Examination of the writing skills of incarcerated male youth

by

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Abstract

Over the past 20 years, punitive approaches and policies similar to those of the criminal justice system have become prominent in our schools (Gonsoulin, Zablocki, Leone, 2012). These local, state, and federal education and public safety policies serve to remove students from the educational environment and channel them into the criminal justice system (New York Civil Liberties Union, 2007; NAACP Legal Defense and Education Fund, 2006). This phenomenon is often referred to as the school-to-prison-pipeline (STPP). Research has shown a connection between school, community, and juvenile incarceration (Christle, Jolivette, & Nelson, 2007), and indicates how providing quality evidence-based interventions can make a positive difference in the lives of youth in or at-risk of entering into the STPP (Christle, Nelson, Jolivette, 2004).

The purpose of this study was to examine the writing skills of incarcerated male youth. The participants were 9th grade and 10th grade male students (N=83) incarcerated at a juvenile correctional facility. Data were collected from the students' ACT QualityCore English end-of-course assessment. Descriptive data were collected to analyze students' college-readiness. A series of ANOVAs were conducted to assess whether means on the dependent variables were significantly different among groups. The results of the study show a significant difference in students' writing mechanics skills based on grade level, and in written expression skills based on special education status. No significant differences were found in students' writing mechanics skills or written expression skills based on their participation in a creative writing program.

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Table of Contents

List of Tables

CHAPTER I. INTRODUCTION

Researchers have found a strong correlation between academic failure and delinquency (Brunner, 1993; Drakeford, 2002; Leone et al., 2005; Malmgren & Leone, 2000). In a review of the literature on the academic characteristics of incarcerated youth, Foley (2001) found that, on average, incarcerated youth function in the low-average to below-average range of intelligence, perform academically between fifth- and ninth-grade levels, and have histories of high rates of academic failure and grade retention. In addition, research has found that the majority of incarcerated youth have problems with literacy skills (Center on Crime, Communities, & Culture, 1997; Coulter, 2004; Malmgren & Leone, 2000; Shippen et al., 2011) and most youth are significantly below grade level upon entry into correctional facilities (The Center on Crime, Communities, & Culture, 1997). These troubling findings are a call for effective literacy instruction for incarcerated youth in order to increase the likelihood of academic success.

Research has shown that when students are provided with quality literacy instruction, their chances of engaging in inappropriate behavior decreases (Brunner, 1993; Drakeford, 2002). The vast amount of existing literature on literacy and at-risk and adjudicated youth focuses on reading literacy. However, the current author argues that writing literacy is just as important in the fight in deterring youth from engaging in criminal activity. Developing the writing skills of troubled youth has many benefits, such as allowing at-risk and incarcerated students to broaden their modes of communication and develop positive ways to express their emotions. Smitherman and Thompson (2002) reported students' willingness and ability to candidly express their feelings through writing while participating in the "Writing our Stories" anti-violence creative

writing program at a juvenile correctional facility.

Though writing is an essential skill, as a focus of research, it has received little attention compared to reading, math, and oral language. Writing is often thought of as the weakest dimension of effective instruction, and, unfortunately, it is not regarded as a priority for schools. For example, the National Commission on Writing (College Board, 2003) reported that of the three R's, writing is the most neglected in schools, and although many models of effective ways to teach the skill exist, both the teaching and the practice of writing is often overlooked throughout the school and college years. Miller and McCardle (2011) argue that focused research on writing and its relationship to language development and reading is needed to address the writing and broader literacy needs of today's youth and employees.

In order to be proficient in writing, students must master a variety of skills, to include, ideation, vocabulary, organization of thoughts, text structures, self-regulation, and basic mechanics, such as spelling, grammar, and punctuation (Bui, Schumaker, & Deshler, 2006). To master such skills requires considerable effort and time. As a result, writing instruction is often not a high priority in the general education classroom (Joseph & Konrad, 2009). Therefore, it is imperative that writing instruction is implemented in the primary grades and intentionally continued as students progress through secondary school. Waiting until the later grades to address writing difficulties is often not successful. In order to change the current state of affairs and to facilitate student learning, it is critical that all students are taught how to write, using effective, research-based instructional strategies, especially those at-risk for school failure including incarcerated youth.

Throughout the literature on reducing the academic failure of at-risk and incarcerated youth, researchers have called for the implementation of evidence-based programs and practices.

Despite the small number of published studies and their limitations, research findings indicated that students at-risk for school failure can benefit from being taught instructional strategies to help them improve the quantity and quality of their writing (Joseph & Konrad, 2009). Examples of evidence-based strategies that have been shown to improve the writing skills of students with deficits in written expression include: Strategic Instruction; SRSD; and Direct Instruction. Teachers are encouraged to find ways to include such strategies into their daily curriculum. Moreover, it is imperative that teachers are provided with focused and intense professional development on successfully implementing these strategies in the classroom.

Statement of the Problem

All of the few existing published studies for incarcerated youth focus on reading literacy and reading interventions. A review of literature on writing literacy and incarcerated youth yielded few results. The focus of this study was the lack of information related to the writing skills of incarcerated youth.

Purpose of Study

The purpose of this study was to investigate the writing skills of incarcerated male youth. Research suggests that effective writing skills may allow at-risk and incarcerated students to broaden their modes of communication, as well as develop positive ways to express their emotions. Therefore, this study will focus on examining the current state of student achievement in the area of written expression as measured by the QualityCore English end-of-course (EOC) assessment for 9th and 10th grade students incarcerated at the Alabama Department of Youth Services (ADYS).

Research Questions

The study investigated the following questions:

1. Are there any significant differences in the writing mechanics skills of incarcerated male 9th and 10th grade students based on grade level?
2. Are there any significant differences in the written expression skills of incarcerated male 9th and 10th grade students based on grade level?
3. Are there any significant differences in the writing mechanics skills of incarcerated male 9th and 10th grade students based on campus?
4. Are there any significant differences in the written expression skills of incarcerated male 9th and 10th grade students based on campus?
5. Are there any significant differences in the writing mechanics skills of incarcerated male 9th and 10th grade students based on race/cultural background?
6. Are there any significant differences in the written expression skills of incarcerated male 9th and 10th grade students based on race/cultural background?
7. Are there any significant differences in the writing mechanics skills of incarcerated male 9th and 10th grade students based on special education status?
8. Are there any significant differences in the written expression skills of incarcerated male 9th and 10th grade students based on special education status?
9. Are there any significant differences in the writing mechanics skills of incarcerated male 9th and 10th grade students based on participation in a creative writing program?
10. Are there any significant differences in the written expression skills of incarcerated male 9th and 10th grade students based on participation in a creative writing program?

11. Given the population of male 9th and 10th grade students incarcerated in Alabama were participants, what percentage of students are college-ready?

Definition of Terms

School-to-Prison Pipeline (STPP): national trend wherein children are funneled out of public schools and into the juvenile and criminal justice systems (ACLU, 2013).

Disproportionality: the extent to which membership in a given (ethnic. socioeconomic, linguistic, or gender) group affects the probability of being placed in a specific disability category (Oswald, Coutinho, Best, & Singh, 1999).

Evidence-Based Practices: practices that are supported by research and supported by experts to increase positive student outcomes (Landmark, Ju, & Zhang, 2010).

Literacy: the ability to read and write; knowledge that relates to a specified subject (Merriam-Webster, 2013).

Professional Development (PD): a strategy for empowering teachers to improve their professional knowledge and pedagogy (Mansour, Alshamrani, Aldahmash, & Alqudah, 2013).

Mechanics of writing - technical aspects of writing, relating to spelling, punctuation, capitalization, and abbreviations (Gersten & Baker, 2001).

Mode of Writing - purposes of writing (e.g., description, narration, exposition, persuasion).

Written expression –the ability to write down information and ideas such that the intent of the author is clear and can be understood by others (Baker, Gersten, & Graham, 2003).

End-of-course (EOC) assessment - measure the learning outcomes all students must attain in order to succeed in college and careers (ACT, 2014).

Significance of the Study

It is expected that this study will make at least two contributions to the area of literacy interventions with incarcerated youth. First, the study will be the only research to analyze the standardized test results from the QualityCore English EOC assessment for the entire population of incarcerated youth in Alabama as these are the first available data. This study will show unprecedented norm-referenced information about the writing skills of youth and will pinpoint the areas of greatest need. As more is known about the greatest areas of needs for youth, educators will be able to understand more clearly the crucial need of incorporating evidence-based writing interventions into the curriculum in both traditional classrooms and in classrooms at juvenile correctional facilities

Second, the ultimate issue underlying the study is increasing the writing literacy skills of at-risk and incarcerated youth. It is anticipated that the study will shed light on the increasing problem of illiteracy among incarcerated youth and the need to provide these individuals with a quality education, even in correctional facilities. This study should provide a small step in that direction.

Limitations of the Study

There are several limitations in this study. These limitations include generalizability, study design, and the functioning level of participants. Each is discussed in Chapter IV.

CHAPTER II. REVIEW OF LITERATURE

Introduction

More than 2 million youth are arrested annually in the United States and approximately 93,000 are incarcerated in juvenile justice facilities on any given day (Sickmund, 2010). These youth are caught in the school-to-prison pipeline (STPP; Christle, Jolivette, & Nelson, 2005). Disturbingly, students with disabilities are disproportionately represented in the STPP, averaging nearly half of the incarcerated juvenile population, despite the protections provided to them under the law (Gagnon, Barber, Van Loan, & Leone, 2009; Quinn, Rutherford, Leone, Osher, & Poirier, 2005).

The STPP involves interactions between youth, their families, school personnel, other service providers, and community stakeholders (e.g., law enforcement, attorneys, judges) that often contribute to a course of negative encounters that can worsen a student's disengagement from school, disconnection from school, and behavioral and academic problems (McNeely & Falci, 2004). These often recurrent interactions may also contribute to dropout, delinquency, arrest, and incarceration (Osher, Quinn, Poirer, & Rutherford, 2003). Researchers have identified many negative contributing factors to the STPP, including (a) exclusionary school and discipline policies (Skiba & Petersen, 1999), (b) poverty (Christle, Jolivette, & Nelson, 2005), (c) racial and ethnic biases (Fenning & Rose, 2007; Skiba, Horner, Chung, Rausch, May, & Tobin, 2011), (d) high stakes testing (Katysiannis, Ryan, Zhang, & Spann, 2008; Wald & Losen, 2003), (e) inequities in schools (Sealey-Ruiz, 2011), (f) dysfunctional relations among students, teachers, and the curriculum (Christle et al., 2005; Crotty, Birchmeir, & Valentine, 2009), and

(g) ineffective professional development for stakeholders serving youth in or entering the STPP (Houchins, Shippen, & Murphy, 2012).

Students on the STPP typically share similar characteristics including minority status, underprivileged backgrounds, negative school academic and behavioral experiences, and diagnosis of a disability (Houchins & Shippen, 2012). Research has consistently shown that minorities, specifically African American males, are disproportionately represented in the STPP (Skiba et al., 2011; Skiba, Michael, Nardo, & Peterson, 2002). Their journey often begins with schools with disparate representation, disproportionate placement in special education, and exclusionary discipline policies that lead to their suspension from school (NAACP, 2006; Skiba et al., 2002). Wald and Losen (2003) argue that racial disparities and disproportionate percentages in school discipline and the juvenile justice system are so similar, it is impossible not to connect the two.

In order to dismantle the STPP, more focus must be placed on professional development, building strong conditions for learning (CFL), and improving services in an underfunded, often neglected education system (NAACP, 2006; Osher, Coggshall, Colombi, Woodruff, Francois, & Osher, 2012). Osher et al. (2012) explain that conditions for learning (e.g, physical and emotional safety, connectedness, engagement and challenge, peer social-emotional capacity and values) are essential for the academic and social well-being of students. However, due to funding issues, many schools lack basic resources essential for building strong CFL and providing success in an educational setting (e.g., textbooks, desks, experienced and well-trained teachers). Wald and Losen (2003) contend that those at-risk of entering the STPP are often taught by unqualified teachers, forced to participate in biased testing, retained, repeatedly suspended, and placed in alternative settings all before dropping out or "pushed out" of school.

Pushed out is a term that is used to describe students who dropped out of school because of actions or barriers placed upon them by their school. These students may perceive that they were not wanted, did not belong, were not smart enough, or that school was too stressful. The concurrence of these factors – the lack of basic necessities, poor conditions for learning, the failure to provide quality education, and harsh discipline policies that exclude students from school –foster the STPP.

Researchers warn that without preventive or proactive measures in place, the chance of these youth being arrested and incarcerated is exceedingly high (Christle et al., 2005; Houchins et al., 2012). Therefore, it is imperative that schools develop systems of care that include protective factors for all students and specifically for those at-risk of entering the STPP. Systems of care include (a) promoting academic success, (b) providing early intervention programs, (c) developing high but achievable expectations, (d) creating a safe and positive learning environment, and (e) increasing attention to internal and external factors often suffered by at-risk students (Christle et al., 2005; Hancock, 2011).

