one day-the ups, the downs, the countless times I wanted to give up, but did not because I could hear your voice in my heart telling me to keep going. I love you and miss you so much.

Frankie and Aaron, you can and will achieve all your life goals. Though your non-stop wild ideas, weird inventions, and outrageous logic sometimes drive me crazy, I know they will one day change the world. You both have such caring hearts and vivacious spirits and I cannot wait to see how you will make this world a better place. Don't ever be afraid to follow your crazy ideas no matter where they may take you. You both will always be my babies, so never, ever be afraid to come home.

To Frank, you and I have been together for more than half our lives. Thank you for being an amazing father and for your support, love, and strength. I love our life.

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I will always be thankful to Dr. Randall Bowden for taking me in when I was lost. He smiled, set me on the right path, and helped get me to the finish line. Education, as a profession, needs more leaders like him.

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I thank my husband Frank, and my sons, Frankie and Aaron, for allowing me the opportunity and time needed to complete this goal. Many times I felt like giving up and giving in to cries of “You’re always busy!” Thank you for loving me enough to let me finish.

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## CHAPTER I

### INTRODUCTION

#### Background and Setting

Children inherently misbehave in some form as they grow up. Generally, parents instill appropriate behaviors during the pre-school years, usually from birth to five years old (Sumari, Hussin & Siraj, 2010). At five years, children enter the school system in kindergarten (Texas Education Code, 2014a). For a minimum of 175 days a year, for the next twelve years, these children will spend approximately seven to nine hours at school, five days a week under the supervision of a teacher (Farbman & Kaplan, 2005). Accordingly, some researchers have argued that students may spend more waking hours with a single teacher than he or she does with a parent (Farbman & Kaplan, 2005). As such, the concept of *in loco parentis*, Latin for “in place of the parent,” was common practice in schools across America. *In loco parentis* dates back hundreds of years to early American schools (Conte, 2000, p. 195). Colonial leaders, using English common law as a foundation, established that schoolteachers instill moral and educational values in their students. For decades, concerning discipline at school, teachers had similar legal authority as that of the parent (West’s encyclopedia of American law, 2008, para. 3). Thus, teachers, acting in place of a parent, disciplined student misbehavior at school via corporal punishment (Shmueli, 2010). The standard of *in loco parentis* remained the norm through the nineteenth century.

In the early 1900s, society’s educational system underwent a transformation. Prior to 1918, school attendance was not mandatory, so in choosing to send their child to school, parents agreed that teachers could act in their place (Garrison, 2007, pp. 117-118). However, Dupre

(1996) noted that by 1918, all states had compulsory education laws firmly in place, which diminished the long-standing justification of *in loco parentis*. Eventually, schools all but abandoned *in loco parentis*, opting instead to adopt the privilege of *parens patriae*. Garrison (2007) explained that *parens patriae* could apply as follows:

If children have rights to an education that the state must finance and provide, then it would follow—from *parens patriae*, not from *in loco parentis*— that the schoolteacher may use reasonable and timely corporal punishment, not only on the individual child who is being punished but also with regard to the other schoolchildren whose rights to an education the wayward child is disrupting (pp. 118-119).

Administrators moved away from doling out immediate consequences via corporal punishment and moved towards assigning out-of-school suspensions (OSS) for student misbehavior (Molsbee, 2008). Through *parens patriae*, administrators justified their use of OSS citing that disruptive students inhibited the learning of others on campus.

Parents did not support OSS as a beneficial means of punishment for two reasons. First, parents argued that suspended students lost irreplaceable instruction time when excluded from the regular classroom because of misbehavior (Schachter, 2010). For example, student John engaged in a fight during gym. Administrator Jane brought John into the office and suspended him for one school day for the misbehavior. By default, suspended student John was denied time in gym class where the misbehavior occurred, but he was also denied one day of instruction in each of his core content classes like reading, mathematics, science, and social studies. Second, parents disputed administrators' authority to assign OSS without due process, a right afforded to all citizens under the U.S. Constitution. As this controversy brewed, the U.S. Supreme Court

heard the case of *Goss v. Lopez* in 1975. The case centered upon a student's right to due process when assigned exclusionary discipline consequences like OSS (Freeman, 2007). The Supreme Court ruled that "students' due process rights, though limited, require schools to give notice and hold hearings for any disciplinary action that could result in up to ten days out of school" (Molsbee, 2008, pp. 329-331). In response to the ruling, schools developed extensive policies and procedures to ensure disciplinary due process rights for all students. Essentially, school administrators could no longer serve as prosecutor, judge, and jury regarding exclusionary discipline practices like OSS.

Because of the extensive due process rights firmly in place, school administrators found assigning students OSS to be an arduous process. This prompted school leadership to consider alternate consequences that would circumvent the due process requirement (Garman & Walker, 2010). The short, quick answer to due process was in-school-suspension (ISS). Administrators limited OSS to extreme disciplinary cases and instead assigned ISS to remove disruptive students from the regular classroom. ISS students were isolated, required to follow strict classroom rules and, most importantly, they remained on campus (Smith, Bicard, Bicard, & Casey, 2012). Parents embraced ISS because it allowed punished students to remain academically involved on campus, and it ensured students served their consequence in a controlled educational environment (Molsbee, 2008). According to Garrett (2013), in the end, keeping kids in school where they could get help and could learn to be productive citizens by far benefited everyone--students, parents, and the community at-large (p. 30). Following this rationale, schools made concerted efforts to keep disciplined students on campus and engaged in the academic content (Skiba, 2014).

From the mid to late 1990s, the media highly publicized a few school shootings that occurred in some very small U.S. towns. Though significant, the excessive publicity surrounding the school shootings caused many citizens to assume increasing violence in schools was a major problem (Bondi, Cornell, & Scheithauer, 2011). In reality, data from the National School Safety Center (2003) showed school violence was clearly on a downward trend in the 1990s. The public lobbied U.S. legislators to develop tougher, more robust consequences for incidents of violence. According to Skiba (2014), behind the public's push for tougher penalties was the presumption that "strong enforcement can act as a deterrent to other potentially disruptive students" (p. 28).

Congress and President George H. W. Bush acquiesced and adopted the Gun-Free School Zone Act (GFSZA) of 1990 (Driscoll & Geier, 2013). The United States (U.S.) government formulated the GFSZA under the Commerce Clause of the U.S. Constitution and made it a federal crime "for any individual knowingly to possess a firearm...at a place that the individual knows, or has reasonable cause to believe, is a school zone" (Inniss, 2003, p. 59). In 1995, the Supreme Court ruled the GFSZA unconstitutional under the Commerce Clause because the GFSZA was unable to justify significant ties to state commerce (Zirkel & Covelle, 2009).

Society's focus on school violence did not dissipate with the Supreme Court's ruling on the GFSZA of 1990. The public continued to voice concerns regarding school safety (Aull, 2012). Heeding public opinion, Congress and President Bill Clinton developed and implemented the Federal Gun Free Schools Act (GFSA) of 1994. This time provisions of the GFSA were more specific and "required states receiving federal funds to mandate at least a one-year expulsion for any student who brought a gun to school" (Texas Education Agency, 2007a, p. 2).

Additionally, the new GFSA purposefully tied funding to the Elementary and Secondary Education Act of 1965 (ESEA) and the connection ensured nationwide compliance with GFSA because the ESEA funded the vast majority of schools to support economically disadvantaged and at-risk students (Molsbee, 2008; No Child Left Behind Act, 2001). Compliant schools became tough on in-school violence, and as such, they maintained invaluable ESEA funding.

To comply with GFSA of 1994 and address student misconduct, school districts nationwide relied on existing Zero Tolerance (ZT) policies developed in the 1980s as part of America's war on drugs (Carroll, 2008). States, districts, and schools under ZT assigned swift, severe, and across-the-board consequences for all drug infractions that occurred on or near school (Martinez, 2009). Specifically, zero tolerance policies employed exclusionary discipline practices that removed a student from the regular classroom for half or a full school day (Gonsoulin, Zablocki, & Leone, 2012; Gregory & Cornell, 2009). Rather than develop new policies to address the GFSA, states and school districts expanded existing ZT policies to a broader range of misconduct including, but not limited to, profanity, truancy, scuffling, and possession of sharp objects that a student could use as a weapon (Jones, 2013). For example, Browne-Dianis (2011) described a situation in which an administrator at a Norfolk, Virginia school found an 8<sup>th</sup> grade female with one Tylenol pill in her pocket. Her mother had given it to her to take to school so that she could take it after eating breakfast. During the course of a search for additional pills or drugs, the administrator discovered the female had a metal nail file in her backpack. Under ZT policies, administrators not only required the female complete a drug abuse class, they also indefinitely suspended her for the metal nail file because she could technically

use it as a weapon (p. 26). The incident exemplified that prior to the expansion of ZT policies, a nail file would have just been a nail file.

The Gun Free Schools Act and zero-tolerance policies were not the only guidelines affecting school discipline. The No Child Left Behind Act (NCLB) enacted in 2001 specified exclusionary discipline practices, and it introduced stringent academic accountability standards. The Act required states applying for federal education funding to commit to the goal that all students be proficient in mathematics and reading, as determined by state assessments, by the year 2014 (Dee & Jacob, 2001). In Texas, districts administered the Texas Assessment of Knowledge and Skills (TAKS) to measure academic achievement. Texas was required to test students in grades four through eight in writing, science and social studies; however, NCLB left substantial latitude as to in what grade students took each subject assessment. As required by all states under NCLB, Texas students in third through eighth grade tested in mathematics and reading yearly. To meet the minimum standard of proficiency for NCLB, Texas students had to score at least at the “met standard” level on TAKS. Met standard levels were as follows:

Table 1

*TAKS Scaled Scores by Subject and Grade*

Subject Grade	Math 6	Reading 6	Math 7	Read 7	Math 8	Read 8
Scale score range	240-944	194-935	302-997	227-1007	320-1025	245-991
Minimum score to meet standard	637	644	670	670	700	700

Concerning exclusionary discipline practices, NCLB authorized the Safe and Drug-Free School Program, which provided funding to “support programs that create safer schools, prevent

violence and drug abuse, and ensure the health and well-being of students by promoting the development of good character and citizenship” (Losen, 2011, p. 3). Schools could fully utilize exclusionary discipline practices provided they also developed character education classes and other behavior modification courses that would serve the removed students. For example, a student in a math class consistently disrupted a teacher’s lesson by using profanity and making obscene gestures. Under NCLB, campus administrators could remove the disruptive student from the regular classroom and assign him to a Disciplinary Alternative Education Program (DAEP) for 10 days. The removed student would continue academic instruction at the DAEP and receive supplemental character education instruction. Schools could not avoid reporting the academic achievement of excluded students by removing them to a DAEP or expelling them to JJAEP. The NCLB Act required schools nationwide to report academic achievement *and* exclusionary discipline practices for all students on a yearly basis (Fenton, 2012). In doing so, NCLB ensured that *all* children had equitable learning opportunities to obtain a high quality education (NCLB, 2001).

Combined, the GFSA, ZT policies, and NCLB accountability standards influenced the effect exclusionary discipline practices had on student academic achievement as measured by statewide assessments. Skiba (2014) contended that school leaders increasingly had to choose between keeping a school safe and keeping disruptive students in school where they could learn. Accountability standards required under NCLB reflected all student scores, including those of excluded students. Therefore, schools had to afford all students the same educational opportunities to learn. Excluding disruptive students from the regular classroom setting decreased their opportunities to learn and thus their opportunity to be equally prepared to achieve

at or above the same levels of their non-removed peers. In separate studies, Gonzalez (2012) and Jones (2013) found that exclusionary discipline practices actually increased student discipline problems because excluded students eventually returned to classes and found themselves academically behind non-excluded students. Feeling they were behind, excluded students gave up, felt they have little or no chance to pass state assessments, and thus, they disrupted the learning environment again.

The use of exclusionary discipline practices as a method for addressing student misbehaviors in the classroom began in the 1960s (Maag, 2012). State policies on exclusionary discipline varied from state to state; however, in Texas, local school boards developed discipline policies that adhered to statutes outlined in Chapter 37: Safe Schools of the Texas Education Code (TEC, 2014, section 37.001 a). School boards used Chapter 37 as a guide to develop local policies for assigning consequences for student misbehaviors such as skipping classes, scuffling, profanity, and dress code. Generally, the consequences for the aforementioned behaviors ranged from a student/parent/teacher conference to ISS or OSS. The local campus administrator, usually the Assistant Principal or the Principal, decided the appropriate consequence for the misbehavior.

Chapter 37 of the TEC specifically outlines exclusionary discipline practices for offenses that are more serious like arson, murder, aggravated robbery and/or sexual assault (Edmiston, 2012). For example, a school administrator is required to remove a student from his or her regular school and place him or her at a DAEP for robbing a convenience store with a gun—classified as aggravated robbery under Texas Penal Code (TEC, 2014, section 37.008 1A). In another example, a school administrator is required to expel a student to a Juvenile Justice

Alternative Education Program (JJAEP) for exposing his or her genitals to a minor child under Section 21.08 of the Texas Penal Code (TEC, 2014, section 37.007 4B). In both cases, Chapter 37 of TEC dictates the removal of a student from the regular classroom setting. Because of the serious criminal nature of the offenses, local board policy does not have authority to allow students to remain at their regular campuses.

Chapter 37 of the Texas Education Code, as well as local board policy contends, that exclusionary discipline practices in any form are last resort consequences when addressing student misbehavior (2014, Section 37.000). Local board policy, dictates that administrators refrain from using exclusionary discipline practices unless behaviors are such that the student poses a significant disruption or safety hazard to the learning environment. In his research, Gladden found that exclusionary discipline, such as suspensions “[did] not modify behavior and can undermine students’ academic achievement” (2002, pp. 263-264). Other studies found Gladden’s research to be true more so at the middle school level because a relationship between suspensions in middle school and dropping out of high school existed (Hemphill, Toumbourou, Herrenkohl, McMorris, & Catalano, 2006; “Suspended education”, 2011; Theriot, Craun, & Dupper, 2010). This called into question whether removed students benefited in any way when administrators removed them from the classroom. In fact, researchers argued that the removal from the classroom “exacerbated returning students’ feelings of frustration, dissatisfaction, and discomfort at school, which might lead to more discipline problems and subsequent school exclusions” (Theriot et al., 2010, p. 17).

Schools from all states are required to report all instances in which administrators employed exclusionary discipline practices since the enactment of the No Child Left Behind Act

of 2001. In Texas, districts transmit exclusionary discipline data to the Texas Education Agency (TEA) via the Public Education Information Management System (PEIMS). The Texas Education Agency collects and submits statewide exclusionary discipline data to the U.S. Department of Education (DOE) as required by NCLB. Based on the local and state data, the DOE has designated some schools persistently dangerous based on the number of exclusionary discipline practices due to violent and disruptive behaviors (Fenton, 2012; NCLB, 2001). Essentially, schools have excluded students from the classroom and/or school campuses to increase academic achievement, but in doing so, they inadvertently achieved a negative persistently dangerous status.

Exclusionary discipline policies emerged as problematic during middle school for several reasons. Middle school years, grades six through eight, are a time when students dramatically change physically, mentally, socially, and emotionally and are often described as awkward. Students between the ages 12 to 14 generally described as the middle school years, experience conflicting values because they are transitioning from elementary (PK-5) to middle school (6-8) (Hilberth & Slate, 2012). The transition is stressful and the resulting anxiety manifests into challenging behaviors such as talking back and refusing to comply with directives (Theriot & Dupper, 2010). In some cases, the stress manifests into serious behaviors like fighting, bullying, and outright violent outbursts.

Middle school teachers further compound the problem because some are ill-prepared to address developmentally appropriate behaviors of 11 to 13 year olds (Hilberth & Slate, 2012). For example, middle school students commonly talk back and want to engage teachers in verbal arguments. According to Losen (2011), "Disruptions tend to increase or decrease with the skill

of the teacher in providing engaging instruction and in managing the classroom,” (p.1). As such, an experienced, engaging teacher refrains from participating in the argument and likely redirects the student in a respectful manner to reengage the student in the lesson, thus ending the situation. Research has shown an inverse relationship between engagement and suspensions, whereby as student engagement in the classroom increased, suspensions decreased (Losen, 2011). Unfortunately, inexperienced teachers often lack the wherewithal to keep students engaged; they become flustered, lack concrete strategies to address or stop the misbehavior, participate in the argument, and thus escalate the situation. The teacher eventually loses control, gives up and refers the student to an administrator, who then assigns an exclusionary discipline consequence such as ISS or OSS. Unintentionally, the teacher and the administrator have actually rewarded the student by sending him or her out of the class and/or out of school (Mitchell & Bendtro, 2013). Furthermore, research has found that once students are suspended a first time, they have a much higher chance of a second suspension than their never-suspended peers. This research gives “evidence that suspension simply reinforces inappropriate behavior” (Garrett, 2013, p. 31). In addition, administrators are not able to implement across-the-board consequences because some students wanted suspension from the classroom to escape the work, while others did not.

Another reason exclusionary discipline at middle school has been problematic is the practice lacks positive influences. Excluded students disconnect from encouraging and safe social interactions provided at school and risk exposure to other negative behaviors while they serve their consequence (Hemphill et al., 2006). For example, students assigned ISS might meet other students in the ISS classroom that also misbehave. They interact and find they have similar deviant behaviors. This connection created another problem in that if those students are

suspended, and they do not have anyone at home to supervise them, they may meet up and further engage in more serious deviant behaviors. According to the Academy of American Pediatrics' Committee on School Health, "Children who are suspended are often from a population that is the least likely to have supervision at home" (2003, p. 1207). Once suspended, these children now have the time and opportunity to meet outside of school and engage in unmonitored negative behaviors and activities. Removal through out-of-school suspension conveniently promotes interaction between students that misbehave and thus increased their misconduct.

Exclusionary discipline is a cyclical phenomenon that promotes continued misbehavior and affects a student's attendance (Han & Akiba, 2011). For instance, an excluded student missed instruction due to a three-day out-of-school suspension. As a result of the OSS, the student fell behind in class, became discouraged, and expressed his or her frustration through inappropriate behaviors. In response, an administrator suspended the student for three more days. The first round of exclusionary consequences led to increased misbehavior, and resulted in three more days of suspension. The first suspension did not decrease or modify the misbehaviors. This raised the question of whether the second suspension modified behavior. Researchers argued no to modified behavior and found that suspended students also actually had a 78% likelihood of dropping out (Lee, Cornell, Gregory, & Fan, 2011). Once the student dropped out, he or she was more likely to participate in criminal activities as evidenced by studies showing that more than 80% of incarcerated adults had been suspended and dropped out of school (Stone & Stone, 2011). Thus, exclusionary discipline has shown to be ineffective at deterring misbehaviors, yet, administrators continue to remove students.

The most prevalent problem associated with exclusionary discipline on middle school students is that they missed large chunks of curriculum instruction while serving their consequence. According to Skiba et al. (2011), the “[o]ppportunity to remain engaged in academic instruction is arguably the single most important predictor of academic success” (p. 104). The teacher was able to continue teaching remaining students once an administrator removed a disruptive student from the classroom, but the excluded student lost prime educational opportunities to learn the academic content (Skiba & Peterson, 2000). Regardless of the reason for the child’s removal, the excluded student is accountable for the same content and material on standardized tests as his or her non-excluded peers. No Child Left Behind accountability standards intentionally included all student test scores in order to ensure schools afforded all students equivalent opportunities to learn. NCLB accountability standards are problematic because “schools with higher suspension and expulsion rates average lower test scores than do schools with lower suspension and expulsion rates” (Garrett, 2013, pp. 30-31). As such, schools that used exclusionary discipline practices to correct misbehavior actually promoted lower academic achievement, especially among removed students.

Students who missed academic instruction due to exclusionary discipline also missed important study time needed for higher performance on the TAKS. School administrators and teachers begin preparing students for TAKS testing on the first day of school and every day thereafter. Some middle school students who entered sixth grade with gaps in knowledge due to previous exclusionary discipline experienced in elementary school were at a disadvantage (Beatty, 2013). These previously excluded students not only were denied classroom instruction but also they were denied additional opportunities to close the knowledge gaps through intensive

after school tutoring, small group instruction, or other educational supports provided within the classroom or at school. By the time these previously excluded students entered middle school, they faced a substantial academic disadvantage over their non-excluded peers. This disadvantage in turn, caused the student frustration that resulted in inappropriate actions, subsequently lead to an administrator suspending them, thus continuing the cycle. Once students have left the classroom, teachers were unable to assess where the student stood academically and behaviorally. Even worse, with no baseline data for those students, teachers were unable to plan long-term academic remediation support, as well as behavioral support to ensure academic success (Riordan, 2006). Thus, exclusionary discipline practices greatly impacted lost instructional time, effective teaching strategies, and student academic achievement on standardized tests.

## **Statement of the Problem**

This study examined the extent of the effects of exclusionary discipline on middle school student academic achievement as measured by the Texas Assessment of Knowledge and Skills (TAKS). As Gonzales (2006) related, middle school students often missed instructional time because of behavioral problems. In Texas, administrators assigned students with behavior problems to one of four exclusionary levels of discipline: ISS, OSS, DAEP or JJAEP. When these students missed instructional time due to exclusionary discipline, it raised the question of how well these students performed on high-stakes testing.

There are four levels of exclusionary discipline employed in Texas schools. The first, In-school suspension (ISS) allows administrators to remove a student from the regular classroom and assigned the student to a highly-structured classroom under the supervision of a school faculty member. The regular classroom teacher then provides class work students complete while in ISS, but the student may or may not receive the accompanying teaching portion of the lesson had they remained in the regular classroom. Texas Education Code as well as local school board policy limits the assignment of ISS to three full instructional school days per incident (TEC, 2014). In this situation, the school retains responsibility for supervision and instruction of a student in ISS.

In the second level, out-of-school suspension (OSS), administrators remove a student from the classroom as well as the campus for up to three full instructional school days. Out-of-school suspension prohibits a student from attending school as well as any before or after school activities or functions during this OSS time. Because the student is not in school, the student does not receive regular classroom instruction and the teacher may or may not provide class

work for the student to complete at home. Texas Education Code and local school board policy limits the assignment of OSS to three full instructional school days per incident (Corpus Christi Independent School District, 2014, p. 20; TEC, 2014c). In this situation, supervision of the suspended student reverts to the parent or guardian. In many cases, parents are not able to stay home with the suspended child, nor are they able to arrange care for the student during their work hours. Thus, the suspended student most likely goes unsupervised throughout the duration of the suspension.

In the third level, removal to a Disciplinary Alternative Education Program (DAEP), school administrators withdraw a student from the regular school campus for a set number of days. The student is required to enroll at the district's DAEP. The DAEP is a campus characterized by strict standardized dress code as well as stringent rules and procedures geared toward modifying inappropriate student behaviors. The DAEP dictates procedures for entry and exit of the campus, lunch, and bathroom privileges. Without fail, teachers, administrators, campus security officers, and campus police supervise DAEP students from the time they arrive on campus to the time they exit the campus. In this situation, the DAEP retains responsibility for supervision and instruction of students. Chapter 37 of the TEC (2014) provides general guidelines for length of assignment to a DAEP ranging from 10 school days to 180 school days.

The fourth level is an expulsion to a Juvenile Justice Alternative Education Program (JJAEP). Administrators withdraw a student from the regular school campus for a set number of school days. The student is required to enroll at a JJAEP, usually operated by the local county Juvenile Justice Center. The JJAEP is a campus characterized by strict standardized dress code, as well as rules and procedures similar to those employed in juvenile correctional facilities. In

this situation, the JJAEP retains responsibility for supervision and instruction of DAEP students. Chapter 37 of the TEC (2014) provides specific guidelines for length of assignment to a JJAEP ranging from 90 school days (half a school year) to 180 school days (a full school year).

In each of the four levels of exclusionary discipline described above, administrators removed students from their regular classroom where they normally received instruction specifically geared to improve their academic achievement. In-school suspension was the only one of the four that allowed middle school students to remain connected to the school campus. The other three, OSS, removal to DAEP, and expulsion to JJAEP, specifically disconnected the student from his or her school campus. Although ISS and OSS were limited to three days out of class per incident, the length of exclusion sanctioned by removal to a DAEP and expulsion to JJAEP was significant. As such, when these students missed instructional time due to any of the four levels of exclusionary discipline, educators and society as a whole should have questioned how well these students performed on high-stakes testing.

### **Purpose of the Study**

The purpose of this study was to examine the relationship between exclusionary discipline practices and the academic achievement of middle school students as measured by reading and mathematics sections of the Texas Assessment of Knowledge and Skills (TAKS) in a South Texas school district. Administrators assigned students any one of four levels of exclusionary discipline: (a) ISS, (b) OSS, (c) Removal to DAEP, or (d) Expulsion to JJAEP. This study had two independent variables: (a) levels of exclusionary discipline and (b) demographic information (gender, socioeconomic status, and special education status), and one dependent variable: The Texas Assessment of Knowledge and Skills (TAKS). The TAKS

assessment has five scales of measurement: (a) Reading; (b) Science; (c) Social Studies; (d) Mathematics; and (e) Writing. Because students were required to test in Writing during grade seven and in Science and Social Studies during grade eight, those subjects were not included in the study. All students in grades six, seven, and eight were required to take reading and mathematics annually. Therefore, this study looked at reading and mathematics. The study examined the use of the four levels of exclusionary discipline to understand their impact on academic achievement of students in middle school. Additionally the study examined the relationship the levels of exclusionary discipline had on gender, socioeconomic status and special education status and academic achievement. The following questions guided this study:

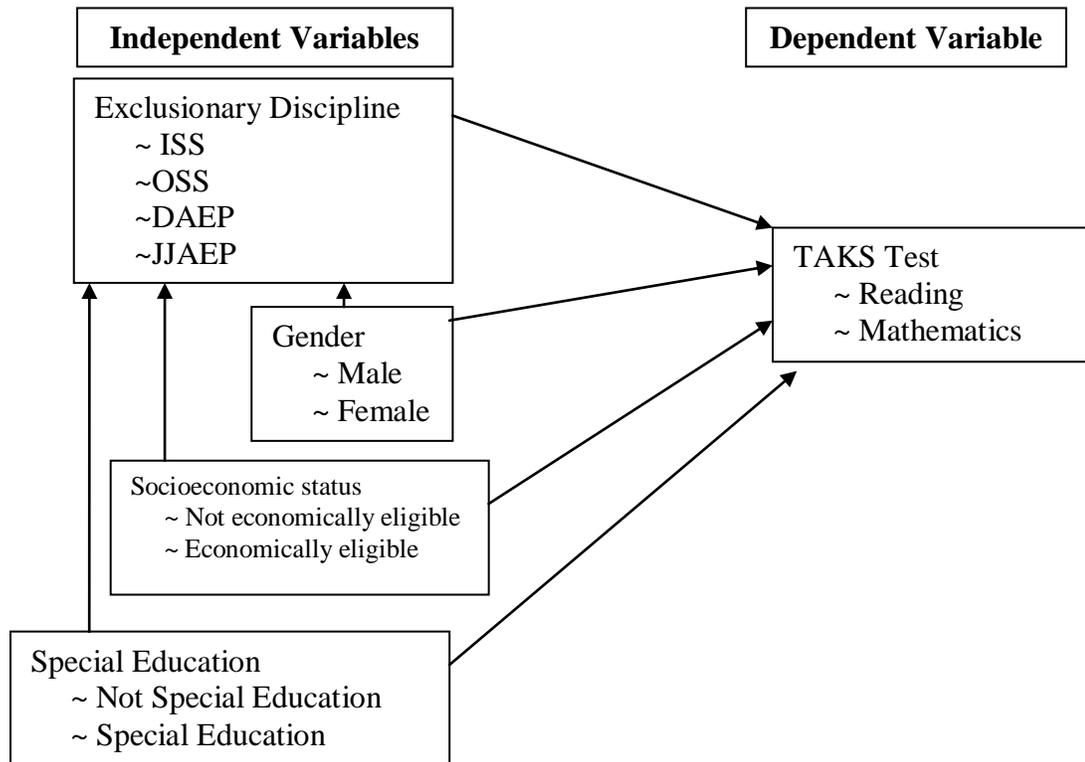
### **Research Questions**

1. What relationship did levels of exclusionary discipline have with academic achievement as measured by reading scores on the TAKS of students in grades 6, 7, and 8?
2. What relationship did levels of exclusionary discipline have with academic achievement as measured by mathematics scores on the TAKS of students in grades 6, 7, and 8?
3. What relationship did gender have at each level of exclusionary discipline with academic achievement as measured by reading scores on the TAKS of students in grades 6, 7, and 8?
4. What relationship did gender have at each level exclusionary discipline with academic achievement as measured by mathematics scores on the TAKS of students in grades 6, 7, and 8?

5. What relationship did SES have at each level exclusionary discipline with academic achievement as measured by reading scores on the TAKS of students in grades 6, 7, and 8?
6. What relationship did SES have at each level exclusionary discipline with academic achievement as measured by mathematics scores on the TAKS of students in grades 6, 7, and 8?
7. What relationship did Special Education Status have at each level of exclusionary discipline with academic achievement as measured by reading scores on TAKS of students in grades 6, 7, and 8?
8. What relationship did Special Education Status have at each level of exclusionary discipline with academic achievement as measured by mathematics scores on TAKS of students in grades 6, 7, and 8?

Figure 1

*Relationships to be tested*



*Figure 1.* This figure identifies the different relationships among independent and dependent variables that will be tested.

**Limitations**

The study included a non-probability sampling; the external validity was limited to the participants of the study. The sample size was twelve middle schools within a South Texas school district (TEA, 2014). Due to time constraints, the study examined data limited to the 2010-2011 school year. Archived data from 2010-2011 school year was used because the 2010-2011 school year was the last year that the Texas Education Agency (TEA) used the Texas Assessment of Knowledge and Skills (TAKS) test for all students in grades 3 to 11. The 2011-

2012 academic year began a transition period to the State of Texas Assessment of Academic Readiness (STAAR) the new system of testing and evaluating students in Texas. At the time of this study, TEA was in the process of developing policies and regulations with respect to STAAR, therefore data from STAAR was not available for use. The study was non-experimental and no casual inferences or generalizations regarding exclusionary discipline practices and academic achievement were drawn. This researcher recommends that future studies include more than one school district and include small, medium, and large districts.

### **Delimitations**

Several delimiting factors were used to narrow the focus of this study. First, the study was delimited to academic achievement in mathematics and reading among students in grades 6, 7, and 8 in a South Texas school district. Second, although discipline and academic achievement data was available for students in grades K-12, for the purpose of this study, only data for the selected participants in grades 6, 7 and 8 was utilized.

### **Definition of Terms**

Definitions of terms came in two forms. There were construct definitions and operational definitions. In the following section, both were described according to general variables, independent variables, and dependent variables. The general variables were middle school and exclusionary discipline. The two independent variables were four levels of exclusionary discipline and two areas of demographic information. The dependent variable was the TAKS test.

## **General Variable**

**Middle School.** The construct definition of middle school was students enrolled in public schools that met the promotion requirements from the previous grade level to enter grade 6, 7, or 8, respectively. If a student enrolled in a public school for the first time, he or she was placed in the appropriate grade according to the following: (a) scores on achievement tests, which may be administered by appropriate District personnel; (b) recommendation of the sending school; (c) prior academic record; (d) chronological age and social and emotional development of the student; (e) other criteria deemed appropriate by the principal (CCISD-FD Local, 2014, p. 2). The operational definition of middle school is students in grade levels 6, 7, and 8 as formally identified by the school district in its official database for TAKS testing.

## **Independent Variables**

The independent variables consisted of four levels of exclusionary discipline and demographic information.

### **Exclusionary Discipline**

The construct definition of exclusionary discipline was the removal of a student from a classroom for (a) behavior documented by the teacher to repeatedly interfere with the teacher's ability to communicate effectively with the students in the class or with the ability of the student's classmates to learn; or (b) whose behavior the teacher determined was so unruly, disruptive, or abusive that it seriously interfered with the teacher's ability to communicate effectively with the students in the class or with the ability of the student's classmates to learn. The principal, or designee, could elect to exclude the student from class by placing him or her into another appropriate classroom, into in-school suspension, or into a disciplinary alternative

education program (TEA, 2013, p. 241). The operational definition of exclusionary discipline was the removal of a student from the regular classroom setting for a partial day (from one to four class periods in a school day) or a full school day (for five or more class periods in a school day) as formally identified by the school district in its official database for discipline. It had four categories: (a) ISS; (b) OSS; (c) DAEP; and (e) JJAEP.

**In-School Suspension (ISS).** The construct definition of ISS was the removal of a student from the regular classroom and his or her placement in an alternate, isolated classroom designated by the principal that was highly structured and supervised by a campus staff member. The placement was due to behavior identified as conduct for which a student may be placed in ISS in the district's Code of Conduct (TEA, 2013, p.287). The operational definition of ISS was the removal of a student from the regular classroom setting for a partial day (from one to four class periods in a school day) or a full school day (for five or more class periods in a school day) as formally identified by the school district in its official database for discipline.