This review of literature will discuss the connection between school, community, and juvenile incarceration, and how providing quality interventions can make a difference in the lives of youth in or at-risk of entering into the STPP. First, a brief discussion of the academic and behavioral characteristics of students with learning disabilities (LD) is provided. Next, the disproportionate number of students with disabilities (SWD) in juvenile corrections facilities is briefly discussed. Connections are made to legislative mandates protecting the educational and civil rights of SWD and those incarcerated in juvenile correctional facilities. A brief description of risk factors that perpetuate the STPP, along with school characteristics that may exacerbate youth involvement in delinquency, follows. Then preventive measures, to include school-based

and community prevention, are discussed. In addition, a thorough discussion of literacy intervention is provided. The argument is made that increasing the literacy skills, specifically writing literacy, of SWD can possibly decrease their involvement in delinquent and criminal behavior and increase school success. Finally, a discussion of quality professional development for professionals who work with at-risk youth is provided. These stakeholders may have a unique opportunity to reach students along the STPP continuum and encourage and assist them in diverting from the STPP.

Students with Learning Disabilities

The National Center for Education Statistics (NCES, 2012) estimates that nearly 6.5 million children and youth ages 3-21 received special education services in 2008-2009. Approximately 47 % of those students receive special education services for specific learning disabilities (LD). According to NCES, LDs are the most common type of disability for which students receive special education services under the Individuals with Disabilities Education Improvement Act (IDEIA; 2004). The IDEIA defines a specific learning disability as a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, which disorder may manifest itself in the imperfect ability to listen, think, speak, read, write, spell, or do mathematical calculations.

When students with LD experience difficulties in one area, it may subsequently cause challenges in other areas (Graham & Harris, 2000). For instance, academic problems in reading can interfere with other subject area content, including mathematics. Writing deficits can interfere with classroom and homework assignments, as students may find it challenging to complete the work. Oral language problems can make it difficult for students to understand lectures and also to orally respond in class (Steele, 2010). Additionally, many students with LD

also experience problems with processing information, which may interfere with their interpretation and understanding of what they see or hear. For instance, visual spatial problems can cause great challenges in interpreting graphs, diagrams, and illustrations, which are found in most subject areas. Students with LD may also experience problems with auditory processing, memory, and deficits in organizational skills and attention (Steele). These deficit areas can cause great challenges for students with LD.

Data has shown that the difference between the level at which students with LD perform and their expected level of performance is often large. Unfortunately, the gap steadily increases as students progress through school and curricular demands increase and content demands are different (Kennedy & Deshler, 2010). The National Longitudinal Transition Study II (NLTS-2; 2011) found that students with LD had failed at least one course during their years in secondary school and had a lower GPA than that of the general student population (Newman et al., 2011). Data from the NLTS-2 also showed 21% of secondary students with LD are five or more grade levels below in reading. More alarming, 31% of students with LD drop out, or may be pushed out of school compared to 9.4% of their peers without disabilities. Only 11% of students with LD attend postsecondary institutions (Wagner, Newman, Cameto, & Levine, 2005).

Research has consistently shown that a considerable gap exists between youth with disabilities and their peers without disabilities in reading, mathematics, science, and social studies achievement (NLTS-2, 2005, 2011). Data from the NLTS-2 also show that students with LD score well below their peers in most academic measures. Thus, a vital, yet difficult challenge facing education today is raising the achievement level of students with LD, especially in reading, mathematics, and writing.

Students with LD and Reading Difficulties

Reading difficulties are the most frequent learning problem among SWD and is one of the main reasons for academic failure (Kuhn & Stahl, 2004; Rasinski & Hoffman, 2003). Students with reading difficulties are often diagnosed with learning disabilities (Stanford & Oakland, 2000). Kavale and Reese (1992) suggest that about 80% of students with LD experience serious problems learning to read. According to the National Assessment of Education Progress (NAEP; 2007), 34% of 4th grade public school students have reading difficulties. Longitudinal studies have found that reading difficulties often persist throughout the school years (NTLS-2, 2011).

Research suggests that basic skills in phonemic awareness, word attack, vocabulary fluency, and comprehension all influence skilled reading (National Reading Panel, 2000). Students with LD often have challenges acquiring one of these basic skills. The reading skills of students with LD can be categorized into two groups based on the problems they experience during the developmental phases of reading: (1) students who having decoding challenges, and (2) students who have fluency difficulties (Lovett, 1987). According to Lovett (1987), children learn word decoding during the first phase of reading, recognize words automatically without decoding in the second phase, and exhibit fluency by recognizing words automatically, reaching a maximum speed, in the third phase. When students exhibit problems in any of these phases, they can be identified with a learning disability (Ergul, 2012). Additionally, reading fluency has been shown to be a strong predictor of reading comprehension, and fluency assessment is an effective method of identifying learning disabilities (Fuchs et al., 2001).

Due to the importance of reading skills for academic achievement, it is vital that students who exhibit difficulties with any of the phases of reading are identified and provided with early

intervention (e.g., Response to Intervention; RTI) in order to reduce their reading problems (Kuhn & Stahl, 2004; Lyon, Shaywitz, & Shaywitz, 2003). Researchers (e.g., Jenkins, Fuchs, Broek, Espin, & Deno, 2003; Lovett, 1987) note that if a student is still having problems with decoding and fluency by the end of the third grade, that student may need to be evaluated to determine if he has an underlying learning disability. The researchers suggest that at this time, the students should be referred for evaluation to determine eligibility for special education services. Information from the evaluation can be used to develop a plan of action and to determine evidence-based practices that will likely be effective for the student. Examples of evidence-based practices that may be effective include: providing explicit vocabulary instruction; providing direct and explicit comprehension instruction (Kamil et al., 2008; National Reading Panel, 2000); and providing language therapy to help the student build an association between sounds, letters, and words (Sze, 2009).

Students with LD and Mathematics Difficulties

Many students with LD may also have difficulty with mathematical skills. Although it is difficult to determine the exact prevalence of mathematical disabilities due to the overlap of learning disabilities, it is speculated that five to eight percent of K-12 students have disabilities in math (Kunsch, Jitendra, & Sood, 2007). According to the National Center for Education Statistics (Lee, Grigg, & Dion, 2007), only 32% of all eighth graders and 39% of all fourth graders achieved scores at or above the proficient level in the area of mathematics on the 2007 NAEP assessment. Disturbingly, only eight percent of students with disabilities scored at or above proficiency in math. These data clearly show that improving math instruction by providing high-quality interventions to struggling students is crucial.

Mathematical skills require the use of both cognitive and metacognitive processes (Goldman, 1989) – the skills in which many students with LD have deficiencies. Metacognition refers to higher order thinking which involves control over the cognitive processes engaged in learning (Flavell, 1979). Research has indicated that students with LD in math typically have difficulty with problem conceptualization, calculation procedures, and rapid retrieval (Bryant, Bryant, & Hammill, 2000; Jordan & Montani, 1997). These students have also been found to have deficits in higher order problem solving, which is typically accompanied by associated problems in reading (Calhoon & Fuchs, 2003; Jordan & Montani). Similar to reading skills, deficits in math skills have been found to be static and persist through the secondary school years (Ostad, 1999).

Research is emerging to identify the most effective interventions for remediating math deficits (e.g., cognitive strategies, schema-based instruction, peer tutoring, scaffolding, mnemonics). For example, strategy instruction has been suggested in the literature as being beneficial to students with LD (Hutchinson, 1993; Maccini & Hughes, 2000; Montague, 1997a, 1997b). Additionally, peer-assisted tutoring has been noted as an effective instructional strategy for the remediation of math skills (Delquardi, Greenwood, Whorton, Carta, & Hall, 1986; Maheady, Sacca, & Harper, 1988). Research suggests that having students with LD act as tutors to their peers may increase mathematics achievement for both tutors and those being tutored (Roach et al., 1983). Swanson and Hoskyn (1998) concluded that using small, interactive group instruction, using directed questioning and responses, breaking tasks down into component parts, and using extended practice with feedback are important components for teaching math skills to struggling students.

The National Mathematics Advisory Panel (2008) recommended a balanced approach to teaching math (Cole & Wasburn-Moses, 2010). The Panel advised that instruction in math constitute a balanced approach of direct instruction and inquiry-based teaching approaches. The Panel also recommended that students with LD, and those without disabilities who experience math difficulties, are provided with explicit instruction, as research has shown positive effects on performance with problem-solving and computation. However, in order for a balanced approach to work, collaboration between special and general educators is vital (Cole & Wasburn-Moses). Collaborative efforts should entail knowledge of effective instructional strategies and interventions for teaching math to struggling learners.

Students with LD and Writing Difficulties

Writing is a complex skill and many students with LD exhibit difficulties mastering the process. Students with LD often exhibit challenges with mastering basic writing mechanics (i.e., spelling, capitalization, punctuation, handwriting) and composition (Graham, Harris, & Larsen, 2001; Graham, Swartz, & MacArthur, 1993; Montgomery, 2008). These students often progress through school without developing the basic writing skills needed to be successful in school, in employment, and in society.

Although not emphasized as much, skills in the mechanics of writing may play a crucial role in writing development, accounting for a substantial share of the variance in writing fluency and quality (Graham, Berninger, Abbott, Abbott, & Whitaker, 1997). Research shows that students with LD produce writing samples that are poorly organized, lack detail and elaboration, are of shorter length, and are difficult to decipher due to spelling, punctuation, and capitalization errors (Gersten & Baker, 2001; Graham, Harris, & Larsen, 2001; Graham, Swartz, & MacArthur, 1993). These deficits are evident on most measures of writing performance, and they are

apparent across a variety of skills ranging from basic grammar to composition development (Viel-Ruma, Houchins, Jolivette, Fredrick, & Gama, 2010). Students with LD tend to find writing a challenging task, as they may have difficulty with the physical demands and rules of writing fluently (Walker, Shippen, Alberto, Houchins, & Cihak, 2005). They may also have difficulty with higher-order cognitive processes.

Cass (2011) notes that students with LD often have significant challenges with the metacognitive processes involved in writing proficiently (e.g., planning, ideation, organization, revision). Metacognition refers to higher order thinking which involves control over the cognitive processes engaged in learning (Flavell, 1979). Additionally, students with LD often find it difficult to utilize the self-regulation skills necessary to write proficiently. The inner voice that guides one through a task is often lacking in students with LD. Instead of occurring naturally, these students must be explicitly taught how to think about thinking. For instance, students with LD must be taught how to use summarization strategies (e.g., who, what, when, where, how, why), how to plan, and how to organize their writing in order to successfully progress through the stages of the writing process (Wong, Butler, Ficzere, & Kuperis, 1997).

Like reading, writing is one of the primary foundations on which learning is built (Lane, Harris, Graham, Weisenbach, Brindle, & Morphy, 2008). Research has shown a need for more emphasis on writing literacy (Graham & Harris, 1989). Developing the writing skills of youth not only benefit them academically, but also increase their employment opportunities. Gaining competence in the area of writing is imperative not only for academic success, but for success in life. Research has shown that individuals with poor writing skills have limited employment opportunities (College Board, 2003), as competence in writing is often needed for most jobs today.

Although research has shown the benefits of developing the writing skills of students, there continues to be a lack of buy-in from all stakeholders. In order for writing instruction to be successfully implemented in the curriculum, policymakers must provide the financial resources for implementation and teachers must find the time to implement the instruction. The College Board (2003) explains that the skill of writing is not a luxury for few, but a necessary skill for the many.

Students with Disabilities and Behavioral Challenges

Currently, it is estimated that about 5 to 7 % of school-aged students are classified as having an emotional disturbance (ED; NCES, 2012). According to IDEIA (2004), ED, also interchangeably referred to as emotional and behavioral disorders (EBD), are characterized by an inability to learn which cannot be explained by intellectual, sensory, or health factors, an inability to build or maintain satisfactory relationships, and inappropriate behaviors under normal circumstances that persists over a long period of time and to a marked degree, which adversely affects educational performance. Students with ED display externalizing (e.g., aggression, delinquency) and internalizing (e.g., anxiety, depression, somatic complaints, social withdrawal) behaviors that may place them at risk for negative outcomes such as school failure, delinquent behavior, and postschool unemployment (Bullis & Yovanoff, 2006). Although these students are identified for their behavioral or social issues, many students with ED also exhibit academic challenges, often experiencing severe deficits in reading, writing, and mathematics (Lane, Wehby, Little, & Cooley, 2005).

Research has demonstrated a reciprocal relationship between low academic achievement and problem behavior (Fessler, Rosenberg, & Rosenberg, 1991; Glassberg, Hooper, & Mattison, 1999; Handwerk & Marshall, 1998; Hinshaw, 1992). It has been shown that low academic

achievement often yields inappropriate behavior, and in turn problem behavior has a negative influence on academic achievement (Brunner, 1993). Research has shown that compared to other disability groups, students with ED have lower reading and math scores, higher dropout rates, are less likely to attend postsecondary school, and are more likely to experience problems with employment and become involved with the criminal justice system (U. S. Department of Health and Human Services, 1999).

Forness and Knitzer (1992) argue that students with ED are the most under-identified group of SWD. These students tend to struggle more academically than perhaps any other group of students (Ryan, Pierce, & Mooney, 2008). Research indicates that students with ED typically perform one to two grade levels behind their peers while in elementary school (Trout, Nordness, Pierce, & Epstein, 2003), and continue to lag behind their peers as they progress through secondary school. By the time they reach high school, many students with ED are performing significantly below their peers (Epstein, Kinder, & Bursuck, 1989). As a result, more than half of students with ED meet criteria for a learning disability in one or more areas (Glassberg, Hooper, & Mattison, 1999). Moreover, research suggests that between 50-70% of students with ED have co-morbid speech, language, and/or communication disorders (Benner et al., 2002).

Goran and Gage (2011) suggest that language deficits play a significant role in the co-morbidity of poor academic achievement and behavior challenges. The authors examined the interrelationship between emotional disorders and learning disabilities and found that language deficits were significant predictors of cognitive ability and academic performance, but not for behavioral performance in school. Although their findings contrasted with results from previous studies (see Nelson et al., 2006), the authors contend that their results support previous findings

that students with ED have deficits in both language skills (Benner et al., 2002) and academic performance, and that language skill is a significant predictor of academic performance for both students with LD and students with ED (Benner et al., 2009).

Similarly, Hinshaw (1992) states that the underlying factors of co-morbidity between LD and ED may be due to causal factors such as mild to moderate language delays, poor verbal skills, developmental delays, and/or family discord. The researcher suggests that the overlap between the two categories typically appears as early as the preschool years. Thus, Hinshaw recommends that intervention efforts should start during this developmental period, in an attempt to prevent other associated problems from emerging and before difficulties become ingrained. Likewise, Nelson, Benner, Lane, and Smith (2004) posit that the social, behavioral, and academic deficits of students with LD become more resistant to intervention as the student ages; therefore it is imperative that intervention efforts take place during the developmental period, generally between ages three and eight (Kazdin, 1987). Intervention efforts must be multimodal and include the promotion of academic skills, language skills, and behavioral competence, as merely focusing on reducing problem behaviors is not sufficient enough for students with co-morbid learning disabilities and emotional disturbances. Appropriate interventions are not only beneficial for students with co-morbid disabilities, but also to their families and society by helping to prevent the possible negative outcomes often faced by these students.

In contrast to the past when students with disabilities were underserved, more special education and related services are now provided to children and youth with academic and behavioral challenges. Although this may be considered an advancement in the field, questions about the misidentification and disproportionate representation of historically underserved groups, those from diverse racial, cultural, linguistic, and economically disadvantaged

backgrounds, receiving special education services have been raised (Artiles, Kozleski, Trent, Osher, & Ortiz, 2010; Skiba, Simmons, Ritter, Gibb, Rausch, Cuadrado, & Chung, 2008).

Disproportionality in Special Education

The disproportionate representation of minorities and culturally and linguistically diverse (CLD) students and the quality of their educational experiences has been a major concern in the field of special education for over forty years (Skiba, Poloni-Staudinger, Gallini, Simmons, Feggins-Azziz, 2006). Although protected from discrimination by The Equal Protection Clause of the 14th Amendment to the United States Constitution, Title VI of the Civil Rights Act of 1974, and Section 504 of the Rehabilitation Act of 1973, students from diverse backgrounds were and continue to be routinely discriminated against in public schools and over-represented in certain special education disability categories. Because of such, the overrepresentation of diverse ethnic and cultural groups in special education has resulted in several court cases (see *Larry P. v. Rile*s, 1979; *PASE et al. v. Hannon*, 1980; *Marshall et. al. v. Georgia*, 1984, 1985; *S-1 v. Turlington*, 1986). In the case of *Larry P. v. Riles* (1979), the court ruled that disproportionate representation of African American students in programs for educable mental retardation (EMR) had occurred. EMR is the previous term now represented in the literature as mild intellectual disabilities. As a result of the misidentification, the courts banned the exclusive use of IQ tests with African American students and ordered the state to develop plans to eliminate the disproportionate enrollment of African American students in educable mental retardation programs.

Prior to 1975, and the passage of the Education for All Handicapped Children Act (EACHA), SWD were denied access to or consistently underserved in public schools. The Individuals with Disabilities Education Act (IDEA, formerly EACHA) entitled all children with

disabilities a free and appropriate education (FAPE) and mandates nondiscriminatory identification, assessment, and placement of children with disabilities. According to IDEA, children are not to be identified as having a disability simply because of poor achievement as a result of environmental disadvantages or ethnic, linguistic, or racial differences. This is specified by the mandated evaluation procedures and the definitions of disability categories in IDEA (Coutinho & Oswald, 2004). To more clearly define issues related to disproportionality, Congress included provisions in the 1997 amendments to IDEA that required state-level reporting of minority representation by disability category and corrective provisions to put in place if disproportionality is found to exist, in an attempt to remediate problems associated with the identification and placement of children from diverse ethnic, linguistic, or racial groups in special education (Oswald, Coutinho, Best, & Singh, 1999). IDEA 2004 mandated states to spend 15% of Part B funds for early intervening programs if local educational agencies (LEAs) were found to have significant disproportionality (Skiba, et al., 2008). Yet, despite provisions in IDEA, some diverse ethnic and cultural groups (e.g., African Americans, Native Americans, Latinos, English language learners [ELL]) continue to be overrepresented as having a disability, identified as requiring special education services, and/or placed in overly restrictive settings (Artiles, et al., 2010).

Prevalence of Disproportionality

Data from the U. S. Department of Education (2006) show consistent patterns of disproportionality among minority students. African American students are more likely to be overrepresented in special education, specifically in the categories of intellectual disabilities (ID), formerly called mental retardation (MR), and emotional disturbance (ED), and American Indian/Alaska Native students have been overrepresented in the category of specific learning

disabilities (SLD). Asian/Pacific Islander students are more likely to receive special education services for hearing impairments and autism than other students. Latino students were more likely to receive services for hearing impairments. Losen and Orfield (2002) found that Latinos and Asian Americans are often under identified in special education, suggesting the possibility of inadequate attention to their specific needs. In contrast to the U.S. Department of Education findings, De Valenzeula, Copeland, Qi, and Park (2006) found African Americans to also be over-represented in SLD, and along with Hispanics, Native Americans, and ELL students, and less likely to be identified as gifted.

Researchers have noted that disproportionate representation is greater in the judgmental or hidden disability categories, in which the diagnosis relies heavily on professional clinical decisions, of ID, ED, or LD compared to nonjudgmental or visible disability categories that have clear biological etiologies, such as hearing impairment, visual impairment, or orthopedic impairment (Artiles et al., 2010; Losen & Orfield, 2002) (see Table 1).

Table 1

Risk Ratios by race/ethnicity and disability category from the 26th Annual Report to Congress

Disability	American Indian/ Alaska Native	Asian/ Pacific Islander	Black	Latino/a	White
Specific learning disability	1.53	0.39	1.34	1.10	0.86
Speech/language impairments	1.18	0.67	1.06	0.86	1.11
Mental retardation	1.10	0.45	3.04	0.60	0.61
Serious emotional disturbance	1.30	0.28	2.25	0.52	0.86
Multiple disabilities	1.34	0.59	1.42	0.75	0.99
Hearing impairments	1.21	1.20	1.11	1.20	0.81
Orthopedic impairments	0.87	0.71	0.94	0.92	1.15
Other health impairments	1.08	0.35	1.05	0.44	1.63
Visual impairments	1.16	0.99	1.21	0.92	0.94
Autism	0.63	1.24	1.11	0.53	1.26
Deaf-blindness	1.93	0.94	0.84	1.04	1.03
Traumatic brain injury	1.29	0.59	1.22	0.62	1.21
Developmental disabilities	2.89	0.68	1.59	0.43	1.06
All disabilities	1.35	000.48	1.46	0.87	0.92

Notes: [a]Risk ratio (RR) is defined as a ratio of the risk of the target group to one or more groups. RR are used to interpret the risk index (RI),which is the proportion of a given group served in a given category and represents the best estimate of the risk for that outcome for that group (Skiba et al., 2008).
[b]Risk ratios were calculated by dividing the (prerounded) risk index for the racial/ethnic group by the risk index for all other racial/ethnic groups combined for students ages 6 through 21 with disabilities by race/ ethnicity and disability category.
[c] Adapted from U.S. Department of Education, Office of Special Education and Rehabilitative Services (2006). 26th Annual report to Congress on the implementation of the Individuals with Disabilities Education Act, 2004. Washington, DC: Westat.

Disproportionality and Discipline

Research has provided evidence that show that students with disabilities who exhibit behavioral problems, as well as minority students (especially African American males) are more susceptible to harsh, disciplinary tactics (Civil Rights Project, 2000; Leone et al., 2000; Skiba et

al., 2002). Leone et al. (2000) reported that SWD embody approximately 11% of the school-age population, but nearly 20% of the students who are suspended. SWD and minorities are often subjected to punitive actions at a greater rate by teachers and administrators and, consequently, are at a higher risk for delinquency (Christle et al., 2004).

Research has shown that disciplinary disproportionality for African Americans has increased since the 1970s, when African Americans were almost twice as likely for the risk of suspension, to 2002, when African Americans were almost three times as likely for the risk of suspension compared to White students (Wald & Losen, 2003). To explore the occurrence of African American students being vulnerable to disproportionality in school discipline, Skiba et al. (2002) analyzed data drawn from the disciplinary records of 19 middle schools in an urban Midwestern public school district during the 1994-1995 school year. Testing three commonly used explanations for the overrepresentation of minorities in school discipline, the researchers sought to explore the extent to which racial and gender overrepresentation in disciplinary referrals are based on evidence or biases. In this study, the majority of the students in the middle schools were either black or white, with Latino representing only 1.2% of the population. The researchers found that male and black students were overrepresented on all measures of school discipline (referrals, suspensions, and expulsions), while female and whites were underrepresented on all measures. They suggest that because this overrepresentation could not be explained by either socio-economic status or racial differences in behavior, this racial disparity may be due in part to black males receiving a higher rate of office referrals than any other group (Townsend, 2012). The researchers also found that disproportionality among males and African Americans appeared to increase as punishment progressed from suspension to expulsion. Skiba and colleagues findings were consistent with a host of previous research

documenting racial and gender overrepresentation in disciplinary actions (Krezmien et al., 2006; Leone et al., 2000; Skiba et al., 2011).

To add to Skiba et al. (2002) research, Krezmien, Leone, and Achilles (2006) examined statewide trends in school suspension, changes in suspension rates, and the disproportionate suspension of minorities and SWD at all the public schools in Maryland. The majority of the students were white (50.4%); African Americans comprised 37.9% of the population, while Hispanic, Asian American, and Native Americans made up the remaining 11.7%. The researchers used data drawn from state reports of suspensions and expulsions from 1995 to 2003. Data consisted of the number of overall suspensions as well as the number of students suspended. The researchers found increases in the number of overall suspensions (58%) and the number of students suspended (47%). They also found that African American and Native American student's chances of being suspended increased over time. Krezmien et al. found that the combination of race and disability was a greater risk factor for being suspended for African American students with a disability. The chances of being suspended for White, Hispanic, and Asian students remained stable over time. Additionally, the researchers found that students of any race identified as having a disability experienced higher rates of suspension than youth not identified as having a disability. Krezmien and colleagues findings are consistent with previous studies that showed disproportionate suspensions of SWD (Leone et al., 2000) disproportionate suspensions of minority students (Civil Rights Project, 2000; Skiba et al., 2002; Wald & Losen, 2003), and increases in suspension rates (Imich, 2004).

Skiba et al. (2011) argue that there are notable gaps in the literature exploring racial disparities in school discipline. They argue that few existing studies have been both comprehensive and detailed. Additionally, the researchers contend that existing studies

primarily relied on the use of national or state databases to obtain information. Contrary to previous studies, Skiba et al. explored racial and ethnic disparities in referrals and administrative decisions in a nationally representative sample. All of the schools in the sample (n=436) used School-wide Positive Behavior supports (SWPBS) for at least one year. Skiba et al. findings were consistent with previous research findings (Krezmien et al., 2006; Skiba et al., 2002; Wald & Losen, 2003) that illustrated significant disparities for African American and Latino students. The researchers' findings indicate that initial referral to the office and administrative decisions made as a result of the referral contributed to racial and ethnic disparities in school discipline. Skiba et al. note that these disparities do not seem to be explainable exclusively by the socio-economic status of the students, or by a higher rate of disruptive behavior for minority students. The researchers contend that while personal, family, and community factors contribute to disparities, school and teacher characteristics, such as the student's perception of being respected and supported by the teachers, are also contributing factors. Therefore, it is vital that school personnel and policy makers employ solutions that can contribute to reducing racial disparities and disproportionality in the discipline of students from diverse ethnic and cultural backgrounds, as well as those identified as having a disability (Skiba et al., 2011). Disturbingly, these marginalized students are often over-represented in juvenile correctional facilities.