**Out-of-School Suspension (OSS).** The construct definition of OSS was the removal of a student from the regular classroom setting as well as all school activities on or off campus for up to three full days due to behavior identified as conduct for which a student may be suspended in the district's Student Code of Conduct (TEA, 2013, p. 241). The operational definition of OSS was the removal of a student from the school campus for a partial day (from one to four class periods in a school day) or a full school day (for five or more class periods in a school day) as formally identified by the school district in its official database for discipline.

**Removal to a Disciplinary Alternative Education Program (DAEP).** The construct definition of removal to a DAEP was the removal of a student from a regular education setting to

an alternate setting on or off campus due to behavior identified as conduct for which a student may be removed to a DAEP in the district's Student Code of Conduct (TEA, 2013, p. 235). The operational definition of removal to a DAEP was a student removed from the school campus and placed at the district's DAEP for ten to 180 days as formally identified by the school district in its official database for discipline.

**Expulsion to a Juvenile Justice Alternative Education Program (JJAEP).** The construct definition of expulsion to JJAEP was the expulsion of a student from either a regular education setting or a DAEP setting to a JJAEP campus operated by the county's Juvenile Justice Board and supervised by the Texas Juvenile Justice Department due to behavior identified as conduct for which a student may be expelled to a JJAEP in the district's Student Code of Conduct. Generally, JJAEP has a current Memorandum of Understanding with districts within the county to provide education services to expelled students for a period not to exceed one calendar year for all other violations pursuant to Texas Education Code Section 37.007 (TEA, 2013, pp. 236-239). The operational definition of expulsion to a JJAEP was the removal of a student from either a regular education setting or a DAEP to a JJAEP for 30 to a maximum of 180 days as formally identified by the school district in its official database for discipline.

## **Demographics**

Demographics for this study consisted of three areas: gender, socioeconomic status, and special education status.

**Gender.** The construct definition of gender was the state of being male or female (Merriam-Webster online dictionary, 2014, para1). The operational definition of gender was

whether a student identified as male or female. The PEIMS system uses the following notation to identify gender: 1 = Male; 2 = Female.

**Socioeconomic status.** The construct definition of socioeconomic status was the social standing or class of an individual or group that was measured as a combination of education, income and occupation (American Psychological Association.org, 2014, para.1). The operational definition of socioeconomic status was the determination of a student as economically disadvantaged or not as measured by his or her eligibility to participate in the district's Free/Reduced Lunch Program. The PEIMS system uses the following notation to identify socioeconomic status: 0 = Not eligible to participate/not economically disadvantaged; 1 = Eligible to participate/economically disadvantaged.

**Special education.** The construct definition of special education status was an individual that had a disability and as a result of the disability, he or she needed special education services to benefit from education (Statewide Leadership for the Legal Framework Project Team, 2012, p. 4). The operational definition of special education was whether a student was eligible and received special education services in order to benefit from education. The PEIMS system uses the following notation to identify special education: 0 = Does not receive special education services; 1 = Receives special education services.

### **Dependent Variable**

The dependent variable was based on the TAKS test. Although the TAKS test had five aspects to it, this study used only the two that all middle school students take.

### **TAKS Test**

The TAKS test had two categories: reading and mathematics.

**Reading.** The construct definition of the TAKS reading exam was students thought critically, made connections, understood and applied specific vocabulary, understood how authors crafted a piece of literature, and understood differences between effective and flawed text evidence (TEA, 2004, p. 4-6). The operational definition of TAKS reading was the level of acceptable score for Satisfactory Academic Performance at 644 for grade 6; 670 for grade 7; and 700 for grade 8.

**Mathematics.** The construct definition of the TAKS mathematics exam was students thought logically, solved problems, and understood spatial relationships so they might have the foundation necessary for students to succeed in advanced math and science courses and later in their careers (Texas Education Agency, 2007, p. 4). The operational definition of TAKS mathematics was the level of acceptable score for Satisfactory Academic Performance at 637 for grade 6; 670 for grade 7; and 700 for grade 8.

### **Glossary of Terms**

**Discipline Alternative Education Program:** Referred to as the district's DAEP. Texas legislative policy adopted in 1995 required all districts to establish an alternative educational setting for behavior management (TEC, 2014b).

**The No Child Left Behind Act:** Public Law 107-110, reauthorized the Elementary and Secondary Education Act, with the purpose of ensuring that all children had a fair, equal, and significant opportunity to obtain a high-quality education and reach, at a minimum, proficiency on challenging State academic achievement standards and state academic assessments (NCLB, 2002).

**The Public Education Information Management System:** Referred to as PEIMS. This

was a data management program utilized by the state of Texas that included all student records including, academic history, personal information, demographics, and any other relevant data (TEC, 2014).

**Student Code of Conduct:** Chapter 37 of the Texas Education Code defines the parameters from which districts develop and organize behavior infractions (TEC, 2014b).

**The Texas Assessment of Knowledge and Skills:** Referred to as TAKS. The Texas Assessment of Knowledge and Skills (TAKS) assessments were designed to measure the extent to which a student learned and was able to apply the defined knowledge and skills at each tested grade level.

### **Significance of the Study**

Discipline has been a part of schools since schools were first developed. Children of all ages inherently display some form of misbehavior in school. For most, the misbehavior may be as simple as talking too much or not following directions. For others, misbehavior like fighting, assaulting a teacher, or threatening to shoot someone at school are more serious and significantly interrupt instruction in the classroom. School administrators assign consequences for misconduct, ranging from a student-parent conference for minor infractions to an expulsion from school for serious criminal-related infractions (CCISD, 2014). Consequences are necessary to maintain an environment conducive to learning. However, exclusionary consequences have become problematic because research has shown that exclusionary discipline does not successfully modify behavior nor decrease misconduct. Furthermore, several studies have shown that exclusionary discipline consequences actually make the situation worse because the students who are excluded from the general education classroom miss instruction, fall behind in

class, become frustrated, and end up acting out their frustration (Hemphill et al., 2006; Sharkey & Fenning, 2012; Theriot et al., 2010).

This occurrence was especially problematic in middle school grades 6, 7, and 8. During middle school grades, students experience tremendous change in their minds, bodies, and life in general. For that reason, middle school students often missed instructional time in the classroom because of their misbehavior. As they generally experienced puberty during middle school, many had difficulty expressing themselves in appropriate manners. The behavior was perceived as disruptive to the classroom, impeded a teacher's ability to teach, and infringed on other student's opportunity to learn. To address the situation, school administrators assigned the misbehaving student to one of four exclusionary levels of discipline: (a) ISS; (b) OSS; (c) Removal to a DAEP; or (d) Expulsion to a JJAEP. Although the situation was alleviated within the classroom, the excluded student missed valuable in-class instruction. This exclusion became problematic because research clearly showed that a student's opportunity to stay engaged in instruction within the classroom was a significant predictor of academic achievement (Skiba et al., 2011).

Despite their exclusion from instruction, students were still responsible for learning the material and performing at a minimum level of proficiency on state standardized academic assessments. However, the question of how well they performed on the standardized assessments if they were not present for instruction was raised. Because previous research findings have shown that a relationship between exclusionary discipline consequences and academic achievement exists, outcomes from this study might provide middle school administrators with data that may change the use of exclusionary discipline consequences on

their campus as well as other campuses throughout the district. Outcomes of the study could prompt state education leaders to consider revising and/or developing alternative discipline strategies that keep students in school, engaged in the academic content and on-track to achieve proficient on state assessments of academic achievement.

## **Chapter II**

### **Review of the Literature**

#### **Introduction**

High-stakes testing and stringent accountability standards established under No Child Left Behind (NCLB) systematically changed schools across America (Bush, 2001, p. 2). Each year schools develop, grow, and empower its teachers to provide students with a high-quality education. The U.S. Department of Education and state education agencies measure teacher performance via student performance on standardized tests (Carroll, 2008). However, performance on a standardized test does not reflect what is really going on within the classroom walls in terms of teaching, learning, or discipline. For example, Student James is so disruptive in class that he interferes with the teacher's lesson and thus the learning of other students. Consequently, administrators remove Student James from the classroom and assign him some form of exclusionary discipline like in-school-suspension (ISS). His behavior becomes a daily routine, therefore, administrators continue to use graduated exclusionary discipline practices like out-of-school suspension (OSS) and removal to a disciplinary alternative education program (DAEP). Student James is still responsible for knowing the material tested by the standardized test, regardless if he is in class or not. Therein lays the problem that was the focus of this study: What was the relationship between exclusionary discipline practices and academic achievement of middle school students as measured by reading and mathematics sections of the Texas Assessment of Knowledge and Skills (TAKS).

Chapter two examined the literature and research related to the topic of this study. The purpose of this study was to examine the relationship between exclusionary discipline practices and the academic achievement of middle school students as measured by reading and

mathematics sections of the TAKS in a South Texas school district. This chapter was organized into five major categories: (a) early adolescent development; (b) history of exclusionary discipline practices; (c) controversies surrounding exclusionary discipline practices; (d) standardized testing in Texas; and (e) summary. The researcher utilized the following databases and search engines to retrieve literature for the study: the Mary and Jeff Bell Library at Texas A&M University - Corpus Christi, EBSCO, ERIC, SAGE, Google, and Google Scholar.

### **Five Stages of Early Adolescent Development**

Early adolescence is a distinct developmental stage during which children ages ten to fourteen experience rapid and significant growth and change. Early psychologists and theorists, including G. Stanley Hall (1904), Flavell (1963), Havighurst (1968), and Piaget (1952 & 1960) identified early adolescence as a time when children undergo intense physical and mental changes that influence their cognition, emotions, and behavior. Furthermore, contemporary researchers have asserted that adolescence is a time of critical growth in the structure and function of the brain, second only to the first three years of life, in terms of major developments and drastic changes (Steinberg, 2011). As such, brain growth and physiological changes related to puberty are key factors in adolescent development (Roaten & Roaten, 2012).

Researchers Caskey and Anfara (2007) identified five categories of development in early adolescents. They are (a) physical, (b) intellectual, (c) moral/ethical, (d) emotional/psychological, and (e) social. Although identified as five distinct categories, Caskey and Anfara (2007) did not study the early adolescent developmental characteristics in isolation. Other researchers, such as Scales and Bolstrum (2003) supported Caskey and Anfara's contention and acknowledged that the five categories of development were significantly interconnected and overlapped.

**Physical.** Early adolescence, generally regarded as the middle school years, is most commonly associated with extreme physical changes related to puberty (Manning & Bucher, 2005). According to Kellough and Kellough (2008) and Steinberg (2011), excluding birth to two years of age, early adolescents undergo more physical and developmental changes than at any other time in their life. Growth and change in early adolescence is not always steady or gradual. In fact, some significant increases in height, weight, and internal organ size occur over the course of two or three days (Kellough & Kellough, 2008). Periods of rapid growth cause early adolescents to appear lanky, uncoordinated, and clumsy. This is in part due to bones growing faster than muscles, which causes adolescents to have difficulty with natural movements (Wiles, Bondi, & Wiles, 2006). These extreme changes and bursts of spontaneous rapid physical growth among body parts or features sometimes do not occur in sync and are difficult for the child to endure. Additionally, puberty, triggered by the development of sexual reproductive systems and hormone changes, further convolutes and intensifies the extreme physical changes experienced during early adolescence. For example, hormones activated during puberty induce the development of gender characteristics. In girls, the characteristics include the development of breasts, beginning of menstruation, and increases in height, weight, and physical appearance (Perry, 2012). In boys, the characteristic changes include facial hair, increased appetite, changes in voice, and growing muscle development (Dahl, 2004). Essentially, puberty and the associated growth and change process are an awkward time because “it fundamentally disrupts the relatively smooth development of the elementary school years and has a profound impact upon the cognitive, social, and emotional lives of young teens” (Armstrong, 2006, pp. 112-113).

Early adolescents want to be independent, but they also want peer acceptance. The seemingly polarized wants exemplify the challenges occurring within the intellectual

development stage of early adolescence. The rapid, awkward, and significant physical development among early adolescents is a mitigating factor that contributes to their behavior while in school. For example, a female student felt self-conscious because her breasts appeared to develop significantly faster than some of her classmates (Jaiyesmimi, 2012). To counteract the change, the female changed her everyday attire to included larger, looser fitting shirts. Other students remarked that she no longer wore the form-fitting brand name shirts she once wore. The female experienced anxiety and began to act out during her gym class. The female's behavior exhibited intentional avoidance of situations in which her breast size was a factor. Her experiences are all too common among early adolescent females (Dubuis, 2012; Perry, 2012).

**Intellectual.** While the physical body of an early adolescent is growing, his or her brain simultaneously undergoes remarkable development. Brain researchers, Blakemore and Choudhury (2006) found that early adolescents show significant changes within the brain, not the size of the brain itself, but rather the connections and functions within the brain begin to rapidly develop, grow, and expand. Though brain development is not as easily observed as physical development, Stevenson (2002) reported that the process is equally, if not more, intense. Researchers mark brain growth during early adolescence by the ability to transfer from concrete thoughts to abstract ideas and understanding (Manning, 2002). For example, students found they were able to develop and test hypotheses, analyze and synthesize data, grasp complex concepts, and think reflectively about what they had experienced and learned. Most importantly, early adolescents found they were independently capable of thinking critically, applying previously learned information, and developing well thought out arguments (Stevenson, 2002). The advancement of their brain activity during early adolescence is termed by brain researchers as a period of brain "reconstruction" (Roatin, 2012, p. 6). Early adolescent minds are akin to sponges

soaking up everything, especially if it is a topic they enjoy or that with which they develop a connection. Critical thoughts, beliefs, interests, abilities, and skills develop during reconstruction are expected to endure a lifetime or they might be lost forever depending on the overall experience. Coupled with the ability to work with peers, allowing them to talk and interact with one another, early adolescents are more inclined to participate in active, hands-on learning (Stevenson, 2002). For example, Feinstein (2009) stated, “If they aren’t reading, doing science, or solving problems, the synapses [within the adolescent brain] for those activities will be pruned and lost forever” (p. 11). The early adolescents realize they can think, synthesize information, and create new meaning of the world around them. Researchers Kellough and Kellough (2008) argued that this is why early adolescents gravitate and learn through real-life experiences and authentic learning opportunities.

The developing early adolescent brain is no longer satiated with dull concrete information teachers used to teach in elementary school. According to Armstrong (2006), teaching early adolescents in the same manner as elementary students is especially problematic because their brains do not develop, function, or learn as they did in elementary school. For example, middle school teachers untrained in dealing with the intellectual learning styles of early adolescents could influence the child’s behavior at school. If students are not engaged in the lessons, do not understand the connection to real-life, or are bored with the standard lecture, they may act out in class. In one classroom, student Martha hated attending reading class because the teacher sat at the front of the class and read from a book. Martha said the class was boring and she often fell asleep. The teacher constantly redirected Martha’s sleeping with little success. Unbeknownst to the teacher, Martha’s sleeping could have been corrected if the lesson was designed with Martha’s intellectual development needs in mind.

**Moral/Ethical.** In addition to physical and intellectual growth, early adolescents typically begin to develop moral and/or ethical development during the middle school years. According to Seider, Novick, and Gomez (2013), moral character consists of the qualities relevant to striving for ethical behavior in one's relationships with other individuals and communities. More specifically, Marshal, Caldwell, and Foster (2011) contended that morality among early adolescents focuses on interpersonal behaviors where there is a right or wrong action. They stated:

Such moral behavior refers to actions such as bullying, stealing, and name calling that impact on others and have their underlying foundation in justice and the welfare of others. Defined this way, morality is embedded in actions that pertain to the welfare and fair treatment of individuals (p. 52).

As an example of moral and ethical growth among adolescents, student John and his classmates were engaged in a debate on the effects of divorce on students. Student John was aware of two students within the class whose parents were divorcing. Student John understood that it would have been morally wrong to identify the students to classmates, an action that would likely have embarrassed and humiliated the two students. Though he knew the divulgence of this information might raise his social standings amongst his peers because he was in the know, he was able to understand the implications upon the ousted student. Thus, early adolescent's increased metacognitive abilities allowed them to analyze their place within the world and the influence their individual actions had on others.

**Emotional/Psychological.** The dramatic changes early adolescents endure because of physical, intellectual, and moral/ethical developments impacts their emotional and psychological development as well. In one study, Rogal, Clark, and Roemmich (2000) found that early

adolescents gain up to 50% of their adult weight as they experience puberty. As part of the weight gain, females “[developed] wider hips and a smaller waist with the female shape developing as fat [was] laid down on the buttocks, abdomen hips and the legs” (Perry, 2012, p. 276). Males experience significant changes in physical appearance, such as extensive bone growth and muscle development, as well as changes in facial and bodily hair growth. These highly visible changes in physical appearance cause early adolescents to feel self-conscious, which, in turn, leadsto lower self-esteem as well as a high sensitivity to criticism of their unique changes in physical appearance (Scales & Bolstrum, 2003). Amidst dramatic physical changes, early adolescents begin to search, identify, and define their own persona (Knowles & Brown, 2000). However, in their search to define themselves, Perry (2012) found that the emotional and psychological impacts of the changes caused ambivalence among early adolescents.

Additionally, early adolescents’ search for identity exacerbates feelings of vulnerability as they are more keenly attuned to the differences between self and others (Scales & Bolstrum, 2003). Coupled with hormonal changes, early adolescents are moody, restless, and exhibit erratic and inconsistent behavior ranging from severe anxiety to showy bravado (Kellough & Kellough, 2008). The range of emotions triggers adolescents to act out, exhibit childish behavior patterns, and vocalize naive opinions or one-sided arguments. These behaviors are problematic in middle school because the students already face a plethora of chaos due to puberty, without adding discipline and punishment to the mix. As such, researchers best described the period of early adolescence as intense and unpredictable (Scales & Bolstrum, 2003).

**Social.** Caskey and Anfara’s (2007) final developmental characteristic common to early adolescence is social development. Concerning social development, early adolescents desperately felt the need to belong to a group. Scales and Bulstrom (2003) contended that this

need for peer acceptance and approval overwhelmingly becomes more important than the need for parental approval. Often adolescent peer groups "[c]an boost young adolescents' self-esteem" (Manning, 2002, p. 32). Furthermore, acceptance into a peer group prompts many early adolescents to exert self-confidence in their ability to make decisions sans parental involvement. To the early adolescents, friendships and peer interaction is paramount. Unfortunately, traditional classroom instruction limits opportunities for students to work collaboratively and within safe peers groups of a class. The inability to interact and converse with friends and peers within the classroom triggers inappropriate behaviors. For instance, a standard classroom where the teacher lectured and students took notes created classroom management issues because students in middle school needed the peer interaction. If they were unable to connect with others, they became anxious and unruly. It was not within their developmental capacity to sit quietly and wait for teacher instruction. They typically tried to test the limits of acceptable behavior and readily challenged or outright opposed adult authority (Scales & Bolstrum, 2003).

**Middle School and Behavior.** According to Sprague et al. (2001), middle school is the time when students have the most incidents of misbehavior as documented by office referrals. Without the context of the research about early adolescent development, the behaviors previously described are unacceptable within any school environment. Educators, including Donald Eichhorn, John Lonsbury, William Alexander, and Gordon Vars, advocated for the creation of middle schools that purposefully considered and addressed the unique needs of early adolescent learners (Caskey & Anfara, 2007). They supported the position that the developmental needs of early adolescents should shape and directly influence the whole structure of the middle school.

In 1963, William Alexander, chairperson of the department of education at George Peabody College, gave a speech at Cornell University that prompted the middle school movement (National Association of Elementary School Principals, 2004). In his speech, Alexander specifically criticized the junior high school format as a mere extension of teaching and learning that takes place in elementary where teachers use the same strategies and methods designed for use with children in the early stages of brain development (Armstrong, 2006). According to Alexander, teaching junior high students in the same manner as elementary students is problematic because their brains do not develop, function, or learn as they did in elementary school. Nor are their brains advanced as in adolescence normally seen in high school. As such, Alexander argued that school systems should break the traditional junior high structure and establish an intermediate or middle school between elementary and high school that specifically targets the developmental needs of early adolescent students in middle school (Armstrong, 2006). Alexander based his argument on the drastic changes that an early adolescent undergoes during puberty. Early adolescents express their discomfort with the physical, mental, emotional, psychological and social chaos that ensues at the onset of puberty through misbehaviors at school. If a school does not consider the five developmental characteristics in the overall structure of the school, misbehavior in reaction to the inappropriate methods for teaching early adolescents manifests in various ways. Middle school students experience self-consciousness because of their changing bodies and react by pointing out and making fun of other student's bodily transformations. As an example, one student felt ostracized by his or her peers and thus began to write short stories in which a fictitious student carried out acts of violence against certain school related groups such as football players or cheerleaders. Overall, these misbehaviors lead to disciplinary consequences, some minor, such as after school

detention, or some more serious involving the use of exclusionary discipline practice such as ISS, OSS removal to at DAEP, or expulsion to a JJAEP.

### **History of Exclusionary Discipline Practices**

**Early Years.** Exclusionary discipline refers to disciplinary actions that remove a student from the regular classroom setting (i.e., in-school suspension, out-of-school suspension, expulsion). According to Cohen (2013), public schools in the United States embedded exclusionary discipline practices within district and campus culture as a means to maintain safety and order in schools. Though the use of exclusionary discipline was traced back to early American Schools (Conte, 2000), two reports published by the Children’s Defense Fund (CDF) in the mid-1970s initiated significant attention on the impact of exclusionary discipline on students. The two reports *Children out of School in America* (Children’s Defense Fund, 1974) and *School Suspensions: Are They Helping Children?* (Children’s Defense Fund, 1975) focused on gaining a better understanding of (a) how administrators used suspensions, (b) why administrators used suspensions, and (c) what suspensions meant for students. Cohen (2013) reported, “These studies offered the first large scale, systematic analysis of the use of exclusion in schools” (para. 2). The Children’s Defense Fund researchers concluded:

[Suspensions] harm the children involved and jeopardize their prospects for securing a decent education...They have become a crutch enabling school people to avoid the tougher issues of ineffective and inflexible school programs; poor communications with students, parents, and community; and a lack of understanding about and commitment to serving children from many different backgrounds and with many different needs in our public schools (1975, p. 10).

More than 30 years later, Noltemeyer and McLoughlin (2010), as well as other research projects whose focus was on exclusionary discipline (Harvard Civil rights Project, 2000; Justice Center, 2011), found that public schools in the United States persistently rely on exclusionary discipline in schools.

**Media Hype and Legislation.** In the 1980s, Tipper Gore, wife of former Vice-President Al Gore, led a movement to require record companies to clearly advertise, rate, and label music that contained explicit lyrics and/or included lyrics depicting violence (Driscoll & Geier, 2013). Gore formed the Parent Music Resource Center (PMRC) in 1985 (Cellanie, 2012) in an effort to increase parental awareness of musical lyrics that were sexually explicit, excessively violent, or glorified the use of drugs and alcohol. The PMRC claimed that increased violence in some music lyrics directly influenced increasing crime rates (Robinson et al., 2011). Some popular examples of music targeted by PRMC included Elvis Costello's "Beaten to the Punch" (1980) and "Knuckles" (1981), both which include lyrics detailing domestic violence. Gore's campaign for mandated labeling of explicit or violent records was mildly successful in that it prompted record companies to voluntarily rate and label records. Furthermore, researchers contended that there was no documented direct causal link indicating that consuming violent entertainment leads to violent behavior (Ferguson, 2011; Grimes, Anderson, & Bergen, 2008). Despite a lack of research to support the connection between violent entertainment with violent acts, the movement found some success in that it spotlighted the media's emerging role in driving public opinion regarding violence (Robinson et al., 2011).

Realizing their potential to influence public opinion, the media sensationalized a series of relatively small, though in no way less meaningful, incidents of violence that occurred in the United States in the early 1990s. For example, researchers Fox and DeLateur (2014) pointed out

the media's reporting on two violent incidents that occurred in 1991. The incidents were: (a) a 35-year-old gunman killed 23 people at a cafeteria in Killeen, Texas; and (b) a disgruntled graduate student murdered five at the University of Iowa. The researchers found the media coverage of the two incidents to be exceptionally sensationalized; thereby causing a nationwide scare that there would be a mass murder at a Northeast college on Halloween (2014). Extensive media coverage caused many citizens to assume incidents of violence at school and among youth was quickly rising (Cornell, n. d.). Had the public checked the factual data regarding school violence, they would have found that school violence was on a clear downward trend in the 1990s (National School Safety Center, 2003).

The well-defined requirements of the GFSA of 1994 meant that schools needed a quick yet comprehensive structure in place in order to immediately comply. Rather than developing new policies from scratch, schools turned to Zero Tolerance (ZT) policies that were already in place. The existing ZT policies were developed in the 1980s to combat increasing drug use in schools and as part of America's war on drugs (Jones, 2013; Williams, 2013). Concerning drugs, under ZT, administrators dealt out strict, across-the-board consequences for any and all drug infractions that occurred on or near a public school (Martinez, 2009). Schools took the established ZT policies that were originally aimed at drug infractions and expanded them to a broader range of inappropriate behaviors. Whereas the original ZT policies only applied to drugs, the newly expanded ZT policies implemented post-GFSA of 1994 included, but were not limited to infractions, such as fighting, scuffling, smoking, bullying, and profanity (Shah, 2011; Skiba, 2014; Williams, 2013). Schools were only mandated to assign at least a one-year expulsion to any student that brought a gun to school—a *minimal* requirement. In other words, schools only had to implement that specific consequence. However, according to Williams

(2013), ZT policies no longer applied only to guns, but it applied to any sharp objects that could be perceived as a weapon (butter knives), illicit drugs as well as over the counter drugs (aspirin), alcohol, bullying, harassment, and a myriad of other minor infractions (Shah, 2012 & 2013). The consequences per infraction varied from district to district, but “[g]iven the climate of the time and the legitimate concern over school safety, the GFSZ laid the foundation for very aggressive school expulsion/suspension policies throughout the country” (Williams, 2013, para. 3).

**Gun Free School Zone Act of 1990.** The media successfully persuaded the public to believe that violence in schools was a rapidly increasing issue, despite National School Safety Center (2003) data to the contrary. In response to public opinion, Congress and President George H.W. Bush enacted the Gun-Free School Zone Act (GFSZA) of 1990. Congress regulated the act under the U.S. Commerce Clause of the U.S. Constitution. Provisions of the act made it a federal crime “for any individual knowingly to possess a firearm...at a place that the individual knows, or has reasonable cause to believe, is a school zone” (American Academy of Pediatrics, 2003, pg. 1206-1207). The GFSZA was short lived in that it was found to be unconstitutional by the U. S. Supreme Court as it was written under the Commerce Clause (Zirkel & Covelle, 2009).

**Gun Free School Act of 1994.** Extensive media coverage regarding school violence continued across America. In light of the GFSZA failure and in response to growing concerns, Congress and President Bill Clinton enacted the Gun Free Schools Act (GFSZ) of 1994. The GFSZ was a more developed and defined in that it specifically outlined two requirements to which schools had to adhere to be eligible for federal education dollars. The requirements were as follows: (a) states receiving federal funds were obligated to initiate and enforce at least a one

year expulsion for any student who brought a gun onto a school campus (GFSA, 1994); and (b) compliance with the GSFA was mandatory or schools would be ineligible to receive funding under the Education Act of 1965 that supports economically disadvantaged and at-risk youth (Molsbee, 2008).

The broadening of ZT policies under GFSA was, according to Jones (2013), relatively smooth because it played upon the public's fear the schools were in imminent danger, a fear heightened by persuasive media propaganda. Skiba (2014) provided a concise explanation of the philosophical foundation behind ZT policies:

At the core of zero tolerance philosophy and policy is the presumption that strong enforcement can act as a deterrent to other potentially disruptive students. Relying primarily upon school exclusion, out-of-school suspension and expulsion and increases in security and police presence, the philosophy of zero tolerance is based on the "broken-window" theory. The theory is that communities must react to even minor disruptions in the social order with relatively strong force in order to "send a message" that certain behaviors will not be tolerated. Conversely, zero tolerance advocates believe that the failure to intervene in this way allows the cycle of disruption and violence to gain a solid toehold in our schools and community (p. 28).

Concerning the increased application of ZT policies post-GFSA of 1994, the 1999 Columbine shooting where two students shot and killed twelve students, one teacher, and then themselves, solidified the continued use of ZT policies in schools across America (Lamb, 2008).

**No Child Left Behind.** A few years following the implementation of the GFSA of 1994, the No Child Left Behind Act (NCLB) of 2001 was enacted. According to Dee and Jacob (2011), "The No Child Left Behind (NCLB) Act [was] arguably the most far-reaching education

policy initiative in the United States [and it] dramatically expanded federal influence over the nation's more than 90,000 public schools" (p. 418). According to Ladd (2007), there existed a perception that public education in the U.S. at both the elementary and secondary levels was persistently fragmented and unfocused. In response to the perception, President Bush and Congress adopted NCLB to improve the focus and productivity of public schools. In his executive summary of the NCLB act, Bush stated that NCLB would achieve four general goals: (a) increase accountability for student performance; (b) focus on what works; (c) reduce bureaucracy; and (d) empower parents (2001, p. 2). Overall, Bush expected NCLB to serve as a framework from which stakeholders could draw to strengthen elementary and secondary schools. Furthermore, by adopting the NCLB act, Bush exemplified his educational agenda concerning public schools as well as their mission "to build the mind and character of every child, from every background, in every part of America" (2011, Forward).

The purpose of NCLB was to implement a nationwide school accountability system. The mandate of NCLB applied to all public schools and students enrolled within respective states. According to Bush (2001), historically, state and local governments were responsible for the education of its youth, however, he argued that the federal government should take on greater responsibility to regulate and monitor that public schools were actually providing students with a high-quality education. Concerning increased federal oversight, NCLB required states to introduce school accountability systems that applied to all public schools and students. For the most part, the federal government allowed states wide latitude to develop statewide accountability standards. Nonetheless, NCLB (2001) required states to include four nonnegotiable components: (a) states had to assess public school students in reading and mathematics in grades three through eight and at least once in grades 10 through 12; (b) states

had to rate schools performance based on overall student performance and subgroup performance on the Texas Assessment of Knowledge and Skills; (c) schools within the state had to make documented adequate yearly progress (AYP) towards the stated goal of having all students achieve proficiency in reading and mathematics by the 2013-2014 school year; and (d) states had to implement rewards and a series of progressive increasing sanctions for persistently low-performing schools that receive federal funding to support at-risk and low socioeconomic status students. Concerning AYP, schools had to meet the standard first using all student scores campus wide and in the eight designated subgroups: American Indian, Asian/Pacific Islanders, Black, Hispanic, White, special education, limited English, and economically disadvantaged students. Accordingly, Texas students had to score at least at the “met standard” level on TAKS.

The standards were as follows:

Table 2

*TAKS Scaled Scores by Subject and Grade*

Subject Grade	Math 6	Reading 6	Math 7	Read 7	Math 8	Read 8
Scale score range	240-944	194-935	302-997	227-1007	320-1025	245-991
Minimum score to meet standard	637	644	670	670	700	700

Not only did NCLB change the academic assessment requirements as part of school accountability, NCLB also included discipline requirements by reauthorizing the GFSA. The reauthorization of the GFSA extended the regulatory reach of the federal government on schools. Specifically, the GFSA: (a) required that schools refer all students in violation of ZT firearm policies to the juvenile justice system; (b) provided federal funding to schools committed to increasing school safety by expanding ZT policies from firearms to a range of other infractions

including violent or persistently disruptive students; (c) empowered teachers with a standardized method for removing persistently disruptive students from the classroom; and (d) required states to report incidences of drugs or violence and identify schools within the state that were considered persistently dangerous (Jones, 2013; Rudalevige, 2003).

State accountability systems were required to include the GFSA component, aptly named the Safe and Drug-Free School Program, which focused on keeping students safe through discipline, specifically exclusionary discipline practices (NCLB, 2001). The program provided funding to “support programs that create[d] safer schools, prevent[ed] violence and drug abuse, and ensure[d] the health and well-being of students by promoting the development of good character and citizenship” (Losen, 2011, p. 3). Schools utilized exclusionary discipline practices as they saw fit; however, they were required to provide character education classes and other behavior modification courses that served the removed students. For example, a student in a mathematics class consistently disrupted a teacher’s lesson by using profanity and making obscene gestures. Under NCLB, campus administrators removed the disruptive student from the regular classroom and assigned him to a DAEP for 10 days. The removed student continued academic instruction at the DAEP and received supplemental character education instruction. Schools could no longer concentrate solely on academic achievement while leaving excluded students behind. The NCLB Act required schools nationwide to report academic achievement *and* exclusionary discipline practices for all students on a yearly basis (Fenton, 2012). In doing so, NCLB ensured that *all* children had equitable learning opportunities to obtain a high quality education (NCLB, 2001).