Disproportionate number of SWD in Juvenile Correctional Facilities

In 2003, the Office of Juvenile Justice and Delinquency Prevention (OJJDP) estimated that nearly 134,000 youth were incarcerated annually in more than 2,900 facilities in the United States. Of that number, the prevalence of incarcerated youth with disabilities was alarmingly high. Since then, there has been a notable decline in the number of juvenile offenders in residential or correctional facilities. In 2008, the OJJDP estimated slightly over 81,000 juvenile

offenders were in public and private facilities (Sickmund, 2010). Despite the decline, students with disabilities continue to be disproportionately represented in these environments (Houchins & Shippen, 2012). Research suggests that many of these incarcerated youth experience significant behavioral and learning problems in school that qualifies them to receive special education and related services under the IDEA (Leone, 1994; Quinn et al., 2005; Wolford, 2000). Learning disabilities, behavioral disorders, and intellectual disabilities are the most commonly occurring disabilities among those who receive services. Quinn et al. (2005) estimate nearly 3.5 percent of incarcerated youth have intellectual disabilities, nearly 14 percent have a specific learning disability, and more than 17 percent exhibit an emotional disturbance.

Ethnicity is also important to consider in the juvenile offender population. Johnson (1999) found minority students to be the majority of youth incarcerated in juvenile correctional facilities. Zabrel and Nigro (1999) suggest characteristics such as being African-American, male, and having a disability place youth at a higher risk for delinquency. Synder and Sickmund (2006) found that Blacks represent 16% of the school-age population, but they consist of 26% of youth arrested, 30% of the cases in juvenile court, 40% of youth in juvenile correctional facilities, 45% of cases involving some form of detention, and 46% of the cases referred to criminal court. These statistics should give the field pause and motivation to reduce this unacceptable trend.

Definition and Possible Causes of Disproportionality

Researchers suggest that disproportionate representation may exist because a clear definition has not been identified (Donovan & Cross, 2002). Throughout the literature on disproportionality, it has been described and operationally defined in many ways. The differences in the definition may explain why disproportionate representation continues to exist,

even after provisions in IDEA (Oswald et al., 1999). Oswald and colleagues define disproportionate representation as "the extent to which membership in a given ethnic group affects the probability of being placed in a specific special education disability category (p. 198). However, Skiba and colleagues (2008) define disproportionate representation as "the representation of a group in a category that exceeds our expectations for that group, or differs substantially from the representation of others in that category (p. 266)". Despite definition contradictions, there is an overall consensus that minority children are disproportionately represented in special education. Although there are challenges in identifying the specific causes of disproportionality, researchers suggests that test bias, poverty, unequal opportunities in general education, eligibility criteria, student behavior, school discipline, and cultural differences are possible contributors to the disproportionate representation of diverse ethnic, linguistic, or racial groups (Skiba et al., 2008; Trent et al., 2008).

State and local education agencies policies and procedures may also contribute to the disproportionate representation of certain groups. For instance, variability among states in eligibility criteria and different definitions for special education disability categories, such as emotional disturbance and specific learning disability, may affect the procedures states use to identify students as having a disability. Moreover, funding concerns and budget cuts increase the probability of larger class sizes and strains on needed supports for students. This in turn may influence the occurrence of disproportionality. With larger class sizes, teachers may not have the opportunity to provide individualized attention and instruction to students. If students begin to struggle or fail, they may be wrongly identified as having a disability. Moreover, stringent discipline policies, such as zero-tolerance, may unintentionally encourage lower tolerance for

cultural differences (Skiba et al., 2002). In turn, this may increase behavioral-related referrals for diverse students into special education programs.

Research has shown that students from diverse backgrounds may be at an increased risk of being educated in restrictive settings, and such placement may not be justified by learning or behavioral challenges, but more so by attitudes towards diverse ethnic and cultural groups (Losen & Orfield, 2002). Unfortunately, a child's ethnicity or race may be a factor in the probability of being misidentified as a student with a disability. Despite past litigation, monitoring, and compliance procedures, disproportionate representation continues to be a problem for students from diverse ethnic and cultural groups due to the increasing population of these students attending public schools (Oswald et al., 1999).

The misidentification of students needing special education services can have a negative effect on students. For instance, mislabeling students as having a disability can lead to unnecessary services and supports. These students are more likely to be denied access to rigorous curricula and may be thought of as having lower potential (Trent et al., 2008). Most importantly, mislabeling students creates a false notion of the student's capability and potential, and may lead to diminished expectations and limited post-secondary opportunities.

Despite protections provided by legislation, students with disabilities, and those from diverse ethnic and cultural backgrounds continue to be disproportionately represented in special education and in the criminal and juvenile justice systems. Some researchers believe that disproportionality is complex and not easily resolvable (Donovan & Cross, 2002). Moreover, researchers have found challenges in reducing or resolving disproportionality (Shippen, Curtis, & Miller, 2009).

Legal Mandates

Early Influences of Legislation on the Provision of Special Education Services

The Supreme Court ruled in the landmark court case of *Brown v. Board of Education* (1954) that separate was not equal, and school segregation by race was unconstitutional. The Supreme Court's decision was the first time that the federal government had advocated for students who generally experienced inequality and prejudice at school (Vaughn, Bos, & Schumm, 2011). Often considered the foundation for which equal access for individuals with disabilities was based, this landmark case was instrumental in paving the way for future legislation for individuals with disabilities.

Before the 1950s, many SWD were denied access to receiving an education in public schools. As recently as 1958, court cases ruled in favor of excluding SWD from public schools. For example, in *Department of Public Welfare v. Haas* (1958), the Supreme Court of Illinois ruled that compulsory education laws did not require a free public education to students with more severe disabilities. The court ruled that these students would not be able to benefit from a good education (Yell, 1998). Nearly a decade later, the Elementary and Secondary Education Act (ESEA; 1965) was enacted. The ESEA served as the first time the federal government provided direct funding to states to assist in educating students from disadvantaged backgrounds. In essence, the ESEA was a precursor of direct aid for students with disabilities. In 1970, Title VI of the ESEA, which encouraged states to create programs for SWD, was replaced by the Education of the Handicapped Act (EHA). This law became the basic structure for much of the legislation that followed. The purpose of EHA was to consolidate and expand the previous federal grant programs and to continue funding pilot projects at the state and local levels. One criticism of EHA was that it did not provide any specific guidelines for how these programs

should be created or what they should look like (Vaughn, et al., 2011). The EHA also provided funding to colleges for training teachers of SWD.

After the enactment of EHA, society began to realize that change needed to occur for SWD. Landmark court cases began to come about (*e.g., PARC vs. Commonwealth of Pennsylvania,* 1972*; Mills v. Board of Education,* 1972) arguing against the exclusion of SWD from public schools. Other cases such as *Diana v. California State BOE* (1970) and *Wyatt v. Stickney* (1971) were also instrumental in the fight for equality for SWD. By the early 1970s, most states had passed laws requiring SWD to receive a public education. In 1974 the EHA was amended and referred to as the Education Amendments of 1974. The new law required each state receiving federal funding for special education to establish a timetable of providing full educational opportunities for all children with disabilities. Moreover, these amendments dramatically expanded federal funding to compensatory programs in low-income areas. They funded dropout prevention projects, school health services, gifted children's programs, career education, arts education, consumer education, and dozens of other programs. This legislation was greatly influenced by the *PARC* (1972) *and Mills* (1972*)* decisions. The Education Amendments of 1974 also mandated that due process requirements guaranteed by the 14th Amendment to the Constitution are established to protect the rights of SWD and their families in special education placement decisions.

Perhaps the most significant increase to the federal government's role in special education to date, and the most lasting legislation was the Education for All Handicapped Children Act (EAHCA) of 1975. This piece of legislation was passed as a result of several schools continued refusal to serve the needs of many SWD, despite court rulings and past legislation. The EAHCA established the right to a free and appropriate education (FAPE) in the

least restrictive environment (LRE) for all children with disabilities until their 22nd birthday; created a combined federal, state, and local system for the delivery of special education and related services; and created new and higher expectations for SWD.

Recent Influences of Legislation on the Provision of Special Education Services

Since the signing of the EAHCA, several amendments to the law have been enacted. In 1990, the EAHCA was reauthorized and renamed the Individuals with Disabilities Education Act (IDEA). The underlying premise of IDEA was that all children can be educated and all students must receive a FAPE, as declared in the *Timothy W. v. Rochester School District* (1989) court ruling (Looney, 2004). IDEA 1990 strengthened the guarantee of FAPE by extending the LRE to require the student, to the maximum extent appropriate, be educated with students without disabilities in the same class he or she would have been had they not had a disability. In addition, IDEA 1990 introduced "people first" language and replaced the phrase "handicapped child" with "child with a disability." Among other requirements, IDEA 1990 mandated that transition services be included in the IEP of SWD no later than their 16th birthday.

IDEA has been amended several times since its creation. The 1997 amendment to IDEA required states to include SWD in statewide and district-wide assessments. IDEA 1997 also placed an emphasis on educating students with disabilities who had behavioral problems, by mandating a proactive behavior management plan to be included in the IEP if the student exhibits behavioral problems. Furthermore, IDEA 1997 mandated that SWD would continue to receive special education services even if they were expelled from school. The last amendment to IDEA was in 2004 and renamed IDEA to the Individuals with Disabilities Education Improvement Act (IDEIA). The IDEIA upheld the basic structure of the original and previously amended IDEA, but added several new requirements. For instance, IDEIA adopted policies

designed to prevent the disproportionality of minority students inappropriately identified to receive special education services. Instead of using a formula that shows a severe discrepancy between achievement and intellectual ability, districts were allowed to use a response to intervention (RTI) model for deciding if a student has a specific learning disability (Vaughn et al., 2011).

Each subsequent authorization of IDEA (1997, 2004[IDEIA]) strengthened the types of special education services that were to be provided to SWD. IDEA's requirement of providing all SWD, despite the severity, a FAPE has significantly improved the educational opportunities for these students. Moreover, the reauthorizations help change the original intent of guaranteeing all children with disabilities receive special education services to guaranteeing all children with disabilities receive quality special education services (Morris & Thompson, 2008).

Arguably the most significant piece of legislation impacting our schools today is the No Child Left Behind Act (NCLB; 2001). The NCLB reauthorized the ESEA (1965) and is guided by four basic principles: increased accountability; school choice; greater flexibility for states and local educational agencies (LEAs) in the use of federal education funds; and a strong emphasis on reading. The goal of NCLB was to promote high standards and ensure that all students receive high-quality instruction (Leone & Cutting, 2004). While NCLB was not specifically created for SWD, by leaving no child behind, SWD are able to benefit from its implementation.

While NCLB was designed to hold states, school districts, schools, and educators more accountable for student success, the Act has been widely criticized by some policy makers and educators. Many question the feasibility and fairness of its goals and requirements. Particular concerns surround the annual yearly progress (AYP) mandate and the goal of 100% proficiency by 2013-2014. By 2010, nearly 38 percent of schools were failing to make AYP, an increase

from 29 percent in 2006 (McNeil, 2011). Many feel that, although NCLB brought attention to achievement gaps and the need for increased accountability for students, its requirements have inadvertently brought forth barriers that impaired State and local school districts implementation of reforms.

To obtain relief from the Act's stringent mandates, several states began to request waivers from some of NCLB's provisions. In the summer of 2011, Secretary of Education, Arne Duncan, vowed to create a waiver option for all states. By fall of 2011, Congress developed a flexibility package that outlined how states could receive relief from provisions of NCLB. In exchange, states were required to create state-led efforts that would continue to promote rigorous accountability and ensure that all students were on track to graduate college- and career-ready (U.S. Department of Education, 2011). According to recent data from the U. S. Department of Education, several states and school districts have initiated education reforms to move beyond NCLB. Several states have adopted a common set of college- and career-ready standards, developed new high-quality assessments, and implemented reforms in teacher and principal evaluation and support. It is anticipated that the flexibility package will have a significant, positive impact on education in subsequent years. Table 2 provides a list of key federal laws and their impact on special education.

Table 2

Select Federal Laws and Regulations Impacting Special Education

Year	Authority	Purpose
1973	PL 93-112 Vocational Rehabilitation Act (Section 504)	Prohibits discrimination in federally funded programs solely on the basis of disability. Defined *handicapped person*. Defined *appropriate education*.
1975	PL 94-142 Education for All Handicapped Children Act (EAHCA)	Required states to provide a free and appropriate education (FAPE) to children with disabilities. First defined *least restrictive environment*. Mandated individualized education programs (IEP), multifaceted evaluations every three years, and parental rights to due process. Known as the Mainstreaming Law.
1990	PL 101-336 Americans with Disabilities Act (ADA)	Prohibits discrimination against individuals with disabilities in the private sector. Protects equal opportunity to employment, public services, public accommodations, transportation, and telecommunications. Protects individuals from discrimination solely on the basis of disability.
1990	PL 101-476 Individuals with Disabilities Education Act (IDEA)	Renamed and replaced EAHCA. Established "people first" language. Required transition services as part of a students' IEP. Included social work services, rehabilitation counseling, and assistive technology as related services. Extended provisions for due process and confidentiality for students and parents. Extended eligibility to children with autism and traumatic brain injury.
1997	PL 105-17 Individuals with Disabilities Education Act (IDEA)	Required that all students with disabilities continue to receive services, even if they are expelled from school. Required a behavior management plan to be included in the IEP if a student has a behavior problem. Offered mediation services as a voluntary option to parents in an effort to resolve disputes.

		Required a general education teacher to be a member of the IEP team.
2001	PL 107-110 No Child Left Behind Act (NCLB)	Increased accountability for all students, including those with disabilities and those from minority populations. Implemented early reading interventions. Offered school choice for students enrolled in failing schools. Provided more flexibility in how states chose to use federal funds as long as standards of accountability are met.
2004	PL 108-446 Individuals with Disabilities Education Improvement Act (IDEIA)	No longer required that a child has a severe discrepancy between achievement and intellectual ability to qualify for special education services; instead allowed districts to use a response to intervention (RTI) model to determine whether a child has a specific learning disability. Adopted policies designed to prevent the disproportionate representation of students in special education by race and ethnicity.

Source: Adapted from Vaughn, S. R., Bos, C. S., & Schumm, J. S. (2011). *Teaching students who are exceptional, diverse, and at-risk in the general education classroom* (5th ed). Upper Saddle River, NJ: Pearson.

Federal Legislation and Juvenile Corrections

Although laws and mandates were signed into law ensuring the right to a FAPE for all children with disabilities, confusion regarding whether incarcerated youth with disabilities were protected under the law led to lawsuits. For example, four years after EAHCA (1975) was signed into law, a 21 year old inmate incarcerated in Massachusetts filed a class action lawsuit (*Green v. Johnson,* 1981*)* against the state for failure to provide special education services to which he was entitled under federal and state law. The court ruled that all students with disabilities are entitled to a FAPE. The court stated that being incarcerated did not disqualify the rights guaranteed under federal and state law. The landmark case of *Green v. Johnson*, 1981 secured the right to a FAPE for incarcerated juveniles with disabilities. The right to FAPE has also been confirmed in other cases involving incarcerated juveniles with disabilities (e.g., *Tommy P. v. Board of Commissioners of Spokane Co.,* 1982*; In re Marc A,* 1994*; Donnell v. Illinois State BOE,* 1995*; State of Wisconsin v. Trent,* 1997). With the 1997 reauthorization of IDEA, Congress insisted that the responsibility for educating children with disabilities does not cease upon incarceration (Robinson & Rapport, 1999). Moreover, IDEA 1997 strengthened the rights of children with disabilities by mandating that all students with disabilities continue to receive special education and related services, even if they have been expelled from school (Vaughn, et al., 2011).

Although case law has clearly stated that federal guidelines apply to both students in public schools and those incarcerated in state facilities, litigation has shown that some facilities have not implemented educational services to incarcerated youth with disabilities in an appropriate manner (Morris & Thompson, 2008). In *Handberry v. Thompson*, 2000, a class action lawsuit was filed by city prison inmates, between ages 16 and 21, alleging that the State of

New York failed to provide adequate general education services to all eligible inmates or special education services to school-eligible inmates with disabilities. The inmates argued that the New York Department of Corrections violated the Due Process and Equal Protection Clauses of the Fourteenth Amendment, IDEA, Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act (ADA), and New York State law and regulations. After several years of litigation, the district granted a declaratory judgment to the plaintiffs, concluding that the defendants had failed to provide such services, and ordered the defendants to create a plan for doing so.

Although IDEIA (2004) requires that all children who need special education and related services must be identified, evaluated, and provided an IEP in a timely manner, doing so may be difficult in correctional facilities due to the complex nature of these facilities. Logistical issues such as the difficulty of obtaining parental consent, the amount of time it often takes public schools to release and transfer academic records of students to correctional facilities, and the transient nature of students in these facilities tend to make this requirement daunting for correctional facility administration (Morris & Thompson, 2008). Consequently, many facilities often rely on a student's self-report of receiving special education services in the public school setting (Robinson & Rapport, 1999). Despite these common logistical issues, the rulings of past litigation stated that incarcerated students are still entitled to receive special education services in an expedient manner and correctional facilities are responsible for identifying, assessing, and providing services to these students (e.g., *Smith v. Wheaton*, 1998; *Alexander S. v. Boyd*, 1995; *Gary H. v. Hegstrom*, 1987). In the case of *Alexander S. v. Boyd*, 1995, the courts ruled that the Department of Juvenile Justice is legally required to identify, evaluate, and provide services to incarcerated students, even if the student's IEP from their previous school is unavailable. The

court also ruled that, if the IEP from the previous school or placement is provided, the IEP can be implemented if the student's stay at the facility is less than 45 days. If a student's confinement is considered long-term (greater than 45 days), the correctional facility has the responsibility of assembling a multi-disciplinary team to evaluate the student and develop a new IEP (Morris & Thompson, 2008; Robinson & Rapport, 1999). The failure to develop and implement individualized instruction and provide related services to incarcerated youth with disabilities have also been an issue in juvenile correctional facilities. In the case of *Hot Springs School District,* 1999, an Arkansas detention facility was ordered by the courts to provide compensatory education to an incarcerated student with a behavioral disability. The school district allegedly failed to convene an IEP meeting when the student transferred to the detention facility; the student's current IEP from his home school was not implemented at the detention facility; related services were not provided to the juvenile; and the detention facility failed to gather information to develop a new IEP.

Section 504 of the Rehabilitation Act of 1973, the Fourteenth Amendment to the United States Constitution, as well as several state laws also guaranteed special education services for children with disabilities. Section 504 of the Rehabilitation Act (1973) assures civil rights for all individuals with disabilities and asserts that, "no otherwise qualified individual with a disability in the United States… shall, solely by reason of her or his disability, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance…". Although the founding premise of Section 504 was not based on educational purposes, it specified that individuals with disabilities cannot be denied access to public agencies that received federal support. Such public agencies include

juvenile correctional facilities. Given that juvenile correctional facilities receive federal funding, they fall under the regulations of Section 504.

Though correctional facilities and other state agencies are mandated to provide educational services to youth with disabilities who are incarcerated, the quality of the services may be substandard, compared to public school programs (Robinson & Rapport, 1999). Leone (1994) suggests that the subpar services that impede the provision of appropriate educational services to incarcerated youth with disabilities may be contributed to institutional factors rather than the facilities' noncompliance with the law. Such factors include the high prevalence of students with disabilities in correctional facilities; a lack of related service providers; a lack of qualified teachers; and safety and security issues.

Data indicate that many incarcerated youth have disabilities (Morris & Thompson, 2008). IDEIA 2004 guarantees that an eligible child with a disability must receive necessary related services to help them achieve the maximum benefit from their special education services. However, this mandate may be difficult to implement in the correctional institutions compared to the public school setting. Robinson and Rapport (1999) argue that the administrative mandates of federal and state regulations and legislation tend to cause correctional facilities major barriers to ensuring a quality education for incarcerated youth with disabilities. For instance there has been a shortage of specialists (e.g., occupational therapists; speech therapists; counselors) to provide related services to youth with disabilities in correctional facilities. Additionally there has been a shortage of highly qualified special education teachers to provide individualized instruction to incarcerated students with disabilities (Gagnon, Houchins, & Murphy, 2012). Past litigation indicate that correctional facilities are held to the same standards as local school districts in providing FAPE to students with disabilities (*Green v. Johnson,* 1991*; In re Marc A.,* 1994*; T. G.*

v. Board of Education of Piscataway, 1983). Therefore, correctional facilities must have qualified personnel (e.g., teachers, social workers, counselors, psychologists) to provide related services to ensure that eligible students obtain the benefit from their educational experiences.

For reasons unique only to correctional facilities, the LRE requirement of IDEA presents as a challenge. Due to the nature of confinement, restrictions must occasionally be placed on the provision of educational services. Because correctional facilities are a secure environment, there is a need to protect the safety of the inmates and personnel. Correctional staff must be thoughtful in balancing safety and the LRE requirement (Leone & Meisel, 1997). In past litigation, the courts have recognized that correctional facilities face a challenge in maintaining safety and security in the facility, and thus conceded that an incarcerated student's IEP may have to be modified in the interest of discipline and safety within the correctional facility (Morris & Thompson, 2008). In the case of *In re Marc A.* (1994), a 22-year-old student with both an emotional disability and learning disabilities was ordered to serve in a maximum security unit in a New Hampshire prison during periods of his sentence for manslaughter. His IEP stated that he should receive 5.25 hours of instruction per day; however, while he was in the maximum security unit, he only received one hour of direct instruction weekly. The student sought an order from the hearing officer asking the New Hampshire Department of Education to allow him to participate in courses in the general education building and to provide him compensatory education. Initially, the hearing officer ruled in favor of the student, stating that the student was denied a FAPE. The student was awarded compensatory educational services to equal the amount of time for which he was denied services. On appeal, the district court disagreed with the student's claim and ruled that the student's right to a FAPE must be balanced against the interests of discipline and safety. The court determined that the student's IEP requiring 5.25

hours of instruction would jeopardize the discipline and safety of the prison (*New Hampshire Department of Education v. City of Manchester, NH School District*, 1996). Although correctional facilities must comply with IDEIA's discipline regulations, the case of *New Hampshire Department of Education v. City of Manchester* demonstrates the challenges that correctional facilities often face in balancing the provision of educational services and security and safety.

Table 3

Summary of Case Law Addressing the Provision of Special Education Services for Incarcerated Youth

Case	Issues	Jurisdiction
Kathy Y. ex rel. Paul Y. v. Singletary	Due process protection	FL
PARC v. Commonwealth of Pennsylvania	FAPE, due process protection	PA
Donnell v. Illinois State Board of Education	FAPE, funding, governance	IL
Department of Public Welfare v. Haas	FAPE	IL
Alexander S. v. Boyd	Interpretation of FERPA; identification, evaluation, and assessment; governance; due process protection	SC
Wyatt v. Stickney	Due process protection	AL
In re Christopher V.T.	FAPE, LRE	NY
In re Marc A.	FAPE, LRE	NH
Mills v. Board of Education of the District of Columbia	FAPE, due process protection	D.C.
Diana v. California State Board of Education	Evaluation	CA
Tommy P. v. Board of Commissioners of Spokane Co.	FAPE	WA
Green v. Johnson	FAPE, governance	MA

Special Education in Juvenile Correctional Facilities

As previously discussed, incarcerated youth in juvenile detention and commitment facilities, including those with disabilities, are entitled to a rigorous academic curriculum and instruction by highly qualified teachers. Although incarcerated youth exhibit considerable need for quality educational services, providing instruction to these youth is often a challenge (Houchins et al., 2012). Several factors including variable lengths of stay, high mobility rates, characteristics of incarcerated youth, disciplinary practices, unqualified teachers and staff, the operation of the facilities, structure and delivery of the curriculum, and collaboration between the public schools and the correctional education program create difficulties for correctional institutions to provide such services (Houchins, Jolivette, Krezmien, & Baltodano, 2008; Leone & Cutting, 2004). Houchins, Puckett-Patterson, Crosby, Shippen, and Jolivette (2009) surveyed teachers in the juvenile justice system and asked them to name the top three barriers to providing their students with a quality instruction. The teachers provided a variety of barriers in which the researchers divided into themes (i.e., personnel concerns, academics, student concerns, discipline, materials and supplies, parental involvement, funding, communication, funding, facility issues). The top three barriers identified by the teachers were personnel concerns, discipline, and academics. Leone and Cutting (2004) note that education services for youth with disabilities in juvenile correction settings are often based on institutional practices and policies and by the academic and vocational curriculum in the facility.

Juvenile correctional facilities often have difficulty supporting appropriate educational services for the youths confined to their custody. Such institutional barriers that interfere with providing appropriate education services to juveniles include a lack of adequate space, overcrowding, insufficient funding, and ineffective governance (Leone, Price, & Vitolo, 1986).

Additionally, lack of professional development opportunities and lack of collaboration among treatment, security, and education staff within juvenile correctional facilities compounds other problems (Houchins & Shippen, 2012). Consequently, without adequate staff and support, the education services often fail to meet the standards required by IDEA, related state statutes and regulations, and provisions of NCLB (Leone & Cutting, 2004).

Synder and Sickmund (2006) report that the average stay for juveniles in correctional facilities is approximately eight months. However, depending on the type of facility, some juvenile's length of stay may be as short as a few days or as long as a few years (Houchins, et al., 2008). Because of the high transiency, it may be difficult to plan and implement interventions and instruction to students. Unlike teachers in public schools who typically have an entire school year to provide instruction, teachers in correctional facilities have limited time to deliver vital instruction to students. Researchers argue that it is crucial that correctional facilities provide comprehensive services and research-based interventions to youth (Brunner, 1993; Gagnon & Barber, 2010; Houchins et al., 2008).