**Chapter 37: Safe Schools of the Texas Education Code.** State policies on discipline developed under the reauthorized GFSA varied from state to state. However in Texas, Chapter

37: Safe Schools of the Texas Education Code (2014, section 37.000) is the statute that governs exclusionary discipline practices. Chapter 37 clearly defines student behavioral expectations and is framed in language that criminalizes what was “once deemed usual, if annoying, behavior by adolescents” (Reyes, 2006, p. 5). Though the policy originally focused on removing serious juvenile offenders like sexual offenders, aggravated robbers, and violent students from classrooms, it has become common practice to remove students for minor offenses like scuffling, horse playing, and bullying. Furthermore, both state and local school discipline policies include significant connections with law enforcement agencies, including police officers, juvenile judges, probation officers and other state policy makers (Reyes, 2006). Chapter 37 is “intricately interlocked with the state Penal Code, the Family Code, the Government Code, the Human Resource Code for the Texas Juvenile Commission, the Alcoholic Beverage Code, the Criminal Procedures Code, and the Health and Safety Code” (Reyes, 2006, p. 5).

Chapter 37 of the Texas Education Code clearly states that exclusionary discipline practices, in any form, are last resort consequences when addressing student misbehavior (2014, Section 37.000.) Administrators refrain from assigning any exclusionary discipline practices unless behaviors are such that the student poses as significant disruption or safety hazard to the learning environment. The removal is a last resort because research found that exclusionary discipline such as suspensions or expulsions “[do] not modify behavior” (Gladden, 2002, pp. 263-264). Other studies found this to be true more so at the middle school level because a relationship between suspensions in middle school and dropping out of high school exists (Hemphill, Toumbourou, Herrenkohl, McMorris, & Catalano, 2006; “Suspended education”, 2011; Theriot, Craun, & Dupper, 2010). This questioned whether removed students benefitted in any way, when administrators removed them from the classroom. In fact, researchers argued

that the removal from the classroom “exacerbate[d] returning students' feelings of frustration, dissatisfaction, and discomfort at school, which ...lead to more discipline problems and subsequent school exclusions” (Theriot et al., 2010, p. 17)

Schools from all states are required to report all instances in which administrators employed exclusionary discipline practices. In Texas, Chapter 37 mandates districts to transmit exclusionary discipline data to the Texas Education Agency (TEA) via the Public Education Information Management System (PEIMS). The TEA collects and submits statewide exclusionary discipline data to the U.S. Department of Education (DOE) as required by NCLB. If a school incurs two or more incidents that are designated as mandatory expulsions, under NCLB accountability, the school is designated as persistently dangerous (TEA, 2013). According to the School Safety Choice Option Handbook (2013), the following is the criteria that TEA uses to designate a school persistently dangerous:

The campus [has] fewer than 200 students and [has] reported to the Public Education Information Management System (PEIMS)...two (2) or more selected mandatory expulsion incidents in each of the three most recent consecutive years for which data are available; or the campus [has] 200 or more students and [has] a number of mandatory expellable incidents per year equal to 1% or more of its enrollment in each of the three (3) most recent consecutive years for which data [is] available (p. 3).

Under the NCLB, GFSA and the Safe and Drug-Free Schools Program there were seventeen infractions that were considered mandatory expulsion: (a) Used, exhibited, or possessed a firearm; (b) Used, exhibited, or possessed an illegal knife; (c) Used, exhibited, or possessed a club; (d) Used, exhibited, or possessed a weapon; (e) Arson; (f) Murder, attempted murder; (g) Indecency with a child; (h) Aggravated kidnapping; (i) Aggravated assault on school employee

or volunteer; (j) Aggravated assault on someone other than school employee or volunteer; (k) Sexual assault or aggravated sexual assault on school employee or volunteer; (l) Sexual assault or aggravated sexual assault on someone other than school employee or volunteer; (m) Felony controlled substance; (n) Felony alcohol violation; (o) Aggravated Robbery; (p) Manslaughter; and (q) Criminally Negligent Homicide (TEA, 2013). Depending on the enrollment at the campus, any two (2) recorded incidents or 1% of enrollment incidents automatically designates a campus as persistently dangerous. Accordingly, NCLB and the GFSA “requires each state to allow students who attend a persistently dangerous school, or students who, while on the school premises or while attending a school-sponsored or school-related activity, become victims of a violent criminal offense the opportunity to attend a safe public school within the district” (TEA, 2013, p. 3).

### **Controversies Surrounding Exclusionary Discipline Practices**

There were six prominent controversies surrounding exclusionary discipline practices that emerged from the literature review. This section addressed each controversy in isolation; however, in actuality the issues that define the controversies were intricately interlaced and more often than not, overlapped. The five controversies surrounding exclusionary discipline practices were: (a) zero tolerance policies did not ensure safer schools; (b) exclusionary discipline policies promoted lower school engagement; (c) exclusionary discipline policies were precursors to a student’s involvement with the juvenile justice system; (d) exclusionary discipline produced significant racial disparities; (e) socio-demographic variables, specifically gender and special education status moderated the relationship between school discipline and race; and (f) No Child Left Behind allowed schools to use exclusionary discipline to push out low performing students and systematically exclude ethnic minorities.

**Zero Tolerance Policies Do Not Ensure Safer Schools.** Following the adoption of the GFSA of 1994, media aggrandizing negatively influenced and manipulated public opinion regarding school violence. The media hype convinced the public that school violence in America was significantly increasing (Cornell, n. d.). However, in 2009, The National Center for Education Statistics (NCES) released a study on school safety that examined reported crime levels in schools across America. The study covered a span of 15 years following the adoption of the Gun Free Schools Act of 1994, and it reported that over the 15 year period from 1994 to 2009, documented crimes in America's public schools significantly plummeted (NCES, 2009). The public perception regarding increasing school violence was unfounded. The NCES (2009) and the FBI national arrest statistics, the arrest rate of juveniles for violent crime (murder, robbery, rape, and aggravated assault), data proved that violence on school campuses was actually dropping (Vossekuil, Fein, Reddy, Borum, & Modzeleski, 2002). Additionally an independent study by DeVoe et al. (2002) found that the rate of violent crimes in U.S. public schools has declined each year since 1994. Furthermore, the serious violent crime rate (total number of murders, aggravated assaults, robberies, and rapes per 100,000 students) in 2001 was less than half what it was in 1994 (DeVoe et al., 2002). Despite these facts, the NCES study reported that suspensions and expulsions definitively exceeded rates of reported crime in schools (2009). In other words, even though schools were safer in numerical terms, exclusionary discipline practices were still the favored consequence in public schools (American Psychological Association, 2008). The obvious controversy laid in the fact that if public schools were statistically safer, then the excuse of "removing disruptive students from school [made] schools better places for those students who remain[ed]" (American Psychological Association,

2008 p. 860) or that “suspension or expulsions push[ed] out school’s troublemakers” (Skiba, 2014, p. 30) was invalid.

By 2006, approximately 94% of U.S. public schools had adopted zero tolerance policies (Skiba & Rausch, 2006a). This figure was staggering considering that of the five panels of experts on school violence in the U.S., all independently denounced zero tolerance as a best practice for reducing violence in schools (Skiba & Rausch, 2006b). To further support this contention, in 2008, an American Psychological Association Zero Tolerance Task Force found that zero tolerance policies did not improve school climate or school safety. The Task Force researchers argued that zero tolerance policies might have actually exacerbated the discipline gap between White students and students of color because “available evidence tended to indicate that suspending students predicts more future misbehavior and that schools with higher rates of suspension and expulsion have poorer climate” (American Psychological Association, 2008, p. 854). Skiba (2014) best described the status of schools that continue to support and enforce ZT policies on the assumption that zero tolerance produces safe schools:

No data exist to show that out-of-school suspensions and expulsions reduce disruption or improve school climate. If anything, disciplinary removal appears to have negative effects on student outcomes and the learning climate... have been found to have lower parent and teacher ratings of school climate...and most importantly, schools with higher suspension and expulsion rates have been found to have lower outcomes on statewide test scores, regardless of student demographics (p. 30).

The literature did not support the belief that zero tolerance polices ensured safer schools. In fact, the data accumulated since schools first implemented zero tolerance policies clearly showed that

ZT policies did not improve student behavior nor did ZT policies ensure school safety (Skiba, 2014).

**Lower School Engagement.** Researchers linked student dropout rates to student disengagement and frustration with education based upon the way schools dealt with discipline (Metze, 2012). Other large-scale studies documented that students became increasingly disengaged through middle and high school years (Crosnoe, 2001; National Research Council, 2002) and they were more likely to reject and break institutional rules (Hawkins, Guo, & Hill, 2001). Schools should be places where children can learn academic content and learn how to be caring and responsible citizens. Referring back to the section on early adolescent development, during the middle school years, students' emotional, psychological and social skills is developing and school may be the only place they experience positive interactions from which to base their future behaviors. The American Academy of Pediatrics (2003) reported that vulnerable children were at the greatest risk of being suspended from school and were likely to suffer the most harm because of the hours spent away from the classroom. In reality, schools are possibly the only place that students encounter and interact with positive role models (Mitchell & Brendtro, 2013). For example, students from single parent, non-traditional homes facing social ills such as drug use and physical abuse may not have opportunities outside of school to experience loving, compassionate, and caring adults. In these cases, teachers, and other school staff, may have provided the only daily support in the form of conveyed respect and concern for well-being that are extremely important if a student is to develop a healthy sense of self-worth and confidence (Gregory & Cornell, 2009). Students in school had a greater opportunity to experience a positive caring environment, especially if they lacked support in the home. The controversy arose in that schools that used exclusionary discipline practices to address inappropriate behaviors only

exacerbated the situation as the administrator sent the child back to the non-supportive environment at home.

Concerning suspensions specifically, Metzger (2012) found that of the almost 60% of Texas public school students suspended in middle or high school, 31% are retained and 10% drop-out. In other words, any Texas middle or high school student that experienced any suspension was more than six times more likely to have to repeat at least one grade and five times more likely to drop-out than the 40% of the students with no disciplinary actions. Balfanz, Bridgeland, Bruce and Fox's (2013) most recent research showed that being suspended even once in ninth grade was associated with a twofold increase in the likelihood of dropping out, from 16% for those not suspended to 32% for those suspended just once. Suspension, as well as other forms of exclusionary discipline practices, eliminated the experience of engaging with positive role models as the child never learned the look and feel of appropriate behaviors. For that reason, exclusionary discipline practices were associated with negative long-term outcomes including decreased engagement with school, a higher risk of academic failure, and dropping out of school (Arcia, 2006; Skiba & Noam, 2001).

**Precursor to the Juvenile Justice System.** According to Rodriguez (2013), from 1993 to 2013, schools across the U.S. lowered their standards for suspending and expelling students and relied on the juvenile justice system to address minor student misbehaviors. Alarmingly more still, was that research showed that states with higher school suspension rates were more likely to have higher juvenile incarceration rates (Fuentes, 2003). School exclusion and failure were powerful predictors of subsequent antisocial behavior, thereby setting the stage for increased juvenile incarcerations a phenomenon created and called the "school-to-prison

pipeline” (Justice Center, 2011). For example, a study that focused on Texas middle school students found:

Suspended students were 26 percent more likely to be involved with the legal system than their peers...and that more than one in seven students were in contact with the juvenile justice system between 7th and 12th grade. Moreover this study found that Texas students who were suspended or expelled had a greater likelihood of contact with the juvenile justice system in their middle or high school years, particularly when they were disciplined multiple times. This phenomenon of the juvenile justice system handling school-based offenses has been coined “the school to prison pipeline” (Carmichael et al., 2011, p. 14).

Such research findings were typically not generalized beyond the scope of the study, however, the Texas study was more apt to apply to other districts because (a) one in ten public school children were educated in Texas schools, (b) Texas had the second largest public school system in the nation, and (c) the population of students in Texas was diverse and sufficiently represented similar population make-ups at schools across the U.S. (Carmichael et al., 2011).

Other studies showed that “zero tolerance policies led to suspension and expulsion rates at crisis proportions” (LaMarche, 2011, p. 35). For example, according to Losen and Martinez (2013), it was “[estimated] that well over two million students were suspended during the 2009-2010 academic year [and] one out of every nine secondary school students was suspended at least once during that year” (p. 1). Assuming suspensions were used as a last resort consequence, the stats indicated that there were some severe and pervasive behaviors like assaults, rapes, and attempted murders going on in schools. That was not the case. In fact, LaMarche (2011) found that just in 2006, nationwide, the vast majority of suspensions were for

vague, noncriminal offenses, such as tardiness, talking back to a teacher, or violating dress codes. There was compelling research suggesting that ZT policies did not improve students' behavior, nor did they make schools safer (American Psychological Association, 2008). Even more disconcerting was that suspensions not only failed to improve student behavior, but they increased the likelihood of a student engaging in antisocial and violent behavior within the next twelve months (Hemphill & Hargreaves, 2009). The solution of ZT policies to make schools safer actually perpetuated a students' likelihood of involvement with the juvenile justice system. What is more, research showed that suspensions predicted a range of student outcomes including crime, delinquency, and drug use, all behaviors that were precursors to interaction with the juvenile justice system (Hemphill et al., 2014).

Where states spent money makes one thing clear. States funded prisons more so than public schools (Mora & Christianakis, 2013). The U.S. went from spending \$15.6 billion on prisons in 1986 to \$38.2 billion-nearly twice what was spent on higher education-in 2001 (Darling-Hammond, 2006). Muncie (2008) found that the population of incarcerated youth rose by 43% since the 1990s and surpassed 100,000 by 2006. More troubling yet, Garrett (2013) found that students suspended in 6th grade were more likely to be suspended a second time before they entered the 8th grade, evidence that suspension simply reinforces inappropriate behavior. This increased incarceration rate of youth, according to Kim (2009/2010), is a direct outcome of "policies and practices that systemically push at-risk youth out of mainstream public schools and into the juvenile or criminal justice systems" (p. 956). Connecting the previous section on student disengagement and dropouts, Chamberlain (2013) argued:

Studies show[ed] that the typical high school graduate ... obtain[ed] higher employment and earnings – an astonishing 50 percent to 100 percent increase in lifetime income – and

[was] be less likely to draw on public money for health care and welfare and less likely to be involved in the juvenile justice system. Further, because of the increased income, the typical graduate contribute[d] more in tax revenues over his lifetime than if he dropped out (p. 29).

A school's use of exclusionary discipline practices had much more complicated and far-reaching implications beyond it serving as a precursor to incarceration. Higher incarceration rates lead to less funding for education, as states were required to maintain prisons. Additionally, higher dropout rates forced states to redirect funds away from school in order to maintain welfare benefits that dropouts were certain to need because they lacked education to support themselves.

**Racial disparities.** In 2014, Hemphill et al. reported that researchers consistently found that students who were suspended were often already disadvantaged, were more likely to belong to an ethnic minority, and/or were of low socioeconomic status. Skiba and Rausch (2006a) further supported this contention and found that in the US, studies repeatedly showed that students of African American or Hispanic background were significantly overrepresented in school suspension rates. Raffaele-Mendez and Knoff (2003) also found that out-of-school suspensions in the United States increased during the 1990s and those minority students, especially in grades seven through nine, were most frequently suspended. Such data should have indicated that ethnic minorities displayed greater inappropriate behaviors than did non-minority White students, but this was not the case. In fact, studies showed that these higher rates of suspension, particularly for African American students in the U.S., were not at all due to differences in student behavior (Skiba & Rausch, 2006a, b). In other words, the inappropriate behaviors were the same in each group, yet the minority group's behavior was more likely to result in a suspension. That said, recent data from the National Center for Educational Statistics

(2009) indicated that racial disparities in school discipline persisted and continued in an upward trend. For example, Casella (2003) asserted that “punishment negatively affect[ed] those who [were] already negatively affected by poverty, racism, academic failure, and other realities” (p. 879). Arguably, schools’ exclusionary school discipline practices were an oppressive educational practice and condition due to disproportional negative impacts on minority students (Weis & Fine, 2005). Some researchers contended that the exclusionary discipline racial disparities were so pervasive in U.S. schools that “[i]t [became] a well-known fact that students from non-White backgrounds, especially African-American and Hispanic-American students, experience[d] poorer discipline and academic outcomes in the United States public school system than their White peers” (Vincent, Tobin, Hawken, & Frank, 2012, p. 431). As an example, Fenton (2012) reported:

Out-of-school suspensions disproportionately affect[ed] Black male students, occurring at nearly three times the rate for other students. More than twice as many Black male students as White male students receive[d] out-of-school suspensions and three times as many Black male students as White male students [were] expelled. Out-of-school suspensions in many cases lead to students ending their school careers before graduation (p. 8).

The overwhelming controversy in this case was that not only are students of color suspended at greater rates than non-minority White students, but they had also been found to be overrepresented in office referrals and school expulsions (Skiba, Michael, Nardo, & Petterson, 2002). The extensive body of literature on school discipline produced over the last 30 years chronicled the disproportionate representation of school discipline among students of color. The literature labeled this phenomenon the discipline gap (Gregory, Skiba, & Noguera, 2010).

Despite the vast coverage of racial disparities in the literature, researchers noted that the findings were mostly based on national or statewide data. As such, Skiba et al. (2011) argued that a considerable gap existed in the literature regarding the “initial offense that led to referral...local school or district databases of [office discipline referrals] that provide[d] a richer picture of student infractions, but may or may not [have been] generalizable to other locations” (p. 88).

**Gender and special education status moderate racial disparities.** According to Wallace, Goodkind, Wallace, and Bachman (2008), some previous studies suggested gender moderated the relationship between school discipline and race” (p. 50). For example, some research found that Black males had the highest suspension rates followed by White males, Black females, and White females, while others reported that Black females’ rates were higher than White males and other females (Raffaele-Mendez & Knoff, 2003; Skiba et al., 2002). To further emphasize the potential moderating effect gender and special education had on exclusionary discipline, Coutinho's and Oswald's (2005) study found that “variation in gender disproportionality in special education found that the male-to-female ratio hovers somewhere between 2:1 and 3.5:1 depending on the severity of the disability” (p. 235). The researchers discovered that boys tended to be more apt to display unacceptable classroom behaviors and had a higher rate of placement in special education because of the classroom behaviors. One noteworthy research study related to gender and special education in relation to exclusionary discipline practices was the differences in which males and females react under periods of stress. Sax’s (2006) study found:

The male and female autonomic nervous systems respond[ed] differently to stress. When under stress, males’ sympathetic nervous system [was] engaged and the “fight and flight” response [was] activated by the release of adrenaline. This cause[d] increased heart rate,

vasoconstriction, and dilated pupils, which trigger[ed] violence or confrontation. These boys [were] prepared to “fight or flight”. Although the sympathetic and parasympathetic nervous systems [were] present in both males and females, girls [were] more influenced by the parasympathetic nervous system, which releases[d] a completely different set of chemicals. The primary neurotransmitter in females [was] acetylcholine, which cause[d] mental slowing and a feeling of dizziness under stressful situations (pp. 192-193).

Sax’s study findings also tied into earlier research presented with regards to early adolescent development. It was reported by the researcher that the early adolescent development stage usually the middle school years when children were ages ten to fourteen, experienced rapid and significant growth and change. According to Wallace et al., (2008) researchers had only recently began to acknowledge that not only do early adolescents experience big changes developmentally during this stage, but there were markedly different changes occurring in males than in females. This was a new perspective because previous research assumed that adolescent brain development was generally the same and thus caused similar reactive behaviors. Recent and more in depth research showed that this was not the case. Thus, the controversy was found in that gender and referral to special education could moderate and/or further impact racial disparities in exclusionary discipline practices.

**No Child Left Behind.** The sixth controversy emerging from the literature review focuses on The No Child Left Behind Act (NCLB) of 2001 and its accountability structure. The aim of NCLB was to “close the achievement gap between high-and low-performing children, especially the achievement gaps between minority and nonminority students, and between disadvantaged children and their more advantaged peers (2001, Section 1001.3)... by providing fair and equal opportunities” (Fenton, 2012, p. 10). Under NCLB, states were required to report

achievement gaps between demographic subgroups, including those delineating race (Berends & Penaloza, 2008). According to Dee and Jacob (2011), the motivation behind NCLB accountability was that if detailed reports on school-specific performance were readily available to the public and the performance rates were linked to sanctions or rewards, schools would do a better job of educating students. Assuming publication of performance as a motivator, Magnuson and Waldfogel (2008) found that current NCLB accountability and reporting mandates magnified achievement gaps, particularly the gap between White students and Black and Latino students. Furthermore, Magnuson and Waldfogel (2008) found that NCLB's accountability structure disproportionately affected low-performing schools because the population of the school was primarily Black and Latino students. Hursh (2007) argued that NCLB's standardization and accountability requirements did not diminish the racial achievement gap between White students and Black and Latino students and they did not improve the overall quality of education received by Black and Latino students.

The NCLB accountability structure only *identified* that the gaps existed and continuously pointed out publicly that the schools were not closing the gaps. Identification of a problem did not solve the problem. Schools however, found that they could close the gaps and achieve NCLB accountability standards in creative ways. Hursh (2007) explained one way schools could achieve standards was to retain students in the ninth grade, the year before the required TAKS exam was administered that counted towards campus and district accountability. Furthermore, Hursh (2007) found that schools could repeatedly retain students causing them to get frustrated, give up, and drop out. Once they dropped out the school no longer had to contend with a low score. According to Fenton (2012), “[T]he law's strategy for improving schools... paradoxically, [reduced] access to education for the most vulnerable students” (p. 10).

Along with the accountability standards, NCLB also ushered in the increased use of exclusionary discipline practices with its authorization of the Gun Free School Zone Act (GFSA). The GFSA firmly entrenched zero tolerance policies in districts across the nation. Similar to the issue of retaining students to achieve accountability standards, schools found they could utilize exclusionary discipline practices in the same manner. Accordingly, since test-score targets that were not met were tied to school sanctions, NCLB gave schools incentives to punish, and ultimately expel, students who were struggling or on whom the system had already given up. For example, Metze (2012) found that “some school districts, for their own purposes, [had] manipulated placements and data by the creation of a non-supportive environment in the schools to push out low-achieving, often minority, students, because high-stakes accountability testing created incentives for the schools to cheat” (p. 2). Referring back to the section on racial disparities, zero tolerance policies disproportionately affected Blacks and Latinos, which helped schools as they tried to achieve NCLB accountability standards. Schools essentially could use ZT policies and subsequent exclusionary discipline practices to suspend and expel students in order to boost test scores. Contradicting its title, NCLB essentially caused entire groups of students to be literally left behind (Justice Center, 2011).

### **Standardized Testing**

Fletcher (2009) explained that standardized testing made its first appearance during World War I when U.S. Servicemen were required to take aptitude quizzes called Army Mental Tests to determine job suitability. Since then, the use of standardized tests moved well beyond the U.S. military and they are now entrenched in many facets of American society, most notably in public schools. According to the Glossary of Education reform, standardized test are defined as:

[a]ny form of test that (1) require[d] all test takers to answer the same questions, or a selection of questions from common bank of questions, in the same way, and that (2) [were] scored in a ‘standard’ or consistent manner, which make[d]s it possible to compare the relative performance of individual students or groups of students (2013, para 1).

The goal of standardized tests was to assess a large number of individuals in a quick and relatively easy manner. The simplicity of standardized testing readily transferred to the field of education and it has been a part of American public schools for the better part of 50 years (Fletcher, 2009).

In 1981, the U.S. Secretary of Education, T.H. Bell, created the National Commission on Excellence in Education (NCEE) and directed it to assess the quality of education in America and develop a report of its findings. In April of 1983, the commission completed the study and published its findings in its report “A Nation at Risk” (NCEE, 1983). The report declared that the U.S. public school system was “in urgent need of improvement” and the data showed that the U.S. was at risk of losing its “once unchallenged pre-eminence in commerce, industry, science, and technological innovation” (NCEE-Recommendations, 1983, para. 1). The report ignited a fury of school accountability and standardized tests were the means to verify student achievement.

As mentioned above, standardized testing was not a new concept in public schools; however, in 2002, the No Child Left Behind Act (NCLB) introduced a new vision of standardized testing which was known as high stakes testing. According to NCLB (2002), “high stakes testing,” meant that the federal U.S. Department of Education and respective State Education Agencies assigned consequences and rewards for students and educators based on

results of annual standardized tests. For example, students that failed a state's standardized test: (a) were not be promoted to the next grade; (b) were required to attend mandatory Saturday school, after-school tutoring and summer school; and (c) were unable to graduate from high school—if it was an eleventh grade exit exam (Advancement Project, 2010). Schools were equally accountable for student performance standards as defined by state and federal guidelines. As an example, if groups of low-income students failed to achieve minimum standards, schools faced sanctions including (a) having to fund tutoring services for low performing students, (b) possibly closing and/or being reconstituted, and (c) being publicly identified and shamed as a low performing school (Advancement Project, 2010).

Since the introduction of high stakes testing in 2002, there was a dramatic rise in consequences for schools failing to meet standards established by NCLB. In response, schools changed teaching strategies, curriculum content and course offerings. As an example, schools that were already at a disadvantage due to large populations of low socioeconomic students or limited English proficient students resorted to “narrowed, distorted, and weakened curricula often dominated by mindless drilling, rote memorization exercises, and teaching to the test” (Advancement Project, 2010, p. 4). Researchers stated that “high stakes testing” changed the way teachers taught and stifled engaging, well-rounded and high-quality instruction in favor of teaching content that was tested for fear of sanctions and consequences if students did not meet minimum standards (Swain & Noblit, 2011). Teachers had to forgo teaching non-tested subjects in order to maximize time spent preparing students to pass standardized tests that were calculated towards a school's accountability. Teachers and administrators were “forced to narrow the curriculum or face punitive measures of their own” (Swain & Noblit, 2011, p. 467).

According to Nicholas and Berliner (2008), the rationale behind NCLB was simple: high-stakes ensured that the “promise of rewards and threat of punishments will cause teachers to work more effectively, students to be more motivated, and schools to run more smoothly” (p. 672). This however, was not the reality of NCLB. The Advancement Project’s 2010 report *Test, Punish, and Push Out: How “Zero Tolerance” and High–Stakes Testing Funnel Youth Into the School-to-Prison Pipeline* clarifies the current status of schools:

As a result, the practice of pushing struggling students out of school to boost test scores [became] quite common. There [were] a number of widely used strategies for manipulating test scores, such as withdrawing students from attendance rolls, assigning students to alternative schools, coercing or encouraging students to drop out or enroll in General Educational Development (GED) programs, along with using suspensions, expulsions, and referrals to alternative schools. These practices [were] contemptible, but not surprising when one consider[ed] that those educators’ future employment or salary [was] determined by the results of a single test (p. 6).

The reality of NCLB and high-stakes testing was that schools were pushing out students in an effort to avoid sub-par accountability scores.

Curriculum content and course offerings were not the only changes in schools due to high-stakes testing. Discipline practices within classrooms and campuses also changed. Prior to “high-stakes testing,” if a student was misbehaving in class and displaying inappropriate conduct, a teacher would usually take the time to assess and address the student’s unmet need. High stakes testing all but eliminated a teacher’s ability to stop, look, and listen to a child that was acting out as a means for asking for help (Swain & Noblit, 2011). As another example, teachable moments, those situations that intermittently arose during instruction that gave teachers

an opportunity to teach manners, making good choices, and other appropriate classroom behaviors, all but disappeared. Teachers and administrators were so consumed with teaching to the test to avoid sanctions that “it [was] much easier and more ‘efficient’ to simply remove the child from class through punitive disciplinary measures and focus on the remaining students” (Advancement Project, 2010, p. 6).

High-stakes testing and zero tolerance policies were seemingly at odds but also very much intertwined. They were at odds in that high-stakes testing required by NCLB (2002) demanded that schools be accountable for ensuring students are learning, but zero tolerance ensures that the most academically at-risk students were not in school because of exclusionary discipline practices (Ferrer, 2014). They were intertwined because the American public demanded accountability and as in business, accountability was reached and improved through “rigorous competition, uncompromising discipline, constant assessment, performance-inducing incentives, and the elimination of low performers” (Advancement Project, 2010, p. 12)

Schools also used ZT policies in various ways to ensure schools met accountability standards. According to Figlio (2006), schools were so focused on meeting accountability that they used exclusionary discipline practices to increase test scores. As an example, schools targeted low achieving students who were at risk of not passing the test and they suspended or expelled a student in order to ensure an overall campus acceptable performance score (Swain & Noblit, 2011). Another study by Jacob (2005) supported this example, in that schools often used punitive measures during testing in order to ensure they would meet or exceed accountability standards. Some of the measures used were increasing placements in special education and/or retaining students in grades preceding high-stakes tests. Increasingly, schools were playing a

numbers game where accountability exceedingly took precedence over what was truly best for students (Ferrer, 2014).

**Standardized Testing in Texas.** Federally mandated by the NCLB Act, Texas districts administered the Texas Assessment of Knowledge and Skills (TAKS) annually to measure academic achievement. The TAKS tests measured and (a) identified the instructional needs of students so educators taught with intention and appropriate instructional materials, (b) judged students' proficiency in essential basic skills and challenging standards and measured their educational growth over time, (c) evaluated the effectiveness of educational programs, and (d) monitored schools for educational accountability under the NCLB Act (Association of American publishers, 2000). Because each school was unique in terms of staff, students, culture, and environment, standardized tests were required to normalize assessment results from school to school. As such, the Glossary of Education reform defined standardized testing as:

Any form of test that (1) require[d]s all test takers to answer the same questions, or a selection of questions from common bank of questions, in the same way, and that (2) [was] scored in a 'standard' or consistent manner, which make[d] it possible to compare the relative performance of individual students or groups of students (2013, para 1).

As required by all states under NCLB, Texas administered the mathematics and reading TAKS tests to all students in third through eighth grade (TEA, 2014). Texas required that all districts test students in grades four through eight in Writing, Science and Social Studies; however, NCLB left substantial latitude as to what grade students took those subject assessments. To meet the minimum standard of proficiency for NCLB, Texas students had to score at least at the "met standard" level on TAKS. Met standard levels were as follows:

Table 3

*TAKS Scaled Scores by Subject and Grade*

Subject Grade	Math 6	Reading 6	Math 7	Read 7	Math 8	Read 8
Scale score range	240-944	194-935	302-997	227-1007	320-1025	245-991
Minimum score to meet standard	637	644	670	670	700	700

As noted above, mathematics and reading tests were administered to all students nationwide in grades three through eight, while the other subject exams (Writing, Science, and Social Studies) could be administered in accordance with state guidelines.

### **Summary**

No Child Left Behind (NCLB), through high stakes testing and stringent accountability standards, systematically changed schools across America (Bush, 2001, p. 2). On the one hand, NCLB mandated high-quality teacher performance gauged by student performance on state standardized tests. On the other hand, ZT policies and exclusionary discipline used a get tough attitude that was based on the belief that “[w]hen disruption and disorder threaten our schools and communities, it becomes increasingly easy to accept the notion that greater authority and force are necessary in order to keep schools secure” (Skiba, 2014, p. 28). Together, NCLB, high-stakes testing, stringent accountability standards, zero tolerance policies, and exclusionary discipline practices ushered in five major controversies evident in the literature. They were (a) zero tolerance policies did ensure safer schools, (b) exclusionary discipline policies promoted lower school engagement, (c) exclusionary discipline policies were precursors to a student’s involvement with the juvenile justice system, and (d) No Child Left Behind allowed schools to use exclusionary discipline to push out low performing students and systematically exclude

ethnic minorities. Ideally, according to Nichols and Berliner (2007), NCLB guaranteed teachers would teach effectively to ensure student achievement based on a series of rewards and punishments. The reality however, was that schools were using exclusionary discipline practices, the enforcers of zero tolerance policies, as tools to bolster aggregate test performance in order to meet NCLB accountability standards (Figlio, 2006; Swain & Noblit, 2011). The bottom line that emerged from the review of existing research was that schools were punishing students and excluding them from school to raise test scores and meet accountability.

Following a thorough examination of existing studies and current research, this study looked to add another perspective to the current body of literature. The purpose of this study was to examine relationship between exclusionary discipline practices and the academic achievement of middle school students as measured by reading and mathematics sections of the Texas Assessment of Knowledge and Skills (TAKS) in a South Texas school district. More specifically the study examined the use of the four levels of exclusionary discipline to understand their impact on academic achievement of students in middle school, as well as examined the relationship gender and levels of exclusionary discipline and socioeconomic status and levels of exclusionary discipline had with academic achievement.

## **CHAPTER III**

### **METHODOLOGY**

#### **Introduction**

High-stakes testing and stringent accountability standards established under No Child Left Behind (NCLB) systematically changed schools across America (Bush, 2001). Each year schools had to achieve adequate yearly progress documented via standardized tests that proved students had access to and obtained a high-quality education. The U.S. Department of Education and state education agencies measured teacher performance via student performance on standardized tests (Carroll, 2008). However, performance on a standardized test does not necessarily reflect what really is going on within the classroom walls in terms of teaching, learning, or discipline. Referring back to the example of Student James in Chapter Two, James continued to disrupt class, interfered with the teaching, and was usurping valuable instructional time. Campus administrators removed Student James from the classroom and assigned him in-school-suspension (ISS) for three full school days. His behavior became a daily routine, therefore, administrators continued to use graduated exclusionary discipline practices like out-of-school suspension (OSS), removal to a disciplinary alternative education program (DAEP), and removal to a juvenile justice alternative education program (JJAEP). Student James was still responsible for knowing the material tested by the upcoming standardized test, regardless if he was in class or not. Therein laid the problem that was the focus of this study: What was the relationship between exclusionary discipline practices and academic achievement of middle school students as measured by reading and mathematics sections of the Texas Assessment of Knowledge and Skills (TAKS)? Based on the purpose and background in Chapter One and the

comprehensive literature review in Chapter Two, the following research questions and research hypotheses were developed.

### **Research Design**

The research design was considered descriptive research, which involved collection of data through a number of sources. Data from a variety of sources could be considered in descriptive research, for example, surveys, data banks, data centers, testing sites, archived data, and academic processing information (Creswell, 2013). The research design was also known as *ex-post facto* research because researchers examined the data after the fact (Lunenburg & Irby, 2008). Specifically, descriptive research differed from experimental research in that the researcher did not manipulate or control the independent variable (Fraenkel & Wallen, 2009; Lunenburg & Irby, 2008). This study sought to understand the relationship between exclusionary discipline practices and academic achievement of middle school students. The study utilized archived data from the 2010-2011 school year, which was not manipulated or controlled in any way. Because the study utilized extant data, the descriptive research method was best suited to analyze the relationship between exclusionary discipline practices and the academic achievement of middle school students.

The descriptive research design was not a true experimental design where a researcher manipulated or controlled the independent variable by randomly assigning participants to specific groups (Lunenburg & Irby, 2008). A key disadvantage to utilizing the research methods was that because a researcher did not manipulate the independent variable(s), he or she could not definitively claim causation based on results observed (Fraenkel & Wallen, 2009). Researchers considered this a disadvantage because the results could only suggest possible explanations for an existing relationship (Field, 2009; Gall, Gall, & Borg, 2007). Therefore, for the purpose of

this study, the researcher examined the results of the study in an effort to suggest possible causes for the relationship between exclusionary discipline practices and academic achievement of middle school students.

### **Variables**

For this study, there were two independent variables: (a) levels of exclusionary discipline, and (b) demographic information (gender, socioeconomic status, and special education status). The study examined the use of the four levels of exclusionary discipline to understand their impact on academic achievement of students in middle school. Additionally, the study examined the relationship gender and levels of exclusionary discipline, socioeconomic status and levels of exclusionary discipline, and special education status and levels of exclusionary discipline had with academic achievement.

There was one dependent variable: the Texas Assessment of Knowledge and Skills (TAKS). The TAKS assessment had five scales of measurement: (a) Reading; (b) Science; (c) Social Studies; (d) Mathematics; and (e) Writing. However, this study looked only at reading and mathematics because these two subjects were the only ones tested annually in grades six, seven, and eight. Middle school students took the TAKS Writing exam in grade seven, with Science and Social Studies administered in grade eight. Therefore, TAKS Writing, Science, and Social Studies were not included in the study.

### **Selection of Participants**

This study included students enrolled in grades six, seven and eight in a South Texas school district for the 2010-2011 academic school year. Participants took and received a score on the Texas Assessment of Knowledge and Skills in reading and mathematics during the 2010-2011 school year.

The sample for this study included approximately 8,375 students for participation. This included all students enrolled in a middle school within the district. The district had 12 middle school campuses. Of the 8,375 students enrolled in the district's middle schools for the 2010-2011 school year, 2,841 were in 6<sup>th</sup> grade, 2,765 were in 7<sup>th</sup> grade, and 2,769 were in 8<sup>th</sup> grade. Overall district demographics showed 38,242 students enrolled in Early Childhood through 12<sup>th</sup> grade. Of those 38,242, 4.2% were African American, 79% were Hispanic, 13.9% were White, .2% were American Indian, 1.6% were Asian, .1% were Pacific Islander, and 1.1% identified with two or more races (Texas Education Agency-AEIS Report, 2011, Section II). In the previous school year (2009-2010), the district reported 1,072 students with discipline placements representing 2.6% of the overall district population. Overall district demographics classified that of 38, 242 enrolled in 2010-2011, 52.3% were at risk and 69% were economically disadvantaged (Texas Education Agency, 2011, Section II).

### **Instrumentation**

This researcher obtained permission from the district to utilize archived demographic data, Texas Assessment of Knowledge and Skills (TAKS) data, and exclusionary discipline data for the 2010-2011 school year that was included in the Public Education Information Management System (PEIMS).

### **Procedures**

This researcher contacted the Texas Education Agency (TEA) in writing to request archived demographic data, Texas Assessment of Knowledge and Skills (TAKS) data, and exclusionary discipline data for the 2010-2011 school year that was included in the Public Education Information Management System (PEIMS).

Once the TEA provided the data, this researcher entered data into SPSS for analysis. For this study, there were two independent variables: (a) levels of exclusionary discipline, and (b) demographic information (gender, socioeconomic status and special education status). There was one dependent variable: the Texas Assessment of Knowledge and Skills (TAKS). This study looked only at reading and mathematics because these two subjects were the only ones tested annually in grades six, seven, and eight. Middle school students took the TAKS Writing exam in grade seven, with Science and Social Studies administered in grade eight. Therefore, TAKS Writing, Science, and Social Studies were not included in the study.

### **Assumptions**

The first assumption was independence of observations. It referred to participants not sharing information as they took exams. Each person completed his or her own work without interaction with others. The second assumption pertained to normality of distribution with the examination of histograms, skewness, and kurtosis. The expectation was a normal distribution of scores. Because scores were expected to meet certain standards, they were examined more closely for positive and negative skewness. If variable scores were not skewed, data were considered to be appropriate for further statistical analyses. A third assumption related to homogeneity of variance. It concerned equality of scores around a mean score where Levene's statistic calculated equality. If the groups were unequal, results were examined according to Levene's unequal pairing.

### **Data Analysis**

This researcher calculated descriptive statistics using the SPSS program. This study used an ANOVA when the study had three or more categories for an independent variable (Institute for Digital Research and Education, 2014). If statistical significance was found, Tukey HSD

post hoc tests were conducted to identify specifically where categories were statistically significant. Where there were two categories for an independent variable, *t*-tests were used. The two independent variables were (a) levels of exclusionary discipline, and (b) demographic information (gender, socioeconomic status, and special education status). There were four levels of exclusionary discipline: (a) in-school-suspension; (b) out-of-school suspension; (c) removal to a Disciplinary Alternative Education program (DAEP); and (d) expulsion to a Juvenile Justice Alternative Education Program (JJAEP). There were two categories of gender: male and female. There were two categories of socioeconomic status: (a) eligible to participate/economically disadvantaged; and (b) not eligible to participate/not economically disadvantaged. There were two categories of special education status: (a) eligible for special education, and (b) not eligible for special education. The dependent variable, Texas Assessment of Knowledge and Skills (TAKS) was a range of scores. The range of scores were as follows: grade six math was 240 to 944; grade six reading was 194 to 935; grade seven mathematics was 302 to 997; grade seven reading was 227 to 1007; grade eight mathematics was 320 to 1025; and grade eight reading was 245 to 991. The minimum score to meet the standard were as follows: grade six mathematics was 637; grade six reading was 644; grade seven mathematics was 670; grade seven reading was 670; grade eight mathematics was 700; grade eight reading was 700. ANOVA and *t*-tests were examined for statistical significance at  $p < .05$ .

### **Research Questions**

1. What relationship did levels of exclusionary discipline have with academic achievement as measured by reading scores on the TAKS of students in grades 6, 7, and 8?
2. What relationship did levels of exclusionary discipline have with academic achievement as measured by mathematics scores on the TAKS of students in grades 6, 7, and 8?

3. What relationship did gender have at each level of exclusionary discipline with academic achievement as measured by reading scores on the TAKS of students in grades 6, 7, and 8?
4. What relationship did gender have at each level exclusionary discipline with academic achievement as measured by mathematics scores on the TAKS of students in grades 6, 7, and 8?
5. What relationship did SES have at each level exclusionary discipline with academic achievement as measured by reading scores on the TAKS of students in grades 6, 7, and 8?
6. What relationship did SES have at each level exclusionary discipline with academic achievement as measured by mathematics scores on the TAKS of students in grades 6, 7, and 8?
7. What relationship did special education status have at each level exclusionary discipline with academic achievement as measured by reading scores on the TAKS of students in grades 6, 7, and 8?
8. What relationship did special education have at each level exclusionary discipline with academic achievement as measured by mathematics scores on the TAKS of students in grades 6, 7, and 8?

Research questions one and two were analyzed with ANOVA. It examined the relationship among four categories of exclusionary discipline on testing scores for reading and mathematics. Statistical significance resulted in further analyses with Tukey HSD post hoc to examine which categories were specifically statistically significant. Research questions three through eight were analyzed according to *t*-tests since there were only two categories for gender:

male or female; two categories for socioeconomic status: eligible to participate economically or not eligible to participate economically, and two categories for special education status: eligible for special education or not eligible for special education.

### **Summary**

High stakes testing required that the U.S. Department of Education and state education agencies measure teacher performance via student performance on standardized tests (Carroll, 2008). Measuring teacher performance via student performance on standardized tests did not take into account that some students were not in class for instruction because they misbehaved and were assigned exclusionary discipline consequences. The student might have been assigned ISS, OSS, and removal to a DAEP, or expulsion to a DAEP. Although the student was excluded by his own volition, he or she was still responsible for learning all concepts that were tested on TAKS. For this reason, this study focused on examining the relationship between exclusionary discipline practices and the academic achievement of middle school students as measured by reading and mathematics scores on the TAKS.

This study used descriptive research to examine the hypothesized relationship between exclusionary discipline practices and the academic achievement of middle school students. The study was not a true experiment because the data were examined after the fact and the two independent variables identified were not controlled or manipulated in any way. The archived data from the 2010-2011 school year was provided by the Texas Education Agency. The data included archived disciplinary data, TAKS scores in reading and mathematics and demographic data. Finally, the study used ANOVA and *t*-tests to determine statistical significance of the hypothesized relationship at the  $p < .05$ .

## CHAPTER IV

### RESULTS

The purpose of the research was to examine the relationship between exclusionary discipline practices and the academic achievement of middle school students as measured by reading and mathematics sections of the Texas Assessment of Knowledge and Skills (TAKS) in a South Texas school district. The study relied on the archived TAKS performance and exclusionary discipline data from the Texas Education Agency from the 2010–2011 school year.

Using data from 12 middle schools in a South Texas district, eight research questions were considered when completing the study. Multiple analyses for each of the eight research questions were based on the measures for each of the dependent variables. Descriptive statistics were calculated for all variables: (a) for the two independent variables—levels of exclusionary discipline and demographic information (gender and socioeconomic status); and (b) the dependent variable the Texas Assessment of Knowledge and Skills (TAKS). The SPSS software was used to produce frequency distributions, crosstabs, means, and standard errors when appropriate. The SPSS had analytical capabilities to examine the effectiveness of the independent variables in relation to academic achievement on the TAKS. The researcher used *t*-tests and ANOVAs. If statistical significance was found with ANOVA, then a Tukey HSD post hoc was conducted to identify specifically what categories were statistically significant. Tables 1-13 provided descriptive statistics.

Data were gathered on students enrolled in grades six, seven, and eight in a South Texas school district for the 2010-2011 academic year where students were assigned an exclusionary discipline consequence analyzed by type of exclusionary discipline. The results were presented in Table 4.

Table 4

*Type of Exclusionary Discipline, N = 1131*

Type of Exclusionary Discipline	Frequency	Percent
ISS	735	65.0
OSS	245	21.7
DAEP	149	13.2
JJAEP	2	.2

Data were gathered on students enrolled in grades six, seven, and eight in a South Texas school district for the 2010-2011 academic year where students were assigned an exclusionary discipline consequence analyzed by grade level. The results were presented in Table 5.

Table 5

*Grade Level Distributions, N = 1131*

Grade level	Frequency	Percent
SIXTH	388	34.3
SEVENTH	385	34.0
EIGHTH	358	31.7

Data were gathered on students enrolled in grades six, seven, and eight in a South Texas school district for the 2010-2011 academic year where students were assigned an exclusionary discipline consequence analyzed by gender. The results were presented in Table 6.

Table 6

*Gender Distributions, N = 1131*

Gender	Frequency	Percent
MALE	652	57.6
FEMALE	479	42.4

Data were gathered on students enrolled in grades six, seven, and eight in a South Texas school district for the 2010-2011 academic year where students were assigned an exclusionary discipline consequence analyzed by socioeconomic status. Socioeconomic status is the determination of a student as economically disadvantaged or not as measured by a student's eligibility to participate in the district's Free/Reduced Lunch program or not. The results were presented in Table 7.

Table 7

*Socioeconomic Status Distributions, N = 1131*

SES	Frequency	Percent
Not eligible	221	19.5
Eligible	910	80.5

Data were gathered on students enrolled in grades six, seven, and eight in a South Texas school district for the 2010-2011 academic year where students were assigned an exclusionary discipline consequence analyzed by special education status. Special education status is the determination of a student as eligible or not eligible for special education services as measured by a student's eligibility to participate in the district's Special Education Program or not.

Archived data obtained from the TEA for the 2010 -2011 school year for use in this study was not formatted in a manner that would allow statistical analysis to be conducted.

Data were gathered on students enrolled in grades six, seven, and eight in a South Texas school district for the 2010-2011 academic year analyzed by grade and type of exclusionary discipline. The results were presented in Table 8.

Table 8

*Grade Level by Type of Exclusionary Discipline, N = 1131*

Grade level	Type of Exclusionary Discipline				JJAEP TOTAL
	ISS	OSS	DAEP	JJAEP	
SIXTH	251	94	42	1	388
SEVENTH	249	88	47	1	385
EIGHTH	235	63	60	0	358

Data were gathered on students enrolled in grades six, seven, and eight in a South Texas school district for the 2010-2011 academic year analyzed by gender and type of exclusionary discipline. The results were presented in Table 9.

Table 9

*Gender by Type of Exclusionary Discipline, N = 1131*

Gender	Type of Exclusionary Discipline			
	ISS	OSS	DAEP	JJAEP
MALE	422	143	85	2
FEMALE	313	102	64	0

Data were gathered on students enrolled in grades six, seven, and eight in a South Texas school district for the 2010-2011 academic year analyzed by socioeconomic status and type of exclusionary discipline. The results were presented in Table 10.

Table 10

*Socioeconomic Status by Type of Exclusionary Discipline, N = 1131*

SES	Type of Exclusionary Discipline				
	ISS	OSS	DAEP	JJAEP	TOTAL
NOT ELIGIBLE	153	40	28	0	221
ELIGIBLE	582	205	121	2	910

Data were gathered on students enrolled in grades six, seven, and eight in a South Texas school district for the 2010-2011 academic year analyzed overall distribution on TAKS scores in reading and mathematics. Results were presented in Table 11.

Table 11

*Distribution of TAKS Scores, N = 1131*

Scores	N	Minimum	Maximum	Mean		
				Statistic	Std. Error	Std. Deviation
Reading	1131	194.00	991.00	718.83	2.97	99.78
Math	1131	240.00	1025.00	680.68	2.46	82.72

Data were gathered on students enrolled in grades six, seven, and eight in a South Texas school district for the 2010-2011 academic year analyzed by overall average score on TAKS in

reading and mathematics by all Levels of Exclusionary Discipline. The results were presented in Table 12.

Participants that experienced any level of exclusionary discipline scored lower than the state average. In some cases, such as sixth grade mathematics, participants that experienced any level of exclusionary discipline only scored seven points above the minimum score to meet the standard. In eighth grade mathematics the difference was only two points.

Table 12

*Comparison of Participant TAKS Scores to State Average, N = 1131*

Subject Grade	Math 6	Read 6	Math 7	Read 7	Math 8	Read 8
Minimum score to meet standard	637	644	670	670	700	700
State Average Score	723	733	743	765	770	814
Participant Average	644	679	681	706	702	751

Data were gathered on students enrolled in grades six, seven, and eight in a South Texas school district for the 2010-2011 academic year analyzed by overall average score on TAKS in reading and mathematics by all Levels of Exclusionary Discipline by Socioeconomic Status. The results were presented in Table 13. Participants that experienced any level of exclusionary discipline scored lower than the state average for both Eligible and Not Eligible.

Table 13

*Comparison of Participant TAKS Scores by SES to State Average, N = 1131*

Subject Grade	Math 6	Read 6	Math 7	Read 7	Math 8	Read 8
Eligible State Average Score	707	700	736	721	787	747
Eligible Participant Average	643	670	676	704	702	752
Not Eligible State Average Score	771	756	804	774	848	799
Not Eligible Participant Average	713	690	710	742	725	792

Table 14

*Sixth Grade, Gender by Type of Exclusionary Discipline, N= 388*

Gender	Type of Exclusionary Discipline			
	ISS	OSS	DAEP	JJAEP
MALE	150	59	26	1
FEMALE	101	35	16	0

Table 15

*Sixth Grade, SES by Type of Exclusionary Discipline, N= 388*

SES	Type of Exclusionary Discipline				
	ISS	OSS	DAEP	JJAEP	TOTAL
NOT ELIGIBLE	43	12	5	0	60
ELIGIBLE	208	82	37	1	328

Table 16

*Seventh Grade, Gender by Type of Exclusionary Discipline, N= 385*

Gender	Type of Exclusionary Discipline			
	ISS	OSS	DAEP	JJAEP
MALE	141	49	23	1
FEMALE	108	39	24	0

Table 17

*Seventh Grade, SES by Type of Exclusionary Discipline, N= 385*

SES	Type of Exclusionary Discipline				
	ISS	OSS	DAEP	JJAEP	TOTAL
NOT ELIGIBLE	43	11	6	0	60
ELIGIBLE	206	77	41	1	325

Table 18

*Eighth Grade, Gender by Type of Exclusionary Discipline, N= 358*

Gender	Type of Exclusionary Discipline		
	ISS	OSS	DAEP
MALE	131	35	36
FEMALE	104	28	24

Table 19

*Eighth Grade, SES by Type of Exclusionary Discipline, N= 358*

SES	Type of Exclusionary Discipline		
	ISS	OSS	DAEP
NOT ELIGIBLE	67	17	17
ELIGIBLE	168	46	43

### Research Questions

#### RQ 1: Reading

What relationship do levels of exclusionary discipline have with academic achievement as measured by reading scores on the TAKS of students in grades 6, 7, and 8? For each grade level a one-way ANOVA was conducted to determine if reading scores on TAKS were different for groups at different exclusionary discipline levels. Results for sixth grade are reported in Tables 20, 21 and 22. Participants were classified into three groups: ISS ( $n = 251$ ), OSS ( $n = 94$ ), and DAEP ( $n = 42$ ), Table 20. There was a fourth group JJAEP, however, there were too few cases to include in the analysis, so they were not reported. The assumption of homogeneity of variances was violated, as assessed by Levene's Test of Homogeneity of Variance ( $p = .006$ ), therefore unequal groups were reported, Table 21. Sixth grade reading scores on TAKS ranged from the ISS ( $M = 688.26$ ,  $SD = 88.20$ ), to OSS ( $M = 693.30$ ,  $SD = 86.63$ ), to DAEP ( $M = 656.21$ ,  $SD = 133.54$ ) in that order, Table 20. Differences in sixth grade reading scores on TAKS were not statistically significant between different levels of exclusionary discipline,  $F(2,384) = 2.48$ ,  $p = .09$ , Table 22.

Table 20

*Reading Scores, Sixth Grade by Type of Exclusionary Discipline, N=387*

Type of Referral	N	Minimum	Maximum	Mean Statistic	Std. Error	Std. Deviation
ISS	251	194.00	935.00	688.26	5.57	88.20
OSS	94	468.00	935.00	693.30	8.94	86.63
DAEP	42	194.00	935.00	656.21	20.61	133.54

Table 21

*Levene Statistic, Reading Scores, Sixth Grade by Type of Exclusionary Discipline, N=387*

Levene Statistic	df1	df2	Sig.
5.234	2	384	.006

Table 22

*ANOVA of Sixth Grade Reading Scores by Type of Exclusionary Discipline*

Source	dF	Sum of Squares	Mean Square	F	Sig.
Between groups	2	43549.09	21.774.55	2.48	.085
Within groups	384	3373760.90	8785.84		
Total	386	3417309.99			

Results for seventh grade are reported in Tables 23, 24 and 25. Participants were classified into three groups: ISS ( $n = 249$ ), OSS ( $n = 88$ ), and DAEP ( $n = 47$ ), Table 23. There was a fourth group JJAEP; however, there were too few cases to include in the analysis, so they were not reported. There was homogeneity of variances, as assessed by Levene's Test of

Homogeneity of Variance ( $p = .64$ ), Table 24. Seventh grade reading scores on TAKS ranged from the ISS ( $M = 713.18$ ,  $SD = 85.96$ ), to OSS ( $M = 708.16$ ,  $SD = 76.15$ ), to DAEP ( $M = 698.55$ ,  $SD = 78.27$ ) in that order, Table 24. Differences in seventh grade reading scores on TAKS were not statistically significant between different levels of exclusionary discipline,  $F(2,381) = .65$ ,  $p = .52$ , Table 25.

Table 23

*Reading Scores, Seventh Grade by Type of Exclusionary Discipline, N=384*

Type of Referral	N	Minimum	Maximum	Mean Statistic	Std. Error	Std. Deviation
ISS	249	227.00	932.00	713.18	5.44	85.96
OSS	88	510.00	877.00	708.16	8.11	76.15
DAEP	47	520.00	877.00	698.55	11.42	78.27

Table 24

*Levene Statistic, Reading Scores, Seventh Grade by Type of Exclusionary Discipline, N=384*

Levene Statistic	df1	df2	Sig.
.445	2	381	.64

Table 25

*ANOVA of Seventh Grade Reading Scores by Type of Exclusionary Discipline, N =384*

Source	dF	Sum of Squares	Mean Square	F	Sig
Between groups	2	8947.82	4473.91	.651	.52
Within groups	381	2618885.615	6873.72		
Total	383	2627833.44			

Results for eighth grade are reported in Tables 26, 27, 28, and 29. Participants were classified into three groups: ISS ( $n = 235$ ), OSS ( $n = 63$ ), and DAEP ( $n = 60$ ), Table 26. There was a fourth group JJAEP, however, there were too few cases to include in the analysis, so they were not reported. There was homogeneity of variances, as assessed by Levene's Test of Homogeneity of Variance ( $p = .23$ ), Table 27. Eighth grade reading scores on TAKS ranged from the ISS ( $M = 776.59$ ,  $SD = 105.15$ ), to OSS ( $M = 751.03$ ,  $SD = 101.50$ ), to DAEP ( $M = 727.05$ ,  $SD = 106.30$ ) in that order, Table 26. Differences in eighth grade reading scores on TAKS were statistically significant between different levels of exclusionary discipline,  $F(2,355) = 5.92$ ,  $p < .05$ , Table 28. Tukey post-hoc analysis revealed that the mean difference, ISS ( $M = 776.59$ ) and DAEP ( $M = 727.05$ ) (49.54 points, 95% CI [13.89, 85.19] was statistically significant ( $p = .003$ ), but no other group differences were statistically significant, Table 29.

Table 26

*Reading Scores, Eighth Grade by Type of Exclusionary Discipline, N=358*

Type of Referral	N	Minimum	Maximum	Mean Statistic	Std. Error	Std. Deviation
ISS	235	245.00	991.00	776.59	6.86	105.15
OSS	63	245.00	991.00	751.03	12.79	101.50
DAEP	60	502.00	918.00	727.05	13.72	106.30

Table 27

*Levene Statistic, Reading Scores, Seventh Grade by Type of Exclusionary Discipline, N=358*

Levene Statistic	df1	df2	Sig.
1.47	2	355	.23

Table 28

*ANOVA of Eighth Grade Reading Scores by Type of Exclusionary Discipline, N = 358*

Source	dF	Sum of Squares	Mean Square	F	Sig.
Between groups	2	129755.72	64877.86	5.92	.003
Within groups	355	3892643.57	10965.19		
Total	357	4022399.29			

Table 29

*Tukey HSD of Eighth Grade Reading Scores by Type of Exclusionary Discipline, N = 358*

Type of Referral	Type of Referral	Mean Difference	St. Error	Sig.
ISS	OSS	25.56	14.86	.20
	DAEP	49.54	15.15	.003
OSS	DAEP	23.98	18.89	.41

## **RQ 2: Mathematics**

What relationship do levels of exclusionary discipline have with academic achievement as measured by mathematics scores on the TAKS of students in grades 6, 7, and 8? For each grade level a one-way ANOVA was conducted to determine if mathematics scores on TAKS were different for groups at different exclusionary discipline levels. Results for sixth grade are reported in Tables 30, 31, 32, and 33. Participants were classified into three groups: ISS ( $n = 251$ ); OSS ( $n = 94$ ); and DAEP ( $n = 42$ ), Table 30. There was a fourth group JJAEP, however, there were too few cases to include in the analysis, so they were not reported. The assumption of homogeneity of variances was not violated, as assessed by Levene's Test of Homogeneity of Variance ( $p = .19$ ), Table 31. Sixth grade mathematics scores on TAKS ranged from the ISS

( $M = 660.89$ ,  $SD = 90.43$ ), to OSS ( $M = 650.22$ ,  $SD = 70.25$ ), to DAEP ( $M = 621.10$ ,  $SD = 93.83$ ) in that order, Table 30. Differences in sixth grade mathematics scores on TAKS were statistically significant between different levels of exclusionary discipline,  $F(2,384) = 3.94$ ,  $p < .05$ , Table 32. Tukey post-hoc analysis revealed that the mean difference ISS ( $M = 660.89$ ) and DAEP ( $M = 621.10$ ) (39.80 points, 95% CI [5.92, 73.67]) was statistically significant ( $p = .02$ ), but no other group differences were statistically significant, Table 33.

Table 30

*Mathematics Scores, Sixth Grade by Type of Exclusionary Discipline, N=387*

Type of Referral	N	Minimum	Maximum	Mean Statistic	Std. Error	Std. Deviation
ISS	251	240.00	944.00	660.89	5.71	90.43
OSS	94	488.00	796.00	650.22	7.245	70.25
DAEP	42	240.00	826.00	621.10	14.48	93.83

Table 31

*Levene Statistic, Mathematics Scores, Sixth Grade by Type of Exclusionary Discipline, N=387*

Levene Statistic	df1	df2	Sig.
1.67	2	384	.19

Table 32

*ANOVA of Sixth Grade Mathematics Scores by Type of Exclusionary Discipline, N = 387*

Source	dF	Sum of Squares	Mean Square	F	Sig.
Between groups	2	58738.85	29369.43	3.94	.02
Within groups	384	2864278.02	7459.06		
Total	386	2923016.87			

Table 33

*Tukey HSD of Sixth Grade Mathematics Scores by Type of Exclusionary Discipline, N = 358*

Type of Referral	Type of Referral	Mean Difference	St. Error	Sig.
ISS	OSS	10.67	10.44	.56
	DAEP	39.80	14.40	.02
OSS	DAEP	29.13	16.03	.17

Results for seventh grade are reported in Tables 34, 35, and 36. Participants were classified into three groups: ISS ( $n = 249$ ); OSS ( $n = 88$ ); and DAEP ( $n = 47$ ), Table 34. There was a fourth group JJAEP, however, there were too few cases to include in the analysis, so they were not reported. There was homogeneity of variances, as assessed by Levene's Test of Homogeneity of Variance ( $p = .35$ ), Table 35. Seventh grade mathematics scores on TAKS ranged from the ISS ( $M = 686.78$ ,  $SD = 78.69$ ), to OSS ( $M = 676.61$ ,  $SD = 69.99$ ), to DAEP ( $M = 681.65$ ,  $SD = 79.02$ ) in that order, Table 34. Differences in seventh grade mathematics scores on TAKS were not statistically significant between different levels of exclusionary discipline,  $F(2,381) = 1.89$ ,  $p = .15$ , Table 36.

Table 34

*Mathematics Scores, Seventh Grade by Type of Exclusionary Discipline, N=384*

Type of Referral	N	Minimum	Maximum	Mean Statistic	Std. Error	Std. Deviation
ISS	249	296.00	929.00	686.78	4.99	78.69
OSS	88	551.00	879.00	676.61	7.46	69.99
DAEP	47	302.00	879.00	681.65	4.03	79.02

Table 35

*Levene Statistic, Mathematics Scores, Seventh Grade by Type of Exclusionary Discipline, N=384*

Levene Statistic	df1	df2	Sig.
1.05	2	381	.35

Table 36

*ANOVA of Seventh Grade Mathematics Scores by Type of Exclusionary Discipline, N =384*

Source	dF	Sum of Squares	Mean Square	F	Sig
Between groups	2	23484.75	11742.38	1.89	.15
Within groups	381	2367736.18	6214.53		
Total	383	2391220.94			

Results for eighth grade are reported in Tables 37, 38, 39, and 40. Participants were classified into three groups: ISS ( $n = 235$ ); OSS ( $n = 63$ ); and DAEP ( $n = 60$ ), Table 37. There was a fourth group JJAEP, however, there were too few cases to include in the analysis, so they were not reported. There was homogeneity of variances, as assessed by Levene's Test of Homogeneity of Variance ( $p = .18$ ), Table 38. Eighth grade mathematics scores on TAKS ranged from the ISS ( $M = 715.30$ ,  $SD = 73.18$ ), to OSS ( $M = 706.97$ ,  $SD = 64.61$ ), to DAEP ( $M = 686.00$ ,  $SD = 70.22$ ) in that order, Table 37. Differences in eighth grade mathematics scores on TAKS were statistically significant between different levels of exclusionary discipline,  $F(2,355) = 4.07$ ,  $p < .05$ , Table 39. Tukey post-hoc analysis revealed that the mean difference from ISS ( $M = 715.30$ ) and DAEP ( $M = 686.00$ ) (29.30 points, 95% CI [5.04, 53.56]) was statistically significant ( $p = .02$ ), but no other group differences were statistically significant, Table 40.

Table 37

*Mathematics Scores, Eighth Grade by Type of Exclusionary Discipline, N=358*

Type of Referral	N	Minimum	Maximum	Mean Statistic	Std. Error	Std. Deviation
ISS	235	320.00	1025.00	715.30	4.77	73.18
OSS	63	600.00	1025.00	706.97	8.14	64.61
DAEP	60	535.00	877.00	686.00	9.06	70.22

Table 38

*Levene Statistic, Mathematics Scores, Seventh Grade by Type of Exclusionary Discipline, N=358*

Levene Statistic	df1	df2	Sig.
1.72	2	355	.18

Table 39

*ANOVA of Eighth Grade Mathematics Scores by Type of Exclusionary Discipline, N =358*

Source	dF	Sum of Squares	Mean Square	F	Sig
Between groups	2	41318.73	20659.36	4.07	.02
Within groups	355	1802877.09	5078.53		
Total	357	1844195.81			

Table 40

*Tukey HSD of Eighth Grade Mathematics Scores by Type of Exclusionary Discipline, N =358*

Type of Referral	Type of Referral	Mean Difference	St. Error	Sig.
ISS	OSS	8.33	10.11	.67
	DAEP	29.30	10.31	.01
OSS	DAEP	20.97	12.86	.23

### RQ 3: Reading and Gender

#### SIXTH GRADE

What relationship does gender have at each level of exclusionary discipline with academic achievement as measured by reading scores on the TAKS of students in grades 6, 7, and 8? An independent-samples *t*-test was for run for each grade and then for each level of discipline in each grade to determine if there were differences in reading scores on TAKS between males and females assigned to one of four levels of exclusionary discipline.

For sixth grade including all levels of exclusionary discipline, there was homogeneity of variances, as assessed by Levene's test for equality of variances ( $p = .59$ ). There was not a statistically significant mean difference in TAKS reading scores between sixth grade males ( $M = 690.12$ ,  $SD = 88.57$ ) than sixth grade females ( $M = 679.64$ ,  $SD = 102.02$ ) assigned to one of four exclusionary discipline levels,  $t(385) = 1.07$ ,  $p = .29$ . Results are reported in Tables 41 and 42, respectively.