Risk Factors for Youth Incarceration

Internal Risk Factors

Past research has examined risk factors that put youth at risk for becoming delinquent and subsequently being incarcerated (Christle et al., 2004; Christle et al., 2005; Foley, 2001). Risk factors that contribute to delinquency and future incarceration can be categorized as internal or external. Internal risk factors include psychological factors such as cognitive deficits, academic difficulties, concentration problems, and antisocial behavior; external risk factors include environmental factors such as family, community, and/or school experiences. Christle and Yell (2008) argue that the more risk factors youth are exposed to, the greater the chance that a snowball effect will occur, and the greater the chance of the youth's involvement with the

juvenile justice system. Researchers argue that risk factors are not stagnant, they often occur in combination, and their effects greatly depend on when they occur in a youth's development (Furlong & Morrison, 2000; Garfinkel, 1997; Hawkins et al., 2000). Nonetheless, those with learning, developmental, and behavioral difficulties have a greater risk for school failure and incarceration (Meisel, Henderson, Cohen, & Leone, 1998).

Academic and behavioral challenges. Researchers have found a strong correlation between academic failure and delinquency (Brunner, 1993; Drakeford, 2002; Leone et al., 2005; Malmgren & Leone, 2000). Christle and colleagues (2002) also noted a strong, consistent correlation with internal risk factors and violent behaviors in boys. The researchers' arguments may be supported by the high percentage of males who have come in contact with the juvenile justice system and are placed in correctional facilities.

In a review of the literature on the academic characteristics of incarcerated youth, Foley (2001) found that, on average, incarcerated youth function in the low-average to below-average range of intelligence, perform academically between fifth- and ninth-grade levels, and have histories of high rates of academic failure and grade retention. In addition, research has found that the majority of incarcerated youth have problems with literacy skills (Center on Crime, Communities, & Culture, 1997; Coulter, 2004; Malmgren & Leone, 2000; Shippen et al., 2011) and most youth are significantly below grade level upon entry into correctional facilities (The Center on Crime, Communities, & Culture, 1997). Foley (2001) noted that school failure is common among incarcerated youth. These troubling findings are a call for effective literacy instruction for incarcerated youth in order to increase the likelihood of academic success.

Although academic failure does not directly cause delinquency and incarceration, researchers suggest that academic challenges may promote behavioral problems, which may

subsequently lead to delinquency (Brunner, 1993; Center on Crime, Communities, & Culture, 1997; Christle & Yell, 2008). Youth who exhibit emotional and behavioral problems are also at an increased risk for future incarceration. Researchers have noted that youth who experience problem behavior in the early grades are more likely to receive special education services and become delinquent (Walker, Steiber, & O'Neill, 1990). Rutherford and Wolford (1992) suggest that youth who exhibit acting-out behaviors are more likely to come into contact with the juvenile justice system. Even though there is no direct relationship between emotional disturbance and delinquency, a large number of youthful offenders are diagnosed as having serious emotional disturbance (Rutherford, Bullis, Anderson, & Griller-Clark, 2002).

External Risk Factors

Researchers have also studied external risk factors that may contribute to delinquency and incarceration. Adverse home conditions, family life, communities, peer groups, and schools are influential factors that have been found to predict persistent patterns of antisocial behavior in youth (McEvoy & Welker, 2000). Nonetheless, these factors are not direct causal factors of delinquency. Instead, Keith and McCray (2002) argue that delinquency is learned and acted upon in situations that offer a great possibility of reinforcement.

Family risk factors. Risk factors found within the home environment include factors such as a lack of parental involvement, ineffective parental discipline, child abuse and/or neglect, family conflict, parental criminality, and poverty (Patterson, Forgatch, & Stoolmiller, 1998). These factors tend to be extremely powerful and have a commanding influence on a child's behavior. Leone et al. (2003) suggest that children from adverse home environments are at a greater risk of entering school unprepared for academic demands. The researchers suggest that the parents of these children may be less involved in their child's education, have lower

expectations for their child's academic achievement, and have poor relationships with teachers. In addition, parents of students who exhibit behavioral problems are likely to have had negative experiences with the school, and thus may avoid involvement with school personnel.

A lack of parental involvement was found to be a strong predicator of delinquent behavior. Abrams et al. (1987) interviewed 74 15-year-olds and found a lack of parental involvement to be the most common explanation for engaging in delinquent acts. Similarly, Williams (1994) found that communication and involvement between parent and child at age 14 predicted less self-reported delinquent behavior at age 16. Findings from both studies suggest that parental involvement greatly influences a child's behavior.

Cashwell and Vacc (1996) studied how family relationships and risk behaviors relate to self-reported delinquency among adolescents. The researchers note that their findings suggest that family cohesion is positively influential on delinquent behavior. The researchers' results indicated that living in a cohesive family reduces the likelihood of becoming associated with at-risk peers.

Community and peer risk factors. Community factors, such as poverty, neighborhood disorganization, high resident mobility, poor housing, easy access to drugs and firearms, exposure to violence, and the presence of gangs, are greatly associated with the risks for youth delinquency and incarceration (Calhoun et al., 2001; Hawkins et al., 2000). In addition, limited opportunities for youth recreation and employment may also contribute to youth delinquency (Christle & Yell, 2008; Leone et al., 2003). Hawkins and colleagues (2000) suggest that the large number of single-parent families and the lack of adult supervision to monitor children's behavior also increase the risk for youth delinquency.

Associations with peers who engage in at-risk behavior or who are affiliated with gangs have also been found to be a predictor of delinquency (Farmer & Cadwallader, 2000). Farmer and Cadwallader found that, as early as preschool, children interact with peers who are similar to them. In addition, the researchers found that children who exhibit behavior problems interact with other peers in ways that sustain the continuation of these behavior patterns. Leone and colleagues (2003) suggest that youth who associate with at-risk peer groups go through a process of deviancy training, in which their peers teach them unlawful norms and values. Consequently, these relationships become stronger over the years, and more resistant to change.

School risk factors. A variety of school-related risk factors have also been found to contribute to youth delinquency. Such risk factors include school demographics, policies, environment, and discipline procedures; teacher attitudes, beliefs, philosophies, characteristics; and student characteristics and behavior. When these risk factors are present in schools, students who already experience risks (e.g., academic difficulties; cognitive deficits; societal issues) may become frustrated, disengaged from school, and disruptive, which may lead to suspension or expulsion; and subsequently dropout. Christle and Yell (2008) note that once students become disengaged from school, they become susceptible to delinquency and incarceration.

School Characteristics

Inadequacies in School Systems to Meet Diverse Needs

Although the educational system can act as a solution to external and internal risk factors, researchers have identified a number of school characteristics that have been shown to influence student behavior and may contribute to youth delinquency. Such school characteristics include overcrowded classrooms, lack of trained teachers and staff, instructional problems, infrequent interactions between teachers and students, limited school or extracurricular activities, limited

allowances for diversity, weak and inconsistent leadership, unclear rules, and the use of exclusionary discipline policies, such as zero-tolerance (Christle, Nelson, & Jolivette, 2004; Christle & Yell, 2008). Academic failure, exclusionary discipline practices, and dropout have been identified as key elements in the STPP (Skiba et al., 2002; Wald & Losen, 2003).

To analyze school characteristics and student outcome data related to suspension rates, Christle, Nelson, & Jolivette (2004) studied 161 middle schools in Kentucky. The researchers sought to determine if certain school characteristics were differentially related to suspension rates. The researchers also analyzed characteristics of middle schools with low suspension rates compared to middle schools with high suspension rates. The researchers found that several school characteristics were related to suspension rates, to include, socio-economic and ethnic background of the students; the number of reported behavior violations; attendance; retention rate; and academic achievement. Other factors, such as the administrator's approach to student discipline and the characteristics and behaviors of the teachers were also found to contribute to predicting a school's use of suspension. Christle et al. (2004) contend that their findings suggest that teacher behaviors and characteristics have a great deal of influence on student outcomes.

Christle, Jolivette, and Nelson (2005) sought to extend their previous study by examining school characteristics and student outcome data related to suspension rates at the elementary, middle, and high school levels. Conducting a series of studies, the researchers used both quantitative and qualitative methods to identify the variables within schools that exacerbate or counteract risks associated with delinquency (i.e., academic failure; suspension; dropout). The researchers' findings support the findings from their previous study indicating that certain school factors are associated with risk factors for delinquency. Christle et al. (2005) found that law violations, retention rate, and the percentage of students enrolled in the free and reduced lunch

program were characteristics associated with schools reporting low academic achievement, high suspension rates, and high dropout rates. As in their previous study, the researchers found a correlation between teachers' attitudes and perceptions and the risk for academic failure, suspension, and dropout. The researchers argue that their findings support previous research indicating that school-related factors may contribute to risks for youth delinquency (Skiba et al., 2002; Wald & Losen, 2003) and may even be more detrimental than student characteristics. Christle and colleagues also note that school-level characteristics, such as supportive leadership, dedicated staff, school-wide behavior management, and effective academic instruction can serve as protective factors and help minimize the risks for youth delinquency.

Zero-tolerance. Since the Columbine shooting in 1999, there has been an increased concern of violence in schools. To address these concerns, many schools have taken proactive measures to combat school violence. However, some researchers argue that these proactive measures, at times, exceed the threat (Cole & Heilig, 2011). Out of fear and in response to school shootings, schools are utilizing disciplinary practices that are more punitive in nature. Many have adopted zero-tolerance policies that enforce severe punishment regardless of the situation. More times than often, it is the usual student behaviors – minor disruptive behaviors such as tardiness, skipping, noncompliance, and disrespect – that are punished most frequently (Cole & Heilig).

To define, zero-tolerance discipline policies refer to the punishment of all offenses, no matter how minor (Gonsulin, Zablocki, & Leone, 2012; Osher, Coggshall, Colombi, Woodruff, Francois, & Osher, 2012). Since President Clinton's signing of the Gun-Free Schools Act into law and the subsequent enactment of zero-tolerance policies in the early 1990s, there has been a significant increase in the number of students who have been suspended or expelled from school

(Noguera, 2003). The U. S. Department of Education (2000) reported a near doubling of the number of students suspended since 1974. Research has shown that the students most frequently punished and/or suspended are the ones with the greatest needs. Research has also shown that a disproportionate number of minorities are susceptible to punishment (Krezmien et al., 2006; Skiba et al., 2011; Wald & Losen, 2003).

Research has also supported the notion that zero-tolerance policies negatively affect student behavior and the school climate (Skiba & Peterson, 1999). Severe punishments, like suspension and expulsion, are the very factors that push students into the STPP. When students are suspended or expelled, they are often left unattended. Researchers argue that suspending students only add to their disadvantage and risks by denying them educational opportunities. There is evidence that suggests that a history of suspension from school accelerates a students' progress down the STPP; however, administrators continue to use it as punishment for violating school rules (Skiba & Peterson, 1999).

Leone, Mayer, Malmgren, and Meisel (2000) argue that the real problem with zero-tolerance policies is that punishments have been handed out inconsistently, and oftentimes for questionable offenses. Broad interpretations of zero-tolerance have led to these inconsistencies. Research has shown that some administrators tend to overlook small infractions by well-behaved students, while other administrators follow the policy to the letter of the law (e.g., Six-year old kissed classmate, receive a one-day suspension for "unwarranted and unwelcome touching"). When questioned about or scrutinized for their reasoning for suspending students over minor offenses, many administrators and school boards claim that their hands are tied by the law, or they contend that enforcing the zero-tolerance policy is necessary to send a message to students who cause behavior problems (Skiba & Peterson, 1999). It is crucial that administrators view

each student on a case-by-case basis, and examine the rationale for punitive discipline practices before administering a one-size-fit-all punishment.

Despite the frequent use of suspension, and other zero-tolerance practices, research has not shown any credible evidence of their effectiveness, but instead has shown that they may exacerbate the very problems they are attempting to punish (Civil Rights Project, 2000). Initially, zero-tolerance was designed to be part of a comprehensive prevention program, but Skiba (2004) argues that the underlying purpose of zero tolerance have never been met or fulfilled. Skiba notes that many schools failed to implement prevention programs and instead focused only on punitive measures. Critics (e.g., Casella, 2003) argue that zero tolerance punishes those who need the most help: the poor and underachieving students coming from violent homes and neighborhoods.

School Dropout. When students feel disconnected from school or are pushed out of school through punitive practices, many resort to dropping out of school. Unquestionably, the future for youth who drop out of school is often grim. The Coalition for Juvenile Justice (2001) reports that 82% of the adult prison population and 85% of juvenile justice cases are comprised of individuals who dropped out of school. Suspension has been relegated as one of the top reasons for students dropping out of school. Sinclair and colleagues (1998) argue that suspension causes students to fall behind academically and give them reason to believe that they are not wanted at school. In addition, socioeconomic status, race, retention, truancy, academic and behavioral problems, disability status, and disengagement from school have all been identified as risk factors for high school dropout (Cairns, Cairns, & Neckerman, 1989; Sinclair et al., 1998).

School dropout not only affects the individual, but also the school system, the community, and society. Students who drop out are more likely to be unemployed, earn far less than those who graduate, receive welfare and public assistance (Hayes, Nelson, Tabin, Pearson, & Worthy, 2002). Dropping out of school has also been associated with increased crime and antisocial behavior. Moreover, students who drop out of high school are more likely to end up in prison, compared to those who graduated (Christle, Jolivette, & Nelson, 2007).

Until recently, the relationship between school experiences and dropout has rarely been studied. Knesting (2008) states that to understand the problem of school dropout, educators must look beyond individual student characteristics and, instead, consider how school factors play a role in a students' decision to stay in or drop out of school. Christle et al. (2007) suggest that school characteristics that influence student outcomes are important variables to examine. Thus, the researchers investigated school characteristics and student outcome data related to dropout rates in Kentucky high schools to identify differences between schools reporting low versus high dropout rates. The variables studied were school demographics, policies, environment, and disciplinary procedures; classroom environment and instruction; administrators characteristics, philosophies, attitudes, and behaviors; staff characteristics, beliefs, attitudes, and behaviors; and student characteristics and behaviors. Christle and colleagues found that a number of school characteristics (e.g., retention rate, suspension rate, socioeconomic background, board of education violation rate, law violation rate, administrative experience, family involvement, school climate, teacher/student ratios) are differentially related to dropout rates. The researchers contend that their study support the previous literature on school dropout, and suggests that the school a student attends may be the deciding factor on whether he or she graduates or drops out.

A study conducted by Bridgeland, Diluio, and Morison (2006) for the Bill and Melinda Gates Foundation examined the views of youth 16-25 who had dropped out of school. The top five reasons the youth identified for dropping out of school include: classes were not interesting (47%); missed too many days and could not catch up (43%); hung out with people who were not interested in school (42%); have too much freedom (38%); and was failing (35%). Additionally, 65% of respondents reported feeling unmotivated by teachers and stated that teachers "only care about getting through their day too" (Bridgeland et al., 2006). The respondents reported that they would have worked harder if their teachers demanded them to do so. Respondents reported being saddened by the lack of challenge. The researchers note that their hopes are that their findings illustrate to the public just how bad the problem is, and what the negative effects are, for youth who fail to graduate. The researchers also hoped that their findings will persuade policymakers to address this problem urgently and over the long haul. Last, the researchers hoped that their findings will help transform the public's perception of youth who drop out. The researchers argue that these youth should be viewed "not as problems to be solved, but as potential to be fulfilled" (Bridgeland et al., 2006). Similarly, Sinclair et al. (1998) note how imperative it is for policymakers and schools to promote student engagement and retention of at-risk students, particularly those with learning and behavioral problems. The literature on school dropout suggests that to avoid negative postschool outcomes and possible incarceration for students, opportunities must be provided for all students to succeed.

Accountability. With the passage of the No Child Left Behind Act of 2001 (NCLB), there has been an increased awareness of high-stakes assessments and accountability in public schools. Although standardized testing has been administered in public schools since the 1920s, a greater emphasis was placed on testing when the federal government aligned Title I funds to

improvements in test scores for low-achieving students. This emphasis has resulted in reform efforts and federal initiatives to improve the academic performance of students and school accountability. One such effort was high-stakes assessments, which assess student outcomes and measures school improvement. High-stakes assessments have not come without its share of controversy. For instance, including students with disabilities in high-stakes assessments have presented challenges for administrators and educators. Some opponents not only question whether students with disabilities should participate in standardized assessments, but they argue about being required to report and include students with disabilities test scores in adequate yearly progress (AYP) decisions. In the past, some states have not always included students with disabilities in their assessment programs, and low participation rates continued even after the 1997 IDEA amendments that mandated the inclusion of students with disabilities in accountability programs (Fuchs, Fuchs, & Capizzi, 2005; Fuchs & Fuchs, 2001).

NCLB is the first law holding schools responsible for making certain that all students, even those with disabilities, participate in state and/or district-wide assessments. However, it was built on earlier law. The Improving America's Schools Act (IASA) of 1994 required schools to include the assessment results of students with disabilities in accountability decisions for Title I schools (U. S. Department of Education, 2005). The 1997 amendments to IDEA required that all students with disabilities participate in state and district accountability systems, and their results be reported publicly in the same manner as those of other students (Gartland & Strosnider, 2004; U. S. Department of Education, 2005). NCLB required that at least 95 percent of all students – including students with disabilities, students from economically disadvantaged backgrounds, students from racial and ethnic groups, and students with limited English proficiency – participate in annual assessments that measure AYP of schools, school districts,

and states. NCLB mandated that schools, districts, and state departments of education be held accountable for the progress of all students, including those with disabilities (Allbritten, Mainzer, & Ziegler, 2004). The primary premise of NCLB was to improve achievement for all students and bridge the achievement gap between white, economically advantaged students and those deemed at risk for failure (Lagana-Riordan & Aguilar, 2009) by holding school districts responsible for demonstrating that all students are making annual progress toward proficiency, and all students reach proficiency by 2014.

NCLB required that tests align with state standards to gauge whether students are learning and making improvement. If not, schools would be held accountable. Schools that fail to meet performance objectives may lose federal funds. Although four key principles (e.g., stronger accountability for results, more freedom for states and communities; proven education methods; and more choices for parents) form the foundation of NCLB, the principle that garners the most attention from educators is accountability.

As previously stated, in order to make AYP 95 percent of students must participate in testing; all students and subgroups must score at least proficient on the state's AYP targets; and all students and subgroups must meet AYP targets on attendance and graduation (Katsiyannis, Zhang, Ryan, & Jones, 2007). Some schools and school districts have expressed concern over these mandates. Katsiyannis et al. (2007) presented an example of how a school district in Alabama that failed to make AYP thought that they would have made AYP if they were not forced to include test scores from students receiving special education services. Many educators agree with the underlying goals and missions of the NCLB; however, many are skeptical of tying standardized testing to school improvement and accountability (Center on Education Policy, 2004).

Researchers (e.g., Darling-Hammond, 1995; Stecher & Barron, 2001) have noted that several unintended negative consequences of NCLB's accountability mandate have been documented, citing evidence of higher dropout and retention rates, lower motivation and higher pressure for both students and teachers, unethical test preparation, teaching to the test, and dumbing down the curriculum to protect ratings. Booher-Jennings (2006) notes that educational triage has become an increasingly widespread practice that educators have adopted in response to accountability mandates. By educational triage, the researcher means "the process through which teachers divide students into safe cases, cases suitable for treatment, and hopeless cases and ration resources to focus on those students most likely to improve a school's test scores" (p. 163). Booher-Jennings suggests that to improve scores, some students are sacrificed. Rycick (2007) argues that the gifted and talented are those who are sacrificed; Booher-Jennings argues that the lowest performing students are those most sacrificed, while the "bubble kids," those who have potential of passing, receive the most resources (e.g., additional time in class; enrichment; tutoring) (p. 164). Unfortunately, those below the bubble are typically the students who are disadvantaged and most at-risk for school failure. They may be seen as a liability rather than an opportunity. Unfortunately, the very students NCLB intended to target are the very ones most likely to be overlooked. Because of accountability measures, the focus of many school districts have shifted from what the school can do for the student to what the student can do for the school. By closely examining the effect of high stakes testing on the school climate and student well-being, the field may decrease the number of youth who enter the STPP (Shippen et al., 2012).

Preventing Youth Incarceration

Just as it is important to know the variables that are more likely to cause delinquency, it is

equally important to provide protective factors that can prevent a child from becoming involved in delinquent acts. Protective factors are critical in helping youth develop skills that can deter them from the risks of delinquency and incarceration. Protective factors may be found in schools, in the community, in the home, and internally within the child.

Researchers agree that the most promising prevention approaches for reducing youth involvement in delinquency is comprehensive in nature and focus on both risk and protective factors in multiple areas (Houchins & Shippen, 2012). Some youth are faced with several factors that put them at risk of becoming delinquent; therefore, directing intervention efforts toward only a single source of influence (e.g., individual, family, social, or peers) may be unsuccessful (OJJDP, 1995). Several intervention efforts are needed, and priority should focus on preventative actions that reduce risk factors in multiple areas.

Key components of a comprehensive approach to prevention include early intervention services; proactive school support strategies; academic competence; proactive community support systems; proactive family support systems; and full-service schools, to include interagency collaboration for services such as mental health, health, social services, and juvenile justice (Walker & Sprague, 1999).

Researchers have noted that effective school- and community-based interventions and parental involvement have been shown to prevent problem behavior, reduce risk factors, and enhance protective factors for youth (Catalano et al., 1998; Reese et al., 2000). However, implementing these interventions can be a challenge. Lack of resources and funding issues (Greenwood, 2008), lack of support from communities, lack of access to or availability of programs, a shortage of personnel and mentors in high-need areas (Murray & Belenko, 2005), hesitation from youth, and lack of parent/family participation (Hiatt-Michael, 2001; LaRocque,

Kleiman, & Darling, 2011) are often cited as barriers to intervention.

Moreover, implementing comprehensive intervention programs can be costly. Oftentimes, organizations have a hard time finding funding sources to cover the cost of implementation. Although some states offer grants to fund some programs, applying for grants are often highly competitive, potentially steering organizations away from applying. If funded by grants, some organizations often find challenges continuing the operation of the intervention after the funding source has ended (Greenwood, 2008). Murray and Belenko (2005) note that, often, when an intervention program's funding ends, so does an organization's relationship with a project. Unfortunately, the issue of finding funds necessary to sustain programs is a constant challenge many organizations have to face.

Nevertheless, organizations must remain vigilant in the fight for dismantling the STPP. Therefore, the need to be innovative in finding ways to provide intervention to at-risk youth is imperative.

Early Intervention Programs

The OJDDP (1995) in collaboration with the National Council on Crime and Delinquency and Developmental Research and Programs, Inc. identified effective prevention and intervention programs throughout the nation. Additionally, their efforts also identified best practices and promising practices. The team recommended a comprehensive strategy for reducing risk factors and increasing protective factors. Similar to traditional public health models and school-wide approaches that combine universal prevention with selected preventative interventions for at-risk individuals, the OJDDP recommended a three-tiered system which can provide comprehensive community-based strategies to prevent the development or intensification of juvenile delinquency (Leone, Quinn, & Osher, 2002). As outlined by the

OJDDP, the progressive steps in the model include primary prevention, secondary prevention, and tertiary prevention.

At the primary prevention level, the primary goal is to prevent the acquisition of problem behaviors by providing universal supports and programs that allow families, schools, and communities to provide a healthy environment in which all children can grow. Primary prevention intends to reduce the behaviors that place youth at risk for involvement in the criminal justice system. At this level, families, schools, and communities work collaboratively to teach youth personal and social skills (e.g., conflict resolution, peer mentoring). Also at this level, supports to the family are a priority, as research has shown that increased parental involvement can be deterrence to juvenile delinquency. Similar to school-based models, the primary prevention level will have a positive effect on approximately 80 percent of the population (Walker, Horner, Sugai, Bullis, Bricker, & Kaufman, 1996). An example of this type of prevention is the Communities that Care program.

The secondary prevention level focuses on providing more individualized programs and supports to individuals who are exposed to multiple risk factors or whose behavior indicate that they are at immediate risk of poor outcomes. The primary focus at this level should be on early interventions for individuals, and their families, who are believed to be at risk for more serious behavior problems. The goal of the secondary prevention level is to remediate problems while they are just emerging, and to strengthen protective factors that might prevent juvenile delinquency (Osher et al., 2002). This level comprises about 15 percent of the population. Interventions at this level involve the individual, the family, the school, and the community, and include strategies as described in Table 4 (Leone, Quinn, & Osher, 2002):

Table 4
Secondary Intervention Approaches

Type	Example
The Individual	Social competence training
	Peer mediation and conflict resolution programs
	Medication for neurological disorders and mental illness
The Family	Home visitation of pregnant teenagers
	Parent management training
	Functional family therapy
The School	Early intellectual enrichment
	School organization interventions
The Community	Community mobilization
	Prevention of gang formation
	Situational crime prevention
	Intensive police patrolling
	Mandatory laws for crimes involving handguns

In addition to the above interventions, supports at this level should also include academic tutoring, remedial learning activities, and counseling. Individuals at the secondary prevention level continue to have access to primary prevention, as well. Secondary prevention interventions are less intrusive and less costly than interventions necessary once a problem becomes more serious (Leone, Quinn, & Osher, 2002).