Table 41

*Group Statistics for Sixth Grade Reading Scores for all Exclusionary Disciplinary Levels by Gender, N =387*

Gender	N	Mean	Std. Deviation	Std. Error Mean
Male	235	690.12	88.57	5.78
Female	152	679.64	102.02	8.27

Table 42

*Sixth Grade Reading Scores for all Exclusionary Disciplinary Levels by Gender, N =387*

Reading scores	Levene's Test for Equality of Variances		t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Equal variances assumed	.290	.59	1.07	385	.29	10.47	9.79
Equal variances not assumed			1.04	289.68	.30	10.47	10.09

For sixth grade males in ISS there was homogeneity of variances, as assessed by Levene's test for equality of variances ( $p = .94$ ). There was not a statistically significant mean difference in TAKS reading scores between sixth grade males ( $M = 694.50$ ,  $SD = 84.46$ ) than sixth grade females ( $M = 678.99$ ,  $SD = 93.13$ ) assigned to ISS,  $t(249) = 1.37$ ,  $p = .17$ . Results are reported in Tables 43 and 44, respectively.

Table 43

*Group Statistics for Sixth Grade Reading Scores ISS by Gender, N =251*

Gender	N	Mean	Std. Deviation	Std. Error Mean
Male	150	694.50	84.46	6.90
Female	101	678.99	93.13	9.26

Table 44

*Sixth Grade Reading Scores for ISS by Gender, N = 251*

Reading scores	Levene's Test for Equality of Variances		t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Equal variances assumed	.01	.94	1.34	249	.17	15.51	11.33
Equal variances not assumed			1.34	200.22	.18	15.51	11.55

For sixth grade males in OSS there was homogeneity of variances, as assessed by Levene's test for equality of variances ( $p = .55$ ). There was not a statistically significant mean difference in TAKS reading scores between sixth grade males ( $M = 692.58$ ,  $SD = 85.34$ ) than sixth grade females ( $M = 694.51$ ,  $SD = 90.01$ ) assigned to OSS,  $t(92) = -.10$ ,  $p = .92$ . Results are reported in Tables 45 and 46, respectively.

Table 45

*Group Statistics for Sixth Grade Reading Scores for OSS by Gender, N = 94*

Gender	N	Mean	Std. Deviation	Std. Error Mean
Male	59	692.58	85.34	11.11
Female	35	694.51	90.01	15.22

Table 46

*Sixth Grade Reading Scores for OSS by Gender, N = 94*

Reading scores	Levene's Test for Equality of Variances		t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Equal variances assumed	.36	.55	-.10	92	.92	-1.94	18.58
Equal variances not assumed			-.10	68.51	.92	-1.94	18.84

For sixth grade males in DAEP there was homogeneity of variances, as assessed by Levene's test for equality of variances ( $p = .59$ ). There was not a statistically significant mean difference in TAKS reading scores between sixth grade males ( $M = 659.27$ ,  $SD = 113.54$ ) than sixth grade females ( $M = 651.25$ ,  $SD = 164.97$ ) assigned to OSS,  $t(40) = .19$ ,  $p = .85$ . Results are reported in Tables 47 and 48, respectively.

Table 47

*Group Statistics for Sixth Grade Reading Scores for DAEP by Gender, N = 42*

Gender	N	Mean	Std. Deviation	Std. Error Mean
Male	26	659.27	113.54	22.27
Female	16	651.25	164.97	41.24

Table 48

*Sixth Grade Reading Scores for DAEP by Gender, N = 42*

Reading scores	Levene's Test for Equality of Variances		t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Equal variances assumed	.30	.59	.19	40	.85	8.02	42.94
Equal variances not assumed			.17	23.81	.87	8.02	46.87

## Seventh Grade

What relationship does gender have at each level of exclusionary discipline with academic achievement as measured by reading scores on the TAKS of students in grade 7? An independent-samples  $t$ -test was for run for seventh grade and then for each level of discipline in seventh grade to determine if there were differences in reading scores on TAKS between males and females assigned to one of four levels of exclusionary discipline.

For seventh grade including all levels of exclusionary discipline, there was homogeneity of variances, as assessed by Levene's test for equality of variances ( $p = .23$ ). There was no statistically significant mean difference in TAKS reading scores between seventh grade males ( $M = 706.21$ ,  $SD = 84.62$ ) than seventh grade females ( $M = 715.25$ ,  $SD = 80.51$ ) assigned to one of four exclusionary discipline levels,  $t(382) = -1.06$ ,  $p = .29$ . Results are reported in Tables 49 and 50, respectively.

Table 49

*Group Statistics for Seventh Grade Reading Scores for all Exclusionary Discipline Levels by Gender, N =384*

Gender	N	Mean	Std. Deviation	Std. Error Mean
Male	213	706.21	84.62	5.80
Female	171	715.25	80.51	6.16

Table 50

*Seventh Grade Reading Scores for all Exclusionary Discipline Levels by Gender, N =384*

Reading scores	Levene's Test for Equality of Variances		t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Equal variances assumed	1.47	.23	-1.06	382	.29	-9.04	8.50
Equal variances not assumed			-1.07	371.16	.29	-9.04	8.46

For seventh grade males in ISS there was homogeneity of variances, as assessed by Levene's test for equality of variances ( $p = .23$ ). There was not a statistically significant mean difference in TAKS reading scores between seventh grade males ( $M = 708.16$ ,  $SD = 88.41$ ) than seventh grade females ( $M = 719.73$ ,  $SD = 82.60$ ) assigned to ISS,  $t(247) = -1.05$ ,  $p = .29$ . Results are reported in Tables 51 and 52, respectively.

Table 51

*Group Statistics for Seventh Grade Reading Scores ISS by Gender, N = 249*

Gender	N	Mean	Std. Deviation	Std. Error Mean
Male	141	708.16	88.41	7.45
Female	108	719.73	82.60	7.95

Table 52

*Seventh Grade Reading Scores for ISS by Gender, N = 249*

Reading scores	Levene's Test for Equality of Variances		t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Equal variances assumed	1.44	.23	-1.05	247	.29	-11.58	10.99
Equal variances not assumed			-1.06	237.45	.29	-11.58	10.59

For seventh grade males in OSS there was homogeneity of variances, as assessed by Levene's test for equality of variances ( $p = .42$ ). There was not a statistically significant mean difference in TAKS reading scores between seventh grade males ( $M = 705.02$ ,  $SD = 79.04$ ) than seventh grade females ( $M = 712.10$ ,  $SD = 73.17$ ) assigned to OSS,  $t(86) = -.43$ ,  $p = .67$ . Results are reported in Tables 53 and 54, respectively.

Table 53

*Group Statistics for Seventh Grade Reading Scores for OSS by Gender, N = 88*

Gender	N	Mean	Std. Deviation	Std. Error Mean
Male	49	705.02	79.04	11.29
Female	39	712.10	73.17	11.72

Table 54

*Seventh Grade Reading Scores for OSS by Gender, N = 88*

Reading scores	Levene's Test for Equality of Variances		t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Equal variances assumed	.65	.42	-.43	86	.67	-7.08	16.42
Equal variances not assumed			-.44	84.00	.67	-7.08	16.27

For seventh grade males in DAEP there was homogeneity of variances, as assessed by Levene's test for equality of variances ( $p = .72$ ). There was not a statistically significant mean difference in TAKS reading scores between seventh grade males ( $M = 696.83$ ,  $SD = 74.22$ ) than seventh grade females ( $M = 700.21$ ,  $SD = 83.53$ ) assigned to DAEP,  $t(45) = -.15$ ,  $p = .88$ . Results are reported in Tables 55 and 56, respectively.

Table 55

*Group Statistics for Seventh Grade Reading Scores for DAEP by Gender, N = 47*

Gender	N	Mean	Std. Deviation	Std. Error Mean
Male	23	696.83	74.22	15.48
Female	24	700.21	83.53	17.05

Table 56

*Seventh Grade Reading Scores for DAEP by Gender, N = 47*

Reading scores	Levene's Test for Equality of Variances		t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Equal variances assumed	.13	.72	-.15	45	.88	-3.38	23.09
Equal variances not assumed			-.15	44.75	.88	-3.38	23.03

## **Eighth Grade**

What relationship does gender have at each level of exclusionary discipline with academic achievement as measured by reading scores on the TAKS of students in grade 8? An independent-samples t-test was for run for eighth grade and then for each level of discipline in eighth grade to determine if there were differences in reading scores on TAKS between males and females assigned to one of four levels of exclusionary discipline.

For eighth grade including all levels of exclusionary discipline, there was homogeneity of variances, as assessed by Levene's test for equality of variances ( $p = .67$ ). There was no statistically significant mean difference in TAKS reading scores between eighth grade males ( $M = 768.20$ ,  $SD = 106.33$ ) than eighth grade females ( $M = 758.08$ ,  $SD = 105.98$ ) assigned to one of four exclusionary discipline levels,  $t(356) = .89$ ,  $p = .37$ . Results are reported in Tables 57 and 58, respectively.

Table 57

*Group Statistics for Eighth Grade Reading Scores for all Exclusionary Discipline Levels by Gender, N = 358*

Gender	N	Mean	Std. Deviation	Std. Error Mean
Male	202	768.20	106.33	7.48
Female	156	758.08	105.98	8.48

Table 58

*Eighth Grade Reading Scores for all Exclusionary Discipline Levels by Gender, N =358*

Reading scores	Levene's Test for Equality of Variances		t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Equal variances assumed	.19	.67	.89	356	.37	10.11	11.32
Equal variances not assumed			.89	334.01	.37	10.11	11.31

For eighth grade males in ISS there was homogeneity of variances, as assessed by Levene's test for equality of variances ( $p = .68$ ). There was not a statistically significant mean difference in TAKS reading scores between eighth grade males ( $M = 781.37$ ,  $SD = 102.97$ ) than eighth grade females ( $M = 770.58$ ,  $SD = 108.04$ ) assigned to ISS,  $t(233) = .78$ ,  $p = .44$ . Results are reported in Tables 59 and 60.

Table 59

*Group Statistics for Eighth Grade Reading Scores for ISS by Gender, N =235*

Gender	N	Mean	Std. Deviation	Std. Error Mean
Male	131	781.37	102.97	9.00
Female	104	770.58	108.04	10.59

Table 60

*Eighth Grade Reading Scores for ISS by Gender, N =235*

Reading scores	Levene's Test for Equality of Variances		t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Equal variances assumed	.17	.68	.78	233	.44	10.79	13.82
Equal variances not assumed			.78	216.09	.44	10.79	13.90

For eighth grade males in OSS there was homogeneity of variances, as assessed by Levene's test for equality of variances ( $p = .94$ ). There was not a statistically significant mean difference in TAKS reading scores between eighth grade males ( $M = 737.69$ ,  $SD = 112.19$ ) than eighth grade females ( $M = 767.71$ ,  $SD = 85.35$ ) assigned to OSS,  $t(61) = -1.17$ ,  $p = .25$ . Results are reported in Tables 61 and 62, respectively.

Table 61

*Group Statistics for Eighth Grade Reading Scores for OSS by Gender, N = 63*

Gender	N	Mean	Std. Deviation	Std. Error Mean
Male	35	737.69	112.19	18.96
Female	28	767.71	85.35	16.13

Table 62

*Eighth Grade Reading Scores for OSS by Gender, N = 63*

Reading scores	Levene's Test for Equality of Variances		t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Equal variances assumed	.01	.94	-1.17	61	.25	-30.03	25.66
Equal variances not assumed			-1.21	60.87	.23	-30.03	24.90

For eighth grade males in DAEP there was homogeneity of variances, as assessed by Levene's test for equality of variances ( $p = .70$ ). There was a statistically significant mean difference in TAKS reading scores between eighth grade males ( $M = 749.95$ ,  $SD = 106.77$ ) than eighth grade females ( $M = 692.71$ ,  $SD = 97.92$ ) assigned to DAEP,  $t(58) = 2.10$ ,  $p = .04$ . Results are reported in Tables 63 and 64, respectively.

Table 63

*Group Statistics for Eighth Grade Reading Scores for DAEP by Gender, N =60*

Gender	N	Mean	Std. Deviation	Std. Error Mean
Male	36	749.94	106.77	17.79
Female	24	692.71	97.92	19.99

Table 64

*Eighth Grade Reading Scores for DAEP by Gender, N =60*

Reading scores	Levene's Test for Equality of Variances		t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Equal variances assumed	.15	.70	2.10	58	.04	57.24	27.24
Equal variances not assumed			2.14	52.31	.04	57.24	26.76

#### **RQ 4: Mathematics and Gender**

##### **Sixth Grade**

What relationship does gender have at each level of exclusionary discipline with academic achievement as measured by mathematics scores on the TAKS of students in grades 6, 7, and 8? An independent samples *t*-test was for run for each grade and then for each level of discipline in each grade to determine if there were differences in mathematics scores on TAKS between males and females assigned to one of four levels of exclusionary discipline.

For sixth grade including all levels of exclusionary discipline, there was homogeneity of variances, as assessed by Levene's test for equality of variances ( $p = .92$ ). There was a statistically significant mean difference in TAKS mathematics scores between sixth grade males ( $M = 662.29$ ,  $SD = 87.79$ ) than sixth grade females ( $M = 641.14$ ,  $SD = 84.51$ ) assigned to one of

four exclusionary discipline levels,  $t(385) = 2.35, p = .02$ . Results are reported in Table 65 and 66, respectively.

Table 65

*Group Statistics for Sixth Grade Mathematics Scores for all Exclusionary Discipline Levels, N =387*

Gender	N	Mean	Std. Deviation	Std. Error Mean
Male	235	662.29	87.79	5.73
Female	152	641.14	84.51	6.85

Table 66

*Sixth Grade Mathematics Scores for all Exclusionary Discipline Levels, N =387*

Mathematics scores	Levene's Test for Equality of Variances		t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Equal variances assumed	.01	.92	2.35	385	.02	21.15	9.01
Equal variances not assumed			2.37	331.22	.02	21.15	8.93

For sixth grade males in ISS there was homogeneity of variances, as assessed by Levene's test for equality of variances ( $p = .97$ ). There was a statistically significant mean difference in TAKS mathematics scores between sixth grade males ( $M = 674.70, SD = 88.72$ ) than sixth grade females ( $M = 640.39, SD = 89.48$ ) assigned to ISS,  $t(249) = 3.00, p = .003$ . Results are reported in Tables 67 and 68, respectively.

Table 67

*Group Statistics for Sixth Grade Mathematics Scores for ISS, N =251*

Gender	N	Mean	Std. Deviation	Std. Error Mean
Male	150	674.70	88.72	7.24
Female	101	640.39	89.48	8.90

Table 68

*Sixth Grade Mathematics Scores for ISS, N =251*

Mathematics scores	Levene's Test for Equality of Variances		t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Equal variances assumed	.002	.97	3.00	249	.003	34.31	11.46
Equal variances not assumed			3.00	213.44	.003	34.31	11.48

For sixth grade males in OSS there was homogeneity of variances, as assessed by Levene's test for equality of variances ( $p = .74$ ). There was not a statistically significant mean difference in TAKS mathematics scores between sixth grade males ( $M = 655.86$ ,  $SD = 70.44$ ) than sixth grade females ( $M = 640.71$ ,  $SD = 69.89$ ) assigned to OSS,  $t(92) = 1.01$ ,  $p = .32$ . Results are reported in Table 69 and 70, respectively.

Table 69

*Group Statistics for Sixth Grade Mathematics Scores for OSS, N =94*

Gender	N	Mean	Std. Deviation	Std. Error Mean
Male	59	655.86	70.44	9.17
Female	35	640.71	69.89	11.81

Table 70

*Sixth Grade Mathematics Scores for OSS, N = 94*

Mathematics scores	Levene's Test for Equality of Variances		t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Equal variances assumed	.11	.74	1.01	92	.32	15.15	14.99
Equal variances not assumed			1.01	72.00	.31	15.15	14.96

For sixth grade males in a DAEP there was homogeneity of variances, as assessed by Levene's test for equality of variances ( $p = .64$ ). There was not a statistically significant mean difference in TAKS mathematics scores between sixth grade males ( $M = 605.27$ ,  $SD = 96.48$ ) than sixth grade females ( $M = 646.81$ ,  $SD = 86.08$ ) assigned to a DAEP,  $t(40) = -1.41$ ,  $p = .17$ . These results should be interpreted with caution due to low N. Results are reported in Tables 71 and 72, respectively.

Table 71

*Group Statistics for Sixth Grade Mathematics Scores for DAEP, N = 42*

Gender	N	Mean	Std. Deviation	Std. Error Mean
Male	26	605.27	96.48	18.92
Female	16	646.81	86.08	21.52

Table 72

*Sixth Grade Mathematics Scores for DAEP, N = 42*

Mathematics scores	Levene's Test for Equality of Variances		t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Equal variances assumed	.22	.64	-1.41	40	.17	-41.54	29.46
Equal variances not assumed			-1.45	34.71	.16	-41.54	28.66

### Seventh Grade

What relationship does gender have at each level of exclusionary discipline with academic achievement as measured by mathematics scores on the TAKS of students in grade 7? An independent-samples *t*-test was run for seventh grade and then for each level of discipline in seventh grade to determine if there were differences in mathematics scores on TAKS between males and females assigned to one of four levels of exclusionary discipline.

For seventh grade including all levels of exclusionary discipline, there was homogeneity of variances, as assessed by Levene's test for equality of variances ( $p = .59$ ). There was not a statistically significant mean difference in TAKS mathematics scores between seventh grade males ( $M = 683.78$ ,  $SD = 80.68$ ) than seventh grade females ( $M = 679.00$ ,  $SD = 77.05$ ) assigned to one of four exclusionary discipline levels,  $t(382) = .59$ ,  $p = .56$ . Results are reported in Table 73 and 74, respectively.

Table 73

*Group Statistics for Seventh Grade Mathematics Scores for all Exclusionary Discipline Levels, N = 384*

Gender	N	Mean	Std. Deviation	Std. Error Mean
Male	213	683.78	80.68	5.53
Female	171	679.00	77.05	5.89

Table 74

*Seventh Grade Mathematics Scores for all Exclusionary Discipline Levels, N = 384*

Mathematics scores	Levene's Test for Equality of Variances		t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Equal variances assumed	.29	.59	.59	382	.56	4.78	8.12
Equal variances not assumed			.59	370.69	.55	4.78	8.08

For seventh grade males in ISS there was homogeneity of variances, as assessed by Levene's test for equality of variances ( $p = .72$ ). There was not a statistically significant mean difference in TAKS mathematics scores between seventh grade males ( $M = 691.25, SD = 80.73$ ) than seventh grade females ( $M = 680.94, SD = 75.91$ ) assigned to ISS,  $t(247) = 1.03, p = .31$ . Results are reported in Tables 75 and 76, respectively.

Table 75

*Group Statistics for Seventh Grade Mathematics Scores for ISS, N = 249*

Gender	N	Mean	Std. Deviation	Std. Error Mean
Male	141	691.25	80.73	6.80
Female	108	680.94	75.91	7.30

Table 76

*Seventh Grade Mathematics Scores for ISS, N = 249*

Mathematics scores	Levene's Test for Equality of Variances		t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Equal variances assumed	.13	.72	1.03	247	.31	10.31	10.06
Equal variances not assumed			1.03	236.84	.30	10.31	9.98

For seventh grade males in OSS there was homogeneity of variances, as assessed by Levene's test for equality of variances ( $p = .77$ ). There was not a statistically significant mean difference in TAKS mathematics scores between seventh grade males ( $M = 674.45$ ,  $SD = 67.37$ ) than seventh grade females ( $M = 679.33$ ,  $SD = 73.96$ ) assigned to OSS,  $t(86) = -.32$ ,  $p = .75$ . Results are reported in Table 77 and 78, respectively.

Table 77

*Group Statistics for Seventh Grade Mathematics Scores for OSS, N = 88*

Gender	N	Mean	Std. Deviation	Std. Error Mean
Male	49	674.45	67.37	9.62
Female	39	679.33	73.96	11.84

Table 78

*Seventh Grade Mathematics Scores for OSS, N = 88*

Mathematics scores	Levene's Test for Equality of Variances		t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Equal variances assumed	.09	.77	-.32	86	.75	-4.88	15.10
Equal variances not assumed			-.32	77.87	.75	-4.88	15.26

For seventh grade males in a DAEP there was homogeneity of variances, as assessed by Levene's test for equality of variances ( $p = .64$ ). There was not a statistically significant mean difference in TAKS mathematics scores between seventh grade males ( $M = 657.91$ ,  $SD = 100.48$ ) than seventh grade females ( $M = 669.75$ ,  $SD = 89.00$ ) assigned to a DAEP,  $t(45) = -.43$ ,  $p = .67$ . These results should be interpreted with caution due to low N. Results are reported in Tables 79 and 80, respectively.

Table 79

*Group Statistics for Seventh Grade Mathematics Scores for DAEP, N = 45*

Gender	N	Mean	Std. Deviation	Std. Error Mean
Male	23	657.91	100.48	20.95
Female	24	669.75	89.00	18.17

Table 80

*Seventh Grade Mathematics Scores for DAEP, N = 45*

Mathematics scores	Levene's Test for Equality of Variances		t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Equal variances assumed	.22	.64	-.43	45	.67	-11.84	27.66
Equal variances not assumed			-.43	43.82	.67	-11.84	27.73

**Eighth Grade**

What relationship does gender have at each level of exclusionary discipline with academic achievement as measured by mathematics scores on the TAKS of students in grade 8? An independent-samples t-test was run for eighth grade and then for each level of discipline in eighth grade to determine if there were differences in mathematics scores on TAKS between males and females assigned to one of four levels of exclusionary discipline.

For eighth grade including all levels of exclusionary discipline, there was homogeneity of variances, as assessed by Levene's test for equality of variances ( $p = .80$ ). There was not a statistically significant mean difference in TAKS mathematics scores between eighth grade males ( $M = 715.26$ ,  $SD = 71.28$ ) than eighth grade females ( $M = 700.72$ ,  $SD = 72.03$ ) assigned to one of four exclusionary discipline levels,  $t(356) = 1.91$ ,  $p = .06$ . Results are reported in Table 81 and 82, respectively.

Table 81

*Group Statistics for Eighth Grade Mathematics Scores for all Exclusionary Discipline Levels, N =358*

Gender	N	Mean	Std. Deviation	Std. Error Mean
Male	202	715.26	71.28	5.02
Female	156	700.72	72.03	5.77

Table 82

*Eighth Grade Mathematics Scores for all Exclusionary Discipline Levels, N =358*

Mathematics scores	Levene's Test for Equality of Variances		t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Equal variances assumed	.06	.80	1.91	356	.06	14.54	7.63
Equal variances not assumed			1.90	331.77	.06	14.54	7.64

For eighth grade males in ISS there was homogeneity of variances, as assessed by Levene's test for equality of variances ( $p = .47$ ). There was not a statistically significant mean difference in TAKS mathematics scores between eighth grade males ( $M = 721.03$ ,  $SD = 70.23$ ) than eighth grade females ( $M = 708.08$ ,  $SD = 76.48$ ) assigned to ISS,  $t(233) = 1.35$ ,  $p = .18$ . Results are reported in Tables 83 and 84.

Table 83

*Group Statistics for Eighth Grade Mathematics Scores for ISS, N = 235*

Gender	N	Mean	Std. Deviation	Std. Error Mean
Male	131	721.03	70.22	6.14
Female	104	708.08	76.48	7.50

Table 84

*Eighth Grade Mathematics Scores for ISS, N = 235*

Mathematics scores	Levene's Test for Equality of Variances		t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Equal variances assumed	.52	.47	1.35	233	.18	12.95	9.59
Equal variances not assumed			1.34	211.83	.18	12.95	9.69

For eighth grade males in OSS there was homogeneity of variances, as assessed by Levene's test for equality of variances ( $p = .52$ ). There was not a statistically significant mean difference in TAKS mathematics scores between eighth grade males ( $M = 710.11$ ,  $SD = 73.34$ ) than eighth grade females ( $M = 703.04$ ,  $SD = 52.74$ ) assigned to OSS,  $t(61) = .43$ ,  $p = .67$ . Results are reported in Table 85 and 86, respectively.

Table 85

*Group Statistics for Eighth Grade Mathematics Scores for OSS, N = 63*

Gender	N	Mean	Std. Deviation	Std. Error Mean
Male	35	710.11	73.34	12.40
Female	28	703.04	52.74	9.97

Table 86

*Eighth Grade Mathematics Scores for OSS, N = 63*

Mathematics scores	Levene's Test for Equality of Variances		t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Equal variances assumed	.42	.52	.43	61	.67	7.08	16.49
Equal variances not assumed			.45	60.39	.66	7.08	15.91

For eighth grade males in a DAEP there was homogeneity of variances, as assessed by Levene's test for equality of variances ( $p = .63$ ). There was not a statistically significant mean difference in TAKS mathematics scores between eighth grade males ( $M = 699.25$ ,  $SD = 72.29$ ) than eighth grade females ( $M = 666.13$ ,  $SD = 63.33$ ) assigned to a DAEP,  $t(58) = 1.83$ ,  $p = .07$ . These results should be interpreted with caution due to low N. Results are reported in Tables 87 and 88, respectively.

Table 87

*Group Statistics for Eighth Grade Mathematics Scores for DAEP, N = 60*

Gender	N	Mean	Std. Deviation	Std. Error Mean
Male	36	699.25	72.29	12.05
Female	24	666.13	63.33	12.93

Table 88

*Eighth Grade Mathematics Scores for DAEP, N =60*

Mathematics scores	Levene's Test for Equality of Variances		t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Equal variances assumed	.23	.63	1.83	58	.07	33.13	18.15
Equal variances not assumed			1.87	53.69	.07	33.13	17.67

**RQ 5: Reading and Socioeconomic Status****Sixth Grade**

What relationship does socioeconomic status (SES) have at each level of exclusionary discipline with academic achievement as measured by reading scores on the TAKS of students in grades 6, 7, and 8? An independent-samples *t*-test was for run for each grade and then for each level of discipline in each grade to determine if there were differences in reading scores on TAKS between students not eligible and eligible for free or reduced lunch that were assigned to one of four levels of exclusionary discipline.

For sixth grade including all levels of exclusionary discipline by SES, there was homogeneity of variances, as assessed by Levene's test for equality of variances ( $p = .42$ ). There was a statistically significant mean difference in TAKS reading scores between not eligible ( $M = 759.78$ ,  $SD = 85.26$ ) than those eligible ( $M = 672.47$ ,  $SD = 89.34$ ) assigned to one of four exclusionary discipline levels,  $t(385) = 7.01$ ,  $p < .001$ . Results are reported in Tables 89 and 90.

Table 89

*Group Statistics for Sixth Grade Reading Scores for all Exclusionary Discipline Levels by SES, N = 387*

Socioeconomic status	N	Mean	Std. Deviation	Std. Error Mean
Not eligible	235	690.12	88.57	5.78
Eligible	152	679.64	102.02	8.27

Table 90

*Sixth Grade Reading Scores for all Exclusionary Discipline Levels by SES, N = 387*

Reading scores	Levene's Test for Equality of Variances		t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Equal variances assumed	.67	.42	7.07	385	.001	87.32	12.46
Equal variances not assumed			7.24	84.54	.001	87.32	12.07

For sixth grade in ISS by SES there was homogeneity of variances, as assessed by Levene's test for equality of variances ( $p = .39$ ). There was a statistically significant mean difference in TAKS reading scores between sixth grade not eligible ( $M = 759.16$ ,  $SD = 79.81$ ) than sixth grade eligible ( $M = 673.60$ ,  $SD = 82.73$ ) assigned to ISS,  $t(249) = 6.21$ ,  $p < .001$ . Results are reported in Tables 91 and 92, respectively.

Table 91

*Group Statistics for Sixth Grade Reading Scores for ISS by SES, N = 249*

Socioeconomic status	N	Mean	Std. Deviation	Std. Error Mean
Not eligible	43	759.16	79.81	12.17
Eligible	208	673.60	82.71	5.74

Table 92

*Sixth Grade Reading Scores for ISS by SES, N = 249*

Reading scores	Levene's Test for Equality of Variances		t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Equal variances assumed	.77	.39	6.21	249	.001	85.56	13.78
Equal variances not assumed			6.36	62.10	.001	85.56	13.45

For sixth grade OSS by SES there was homogeneity of variances, as assessed by Levene's test for equality of variances ( $p = .52$ ). There was not a statistically significant mean difference in TAKS reading scores between sixth grade not eligible ( $M = 736.42$ ,  $SD = 98.21$ ) than sixth grade eligible ( $M = 686.99$ ,  $SD = 83.62$ ) assigned to OSS,  $t(92) = 1.87$ ,  $p = .07$ . Results are reported in Tables 93 and 94, respectively.

Table 93

*Group Statistics for Sixth Grade Reading Scores for OSS by SES, N = 94*

Socioeconomic status	N	Mean	Std. Deviation	Std. Error Mean
Not eligible	12	736.42	98.21	28.35
Eligible	28	686.99	83.62	9.23

Table 94  
*Sixth Grade Reading Scores for OSS by SES, N =94*

Reading scores	Levene's Test for Equality of Variances		t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Equal variances assumed	.43	.51	1.87	92	.07	49.43	26.42
Equal variances not assumed			1.66	13.44	.12	49.43	29.82

For sixth grade DAEP by SES, the N values in both not eligible and eligible were too low and statistical analyses were not conducted.

### **Seventh Grade**

What relationship does SES have at each level of exclusionary discipline with academic achievement as measured by reading scores on the TAKS of students in grade 7? An independent-samples *t*-test was for run for seventh grade and then for each level of discipline in seventh grade to determine if there were differences in reading scores on TAKS between not eligible and eligible for free or reduced lunch that were assigned to one of four levels of exclusionary discipline.

For seventh grade including all levels of exclusionary discipline by SES, there was homogeneity of variances, as assessed by Levene's test for equality of variances ( $p = .71$ ). There was a statistically significant mean difference in TAKS reading scores between seventh grade not eligible ( $M = 741.57, SD = 82.86$ ) than seventh grade eligible ( $M = 704.44, SD = 81.64$ ) assigned to one of four exclusionary discipline levels,  $t(382) = 3.23, p = .001$ . Results are reported in Tables 95 and 96, respectively.

Table 95

*Group Statistics for Seventh Grade Reading Scores for all Exclusionary Discipline Levels by SES, N = 384*

Socioeconomic status	N	Mean	Std. Deviation	Std. Error Mean
Not eligible	60	741.57	82.86	10.70
Eligible	324	704.44	81.64	4.54

Table 96

*Seventh Grade Reading Scores for all Exclusionary Discipline Levels by SES, N = 384*

Reading scores	Levene's Test for Equality of Variances		t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Equal variances assumed	.15	.71	3.23	382	.001	37.13	11.50
Equal variances not assumed			3.20	81.64	.002	37.13	11.62

For seventh grade in ISS by SES, there was homogeneity of variances, as assessed by Levene's test for equality of variances ( $p = .87$ ). There was a statistically significant mean difference in TAKS reading scores between seventh grade not eligible ( $M = 738.33$ ,  $SD = 84.39$ ) than seventh grade eligible ( $M = 707.93$ ,  $SD = 85.56$ ) assigned to ISS,  $t(247) = 2.12$ ,  $p = .04$ . Results are reported in Tables 97 and 98, respectively.

Table 97

*Group Statistics for Seventh Grade Reading Scores for ISS by SES, N = 249*

Socioeconomic status	N	Mean	Std. Deviation	Std. Error Mean
Not eligible	43	738.33	84.39	12.87
Eligible	206	707.93	85.56	5.96

Table 98

*Seventh Grade Reading Scores for ISS by SES, N = 249*

Reading scores	Levene's Test for Equality of Variances		t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Equal variances assumed	.03	.87	2.12	247	.04	30.40	14.31
Equal variances not assumed			2.14	61.38	.04	30.40	14.18

For seventh grade in OSS by SES there was homogeneity of variances, as assessed by Levene's test for equality of variances ( $p = .61$ ). There was not a statistically significant mean difference in TAKS reading scores between seventh grade not eligible ( $M = 737.91$ ,  $SD = 88.61$ ) than seventh grade eligible ( $M = 703.91$ ,  $SD = 73.88$ ) assigned to OSS,  $t(86) = 1.40$ ,  $p = .17$ . Results are reported in Tables 99 and 100.

Table 99

*Group Statistics for Seventh Grade Reading Scores for OSS by SES, N = 88*

Socioeconomic status	N	Mean	Std. Deviation	Std. Error Mean
Male	49	705.02	79.04	11.29
Female	39	712.10	73.17	11.72

Table 100

*Seventh Grade Reading Scores for OSS by SES, N = 88*

Reading scores	Levene's Test for Equality of Variances		t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Equal variances assumed	.65	.42	-.43	86	.67	-7.08	16.42
Equal variances not assumed			-.44	84.00	.67	-7.08	16.27

For seventh grade in DAEP by SES the N values of not eligible and eligible were too low and statistical analyses were not conducted.

**Eighth Grade**

What relationship does socioeconomic status have at each level of exclusionary discipline with academic achievement as measured by reading scores on the TAKS of students in grade 8? An independent-samples t-test was for run for eighth grade and then for each level of discipline in eighth grade to determine if there were differences in reading scores on TAKS between not eligible and eligible for free and reduced lunch that were assigned to one of four levels of exclusionary discipline.

For eighth grade including all levels of exclusionary discipline by SES, there was homogeneity of variances, as assessed by Levene's test for equality of variances ( $p = .31$ ). There was a statistically significant mean difference in TAKS reading scores between eighth grade not eligible ( $M = 791.51$ ,  $SD = 113.33$ ) than eighth grade eligible ( $M = 752.90$ ,  $SD = 101.36$ ) assigned to one of four exclusionary discipline levels,  $t(356) = 3.14$ ,  $p = .002$ . Results are reported in Tables 101 and 102, respectively.

Table 101

*Group Statistics for Eighth Grade Reading Scores for all Exclusionary Discipline Levels by SES, N = 358*

Socioeconomic status	N	Mean	Std. Deviation	Std. Error Mean
Not eligible	101	791.51	113.33	11.28
Eligible	257	752.90	101.36	6.32

Table 102

*Eighth Grade Reading Scores for all Exclusionary Discipline Levels by SES, N = 358*

Reading scores	Levene's Test for Equality of Variances		t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Equal variances assumed	1.05	.36	3.14	356	.002	38.61	12.31
Equal variances not assumed			2.99	166.33	.003	38.61	12.93

For eighth grade in ISS by SES there was homogeneity of variances, as assessed by Levene's test for equality of variances ( $p = .25$ ). There was a statistically significant mean difference in TAKS reading scores between eighth grade not eligible ( $M = 818.81$ ,  $SD = 118.18$ ) than eighth grade eligible ( $M = 759.76$ ,  $SD = 94.73$ ) assigned to ISS,  $t(233) = 4.01$ ,  $p = .001$ . Results are reported in Tables 103 and 104, respectively.

Table 103

*Group Statistics for Eighth Grade Reading Scores for ISS by SES, N = 235*

Socioeconomic status	N	Mean	Std. Deviation	Std. Error Mean
Not eligible	67	818.81	118.18	14.44
Eligible	168	759.76	94.73	7.31

Table 104

*Eighth Grade Reading Scores for ISS by SES, N =235*

Reading scores	Levene's Test for Equality of Variances		t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Equal variances assumed	1.35	.25	4.01	233	.001	59.05	14.73
Equal variances not assumed			3.65	101.52	.001	59.05	16.18

For eighth grade in OSS by SES there was homogeneity of variances, as assessed by Levene's test for equality of variances ( $p = .07$ ). There was not a statistically significant mean difference in TAKS reading scores between eighth grade not eligible ( $M = 745.30$ ,  $SD = 47.33$ ) than eighth grade eligible ( $M = 753.15$ ,  $SD = 115.67$ ) assigned to OSS,  $t(61) = -.27$ ,  $p = .79$ . Results are reported in Tables 105 and 106, respectively.

Table 105

*Group Statistics for Eighth Grade Reading Scores for OSS by SES, N =63*

Socioeconomic status	N	Mean	Std. Deviation	Std. Error Mean
Not eligible	17	745.29	47.33	11.48
Eligible	46	753.15	115.67	17.05

Table 106

*Eighth Grade Reading Scores for OSS by SES, N =63*

Reading scores	Levene's Test for Equality of Variances		t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Equal variances assumed	3.42	.07	-.27	61	.79	-7.86	29.03
Equal variances not assumed			-.38	60.24	.70	-7.86	20.56

For eighth grade in DAEP by SES there was homogeneity of variances, as assessed by Levene's test for equality of variances ( $p = .87$ ). There was not a statistically significant mean difference in TAKS reading scores between eighth grade not eligible ( $M = 730.12$ ,  $SD = 105.03$ ) than eighth grade eligible ( $M = 725.84$ ,  $SD = 108.01$ ) assigned to DAEP,  $t(58) = 14$ ,  $p = .90$ . Results are reported in Tables 107 and 108, respectively.

Table 107

*Group Statistics for Eighth Grade Reading Scores for DAEP by SES, N = 60*

Socioeconomic status	N	Mean	Std. Deviation	Std. Error Mean
Not eligible	17	730.12	105.03	25.47
Eligible	43	725.84	108.01	16.47

Table 108

*Eighth Grade Reading Scores for DAEP by SES, N = 60*

Reading scores	Levene's Test for Equality of Variances		t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Equal variances assumed	.03	.87	.14	58	.90	4.28	30.71
Equal variances not assumed			.14	30.17	.89	4.28	30.34

## **RQ 6: Mathematics and Socioeconomic Status**

### **Sixth Grade**

What relationship does socioeconomic status have at each level of exclusionary discipline with academic achievement as measured by mathematics scores on the TAKS of students in grades 6, 7, and 8? An independent-samples  $t$ -test was for run for each grade and then for each level of discipline in each grade to determine if there were differences in mathematics scores on

TAKS between not eligible and eligible for free or reduced lunch that were assigned to one of four levels of exclusionary discipline.

For sixth grade including all levels of exclusionary discipline by SES, there was homogeneity of variances, as assessed by Levene's test for equality of variances ( $p = .29$ ). There was a statistically significant mean difference in TAKS mathematics scores between sixth grade not eligible ( $M = 711.6, SD = 92.45$ ) than sixth grade eligible ( $M = 643.40, SD = 81.82$ ) assigned to one of four exclusionary discipline levels,  $t(385) = 5.82, p < .001$ . Results are reported in Table 109 and 110, respectively.

Table 109

*Group Statistics for Sixth Grade Mathematics Scores for all Exclusionary Discipline Levels by SES, N =387*

Socioeconomic status	N	Mean	Std. Deviation	Std. Error Mean
Not eligible	60	711.67	92.45	11.94
Eligible	327	643.40	81.82	4.52

Table 110

*Sixth Grade Mathematics Scores for all Exclusionary Discipline Levels by SES, N =387*

Mathematics scores	Levene's Test for Equality of Variances		t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Equal variances assumed	1.12	.29	5.82	385	.001	68.27	11.73
Equal variances not assumed			5.35	76.89	.001	68.28	12.76

For sixth grade in ISS by SES there was homogeneity of variances, as assessed by Levene's test for equality of variances ( $p = .17$ ). There was a statistically significant mean difference in TAKS mathematics scores between sixth grade not eligible ( $M = 720.77$ ,  $SD = 100.32$ ) than sixth grade eligible ( $M = 648.51$ ,  $SD = 83.28$ ) assigned to ISS,  $t(249) = 4.99$ ,  $p < .001$ . Results are reported in Tables 111 and 112, respectively.

Table 111

*Group Statistics for Sixth Grade Mathematics Scores for ISS by SES, N =251*

Socioeconomic status	N	Mean	Std. Deviation	Std. Error Mean
Not eligible	43	720.77	100.32	15.30
Eligible	208	648.51	83.28	5.77

Table 112

*Sixth Grade Mathematics Scores for ISS by SES, N =251*

Mathematics scores	Levene's Test for Equality of Variances		t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Equal variances assumed	1.93	.17	4.99	249	.001	72.25	14.47
Equal variances not assumed			4.42	54.59	.001	72.25	16.35

For sixth grade in OSS by SES there was homogeneity of variances, as assessed by Levene's test for equality of variances ( $p = .19$ ). There was not a statistically significant mean difference in TAKS mathematics scores between sixth grade not eligible ( $M = 668.83$ ,  $SD = 48.36$ ) than sixth grade eligible ( $M = 647.50$ ,  $SD = 72.73$ ) assigned to OSS,  $t(92) = .98$ ,  $p = .33$ . These results should be interpreted with caution due to low N. Results are reported in Tables 113 and 114, respectively.

Table 113

*Group Statistics for Sixth Grade Mathematics Scores for OSS by SES, N =94*

Socioeconomic status	N	Mean	Std. Deviation	Std. Error Mean
Not eligible	12	668.83	48.36	13.96
Eligible	82	647.50	72.73	8.03

Table 114

*Sixth Grade Mathematics Scores for OSS by SES, N =94*

Mathematics scores	Levene's Test for Equality of Variances		t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Equal variances assumed	1.72	.19	.98	92	.33	21.33	21.72
Equal variances not assumed			1.33	19.20	.20	21.33	16.11

For sixth grade in a DAEP by SES the N values of not eligible and eligible were too low and statistical analyses were not conducted.

### **Seventh Grade**

What relationship does socioeconomic status have at each level of exclusionary discipline with academic achievement as measured by mathematics scores on the TAKS of students in grade 7? An independent-samples *t*-test was for run for seventh grade and then for each level of discipline in seventh grade to determine if there were differences in mathematics scores on TAKS between not eligible and eligible for free and reduced lunch that were assigned to one of four levels of exclusionary discipline.

For seventh grade including all levels of exclusionary discipline by SES, there was homogeneity of variances, as assessed by Levene's test for equality of variances ( $p = .45$ ). There

was a statistically significant mean difference in TAKS mathematics scores between seventh grade not eligible ( $M = 710.27$ ,  $SD = 10.13$ ) than seventh grade eligible ( $M = 676.35$ ,  $SD = 78.10$ ) assigned to one of four exclusionary discipline levels,  $t(382) = 3.09$ ,  $p = .002$ . Results are reported in Tables 115 and 116, respectively.

Table 115

*Group Statistics for Seventh Grade Mathematics Scores for all Exclusionary Discipline Levels by SES, N = 384*

Socioeconomic status	N	Mean	Std. Deviation	Std. Error Mean
Not eligible	60	710.27	78.43	10.13
Eligible	324	676.35	78.10	4.34

Table 116

*Seventh Grade Mathematics Scores for all Exclusionary Discipline Levels by SES, N = 384*

Mathematics scores	Levene's Test for Equality of Variances		t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Equal variances assumed	.57	.45	3.09	382	.002	33.91	10.98
Equal variances not assumed			3.08	82.15	.003	33.91	11.02

For seventh grade in ISS by SES there was homogeneity of variances, as assessed by Levene's test for equality of variances ( $p = .32$ ). There was a statistically significant mean difference in TAKS mathematics scores between seventh grade not eligible ( $M = 710.70$ ,  $SD = 81.68$ ) than seventh grade eligible ( $M = 681.78$ ,  $SD = 77.32$ ) assigned to ISS,  $t(247) = 2.21$ ,  $p = .03$ . Results are reported in Tables 117 and 118, respectively.

Table 117

*Group Statistics for Seventh Grade Mathematics Scores for ISS by SES, N = 249*

Socioeconomic status	N	Mean	Std. Deviation	Std. Error Mean
Not eligible	43	710.70	81.69	12.46
Eligible	206	681.78	77.32	5.39

Table 118

*Seventh Grade Mathematics Scores for ISS by SES, N = 249*

Mathematics scores	Levene's Test for Equality of Variances		t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Equal variances assumed	1.01	.32	2.21	247	.03	28.92	13.09
Equal variances not assumed			2.13	58.76	.04	28.92	13.57

For seventh grade in OSS by SES there was homogeneity of variances, as assessed by Levene's test for equality of variances ( $p = .68$ ). There was not a statistically significant mean difference in TAKS mathematics scores between seventh grade not eligible ( $M = 712.55$ ,  $SD = 74.20$ ) than seventh grade eligible ( $M = 673.48$ ,  $SD = 68.34$ ) assigned to OSS,  $t(86) = 1.85$ ,  $p = .07$ . Results are reported in Table 119 and 120, respectively.

Table 119

*Group Statistics for Seventh Grade Mathematics Scores for OSS by SES, N = 88*

Socioeconomic status	N	Mean	Std. Deviation	Std. Error Mean
Not eligible	11	712.55	74.20	22.37
Eligible	77	671.48	68.34	7.79

Table 120

*Seventh Grade Mathematics Scores for OSS by SES, N = 88*

Mathematics scores	Levene's Test for Equality of Variances		t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Equal variances assumed	.18	.68	1.85	86	.07	41.06	22.25
Equal variances not assumed			1.73	12.55	.11	41.06	23.69

For seventh grade in a DAEP by SES, the N values of not eligible and eligible were too low and statistical analyses were not conducted.

**Eighth Grade**

What relationship does socioeconomic status have at each level of exclusionary discipline with academic achievement as measured by mathematics scores on the TAKS of students in grade 8? An independent samples *t*-test was for run for eighth grade and then for each level of discipline in eighth grade to determine if there were differences in mathematics scores on TAKS between not eligible and eligible for free or reduced lunch and were assigned to one of four levels of exclusionary discipline.

For eighth grade including all levels of exclusionary discipline by SES, there was homogeneity of variances, as assessed by Levene's test for equality of variances ( $p = .83$ ). There was a statistically significant mean difference in TAKS mathematics scores between eighth grade not eligible ( $M = 725.26$ ,  $SD = 65.58$ ) than eighth grade eligible ( $M = 702.50$ ,  $SD = 73.33$ ) assigned to one of four exclusionary discipline levels,  $t(356) = 2.72$ ,  $p < .01$ . Results are reported in Table 121 and 122, respectively.

Table 121

*Group Statistics for Eighth Grade Mathematics Scores for all Exclusionary Discipline Levels by SES, N = 358*

Socioeconomic status	N	Mean	Std. Deviation	Std. Error Mean
Not eligible	101	725.26	65.58	6.53
Eligible	257	702.50	73.33	4.57

Table 122

*Eighth Grade Mathematics Scores for all Exclusionary Discipline Levels by SES, N = 358*

Mathematics scores	Levene's Test for Equality of Variances		t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Equal variances assumed	.05	.83	2.72	356	.01	22.76	8.37
Equal variances not assumed			2.86	203.24	.01	22.76	7.97

For eighth grade in ISS by SES there was homogeneity of variances, as assessed by Levene's test for equality of variances ( $p = .44$ ). There was a statistically significant mean difference in TAKS mathematics scores between eighth grade not eligible ( $M = 737.01$ ,  $SD = 62.45$ ) than eighth grade eligible ( $M = 706.64$ ,  $SD = 75.49$ ) assigned to ISS,  $t(233) = 2.92$ ,  $p < .01$ . Results are reported in Tables 123 and 124, respectively.

Table 123

*Group Statistics for Eighth Grade Mathematics Scores for ISS by SES, N = 235*

Socioeconomic status	N	Mean	Std. Deviation	Std. Error Mean
Not eligible	67	737.01	62.45	7.63
Eligible	168	706.64	75.49	5.82

Table 124

*Eighth Grade Mathematics Scores for ISS by SES, N =235*

Mathematics scores	Levene's Test for Equality of Variances		t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Equal variances assumed	.61	.44	2.92	233	.004	30.38	10.41
Equal variances not assumed			3.17	145.77	.002	30.38	9.60

For eighth grade in OSS by SES there was homogeneity of variances, as assessed by Levene's test for equality of variances ( $p = .93$ ). There was not a statistically significant mean difference in TAKS mathematics scores between eighth grade not eligible ( $M = 698.12$ ,  $SD = 54.47$ ) than eighth grade eligible ( $M = 710.24$ ,  $SD = 68.23$ ) assigned to OSS,  $t(61) = -.66$ ,  $p = .51$ . Results are reported in Tables 125 and 126, respectively.

Table 125

*Group Statistics for Eighth Grade Mathematics Scores for OSS by SES, N =63*

Socioeconomic status	N	Mean	Std. Deviation	Std. Error Mean
Not eligible	17	698.12	54.47	13.21
Eligible	46	710.24	68.23	10.06

Table 126

*Eighth Grade Mathematics Scores for OSS by SES, N =63*

Mathematics scores	Levene's Test for Equality of Variances		t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Equal variances assumed	.01	.93	-.66	61	.51	-12.12	18.42
Equal variances not assumed			-.73	35.67	.47	-12.12	16.61

For eighth grade in a DAEP by SES there was homogeneity of variances, as assessed by Levene's test for equality of variances ( $p = .68$ ). There was not a statistically significant mean difference in TAKS mathematics scores between eighth grade not eligible ( $M = 706.06$ ,  $SD = 77.95$ ) than eighth grade eligible ( $M = 678.07$ ,  $SD = 66.22$ ) assigned to a DAEP,  $t(58) = 1.40$ ,  $p = .17$ . Results are reported in Tables 127 and 128.

Table 127

*Group Statistics for Eighth Grade Mathematics Scores for DAEP by SES, N =60*

Socioeconomic status	N	Mean	Std. Deviation	Std. Error Mean
Not eligible	17	706.06	77.95	18.91
Eligible	43	678.07	66.22	10.10

Table 128

*Eighth Grade Mathematics Scores for DAEP by SES, N =60*

Mathematics scores	Levene's Test for Equality of Variances		t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Equal variances assumed	.18	.68	1.40	58	.17	27.99	19.96
Equal variances not assumed			1.31	25.64	.20	27.99	21.43

### **RQ 7: Reading and Special Education Status**

Data were gathered on students enrolled in grades six, seven, and eight in a South Texas school district for the 2010-2011 academic year where students were assigned an exclusionary discipline consequence analyzed by special education status. Special education status is the determination of a student as eligible or not eligible for special education services as measured by a student's eligibility to participate in the district's Special Education Program or not.

Archived data obtained from the TEA for the 2010 -2011 school year for use in this study was not formatted in a manner that would allow statistical analysis to be conducted.

### **RQ 8: Mathematics and Special Education Status**

Data were gathered on students enrolled in grades six, seven, and eight in a South Texas school district for the 2010-2011 academic year where students were assigned an exclusionary discipline consequence analyzed by special education status. Special education status is the determination of a student as eligible or not eligible for special education services as measured by a student's eligibility to participate in the district's Special Education Program or not.

Archived data obtained from the TEA for the 2010 -2011 school year for use in this study was not formatted in a manner that would allow statistical analysis to be conducted.

### **Summary of Results**

Quantitative data from the reading and mathematics sections of the Texas Assessment of Knowledge and Skills (TAKS) for the 2010-2011 school year in a South Texas school district were used to examine the relationship between exclusionary discipline practices and the academic achievement of middle school students. The study relied on archived TAKS performance and exclusionary discipline data collected and managed by the Texas Education Agency.

Eight research questions were considered using data from 12 middle schools in a South Texas school district. Multiple analyses for each of the six research questions were based on the measures for each of the dependent variables. Descriptive statistics were calculated for all variables and reported in Tables 4–22. Descriptive Statistics reported that the distribution of participants by grade was 388 for sixth, 285 for seventh, and 358 for eighth with a total count of 1, 131 participants combined. Of the 1,131, 58% of participants were male and 42% were

female. In addition, of the 1,131 participants, 81% were classified as low socioeconomic status as measured by their eligibility to receive free or reduced lunch and 19 were classified as not low socioeconomic status as measured by their ineligibility to receive free or reduced lunch.

Participants that experienced any level of exclusionary discipline scored lower than the state average in all grades in both reading and mathematics. In some cases, such as sixth grade mathematics participants that experienced any level of exclusionary discipline only scored seven points above the minimum score to meet the standard. In eighth grade mathematics the difference was only two points. Additionally, participants that experienced any level of exclusionary discipline and were classified as low socioeconomic status as measured by their eligibility to receive free or reduced lunch scored lower than the state average in all grades in both reading and mathematics.

Frequency distributions, crosstabs, means, and standard errors, when appropriate, were produced and reported in Tables 23 to 43. Research Question 1 and 2 examined whether the level of exclusionary discipline affects academic achievement as measured by reading and math scores on the TAKS of students in grades 6, 7, and 8, respectively? For each grade level a one-way ANOVA was conducted to determine if reading scores on TAKS were different for groups at different exclusionary discipline levels. The same was conducted for mathematics, Research Question 2. Statistical significance was found in eighth grade in both reading and mathematics, Statistical significance in reading or math was not found in grades six and seven. In reading, eighth grade a Tukey post-hoc analysis revealed the mean increase from ISS ( $M = 776.59$ ) to DAEP ( $M = 727.05$ ) (49.54 points, 95% CI [13.89, 85.19] to be statistically significant ( $p = .003$ ). In mathematics eighth grade, a Tukey post-hoc analysis revealed the mean increase from

ISS ( $M = 715.30$ ) to DAEP ( $M = 686.00$ ) ( $29.30$ , 95% CI [ $5.04$ ,  $53.56$ ]) was statistically significant ( $p = .02$ ).

The effectiveness of the independent variables, gender and socioeconomic status in relation to the academic achievement on the TAKS was examined and reported in Tables 44-131. Research Question 3 and 4 examined the relationship gender had at each level of exclusionary discipline with academic achievement as measured by reading and mathematics scores on the TAKS of students in grades 6, 7, and 8, respectively. Research Question 3 found that there was a statistically significant mean difference in TAKS reading scores between eighth grade males ( $M = 749.95$ ,  $SD = 106.77$ ) than eighth grade females ( $M = 692.71$ ,  $SD = 97.92$ ) assigned to a DAEP,  $t(58) = 2.10$ ,  $p = .04$ . Results were reported in Tables 44-131. Research Question 4 found that there was a statistically significant mean difference in TAKS mathematics scores between sixth grade males ( $M = 640.39$ ,  $SD = 89.48$ ) than sixth grade females ( $M = 640.39$ ,  $SD = 89.48$ ) assigned to a ISS,  $t(249) = 3.00$ ,  $p = .003$ .

Research Question 5 and 6 examined the relationship socioeconomic status (SES) had at each level of exclusionary discipline with academic achievement as measured by reading and mathematics scores on the TAKS of students in grades 6, 7, and 8, respectively. Research Question 5 found that there was a statistically significant mean difference in TAKS reading scores between not eligible ( $M = 759.78$ ,  $SD = 85.26$ ) than those eligible ( $M = 672.47$ ,  $SD = 89.34$ ) assigned to one of four exclusionary discipline levels,  $t(385) = 7.01$ ,  $p < .001$ . Research Question 6 found that there was a statistically significant mean difference in TAKS mathematics scores between not eligible ( $M = 711.6$ ,  $SD = 92.45$ ) than those eligible ( $M = 643.40$ ,  $SD = 81.82$ ) assigned to one of four exclusionary discipline levels,  $t(385) = 5.82$ ,  $p < .001$ .

Data to address Research Questions 7 and 8 were not analyzed. Although data was gathered on students enrolled in grades six, seven, and eight in a South Texas school district for the 2010-2011 academic year where students were assigned an exclusionary discipline consequence analyzed by special education status, archived data obtained from the TEA for the 2010 -2011 school year for use in this study was not formatted in a manner that would allow statistical analysis to be conducted.

## CHAPTER V

### DISCUSSION, IMPLICATIONS, RECOMMENDATIONS FOR FUTURE RESEARCH, AND CONCLUSIONS

High-stakes testing and stringent accountability standards established under No Child Left behind (NCLB) have systematically changed schools across America (Bush, 2001, p.2). Specifically, NCLB requires that schools achieve adequate yearly progresses which are, “performance goals that, if not met, trigger sanctions of increasing severity on schools and districts” (Kreig, 2011, p. 654). Measurements of prescribed levels are assessed via standardized tests and

[a]s mandated by NCLB, each school must test five distinct racial groups and three categories of students: Black, Hispanic, White, American Indian, Asian/Pacific Islander, low-income, bilingual and special education. For a school to make AYP, the percentage of students in each group within that school who demonstrate proficiency on a high-stakes test must exceed a state determined pass rate (Kreig, 2008, p. 654).

According to Kravevich (2007), a significant increase in school accountability for the academic achievement of all students has made it more important than ever to keep students in their general education environment. Despite concerns regarding the removal of students from the classroom for disciplinary consequences, zero-tolerance and other discipline related policies are still enforced at alarming levels that result in exclusionary discipline practices such as ISS, OSS, and removal to a DAEP and/or expulsion to a JJAEP (Christle, Nelson, & Jolivet, 2004). Each time a student is removed from the classroom as a consequence of behavior, they are denied learning in the general education classroom. Moreover, NCLB does not allow exceptions for failing to meet performance requirements for students that were excluded from the classroom for

disciplinary reasons. Regardless if a student is in class or not, they must still achieve at prescribed levels on standardized tests. This is especially true in the eighth grade which is designated a Student Success Initiative (SSI) grade level by the Texas Education Agency. As an SSI grade level, “advancement requirements apply to students enrolled in... eighth grade,” which means all eighth grade students must take and pass the TAKS reading and mathematics sections in order to be promoted to the ninth grade (Texas Education Agency, 2014, p. 2). An eighth grader must pass the TAKS reading and mathematics portion regardless if they have been in class or not. This is problematic with regards to exclusionary discipline in that students are denied learning because of behavior and therefore may not have sufficient in-class time and instruction to pass the reading and math sections of TAKS. This problem was the focus of this study: What is the relationship between exclusionary discipline practices and the academic achievement of middle school students as measured by reading and mathematics sections of the Texas Assessment of Knowledge and Skills (TAKS)?

### **Restatement of the Problem**

The problem investigated by this study was the extent of the effects of exclusionary discipline on middle school student academic achievement as measured by the Texas Assessment of Knowledge and Skills (TAKS). As Gonzales (2006) related, middle school students often miss instructional time because of behavioral problems. In Texas, administrators assign students with behavior problems to one of four exclusionary levels of discipline: In-school suspension (ISS), Out-of-school suspension (OSS), removal to a Disciplinary Alternative Education Program (DAEP), or expulsion to a Juvenile Justice Alternative Education Program (JJAEP). When excluded students missed instruction time due to exclusionary discipline, it raised the question of how well these students performed on high-stakes testing.

In each of the four levels of exclusionary discipline, administrators removed middle school students from their regular classroom where they normally received content instruction specifically geared to improve their academic achievement. In-school suspension was the only one of the four levels that allowed middle school students to remain connected to the school campus. The other three, OSS, removal to DAEP, and expulsion to JJAEP, disconnected the middle school student from his or her school campus. More specifically, the ISS level excluded the student from class from one to three days, but they physically remained on the school campus and his or her overall school routine of interacting with peers on the way to school or passing teachers through the halls was not disrupted, albeit his or her temporary isolation to the ISS classroom. This was not the case in the OSS level because it physically excluded the student from campus for up to three full instructional days. The assignment to the OSS level disrupted the student's routine of getting up for school and interacting with school routines with which he or she is accustomed. Similar to OSS in that students are physically disconnected from the school campus, the DAEP and JJAEP levels are much more severe punishments where students are excluded from three to 180 instructional days per infraction (Texas Education Code §37.000, 2014). When these middle school students missed instructional time due to any of the four levels of exclusionary discipline, the question of how well these students perform on high-stakes testing was raised.

### **Purpose of the Study**

The purpose of this study was to examine the relationship between exclusionary discipline practices and the academic achievement of middle school students as measured by reading and mathematics sections of the Texas Assessment of Knowledge and Skills (TAKS) in a South Texas school district. Administrators assigned students any one of four levels of

exclusionary discipline: (a) ISS; (b) OSS; (c) Removal to DAEP; and (d) Expulsion to a JJAEP. There were two independent variables: (a) levels of exclusionary discipline; and (b) demographic information (gender, socioeconomic status and special education status). There was one dependent variable: The Texas Assessment of Knowledge and Skills (TAKS). The TAKS assessment had five scales of measurement: (a) Reading; (b) Science; (c) Social Studies; (d) Mathematics; and (e) Writing. Because students are required to test in Writing during grade seven and in Science and Social Studies during grade eight, those subjects were not included in the study. Students in grades six, seven, and eight were required to take reading and mathematics TAKS annually. Therefore, this study only looked at reading and mathematics. The study examined the use of the four levels of exclusionary discipline to understand their impact on academic achievement of students in middle school. Additionally the study examined the relationship gender and levels of exclusionary discipline, socioeconomic status and levels of exclusionary discipline, and special education status and levels of exclusionary discipline have with academic achievement.

### **Discussion**

The NCLB Act is the most recent form of education improvement policy that developed from the Elementary and Secondary Education Act of 1965 (ESEA) (New America Foundation, 2014, para. 1-2). The 1994 reauthorization of ESEA, better known as the Improving American's School Act, implemented significant standards and accountability goals for states and local school districts in order to receive federal education dollars. The latest reauthorization of ESEA in 2002, NCLB, produced the current standards and accountability structure to which schools must adhere in order to receive funding. The goal of NCLB (2002) was to improve educational equity for all students and ensure that each student received a high quality education that would

prepare the enter college and/or the workforce. Ultimately, the goal of NCLB was to make sure all students achieved academic success.

In order to achieve this goal of academic success, as set forth under NCLB, a student must be in school and class during instructional time to learn the material. If they are not in class learning from a certified content teacher, how are they supposed to learn? Despite extensive literature arguing that exclusionary discipline practices actually do more harm than good, schools still continue to “abruptly deploy [exclusionary discipline] as—the quick fix...easier in the short term for the individual teacher, administrator, or other school staff,” (Rossi, 2006, p. 45). Furthermore leading educational researchers, Christle et al. (2004) concluded that “suspension may be a temporary solution to a behavior problem, but it is academically detrimental and may produce life-long, negative effects,” (p. 521).

Findings from this study found that participants that experienced any level of exclusionary discipline scored lower than the state average in all grades in both reading and mathematics. In some cases, such as sixth grade mathematics participants that experienced any level of exclusionary discipline only scored seven points above the minimum score to meet the standard. In eighth grade mathematics the difference was only two points. This is important in that it validates research that current NCLB accountability gives schools incentives to punish, and ultimately expel students who are struggling. For example, Metze (2012) found that “some school districts, for their own purposes, have manipulated placements and data by the creation of a non-supportive environment in the schools to push out low-achieving-often minority-students, because high-stakes accountability testing created incentives for the schools to cheat” (p. 2).

Participants that experienced any level of exclusionary discipline and were classified as low socioeconomic status as measured by their eligibility to receive free or reduced lunch scored

lower than the state average in all grades in both reading and mathematics. This is important because NCLB (2001) required states to include four nonnegotiable components as part of their school accountability systems: (a) states had to assess public school students in reading and mathematics in grades three through eight and at least once in grades 10 through 12; (b) states had to rate schools performance based on overall student performance and subgroup performance on the Texas Assessment of Knowledge and Skills; (c) schools within the state had to make documented adequate yearly progress (AYP) towards the stated goal of having all students achieve proficiency in reading and math by the 2013-2014 school year; and (d) states had to implement rewards and a series of progressive increasing sanctions for persistently low-performing schools that receive federal funding to support at-risk and low socioeconomic status students. Concerning AYP, schools had to meet the standard first using all student scores campus wide and in the eight designated subgroups: American Indian; Asian/Pacific Islanders; Black; Hispanic; White; special education; limited English; and economically disadvantaged students. NCLB aimed to ensure that all students, but more so economically disadvantaged students received a high quality education that allowed them to achieve academic success. The results of this study contradict this goal and only further support existing research that students that experience any level of exclusionary discipline are often already disadvantaged, are more likely to belong to an ethnic minority, and/or are of low socioeconomic status (Hemphill et al., 2014). Researchers have shown that students of African American and Hispanic descent are significantly overrepresented in suspension rates (Skiba & Raush, 2006a, & b). Thus, results found in this study further support Casella's (2003) contention that "punishment negatively affects those who are already negatively affected by poverty, racism, academic failure and other realities" (p. 879).

Evidence from Gregory, Skiba and Noguera's (2010) discipline gap, exemplified by disproportionate representation of school discipline among students of color was found. For example, zero tolerance policies have contributed to the discipline gap between White students and students of color. Researchers argue that out of school suspensions actually negatively affect student outcomes on statewide test scores, regardless of student demographics (Skiba, 2014). This is especially problematic because zero tolerance policies and school discipline options, such as suspensions and expulsions were intended to increase school safety. However, despite documented decreases in overall school crime (NCES, 2009), schools still rely heavily on exclusionary discipline practices to address student behaviors (American Psychological Association, 2008).

Results reported in Research Questions 1 and 2 did not show statistical difference that the level of exclusionary discipline affects academic achievement as measured by reading and mathematics scores on the TAKS in grades six or seven. However, statistical significance was found in eighth grade in both reading and mathematics. Specifically, the affect was most notable at the eighth grade in reading as a Tukey post-hoc analysis. It revealed the mean increase from ISS ( $M=776.59$ ) to DAEP ( $M= 727.05$ ) (49.54 points, 95% CI [13.89, 85.19]) to be statistically significant ( $p = .003$ ). In mathematics eighth grade, a Tukey post-hoc analysis revealed the mean increase from ISS ( $M= 715.30$ ) to DAEP ( $M=686.00$ ) (29.30, 95% CI [5.04, 53.56]) and was statistically significant ( $p = .02$ ). This finding supports previous research that students, who are physically excluded from school the campus, as is the case with removal to a DAEP, experience lower school engagement levels and may drop out of school (Metze, 2012). When assigned ISS as a consequence, the student remains on the school campus. Though they are isolated, they are still attached to the campus as well as to the teachers, and other school staff that may provide the

only daily support in the form of conveyed respect and concern for well-being that is extremely important for a student's development of a healthy sense of self-worth and confidence (Gregory & Cornell, 2009). Furthermore, a student assigned ISS still has a connection to the school, even if it is temporarily limited in scope if he or she is isolated to a specific classroom. Assignment of ISS allows the student to maintain a level of normalcy in that he or she still sees the same faces on their way to school, knows his or her way around campus, and who to contact if they need help. When a student is removed to a DAEP his or her normal routine is disrupted because they were assigned to a brand new school campus. The student must learn a new routine, learn a new campus, and reestablish relationships with teachers and staff. In middle school this is problematic because middle school students are already experiencing difficult times as they progress through the stages of early adolescent development. For example, researchers Steinberg (2011) and Roaten and Roaten (2012) found that adolescence is a time of critical growth in the structure and function of the brain, second only to the first three years of life, in terms of major developments and drastic changes. Thus, early adolescent development combined with the upset in normalcy experienced by middle school students that are physically excluded from a campus and removed to a DAEP can be overwhelming which is then manifested in lower scores on TAKS in both reading and mathematics.

One aspect related to lower scores in both reading and mathematics to consider is the transition experience excluded students face enrolling and withdrawing from one campus to another. In other words, what procedures and supports are in place for students transitioning out of the home campus to OSS, DAEP or JJAEP and for those transitioning back into the home campus from OSS, DAEP, or JJAEP? Research has shown that overall middle school years are difficult for youth because of the extensive physical changes they undergo as part of early

adolescence (Roaten & Roaten, 2012). Coupled with poorly established entering and exit transition procedures and support systems and the student may experience extreme emotional distress, anxiety, and an overall sense of hopelessness (Elias, 2001). For example, Theriot and Dupper (2010) examined student discipline problems in students making the transition from elementary to middle school and found that “the sizable increase in infractions overall and across categories suggests that discipline problems associated with the transition to middle school impact all schools and student groups” (p. 215). Although slightly different in nature, the transition from a home campus to a DAEP or a JJAEP can include similar stressors found in the transition from elementary to middle school. Transitioning students must learn how to function on the new campus, where to go for help, who is in charge, and the general lay of the land. Similarly after having spent time at a DAEP or a JJAEP, or even just being suspended for three days, students could experience extreme stress related to how they may be perceived once they return, will their friends still accept them, with whom will they eat lunch, and are there new rules/staff/procedures in place?

Research Questions 3 and 4 examined the relationship gender had at each level of exclusionary discipline with academic achievement as measured by reading and mathematics scores on the TAKS of students in grades 6, 7, and 8, respectively. Research Question 3 found that there was a statistically significant mean difference in TAKS reading scores between eighth grade males ( $M = 749.95, SD = 106.77$ ) and eighth grade females ( $M = 692.71, SD = 97.92$ ) assigned to a DAEP,  $t(58) = 2.10, p = .04$ . Results were reported in Table 63 and 64. Research Question 4 found that there was a statistically significant mean difference in TAKS mathematics scores between sixth grade males ( $M = 674.70, SD = 88.72$ ) and sixth grade females ( $M = 640.39, SD = 89.48$ ) assigned to ISS,  $t(249) = 3.00, p = .003$ . Results were reported in Tables 67

and 68. These results are important because the vast majority of students referred to DAEPs are males. For example, Reyes (2001) found that at DAEPs males tended to be over-represented. Specifically, Reyes found that “in the middle school level, there was a 68-70% male representation and a 30-32% female representation, while in the high school level, the gender gap narrowed to 55% to 57% male representation and a 45% to 43% female representation” (p. 549). One explanation for the overrepresentation of males at DAEPs is

[t]here is consensus that the boys go to corrections, and the girls do not, as a rule.

While there are, of course, exceptions, generally criminal justice system involvement affects boys more than girls. Boys and girls also, when both are engaged in the criminal justice system, have different types of records. The girls may get arrested for petty theft, domestic disturbances, even truancy, which is more likely to trigger involvement with social services or truancy court than the juvenile justice system. The boys... get incarcerated for “real” crimes (drugs, stealing cars, gang violence, etc.) (Bennett & MacIver, 2009, p. 15).

Dictated by the TEA Code, Chapter 37 (2014), DAEPs are designed to serve serious criminal related infractions such as felonies, assaults, drugs or alcohol related crimes, terroristic threats, or other violence related crimes. As such, curriculum, instruction, and teaching methods at DAEPs are geared toward the population they will serve. Therefore, since boys have been shown to commit “real crimes” that lead to interaction with the juvenile justice system, they are the population most likely be placed at a DAEP. Instructional strategies, schedules, teacher experience are not geared to serving females which may account for the mean differences in scores between eighth grade males and females in reading as well as sixth grade males and females in mathematics.

Research Questions 5 and 6 examined the relationship socioeconomic status (SES) had at each level of exclusionary discipline with academic achievement as measured by reading and mathematics scores on the TAKS of students in grades 6, 7, and 8, respectively. Research Question 5 found that there was a statistically significant mean difference in TAKS reading scores between not eligible ( $M = 759.78$ ,  $SD = 85.26$ ) and those eligible ( $M = 672.47$ ,  $SD = 89.34$ ) assigned to one of four exclusionary discipline levels,  $t(385) = 7.01$ ,  $p < .001$ . Research Question 6 found that there was a statistically significant mean difference in TAKS mathematics scores between not eligible ( $M = 711.6$ ,  $SD = 92.45$ ) and those eligible ( $M = 643.40$ ,  $SD = 81.82$ ) assigned to one of four exclusionary discipline levels,  $t(385) = 5.82$ ,  $p < .001$ . In both questions the findings are important because low SES has been shown to be positively related to suspension rates, academic failure, and dropout rate (Christle et al., 2004). Such research that showed low socioeconomic status strongly linked to a student's likelihood of dropping out prompted the NCLB accountability system to focus on students of low socioeconomic status (Chamberlain, 2013). Similarly, research by Kim (2009/2010) noted that increased dropouts are the results of "policies and practices that systematically push at-risk youth out of mainstream public schools and into the juvenile or criminal justice systems" (p. 956). Furthermore, if a student drops out because of repeated exclusionary discipline, he or she increases his or her chance for entering the "school-to-prison pipeline" (Carmichael et al., 2011; Muncie, 2008). This is problematic because if a student drops out and enters the prison system, money that should be used to fund schools instead is redirected to prisons and/or to welfare benefits that dropouts will need because they lack the education to obtain living wage incomes to support themselves. Society as a whole also stands to lose significant lifetime tax revenues that a drop

out otherwise would have contributed if he or she had successfully completed high school and gone on to obtain higher employment earnings (Chamberlain, 2013).

Research Questions 7 and 8 attempted to examine the relationship special education status had at each level of exclusionary discipline with academic achievement as measured by reading and mathematics scores on the TAKS of students in grades 6, 7, and 8, respectively. Archived data obtained from the TEA for the 2010 -2011 school year for use in this study was not formatted in a manner that would allow statistical analysis to be conducted.

### **Implications**

The results of the study provide insights into how the educational system, in an attempt to handle discipline problems, creates an environment that may foster lower student academic achievement. This is further compounded by students' background. In the study when compared to state scores, students in ISS, OSS, DAEP, and JJAEP scored lower than the state average. Additionally, when students are designated as low socioeconomic status, their test scores are significantly lower. Moreover, the discipline environment tends to cater to male behaviors more than females. As such, there are several implications of low academic performance of students referred to ISS, OSS, and DAEP.

Findings from this study could bring increased awareness among school leaders to the detrimental effects any level of exclusionary discipline can have on the academic achievement of middle school students. In addition, school leaders may specifically address the significant impacts that exclusionary discipline practices, particularly the use of OSS and removal to a DAEP, have on females and low SES students. To limit the effects of exclusionary discipline on these populations, some researchers have argued in favor of implementing restorative justice programs. According to Pavelka (2011), restorative justice is a principle-based model that seeks

to determine the impact of the misbehavior and establish a mutual, prescriptive agreement for repairing the harm caused by the wrongdoing (p. 15). Restorative justice is based on:

three core principles [which include]: Repair harm. Restorative justice requires that victims and communities are healed of the harm which resulted from the wrongful occurrence. Wrongdoers are held accountable for their actions and encouraged to make positive changes in their behavior. Reduce risk. Community safety requires practices that reduce risk and promote the community's capacity to manage behavior. Citizens feel safe and are able to live in peace when wrongful behavior is prevented and controlled.

Empower community. Schools, along with the external community, must take an active role in and responsibility for the restorative response by collectively addressing the impact of the wrongdoing and the reparation. Students are empowered as active participants in the resolution process (Pavelka, 2013, p. 15).

The use of a restorative justice based programs would require schools to change campus culture whereby disciplinary standards are addressed via collaborative approaches that balance the needs of the victim and the school community with accountability for the offender. Because restorative measures run counter to traditional school discipline policies based in punitive sanctions, moving to a restorative justice model would not be an easy task. As such, Pavelka (2013) stated that in order for any restorative justice program to work it must be implemented with fidelity and it would require "strong leadership, vision, and empowerment among administrators, faculty, staff, students, volunteers, and the community" (p. 17).

Campus administrators should consider alternative disciplinary techniques that do not exclude students from the classroom environment whenever possible. Though the researcher recognizes that some disciplinary infractions of a severe criminal nature warrant a removal to a

DAEP and/or JJAEP, administrators should take greater care in ensuring that only the most severe of disciplinary infractions are assigned exclusionary discipline such as OSS and removal to a DAEP. Discipline infractions that are subjective in nature such as disrupting the classroom environment should not justify a removal to a DAEP, even though under Chapter 37, TEC, such a removal is permitted for up to 180 days. Administrators should opt for alternative sanctions that keep the student on campus and in class. For example, in California, state education law allows school districts to assign community service as a form of discipline and/or as an alternative to suspension (Robinett, 2012, p. 34). Based on the level of infraction, the students can complete the community service (clean graffiti or pick up trash) on campus before or after school rather than removing them from the classroom during instructional time. For more serious offenses that otherwise might warrant longer suspensions and thus greater community service hours, students can complete the community service at local partner agencies (animal shelter, women's or homeless shelters) that are open in the evenings or on the weekends. Extending on this idea, some researchers have argued that community service be assigned to parents as well (Garrett, 2012; Pavelka, 2013). By mandating community service for both parent and child, the time might allow parents to bond with their child while positively interacting with school staff in community based projects.

Findings from this study with regards to the use of ISS as an exclusionary form of discipline, support previous research that if students remain on campus and are connected and engaged, even marginally, to the school environment, they will perform better on TAKS reading and mathematics test than those that are completely disengaged and excluded from the school campus (Wilson, 2014; Evan & Didlick-Davis, 2012). For example, an infraction such as a scuffle between boys might lead to an assignment to ISS for one or two days. This would isolate

them to a single classroom away from content instruction and away from in-class teacher support. To lessen the impact of exclusionary discipline, some researchers suggest that “school-based social-cognitive and conflict-resolutions interventions” such as counseling and conflict coping skills, have shown promise as successful alternatives to ISS (Fenning, Pulaski, Gomez, Morello, Maciel, & Maroney, 2012, p. 117). One intervention identified is a program called Making the Smart Choice, which is designed to teach students alternative actions to physical violence via skills based training. The program showed promising results, “Data for out-of-school suspensions for all infractions and for physical violence showed that 4 years after the start of the intervention, suspensions for school-based violence were cut in half compared to the 4 years prior to the start of the intervention” (Bruenlin, Cimmarusti, Hetherington, & Kinsman, 2006, p. 246). Part of the success of the program is that students remain on campus, connected to the familiar, while leaning the skills to navigate through various situations they may encounter. By remaining on campus, and not having to relearn a campus, the norms, and rules, the student has a greater chance at learning the skill needed to improve his or her behavior.

Serious incidents of inappropriate behaviors such as assaults resulting in bodily injuries, where ISS is not an option, might warrant OSS for one to three days. An OSS assignment not only excludes the student from the classroom, but it also physically removes the student from the school campus and disengages him or her from the normal school routines. For some the disengagement and deviation from the norm might actually exacerbate the emotional or mental issue that caused the student to react inappropriately in the first place. This is of particular concern for middle school students as they are already experiencing phenomenal growth and change as they progress through the five stages of early adolescence development (Hall, 1904; Flavell 1963; Havighurst, 1968; Piaget, 1952 & 1960). Removing the student from the situation

via OSS only solves the problem for the short term. However, to truly address the root problem, the student displaying the inappropriate behaviors must be comprehensively helped. Some researchers recommend a program called Alternatives to Suspension for Violent Behavior (ASVB) as an alternative to OSS for more serious offenses where ISS does not suffice. Although a student is excluded from the campus, under the ASVB Program a mediator directly associated with the student's home campus meets off campus with the student and his or her family, perhaps in their home, to collaborate, discuss and reach an agreement about the repercussions of the student's actions. Together they develop a plan to help the student learn alternative behaviors in order to get them back on campus and into the classroom. The mediator is the connection to the school routine and serves as a reminder that though he or she is temporarily excluded. The student is still part of the school and able to return. One study showed promising results in that students "who completed ASVB were four times less likely to receive an out-of-school suspension for physical altercations and received fewer referrals than students who did not participate in ASVB" (Chin, Dowdy, Jimerson, & Rime, p. 160 ). Although the student does not remain at the campus, the key factor of remaining connected to the campus is still intact.

Criminal offenses, such as possession of marijuana or unauthorized use of a vehicle, result in an automatic removal to a DAEP and possibly expulsion to a JJAEP. In such cases, the state mandates that a student be excluded from the school campus for up to 180 instructional days per infraction. For example, eighth grader John steals a car and is caught by police. In the process of the search, the police find John has 5 ounces of marijuana in his possession. He is charged with two separate criminal counts, auto theft and drugs. Once his home school is notified of his pending charges, he is removed to a DAEP and possibly JJAEP (depending on prior history or seriousness of charge) for up 360 instructional days. The exclusionary discipline

consequence is a state mandated requirement for at least one of the infractions, but districts retain discretion to remove or not on the secondary offense (TEC, Chapter 37, 2014). In this case, researchers argue that Positive Behavioral Interventions and Supports (PBIS) offer a more comprehensive approach to minimize school disruption by incorporating proactive alternatives, such as positive discipline, school management, and a tiered approach to addressing the increasing behavioral needs of students (Darensbourg, Perez, & Blake, 2010, p. 200).

Specifically, the PBIS intervention program

[views] the cause of behavior as an interaction between the individual and his environment... Therefore, it is assumed that by changing the environment through the universal provision of proactive and positive responses to discipline, changes in student and staff behavior will occur and lead to reductions in disproportionate representation in punitive discipline practices (Darensbourg, Perez, & Blake, 2010, p. 201).

Unfortunately, there is little empirical evidence that PBIS provides the inventions and support needed to limit the effects exclusionary discipline like removal to DAEP and JJAEP. Additional studies that specifically target PBIS as an intervention to exclusionary discipline like removal to DAEP and JJAEP are needed.

Though this study found that males perform better than females on TAKS reading in eighth grade and TAKS mathematics in sixth grade, school administrators should look to increase the quality and intent of instruction as it applies to females assigned to DAEPs. School leaders should provide equal quality of educational opportunities to both genders regardless if they are equally represented in numbers. Though not considered a program, counseling by school-based mental health professionals is one method for ensuring females are provided with equal opportunities to achieve academic success while at a DAEP. For example, school-based

mental health professionals could consult with teachers, administrators and other campus staff to implement gender competency trainings and to educate school personnel on specific classroom management techniques aimed at ensuring gender equality (Darensbourg, Perez, & Blake, 2010). In addition, school leaders could provide ongoing professional development on the differences in brain development and learning cognition between males and female students. In doing so, teachers could be more intentional in lesson planning, curriculum development, and teaching strategies towards the needs of female students (National Women's Law Center, 2007). Coupled with individual and/or group counseling, the intervention could positively increase a female's performance on TAKS tests as well as positively impact her ability learn positive behaviors she would need in order to return to her home campus.

For those students who are removed from their home campus, school leaders should develop an integration process to help students become as familiar with the new campus as possible. Research shows that students removed from their familiar environment do not perform as well as they would in their home environment. For example, Brown (2012) described Mike's experiences with exclusionary discipline and his removal to a new campus:

Mike...began seventh grade in mainstream public middle school from which he was expelled for fighting and persistent disruption. He was then transferred to a charter school, expelled again and placed in a public special education school. Here he said his behavior worsened in a chaotic environment with a concentration of troubled students (p. 814).

In this situation, Mike's parents sought help from an attorney specializing in special education law. The attorney helped Mike's parents withdraw him from the DAEP. They then placed him in a private, therapeutic school where his behavior improved and he graduated from middle

school. The therapeutic school was a transitional program that focused on Mike's mental health while providing prompt, supportive transition services (Brown, 2012). Though this study found success in this case study, it must be noted that Mike's situation was facilitated by an attorney and he received help at a private school. Since studies have shown that excluded students tend to be from low socioeconomic resources, this type of program might not be feasible for the majority of excluded students because of limited financial resources (Hemphill et al., 2014).

Students who have a disciplinary record before entering middle school should be identified for additional academic integration as they enter middle school. The results of the study indicate that test scores are already lower than state standards. This suggests they could use additional help with their academic progress. Campuses can take a proactive approach to helping these students succeed before they exhibit discipline problems in middle school. For example, researchers have found that mentoring programs are "effective approaches to support learning, achievement, and success for both children and adolescents" (Gordon, Downey, & Bangert, 2013, p. 228). Some school-based mentoring programs (SBMP) have found success in increasing a student's feelings of connectedness at school and in the community when starting in elementary and progressing through to middle school (Portwood, Ayers, Kinmson, Waris & Wise, 2005). One study examined an SBMP called Thrive found that "students' participation [in Thrive] was related to...fewer behavioral problems [and] increased feelings of connectedness [to the school]" (Gordon, Donwey, & Bangert, 2013, p. 241). The Thrive program offered adolescents a caring adult to mentor and provide the student with academic, social and emotional support, and encouragement. Though previous research had suggested students involved in SBMPs may receive some benefits, researchers studying the Thrive program found statistically significant effects sizes that greatly showed their benefit. Moreover, the findings also support

the contention that proactive approaches targeting students who have discipline records prior to entering middle school, can positively impact their success and academic achievement once they are in middle school.

For students who are socioeconomically disadvantaged and excluded from school, the research showed that their level of academic success is significantly lower than those who are not socioeconomically disadvantaged. As in the case of students entering middle school with prior discipline records, school-based mentoring programs have positively impacted the academic achievement of socioeconomically disadvantaged students that are excluded from school. For example, a study examining the Linking Individual Students to Educational Needs (LISTEN) SBMP found that “adult mentors provided at-risk students with a positive and influential person in their lives and also positively impacted academic achievement” (Johnson & Lampley, 2010, p. 65). The study also found:

[Fifty one]of the 54 students involved in the LISTEN mentoring program improved their grades in the 2004-05 school year, 51 of the 54 of the students received fewer discipline referrals in the 2004-05 school year, and 52 of the 54 of the students improved their attendance in the 2004-05 school year. Also, 49 of the 54 LISTEN participants experienced academic achievement gains in all three areas (Johnson & Lampley, 2010, p. 68).

The program provided students with a positive adult role model to whom they were connected to over an extended period of time. The mentor was an effort to minimize possible negative impacts socioeconomically disadvantaged students face because they are poor. In order to support students’ long-term academic achievement, they were each assigned a mentor that served as a role model, sounding board, and an advocate for the child. If the same student was removed

to a DAEP because of discipline, the extra support provided by a mentor was already established. This factor is important in that the adult mentor has the ability to travel with them if they are excluded from their home campus. In other words, there is continuity of support despite the student's removal to a DAEP. This is advantageous in that the economically disadvantaged student could be assigned a mentor immediately upon entry into middle school. If situations arise where he or she is excluded from school, as in the case of removal to DAEP or expulsion to JJAEP, the much-needed mentor is already in place and the disruption of normalcy is minimized.

Intensive transitional support should be provided to socioeconomically disadvantaged students that experience exclusionary discipline and are required to enroll or withdraw from one campus to another to serve their discipline assignment. Specifically, the transition program should be "sensitive to the common and unique needs of these students" (Theriot & Dupper, 2010, p. 219). Researchers contend that transitions, like enrolling or withdrawing from a school, present "specific challenges...due to the effects of the change [since] it requires physiological and behavioral adaptation" from the student (Serbin, Stacked, & Kingdon, 2013, p. 1332). The transition program should also reflect the population they serve in that "effective transition and orientation programs...must be sensitive to these needs and should extend beyond the school building to help students handle problems originating at home or in their community" (Theriot & Dupper, 2010, p. 219). For example, if a student is low SES and his or her mother works during school hours, the transition program should be offered during times when the parent is able to attend with her child. This may entail holding transition or orientations after school, in the evenings, or on the weekends. If the student does not have a strong support system (home and at school) in place when making the transition to or from his home campus, he or she will likely experience poor academic achievement. This is problematic because the student is already

experiencing difficulties in school that resulted in exclusionary discipline. Poor transitioning and thus poor educational performance will have lasting effects in that “poor educational performance during the early adolescent years [middle school]...has been linked with higher rates of delinquency, early pregnancy, single-parenthood, and a variety of physical and health problems” (Serbin, Stacked, & Kingdon, 2013, p. 1331).

Found throughout the literature regarding exclusionary discipline, is a clear trend of suspending (ISS or OSS), removing to a DAEP or expelling students for a range of minor infractions to serious criminal offenses. According to Rodriguez (2013),

[more] schools have cultivated reliance on the juvenile justice system to address student misbehavior that was once addressed in-house. The national number of suspension has increased from approximately 1.7 million in 1974 to more than 3.3 million in 2006.

More recently during the 2009-2010 school year, a reported 3,081,240 children were suspended at least once (p. 471).

School leaders and administrators that assign exclusionary discipline consequences for both objective and subject infractions of local schools disciplinary codes of conduct should consider that their decision to exclude or not exclude students will impact the overall discipline gap. This is especially important if a student moves within a district, within a state or to another state. Since school districts retain discretion on whether to implement strong punitive consequences or opt for more proactive non-exclusionary discipline practices like restorative justice, in the best interest of the student, administrators should use extreme caution in assigning exclusionary discipline. For example, in a 2012 study of exclusionary discipline in six states, Fenning et al. found that “states are consistent with long standing findings demonstrating that school responses to behaviors are most likely to focus on punitive means, inclusive of suspension and expulsion,

even for minor behaviors (pp. 111-112). As such school leaders and administrators should be mindful that exclusionary discipline already “negatively affects those who are already negatively affected by poverty, racism, academic failure and other realities” (Cassella, 2003, p. 879).

Informed administrators, understanding that most schools and districts rely heavily on punitive discipline, specifically exclusionary discipline, should not perpetuate exclusionary discipline by relying on exclusionary discipline.

Administrators should reexamine their current discipline code of conducts and revise them to reflect more positive, character-building expectations for behaviors. Some education leaders argue that exclusionary discipline considers the needs and interests of all students. Historically, education leaders relied on punitive and exclusionary approaches to school discipline because of perceived increases in school disruption and violence (Maag, 2012). According to Skiba (2013),

[data] that [have] emerged from a 20-year social experiment has overwhelmingly failed to demonstrate that school exclusion and increasing levels of punishment keep our schools and streets safer. Instead the data suggest that suspension, expulsion and the increased use of law enforcement in school settings are themselves risk factors for a range of negative academic and life outcomes (pp. 380 – 381).

Moreover, a number of researchers have found that very little, if any, data exists that show out-of-school suspensions and expulsions reduce disruptions, increase school safety, or improve school climate (Council of State Governments Justice Center, 2011; Skiba, 2013; Skiba & Rausch, 2006a & b). As such, school leaders and administrators “should prioritize a focus on revising discipline policies to align with a prevention-oriented view of discipline” (Fenning et al., 2012, p. 115). For example, one approach suggested is grounded in a prevention approach to

mental health and behavior planning, targeting three levels of intervention simultaneously. The first level includes school-wide prevention efforts such as conflict resolution training for all students and improved classroom behavior management techniques for all teachers and staff. The second level requires that schools complete a needs assessment that studies the campus' potential areas, classrooms, or students that may be considered potential threats and preventatively provide support to those areas. The third level requires schools to develop and have ready plans and procedures that effectively respond to disruptive or violent behaviors that do occur, including school-wide discipline plans, procedures for individual behavior plans and cross-system collaboration, especially between education and juvenile justice (Skiba, 2013; Skiba & Rausch, 2006a & b). A student that has previously fought or expressed his or her anger and frustration violently would preventatively receive ongoing supports that teach him or her alternative ways to resolve conflicts. The key is taking a proactive stance to prevent situations that may lead to violence and thus to the use of exclusionary discipline.

### **Recommendations for Future Research**

A major outcome of this research provides information to other educators, particularly campus leaders and administrators, responsible for assigning exclusionary discipline on the effects exclusionary discipline has on the academic achievement of middle school students. However, the information and findings from this study are limited in scope and application. For that reason, the following recommendations for future research are presented.

#### **Gender, SES Status, and Special Education Status**

Archived data obtained from the TEA for the academic year 2010-2011 was not formatted in a manner that allowed statistical analysis to be conducted. As such, greater care in

requesting data from TEA should be taken to ensure data are formatted so that statistical analysis may be conducted.

Because this study was not able to examine the effects gender, SES status, and special education status of middle school students assigned any level of exclusionary discipline had on academic achievement, future research should focus on these variables. Researchers Aron and Loprest (2012) adamantly argued that “education is important for all children, but even more so for children with disabilities, whose social and economic opportunities may be limited” (p. 97). This group of students is vulnerable to exclusionary discipline because throughout the research literature, studies have shown males, particularly African American males of low SES and classified as special education students to be overrepresented in exclusionary discipline (Kraleovich, 2007; Krezmien, Leone, & Achilles, 2006; Vincent, Tobin, Hawkin, & Frank, 2012). These students that fall into distinct demographic subcategories are the basis of NCLB accountability. Under NCLB “each school must test five distinct racial groups and three categories of students: Black, Hispanic, White, American Indian, Asian/Pacific Islander, low-income, bilingual and special education” (Kreig, 2008, p. 654). Therefore, it behooves an in-depth examination of the effects gender, SES status, and special education status of middle school students assigned any level of exclusionary discipline had on academic achievement is necessary.

### **Gender Differences While at a DAEP**

As noted within the findings of this study, there was a statistically significant difference in TAKS reading eighth grade and TAKS mathematics sixth grade between males and females, respectively. Since DAEPs are generally designed to serve male students because they are more likely to commit crimes that mandate their removal to a DAEP, future research should consider

what differences in instruction, technique and overall program design can be attributed to the mean differences in TAKS scores.

### **ISS Programs**

Findings from this study suggest that students that are excluded to ISS perform better on TAKS in reading and mathematics than those excluded through OSS or removal to a DAEP. As such, it is recommended that future research focus on identify specific features of ISS programs that produce less mean differences in TAKS scores as compared to students that are not excluded from the general classroom. In other words, researchers should seek out and study ISS programs that maintain similar instructional standards observed in regular education classrooms.

### **Examining Informed Levels of Administrators**

Future research should also study how well informed school leaders and administrators are on the effects exclusionary discipline practices have on the academic achievement of middle school students. Research detailing the significant negative impacts of exclusionary discipline, particularly OSS, removal to DAEP, and expulsion to JJAEP could not be found. Current school administrators need to know how their use of exclusionary discipline directly impacts a student both in the short and long term. If administrators were better informed on the effects, perhaps they would limit or even eliminate the use of certain exclusionary discipline practices in an effort to better serve their students.

As evidenced by the extensive research available on instructional strategies, teaching for achievement and increasing academic achievement found during the course of this research study, educators are inundated with positive methods for increasing academic achievement. However, it is important to note that this vast majority of this research focused on students without disciplinary difficulties. Limited research was found on concrete methods for increasing

academic achievement among students with disciplinary issues. In most cases, the research focused on whom removal to DAEP and expulsion to JJAEP most greatly affected, with little or no mention of ways to prevent or stop these students from being excluded to DAEPs and JJAEPs.

## **JJAEP**

Researchers examining the effects of exclusionary discipline on academic achievement should study those students expelled to JJAEP. Under the authority of the Texas Family Code, the Texas Juvenile Justice Department (TJJD) serves

[youth] who have been adjudicated delinquent of felony offenses and committed to the agency by a juvenile court. For a youth to be committed to TJJD the delinquent act must occur when the youth is between 10 and 17 years of age and TJJD may retain jurisdiction over a youth until his or her 19<sup>th</sup> birthday. The youth sent to TJJD are the state's most serious or chronically delinquent offenders (Johnson, Wang, Gilinsky, He, Carpenter, Nelson, & Scheuerman, 2013, p. 138).

Students assigned to JJAEP are in a unique situation in that they are in a strictly controlled educational environment where behavior is most often addressed via punitive measures. This is problematic for several reasons. First, minority youths in custody of the juvenile justice system remain overwhelmingly children of color (Goldkind, 2011). Not only are students of color overrepresented in exclusionary disciplines while in school, they are also overrepresented in juvenile incarceration facilities as well (Skiba, Michael, Nardo, & Petterson, 2002). Second, these incarcerated youth at JJAEP have been pushed out of the traditional school settings because discipline systems do not align with the needs of minority, low SES, and special education

students. For example, according to Stephens and Arnette (2000) students at JJAEP are highly disadvantaged in comparison with students not involved in juvenile justice system because academically, they have lost time, credits, and continuity in terms of school experience due to court appearances, transferring from short term juvenile facilities to long term facilities, and being incarcerated in different locations with different educational programs. Third, education programs in juvenile facilities are often limited in scope and ability to address the educational needs of the students they serve. Usually the education programs at juvenile facilities is akin to one-room school houses where one or two teachers teach all core subjects and electives to students ranging from grades three to twelve. The problem lays in the fact that “the agencies that adjudicate and incarcerate are not educational entities...their purpose is the determination of guilt and innocence and the provision of security and custody” (Geib, Chapman, D'Amaddio, & Grigorenko, 2011, p. 4). They simply are not equipped, staffed, trained, or prepared to fully serve the educational needs of youth.

Additionally, JJAEP students face even more difficulties after they are released into the community. At present time, this researcher was unable to locate any programs that target students incarcerated in JJAEP programs for transition back to the regular community education setting. Students are released from JJAEP and are expected to enroll and successfully attend regular schools, usually as part of conditions for release. Essentially, JJAEP students have been in highly controlled incarcerated environments with classroom settings that are structured and formatted in the incarceration mindset and they are released into the community with no support other than 30 minute, monthly visits to or from a parole officer (Goldkind, 2011). Reentry into traditional schools is not an easy process. Many have difficulties even enrolling in schools because “schools tend to be reluctant to admit students released from confinement either because

of their tainted memories of individual students or because they are concerned that such student will lower test scores and attendance records or increase levels of crime and disorder in their schools” (Goldkind, 2011, p. 230). Other researchers support this contention that traditional schools frequently have preconceived views towards formerly incarcerated students. As such, the schools treat them as unnecessary burdens, are unprepared to enroll students at inconvenient times of year, and create inhospitable school environments for youths returning from custodial care (Giles, 2003). For these reasons, it is imperative that researchers examining the effects of exclusionary discipline on academic achievement examine the unique situation of those students expelled to JJAEP, as well as examine their experiences once they are released and reenter the traditional education setting.

### **Longitudinal Study**

The data suggest that once students become a disciplinary problem they continue on that track. A longitudinal study should be conducted to track students through the course of their academic career as it relates to number of offenses, types of offenses, and academic achievement. Scores change by grade level. It would be important to note if the change in scores is statistically significant by grade level or by individuals or cohort groups as they progress from grade level to grade level. If it is by grade level, then curricular adjustments can be made. If it by individuals or cohort groups, then it may be possible that environmental factors influence test scores. Currently, researchers (Skiba, Chung, Trachok, Baker, Sheya, & Hughes, 2014) are developing studies that simultaneously consider the contributions by infraction type, student characteristics, and school characteristics to exclusionary discipline. The goal is to determine

[if] the primary determinants of rates of suspension and expulsion, and disproportionality in those outcomes, are found in the severity of infraction or individual student characteristics, reducing rates of out-of-school discipline might well be predicated upon interventions addressing the behavior characteristics of individual students. On the other hand, findings that alter able variable at the school level represent a significant contributor to rates of out-of-school suspension and expulsion would support recommendations and resources directed at changing the policies practices, and procedures of schools with respect to discipline (Skiba et al., 2014, p. 643).

The findings of such studies are important because the use of exclusionary discipline has shown to carry with it substantial negative risks for detrimental academic achievement outcomes for students of color, of low SES, and identified as special education (Losen & Martinez, 2013).

Moreover, the use of exclusionary discipline has also show to increase the risk of negative behaviors of previously excluded students thereby increasing their likely involvement with the juvenile justice system (Carmichael et al., 2011). Therefore, a longitudinal study that tracks students through the course of their academic careers as it relates to number of offenses, types of offenses, and academic achievement is important if education leaders truly wish to address the educational needs of all students.

### **Conclusion**

The problem investigated by this study was the extent of the effects of exclusionary discipline on middle school student academic achievement as measured by the Texas Assessment of Knowledge and Skills (TAKS). As Gonzales (2006) related, middle school students often miss instructional time because of behavioral problems. Therefore, the purpose of this study was to examine the relationship between exclusionary discipline practices and the academic

achievement of middle school students as measured by reading and mathematics sections of the Texas Assessment of Knowledge and Skills (TAKS) in a South Texas school district.

The results of the study provide insights into how the educational system, in an attempt to handle discipline problems, creates an environment that may foster lower student academic achievement. This is further compounded by students' background. In the study when compared to state scores, students in ISS, OSS, DAEP, and JJAEP scored lower than the state average. Additionally, when students are designated as low socioeconomic status, their test scores are significantly lower.

Overall, implications from the study are that educators should: (a) increase their awareness of the detrimental effects exclusionary discipline practice have on academic achievement; (b) seek alternative behavior modification techniques and strategies that do not involve exclusion; (c) develop and implement transition programs to and from the home campus; and (d) examine and redevelop student expectations for behavior using positive, character-building based codes of conduct.

Finally recommendations for future research include: (a) studies that focus on gender, SES, and Special Education status of excluded students; (b) studies that focus on gender and academic achievement while at a DAEP; (c) successful ISS programs as alternatives to other exclusionary discipline; (d) studies that examine the informed level of administrators with regard to the detrimental effects of exclusionary discipline; (e) studies that examine the academic achievement of students at JJAEP as well as their experiences when they return to their home campus after release; and (f) a longitudinal study that tracks students through the course of their academic career as it relates to number of offenses, types of offenses, and academic achievement.

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# APPENDIX A

## IRB Application

FOR COMPLIANCE OFFICE USE ONLY:	
IRB#	<input type="text"/>
Date Received:	<input type="text"/>
<input type="checkbox"/> Revision	

### Application for Review of Research Involving Human Subjects Institutional Review Board (IRB)



Texas A&M University-Corpus Christi

#### INSTRUCTIONS

*IRB protocol application forms are ONLY accepted in electronic format. Please utilize digital signatures and email form with the IRB Protocol Application Form to [irb@tamucc.edu](mailto:irb@tamucc.edu).*

##### 1. Complete CITI Training

*CITI training is required for all researchers and faculty advisors listed on the protocol.*

*Note: The Certificate of Completion will be automatically emailed to the Research Compliance Officer upon completion.*

##### 2. Complete Form

*All sections of the form are required. The protocol review will not begin if any section is incomplete. The form must be complete and free of typographical/grammatical errors.*

##### 3. Submit Application & Completed Supplemental Documents

*Review of application will not begin until all required documentation is received.*

*If you have any questions or need assistance completing this application, please contact **Kassandra Brown** at (361)825-2892 or [kassandra.brown@tamucc.edu](mailto:kassandra.brown@tamucc.edu) or **Erin Sherman** at (361)825-2497 or [erin.sherman@tamucc.edu](mailto:erin.sherman@tamucc.edu).*

**Check which of the following documents are submitted with the protocol application:**

- Any other documents referenced in this application as applicable (survey instrument, interview questions, debriefing form, payment schedule, etc.)
- Grant/contract proposal as applicable
- Permission from site of study as applicable
- Recruitment Materials as applicable: Flyers, Letters, Phone Scripts, Email, Online Posting, etc.
- Consent Documentation as applicable: Informed Consent Form, Assent Form, \*Translated Informed Consent Form, and \*Translated Assent Form  
\*See Translator/Interpreter Guidelines on the IRB forms page
- Conflict of Interest Disclosure as applicable

#### INVESTIGATOR INFORMATION

##### A. Principal Investigator Information:

Name:

Address:

Please include unit number if address is on campus.

Phone Number:

Email Address:

Department:

College:

Faculty       Staff Member       Undergraduate Student       Graduate Student       Faculty Advisor       Other

Specify Other:

**B. Co-Principal Investigator or Faculty Advisor Information:**

Name:

Address:

*Please include unit number if address is on campus.*

Phone Number:

Email Address:

Department:

College:

Faculty       Staff Member       Undergraduate Student       Graduate Student       Faculty Advisor       Other

Specify Other:

**C. Co-Principal Investigator or Faculty Advisor Information:**

Name:

Address:

*Please include unit number if address is on campus.*

Phone Number:

Email Address:

Department:

College:

Faculty       Staff Member       Undergraduate Student       Graduate Student       Faculty Advisor       Other

Specify Other:

**D. Co-Principal Investigator or Faculty Advisor Information:**

Name:

Address:

*Please include unit number if address is on campus.*

Phone Number:

Email Address:

Department:

College:

Faculty     Staff Member     Undergraduate Student     Graduate Student     Faculty Advisor     Other

Specify Other:

### CONFLICT OF INTEREST CERTIFICATION

All Principal Investigators and Co-Investigators must certify the Conflict of Interest Statement below and comply with the conditions or restrictions imposed by the University to manage, reduce, or eliminate actual or potential conflicts of interest or forfeit IRB approval and possible funding. This disclosure must also be updated annually (for expedited and full board reviews) when the protocol is renewed.

Carefully read the following conflict of interest statements and check the appropriate box after considering whether you or any member of your immediate family\* have any conflicts of interest.

\*Immediate family is considered to be a close relative by birth or marriage including spouse, siblings, parents, children, in-laws and any other financial dependents.

Financial conflicts of interest include:

- a) A financial interest in the research with value that cannot be readily determined;
- b) A financial interest in the research with value that exceeds \$5,000.00;
- c) Have received or will receive compensation with value that may be affected by the outcome of the study;
- d) A proprietary interest in the research, such as a patent, trademark, copyright, or licensing agreement;
- e) Have received or will receive payments from the sponsor that exceed \$5,000.00 in a specific period of time;
- f) Being an executive director of the agency or company sponsoring the research;
- g) A financial interests that requires disclosure to the sponsor or funding source; or
- h) Have any other financial interests that I believe may interfere with my ability to protect participants.

#### ORIGINAL SIGNATURES REQUIRED

**PLEASE NOTE: SIGNATURE PAGES MAY BE SUBMITTED EITHER (1) SCANNED ORIGINAL SIGNATURE(S) ON SIGNATURE PAGE EMAILED AS AN ATTACHMENT WITH FORM (2) SUBMITTED AS PRINTED HARD COPY**

Principal Investigator (Typed):

Principal Investigator (Signature):  Digitally signed by Edna Laura Delgado  
DN: cn=Edna Laura Delgado, o, ou=Texas A&M University-Corpus Christi, email=edelgado1@islander.tamucc.edu, c=US  
Date: 2014.05.18 20:36:50 -05'00'

Date:

Conflict of Interest Certification:  I have no conflict of interest related to this project.     I have a non-financial conflict of interest related to this project\*\*     I have a financial conflict of interest related to this project\*\*

#### B. Co-Principal Investigator or Faculty Advisor Certification:

Co-Principal Investigator/Advisor (Typed):

Co-Principal Investigator/Advisor (Signature):

Date:  Check one:  Co-PI     Faculty Advisor

Conflict of Interest Certification:  I have no conflict of interest related to this project.     I have a non-financial conflict of interest related to this project\*\*     I have a financial conflict of interest related to this project\*\*

**C. Co-Principal Investigator or Faculty Advisor Certification:**

Co-Principal Investigator/  
Advisor (Typed):

Co-Principal Investigator/  
Advisor (Signature):

Date:

Check one:  Co-PI  Faculty Advisor

Conflict of Interest  
Certification:

I have no conflict of interest related to this project.  I have a non-financial conflict of interest related to this project\*\*  I have a financial conflict of interest related to this project\*\*

**D. Co-Principal Investigator or Faculty Advisor Certification:**

Co-Principal Investigator/  
Advisor (Typed):

Co-Principal Investigator/  
Advisor (Signature):

Date:

Check one:  Co-PI  Faculty Advisor

Conflict of Interest  
Certification:

I have no conflict of interest related to this project.  I have a non-financial conflict of interest related to this project\*\*  I have a financial conflict of interest related to this project\*\*

**\*\*PROVIDE DETAILS AS ATTACHMENT FOR ANY NON-FINANCIAL CONFLICT OR FINANCIAL CONFLICT OF INTEREST RELATED TO THIS PROJECT.**

**PROJECT CLASSIFICATION**

Research Project  Masters Thesis  Class Project  Doctoral Dissertation  Program Evaluation  Other

Specify Other:

**REVIEW REQUESTED**

*Please thoroughly review the Human Subject Research Categories and Notes at the end of the protocol form before completing this section.*

**Exempt Review**

\*Are you requesting exempt status for the project?

Yes  No

If yes, based on which category outlined at the end of the application?

Category

**Expedited Review**

*(Expedited review does NOT mean rushed approval. Please allow at least three weeks for the expedited review process.)*

\*Are you requesting an expedited review of the project?

Yes  No

If yes, based on which category outlined at the end of the application?

Category

**Full Board Review**

Are you requesting full board review for the project?

Yes  No

**\* You may only select one of the above choices. A protocol cannot qualify for more than one category of review.**

**EXTERNAL FUNDING**

Is the project externally funded?  Yes  No *If yes, complete the remainder of the External Funding Section. If no, go to next section.*

External Funding Submission Deadline/Award Date:

Funding Agency:

**PROJECT TITLE**

Title of Project:

**PROJECT DATES**

Starting Date:

*The starting date CANNOT be a date before IRB approval is received. If you will start as soon as approval is received, enter "Upon IRB Approval" for the starting date.*

Estimated Completion Date:

*The above is an estimated date of completion. A Completion Report is due at the conclusion of the project noting the actual completion date.*

**PROJECT PURPOSE & OBJECTIVES**

Describe Project Purpose: *Be specific and thorough.* The purpose of this study is to examine the relationship between exclusionary discipline practices and the academic achievement of middle school students as measured by reading and mathematics sections of the Texas Assessment of Knowledge and Skills (TAKS) in a South Texas school district. Administrators can assign students any one of four levels of exclusionary discipline: (a) ISS; (b) OSS; (c) Removal to DAEP; and (d) Expulsion to a JJAEP. There are two independent variables: (a) levels of exclusionary discipline; and (b) demographic information (gender and socioeconomic status). There is one dependent variable: The Texas Assessment of Knowledge and Skills (TAKS). The TAKS assessment has five scales of measurement: (a) Reading; (b) Science; (c) Social Studies; (d) Mathematics (e) Writing. However, this study only looks at reading and mathematics because students are required to take each test annually in grades six, seven, and eight. Since students are only required to test in Writing during grade seven and in Science and Social Studies during grade eight, those subjects will not be included in the study. The study will examine the use of the four levels of exclusionary discipline to understand their impact on academic achievement of students in middle school. Additionally the study will examine the relationship gender and levels of exclusionary discipline and socioeconomic status and levels of exclusionary discipline have with academic achievement.

Describe Project Objectives and/or Research Questions: *Be specific and thorough.*

Research question 1: What relationship does an in-school suspension (ISS) have with academic achievement as measured by reading and mathematics scores on the TAKS of students in grades 6, 7, and 8?

Research question 2: What relationship does an out-of-school suspension (OSS) have with academic achievement as measured by reading and mathematics scores on the TAKS of students in grades 6, 7, and 8?

Research question 3: What relationship does a removal to a Disciplinary Alternative Education Program (DAEP) have with academic achievement as measured by reading and mathematics scores on the TAKS of students in grades 6, 7, and 8?

Research question 4: What relationship does an expulsion to a Juvenile Justice Alternative Education program have with academic achievement as measured by reading and mathematics scores on the TAKS of students in grades 6, 7, and 8?

Research question 5: What relationship does type of disciplinary action according to gender have with

B

6, 7, and 8?

Research question 6: What relationship does type of disciplinary action according to socioeconomic status have with academic achievement as measured by reading and mathematics scores on the TAKS of students in grades 6, 7, and 8?

## RESEARCH SUBJECTS

Description and Source of Research Subjects:

**MINIMUM information to include:**

1. Target number of participants
2. Location of participants (on campus or specifically provide names for other locations - permission needed from other locations)
3. Manner in which participants will be identified from a larger pool of individuals
4. Inclusion & Exclusion criteria for participants (ex. age, physical characteristics, learning characteristics, professional criteria, etc.)
5. Minimum age for participants
6. How participants will be contacted (ex. online, through a faculty member, through a social networking site, through a professional in a specific field, etc.)

1. The sample for this study will include approximately 8,375 students for participation . This includes all students enrolled in a middle school within the district for the 2010-2011 school year.
2. Participants will include students enrolled in a Corpus Christi Independent School District (CCISD) middle school in grades 6, 7 and 8 for the 2010-2011 academic school year.
3. The larger pool of participants includes all students enrolled in CCISD schools grades PK - grade 12 that could be subject to exclusionary discipline practices. Participants will be selected if they were in grade 6, 7, or 8 during the 2010-2011 school year.
4. Participants will have taken and received a score on the Texas Assessment of Knowledge and Skills in both Mathematics and Reading during the 2010-2011 school year.
5. The minimum age of participants is 11 - generally the lowest possible age of a sixth grader enrolled in a CCISD middle school.
6. Participants will not be contacted. Data will be provided by CCISD.

## RESEARCH DESIGN, METHODS, & DATA COLLECTION PROCEDURES

Describe Research Design, Methods and Data Collection Procedures for Human Subject Interactions:

*Be specific and thorough.*

*Be specific to your study.*

*Describe the methods and procedures step-by-step in common terminology. Describe each procedure, including frequency duration and location of each procedure. Describe how data will be stored and protected, how long data will be kept following the study, etc.*

*You do not need to describe the statistical methods for analyzing data once it is collected or other elements of the study not involving human subjects.*

This researcher will obtain permission from CCISD to utilize archived demographic data, Texas Assessment of Knowledge and Skills (TAKS) data, and exclusionary discipline data for the 2010-2011 school year that is included in the Public Education Information Management System (PEIMS).

All data are anonymous. Data provided by CCISD will not be identifiable. All data will be stored on the researcher's password protected computer. Data will be kept for 3 years, then destroyed.

## RISKS & PROTECTION MEANS

Describe the Specific Risks and Protection Means for

The research involves no risks to participants. The archived quantitative data will be provided to the researcher by CCISD. The data will not include personally identifiable information.

**Human Subject Participants:**

*Be specific and thorough. If no risk, state "No risk." If risks associated with the study are minimal and not greater than risks ordinarily encountered in daily life, state: Minimal Risk and describe risks. The risk levels provided in the protocol and the consent forms must be consistent.*

*Describe each potential risk and the steps taken to protect human subject participants from the risk (ex. breach of confidentiality, data protection, possibly injury, psychological distress, pressure to conform, pressure to participate, etc.) Describe the protection means specifically and how participants will gain access to any necessary outside assistance (ex. medical care, counseling, etc.) if available.*

*Consider whether there are physical, emotional, social, legal, etc. risks if participants' participation were to become public.*

Raw data will be viewed only by the researcher and faculty advisor. No personally identifiable information is included in the data.

**BENEFITS VS. RISKS**

**Describe Benefits & Risks to Human Subject Participants:**

*Address benefits reasonably expected to the research participant and potential benefits to society. Any possible monetary compensation is not to be categorized as a benefit. Be specific and thorough.*

There are no direct benefits to the participants. Results of the study may be useful to CCISD to consider, develop, and/or implement alternative disciplinary practices that do not include exclusionary options.

**INFORMED CONSENT METHODS**

**Describe Methods for Obtaining Informed Consent from Human Subject Participants:**

*Be specific and thorough. Describe how researcher(s) will gain access to participants, how participants will be provided the consent documentation, in what format the consent will be provided, any discussion that will take place with participants, and methods of communication utilized to keep participants aware of their rights throughout the study, if applicable. Points to remember: (1) Participants must be given time to review the consent/informational documents and ask questions (2) minors must have a separate*

assent for participation written at a level appropriate to the age group of participants, and parents must be given a separate parental consent form.  
 (3) Information sheets should be utilized for exempt studies in which the only record of participants would be signed consent forms.  
 (4) The online consent template should be utilized as a guide for online survey consent.

Check if waiver of signed informed consent is requested. Justification must be provided for waiver. See waiver criteria at end of form.

Justification: The study will utilize existing data from the 2010-2011 school year. Data will be provided by CCISD and will not include personally identifiable information. The research involves no more than minimal risk to the subjects. The waiver or alteration will not adversely affect the rights and welfare of the subjects. The research could not practicably be carried out without the waiver or alteration.

**INVESTIGATOR(S) QUALIFICATIONS**

Qualifications of the Investigator(s) to Conduct Research: Laura Delgado is a Doctoral candidate in the Department of Educational Leadership at Texas A&M University Corpus Christi. She is Assistant Principal at the Student Support Center - the Disciplinary Alternative Education Program for the Corpus Christi Independent School District in Corpus Christi, Texas. She has completed the online training course offered on protecting human research participants.

Describe the qualifications of each investigator to conduct human subject research or attach CV/biosketch. The study will be supervised by Dr. Randall Bowden, Co-Principal Investigator. Dr. Bowden is an Associate Professor of Education Administration and Research. His PhD is in Higher Education Administration. He has served in higher education for over 20 years as a faculty member and administrator. His dissertation chair/committee work includes serving on over 25 dissertation committees. He has over 25 publications in topics of education and management.

**FACILITIES & EQUIPMENT**

Facilities & Equipment to be Used in the Research: The researcher will utilize a personal computer and personal office space. The researcher's computer will be used for data entry and analysis. E-mail will be used for communication purposes between the primary researcher and Faculty Advisor.

Describe any equipment that will be used, including audio/video equipment.

\* Specifically list (by name) any off-campus locations that will be used.

List any on-campus locations where the study will occur.

\* Investigators must submit permission from all off-campus study locations and/or organizations providing data, specimens, access to participants, etc. Permission must be submitted with the IRB protocol application.

**INVESTIGATOR(S) RESPONSIBILITIES & SIGNATURES**

By complying with the policies established by the Institutional Review Board of Texas A & M University-Corpus Christi, the principal investigator(s) subscribe(s) to the principles stated in "The Belmont Report" and standards of professional ethics in all research, development, and related activities involving human subjects under the auspices of Texas A & M University-Corpus Christi. The principal investigator(s) further agree(s) that:

A. Approval will be obtained from the Institutional Review Board before making ANY change in this research project.  
 B. Development of any unexpected risks will be immediately reported to the Institutional Review Board.  
 C. An annual continuation application will be completed and submitted annually for expedited and full review studies. The study will CEASE once approval expires.  
 D. Signed informed consent documents will be kept for the duration of the project and for at least three years thereafter at a location approved by the Institutional Review Board and as described in the protocol.

**ALL INVESTIGATOR(S) AND ADVISOR(S) MUST SIGN THE PROTOCOL.** The Principal Investigator should save a copy of the IRB Protocol

Form after emailing the form to the Research Compliance Officer for review. Type the name of each individual in the appropriate signature line. Add additional signature pages if needed for all Co-Principal Investigators, collaborating and student investigators, and faculty advisor(s).

**ORIGINAL SIGNATURES REQUIRED**

**PLEASE NOTE: SIGNATURE PAGES MAY BE SUBMITTED EITHER (1) SCANNED ORIGINAL SIGNATURE(S) ON SIGNATURE PAGE EMAILED AS AN ATTACHMENT WITH FORM (2) SUBMITTED AS PRINTED HARD COPY**

**A. Principal Investigator Certification:**

Principal Investigator (Typed): Edna Laura Delgado

Principal Investigator (Signature):

Edna Laura Delgado

Digitally signed by Edna Laura Delgado  
DN: cn=Edna Laura Delgado, o=Texas A&M University-  
Corpus Christi, email=edelgado1@islander.tamucc.edu, c=US  
Date: 2014.05.18 21:19:16 -05'00'

Date: May 18, 2014

**B. Co-Principal Investigator or Faculty Advisor Certification:**

Co-Principal Investigator/  
Advisor (Typed): Randall Bowden, PhD.

Co-Principal Investigator/  
Advisor (Signature):

Date:

Check one:  Co-PI  Faculty Advisor

**C. Co-Principal Investigator or Faculty Advisor Certification:**

Co-Principal Investigator/  
Advisor (Typed):

Co-Principal Investigator/  
Advisor (Signature):

Date:

Check one:  Co-PI  Faculty Advisor

**D. Co-Principal Investigator or Faculty Advisor Certification:**

Co-Principal Investigator/  
Advisor (Typed):

Co-Principal Investigator/  
Advisor (Signature):

Date:

Check one:  Co-PI  Faculty Advisor

**Human Subject Research Categories**

**Please Note**

Research involving special or protected populations, such as children, prisoners, pregnant women, mentally disabled persons, or economically or educationally disadvantaged persons, does not qualify for exempt review and is subject to full review.

The following types of studies do not qualify for exempt reviews and are subject to expedited or full reviews:

- 1) Studies involving a faculty member's current students

- 2) Studies supported by external funding
- 3) Studies involving the following and similar sensitive subject matters which can potentially cause discomfort and stress to the participant: Abortion, AIDS/HIV, Alcohol, Body Composition, Criminal Activity, Psychological Well-being, Financial Matters, Sexual Activity, Suicide, Learning Disability, Drugs, Depression

**Studies involving audio taping and/or videotaping DO NOT qualify for exempt review.**

### ***Exempt Research Categories***

Certain categories of research are exempt from the Protection of Human Subjects policy in the Code of Federal Regulations 45 CFR 46. The IRB Chair will determine, based on the federal guidelines, whether a research activity qualifies for exemption. Although exempt research is not regularly reviewed by the IRB, the exempt research form (and the informed consent form, if applicable) must be on file with the IRB, and the research may be reviewed at the committee's discretion. If the committee deems necessary, it may require a full review.

Unless otherwise required by federal departments or agencies, research activities in which the only involvement of human subjects will be in one or more of the following categories are generally exempt from full review by the IRB:

- 1) Research conducted in established or commonly accepted educational settings, involving normal education practices, such as (i.) research on regular and special education instructional strategies, or (ii.) research on the effectiveness of or the comparison among instructional techniques, curricula, or classroom management methods.

Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless (i.) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and (ii.) any disclosure of human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.

- 3) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior that is not exempt under the previous paragraph, if (i.) the human subjects are elected or appointed public officials or candidates for public office; or (ii.) federal statute(s) require(s) without exception that the confidentiality of the personally identifiable information will be maintained throughout the research and thereafter.
- 4) Research involving the collection or study of existing data, documents, records, pathological specimens, or diagnostic specimens, if these sources are publicly available or if the information is recorded by the investigator in such a manner that subjects cannot be identified, directly or through identifiers linked to the subjects.
- 5) Research and demonstration projects that are conducted by or subject to the approval of federal department or agency heads, and that are designed to study, evaluate, or otherwise examine (i.) public benefit or service programs (ii.) procedures for obtaining benefits or services under these programs (iii.) possible changes in or alternatives to those programs or procedures; or (iv.) possible changes in methods or levels of payment for benefits or services under those programs
- 6) Taste and food quality evaluation and consumer acceptance studies (i.) if wholesome foods without additives are consumed or (ii.) if a food is consumed that contains a food ingredient at or below the level and for a use found to be safe, or agricultural chemical or environmental contaminant at or below the level found to be safe, by the Food and Drug Administration or approved by the Environmental Protection Agency or the Food Safety and Inspection Service of the U.S. Department of Agriculture

### ***Expedited Review Categories***

Expedited review procedures are available for certain kinds of research involving no more than minimal risk, and for minor changes in approved research. Specifically, research is eligible for expedited review if it involves no more than minimal risk (see 45 CFR as amended) to the subjects and the only involvement of human subjects will be in one or more of the categories listed below:

- (1) Clinical studies of drugs and medical devices only when condition (a) or (b) is met.
  - a. (a) Research on drugs for which an investigational new drug application (21 CFR Part 312) is not required. (Note: Research on marketed drugs that significantly increases the risks or decreases the acceptability of the risks associated with the use of the product is not eligible for expedited review.)
  - b. Research on medical devices for which (i) an investigational device exemption application (21 CFR Part 812) is not required; or (ii) the medical device is cleared/approved for marketing and the medical device is being used in accordance with its cleared/approved labeling.

- (2) Collection of blood samples by finger stick, heel stick, ear stick, or venipuncture as follows:
- from healthy, nonpregnant adults who weigh at least 110 pounds. For these subjects, the amounts drawn may not exceed 550 ml in an 8 week period and collection may not occur more frequently than 2 times per week; or
  - from other adults and children' considering the age, weight, and health of the subjects, the collection procedure, the amount of blood to be collected, and the frequency with which it will be collected. For these subjects, the amount drawn may not exceed the lesser of 50 ml or 3 ml per kg in an 8 week period and collection may not occur more frequently than 2 times per week.

- (3) Prospective collection of biological specimens for research purposes by noninvasive means.

Examples: (a) hair and nail clippings in a nondisfiguring manner; (b) deciduous teeth at time of exfoliation or if routine patient care indicates a need for extraction; (c) permanent teeth if routine patient care indicates a need for extraction; (d) excreta and external secretions (including sweat); (e) uncannulated saliva collected either in an unstimulated fashion or stimulated by chewing gumbase or wax or by applying a dilute citric solution to the tongue; (f) placenta removed at delivery; (g) amniotic fluid obtained at the time of rupture of the membrane prior to or during labor; (h) supra- and subgingival dental plaque and calculus, provided the collection procedure is not more invasive than routine prophylactic scaling of the teeth and the process is accomplished in accordance with accepted prophylactic techniques; (i) mucosal and skin cells collected by buccal scraping or swab, skin swab, or mouth washings; (j) sputum collected after saline mist nebulization.

- (4) Collection of data through noninvasive procedures (not involving general anesthesia or sedation) routinely employed in clinical practice, excluding procedures involving x-rays or microwaves. Where medical devices are employed, they must be cleared/approved for marketing. (Studies intended to evaluate the safety and effectiveness of the medical device are not generally eligible for expedited review, including studies of cleared medical devices for new indications.)

Examples: (a) physical sensors that are applied either to the surface of the body or at a distance and do not involve input of significant amounts of energy into the subject or an invasion of the subject's privacy; (b) weighing or testing sensory acuity; (c) magnetic resonance imaging; (d) electrocardiography, electroencephalography, thermography, detection of naturally occurring radioactivity, electroretinography, ultrasound, diagnostic infrared imaging, doppler blood flow, and echocardiography; (e) moderate exercise, muscular strength testing, body composition assessment, and flexibility testing where appropriate given the age, weight, and health of the individual.

- (5) Research involving materials (data, documents, records, or specimens) that have been collected, or will be collected solely for nonresearch purposes (such as medical treatment or diagnosis). (NOTE: Some research in this category may be exempt from the HHS regulations for the protection of human subjects. 45 CFR 46.101(b)(4). This listing refers only to research that is not exempt.)

- (6) Collection of data from voice, video, digital, or image recordings made for research purposes.

- (7) Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies. (NOTE: Some research in this category may be exempt from the HHS regulations for the protection of human subjects. 45 CFR 46.101(b)(2) and (b)(3). This listing refers only to research that is not exempt.)

- (8) Continuing review of research previously approved by the convened IRB as follows:

- where (i) the research is permanently closed to the enrollment of new subjects; (ii) all subjects have completed all research-related interventions; and (iii) the research remains active only for long-term follow-up of subjects; or
- where no subjects have been enrolled and no additional risks have been identified; or
- where the remaining research activities are limited to data analysis.

- (9) Continuing review of research, not conducted under an investigational new drug application or investigational device exemption where categories two (2) through eight (8) do not apply but the IRB has determined and documented at a convened meeting that the research involves no greater than minimal risk and no additional risks have been identified.

### ***Criteria for Waiver of Consent***

#### **§46.116 General requirements for informed consent.**

- (c) An IRB may approve a consent procedure which does not include, or which alters, some or all of the elements of informed consent set forth above, or waive the requirement to obtain informed consent provided the IRB finds and documents that:

- (1) The research or demonstration project is to be conducted by or subject to the approval of state or local government officials and is designed to study, evaluate, or otherwise examine: (i) public benefit or service programs; (ii) procedures for obtaining benefits or services under those programs; (iii) possible changes in or alternatives to those programs or procedures; or (iv) possible changes in methods or levels of payment for benefits or services under those programs; and
- (2) The research could not practicably be carried out without the waiver or alteration.

(d) An IRB may approve a consent procedure which does not include, or which alters, some or all of the elements of informed consent set forth in this section, or waive the requirements to obtain informed consent provided the IRB finds and documents that:

- (1) The research involves no more than minimal risk to the subjects;
- (2) The waiver or alteration will not adversely affect the rights and welfare of the subjects;
- (3) The research could not practicably be carried out without the waiver or alteration; and
- (4) Whenever appropriate, the subjects will be provided with additional pertinent information after participation.

# Approval Letter



OFFICE OF RESEARCH COMPLIANCE  
Division of Research, Commercialization and Outreach

6300 OCEAN DRIVE, UNIT 5844  
CORPUS CHRISTI, TEXAS 78412  
O 361.825.4497 • F 361.825.2755

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**Human Subjects Protection Program** **Institutional Review Board**

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**APPROVAL DATE:** May 20, 2014  
**TO:** Ms. Laura Delgado  
**CC:** Dr. Randall Bowden  
**FROM:** Office of Research Compliance  
Institutional Review Board  
**SUBJECT:** Initial Approval

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**Protocol Number:** #72-14  
**Title:** Learning Denied: The Effects of Exclusionary Discipline Practices on Middle School Academic Achievement in a South Texas Middle School  
**Review Category:** Qualifies for Exemption

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**Approval determination was based on the following Code of Federal Regulations:**

Eligible for Exemption (45 CFR 46.101)

Criteria for exemption has been met (45 CFR 46.101) - The criteria for exemption listed in 45 CFR 46.101 have been met (or if previously met, have not changed).

(4) Research involving the collection or study of existing data, documents, records, pathological specimens, or diagnostic specimens, if these sources are publicly available or if the information is recorded by the investigator in such a manner that subjects cannot be identified, directly or through identifiers linked to the subjects.

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**Provisions:**

**Comments:** The TAMUCC Human Subjects Protections Program has implemented a post-approval monitoring program. All protocols are subject to selection for post-approval monitoring.

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This research project has been granted the above exemption. As principal investigator, you assume the following responsibilities:

1. **Informed Consent:** Information must be presented to enable persons to voluntarily decide whether or not to participate in the research project unless otherwise waived.
2. **Amendments:** Changes to the protocol must be requested by submitting an Amendment Application to the Research Compliance Office for review. The Amendment must be approved before being implemented.
3. **Completion Report:** Upon completion of the research project (including data analysis and final written papers), a Completion Report must be submitted to the Research Compliance Office.
4. **Records Retention:** All research related records must be retained for three years beyond the completion date of the study in a secure location. At a minimum these documents include: the research protocol, all questionnaires, survey instruments, interview questions and/or data collection instruments associated with this research protocol, recruiting or advertising materials, any consent forms or information sheets given to participants, all correspondence to or from the IRB or Office of Research Compliance, and any other pertinent documents.
5. **Adverse Events:** Adverse events must be reported to the Research Compliance Office immediately.

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6. Post-approval monitoring: Requested materials for post-approval monitoring must be provided by dates requested.

## District Approval Letter



### Office of Assessment and Accountability

#### CORPUS CHRISTI INDEPENDENT SCHOOL DISTRICT

P. O. Box 110 • Corpus Christi, Texas 78403-0110  
3130 Highland Avenue • Corpus Christi, Texas 78405  
Office: 361-844-0396 • Fax: 361-886-9371  
Website: [www.ccisid.us](http://www.ccisid.us)

April 1, 2014

Laura Delgado  
P.O. Box 570  
Portland, TX 78374  
E-mail: [Laura.Delgado@ccisid.us](mailto:Laura.Delgado@ccisid.us)

Dear Ms. Delgado:

Formal permission is granted to you to conduct your research entitled *Learning Denied: The Effects of Exclusionary Discipline Practices on Middle School Academic Achievement in a South Texas School District* in the Corpus Christi Independent School District (District). This permission indicates that your proposal meets all research/evaluation and FERPA standards.

This permission allows the campuses/principals identified in your proposal the option of participating or not. No campus/principal is required to participate in this study.

It is a pleasure to welcome you to the District as you begin this significant research initiative. At the conclusion of your work, please provide my office with a copy of the results.

Should you need additional assistance during your study or have changes in the proposal, please contact me at 361-844-0396, ext. 44250 and/or via e-mail at [James.Gold@ccisid.us](mailto:James.Gold@ccisid.us).

Sincerely,

A handwritten signature in cursive script that reads 'James H. Gold'.

James H. Gold  
Executive Director

JHG/mdf

cc: Dr. D. Scott Elliff  
Dr. Bernadine Cervantes