The final prevention level, the tertiary level, involves intensive, individualized treatments. The primary focus at this level is providing youth with severe behavioral and cognitive disabilities the supports and skills necessary to remain in the community or to reintegrate back into the community without recidivating (Leone, Quinn, & Osher, 2002).

Interventions at this level are highly individualized, comprehensive, and based on information gathered through assessment. Collaboration with outside agencies (e.g., probation, law enforcement, corrections, and social services), family members, and school personnel is essential. Tertiary level interventions include interpersonal skills training, individual counseling, cognitive-behavioral treatment, and programs promoting education and literacy skills.

To be effective, prevention programs at all levels must be multifaceted, developmentally and culturally appropriate, begin early, and include content that promotes personal and social competencies (Weir, 2005).

Community-based prevention. Various community-based prevention efforts are currently being implemented to intervene on the STPP. Such efforts may act as key protective factors in preventing juvenile delinquency for youth who may be exposed to risk factors or providing intervention for those youth already on the STPP continuum. The primary premise of community-based prevention efforts is to support at-risk or troubled youth and prevent school dropout and incarceration. Examples of community-based interventions include organized sports and other recreational opportunities, volunteer activities, after-school programs, mentor programs, and diversion programs. Several government-affiliated offices and government-funded programs, as well as several well-known foundations and agencies (e.g., National Dropout Prevention Center, 2011; OJJDP; Annie E. Casey Foundation, 2012; Dollar General Youth Literacy Program, 2011) provide funding and resources for the implementation of community-based prevention in an effort to address delinquency prevention (Shippen, Patterson, Green, & Smitherman, 2012).

Community prevention initiatives offer a system of social structures that can deter youth from engaging in delinquent behavior. For instance, researchers note that youth are more likely

to commit crimes during after-school hours (Christle & Yell, 2008; Leone et al., 2003), therefore, after-school programs may serve as an effective crime prevention approach. Van Acker & Wehby (2000) suggest that mentoring is an effective prevention tactic, as mentors can teach youth strategies for avoiding trouble and interacting positively with others. For example, programs such as Big Brothers and Big Sisters can provide supervision to youth faced with multiple risk factors. Additionally, positive peer relationships can act as support systems for youth and can provide youth protection from other risks that they may come up against.

Diversion programs have also proved to be an effective community-based prevention. These programs are court-driven and are designed for youth who have not committed serious or violent crimes (Shippen, et al., 2012). The goal of diversion programs is to divert youth from the juvenile justice involvement to alternative corrective processes (Nugent, 1991). Moreover, these programs provide youth with rehabilitative measures instead of only focusing on punitive actions.

Two key components of diversion programs include: screening and assessment, and community-based interventions. Screening allows staff to identify appropriate participants who may benefit from the program. Through assessments, staff can identify participants' specific needs, which can be connected to treatment and services that could best address those needs. Community-based diversion programs are intended to reduce youth involvement with the formal court system, save public resources, reduce the stigma of intervention associated with the criminal justice system, enhance youth well-being and family functioning, and provide individualized treatment for the youth's specific needs (Hamilton, Sullivan, Veysey, & Grillo, 2007). By doing so, these programs seek to reduce delinquency and recidivism.

Community efforts tend to have the greatest impact when they are carried out

collaboratively. Moreover, community interventions that place emphasis on those factors that place youth at risk and provide protective factors against them can strengthen the youth's bond to his or her community, help in the development of clear and consistent standards of behavior, and teach youth the skills they need to be able to live up to those standards (Osher et al., 2002).

School-based prevention. Several school-based prevention methods exist that may be helpful in deterring youth from the STPP, while also bolstering student success. Such methods include (a) improving student outcomes by ensuring a supportive learning environment, (b) incorporating dropout prevention programs, (c) integrating vocational curriculum, (d) increasing parental involvement, and (e) providing professional development (PD) for educators.

Supportive learning environment. Research has shown that teacher behaviors and characteristics are highly influential on student outcomes (Christle et al., 2004, 2005), and positive student-teacher relationships are the first steps in ensuring a supportive learning environment. Teachers are the few people outside of the family that students interact with frequently. Thus, teachers may be the determining factor in whether a student engages in learning. Students tend to respond better to teachers that show genuine interest, have high expectations, and are supportive and dedicated. For these teachers, students may be open to actively participate in instruction and engage in learning. It is imperative that schools employ teachers who are enthusiastic, implement effective instructional strategies, and are efficient in behavior management.

Student-teacher interaction is particularly important for students with learning and behavioral challenges, and those from cultural and linguistic diverse backgrounds. These students may have lower levels of task engagement and may be less compliant with teacher requests (Marchant & Anderson, 2012). Their academic and behavioral challenges may be

exacerbated by poor student-teacher interactions. Therefore, it is imperative that teachers build positive interactions with their students within a supportive instructional context, provide positive reinforcement to students for desired behavior, and demonstrate trust and respect to all students. Positive student-teacher interactions may overcome the negative impact of risk factors such as poverty on the academic and social success of students (Christle et al., 2005).

These researchers argue that if learning environments are not supportive, "What begins with hope at the schoolhouse door may end at the prison gate," (p. 71).

Dropout prevention. Dropout prevention is an important area of study, and research suggests that it should start early, and continue as students progress through school. Sinclair, Christenson, Evelo, and Hurley (1998) suggest that comprehensive dropout prevention programs should address four essential components: provide opportunities for success; create a caring, inviting, and supportive environment; illustrate the relevance of education to the future; and help students with personal problems.

To explore the effectiveness of a sustained dropout prevention program, Sinclair and colleagues conducted a study implementing a dropout prevention program, *Check and Connect*, with 94 middle school students with learning and behavioral disabilities. The researchers found that students who received intervention through ninth grade were significantly more likely to be engaged in school, defined by participation and measures of school performance. Unfortunately, the researchers found that the behaviors and school performance of participants in ninth grade were only moderate, providing evidence that students with learning and behavioral problems are at a moderate to high risk for dropping out of school. Therefore, Sinclair et al. suggest that dropout preventions should be comprehensive, started early, and are systematic.

Unfortunately, there is no quick-fix to dropout prevention; however, there are supports

that can be implemented to improve the chances of students staying in school. Azzam (2007) have noted strategies that school officials could implement to assist with high school dropout prevention. First, Azzam recommends making school more engaging through experiential learning. It is important for school to help students see the connection between school and the outside world. Second, teachers should use a variety of instructional approaches to reach all types of learners, and schools should implement a variety of supports for struggling learners. Such supports include, hiring qualified teachers, smaller class sizes, more individualized instruction, more one-on-one time with teachers, and more tutoring. Azzam also notes that schools must improve the school climate as well as ensuring that students establish a trusting relationship with at least one adult in the school. Moreover, Azzam stresses the importance of parental involvement and improving the relationship between parents and the school. The researcher argues that in order to improve student outcomes, schools should implement a district-wide tracking system for absenteeism to identify students at risk for dropping out. Lastly, Azzam proposes states to consider increasing the dropout age to 18 years.

Similarly, Shore and Shore (2009) suggests that to decrease dropout rates schools should include credit recovery programs, strengthen data systems to track absenteeism, increase student engagement in learning, provide access to tutoring, create a stable school environment for highly mobile students, incorporate various services for specific disabilities, and incorporate a variety of educational media.

Integrating vocation training in the curriculum. Several researchers (e.g., Edgar, 1987; Harvey, 2001) also advocate for the integration of vocational curriculum to decrease student dropout. Vocational education is defined as systematic educational activities that offer a sequence of courses that provide students with academic and technical knowledge and skills

(Harvey, 2001). Researchers have recognized the importance of integrating vocational education for students with disabilities. Vocational courses can provide these students academic and technical knowledge to prepare them to work in the employment sector. Research has shown that students with disabilities who receive adequate vocational training during the high school years are less likely to dropout and more likely to obtain employment after high school (Policy Information Clearinghouse, 1997).

Bridgeland, Dilulio, and Morison (2006) found 81% of respondents in their study noted that if schools provided opportunities for real-world learning (e.g., internships, service learning projects, and other vocational opportunities), it would have improved their chances of staying in school and possibly graduating. Some researchers have proposed that, for some students, the focus of curriculum should be shifted away from academics to functional, vocational tasks (Edgar, 1987). These researchers recognize that all students will not pursue post-secondary education from higher learning institutions; and allowing these students to engage in meaningful vocational opportunities while in high school may improve their chance of not dropping out of school. Findings from the National Longitudinal Transition Study (NLTS) suggest that vocational education in secondary schools is an intervention that seems to have potential for positive school outcomes. The NLTS found that students who took occupationally-oriented courses had fewer absences and a lower probability of dropping out of school (Blackorby & Wagner, 1996).

Harvey (2001) argues that students, especially those with disabilities, who drop out of school are at a disadvantage in relation to competitive employment and high-wage jobs. Harvey states that vocational education can be a proactive to successfully transitioning into adult life.

Integrating vocational curriculum in secondary schools has proven results. It has been

shown to have a positive effect on students with disabilities (Policy Information Clearinghouse, 1997; Wagner, Newman, Cameto, & Levine, 2005), and it has proven to be a practical educational option for students for a variety of reasons, including the need for dropout prevention (Harvey, 2001).

Parental involvement. Research has consistently shown how parental involvement can have a positive effect in decreasing a child's susceptibility to dropping out of school and engaging in delinquent acts (Lewin & Luckin, 2010; Reese, Vera, Simon, & Ikeda, 2000). Parents can serve as protective factors by lowering the chance that a youth is exposed to risk factors and by limiting the consequences of exposure to risk factors if they should occur. Parents can accomplish this by modeling positive behavior, reinforcing strategies for handling conflict, monitoring their child's behavior and social interactions, and by providing appropriate and consistent discipline. Such strategies reduce the possibility that their child will engage in inappropriate behaviors or associate with peers who do. Protective factors that parents can employ include the presence of a nurturing parent or adult, emotional support, fair and consistent discipline, and opportunities for social and emotional growth. By providing these protective factors, parents increase the likelihood that their child will demonstrate pro-social competencies crucial to positive development (Reese et al.).

Parental involvement is also a critical factor in the educational success of students. Parents have the unique opportunity to provide insight and contribute information regarding the child that school personnel are not always privy to. Parental input not only enhances decision-making regarding appropriate programming for students with disabilities, but also builds relationships with school personnel (i.e., teachers; administrators; direct-service providers). Establishing successful relationships between parents and school personnel greatly increases the

chances of students having positive outcomes. Researchers (Darch, Miao, & Shippen, 2004; Howland, Anderson, Smiley, & Abbott, 2006; Spann, Kohler, & Soenksen) note that parental involvement increases student academic achievement and attendance and decreases discipline problems.

Despite evidence showing positive student outcomes related to parental involvement, researchers have noted that it is not easy to promote or maintain (e.g.,Catalano et al., 1998; Hiatt-Michael, 2001; LaRocque, Kleiman, & Darling, 2011) parental involvement. In fact, the degree to which parents are involved in the educational process remains small. Minimal parental involvement is of particular concern in rural and urban communities, and for parents from diverse backgrounds (Lo, 2008; Trussell et al., 2008). A number of factors have been identified as barriers to parental involvement including time constraints, lack of finances and transportation, cultural and language barriers, uninviting school environments, and parents feeling blamed for their child's behavior. Although these and other barriers may exist, educators must be creative and find ways for parents to be included in their child's education. Educators must create a supportive and inviting environment for parents, emphasizing open communication. Additionally, cultural and economic differences of the child and his or her family should be considered. If these things are done, the parent-teacher collaboration can be effective.

Professional development for educators. Providing professional development (PD) to educators can also be a crucial protective factor. To improve outcomes for students, educators must be given training opportunities and materials appropriate to meet the students' diverse needs. Specifically, IDEA (2004) emphasizes the preparation of teachers in meeting the needs of SWD. IDEA promotes the use of funding for PD and implementation of research-based

instructional strategies. Additionally, NCLB emphasizes the importance of teachers being highly qualified and provided with PD that focuses on scientifically-based research that shows how such interventions and practices improve student achievement. Both of these legislative mandates require continued PD for educators to meet the diverse needs of all learners. These legislative mandates show how imperative it is for educators to experience professional growth and receive practice in implementing research-based practices to improve the academic and behavioral outcomes for all students (Darling-Hammond, Wei, Andrée, Richardson, & Orphanos, 2009).

To be effective, PD must be individualized and relevant to educators. Grossman and Hirsch (2009) found that a majority of teachers reported that they did not receive PD that was beneficial or relevant to their area content. To be effective, PD must be intense, focused, and appropriate, and must not consist of a one-size fit all model. Schools should first assess the current needs and concerns of the educators, assess the effectiveness of the implementation and support of current programs, and then plan PD accordingly. For PD to be most beneficial, educators should be given flexibility to determine the focus of the group's PD or collaboratively formulate the agenda (Gonsoulin et al., 2012). Billingsley (2004) noted that attrition is typically high for teachers who are unprepared. Therefore, it is important that teachers are afforded continuing educational preparation.

Darling-Hammond et al. (2009) noted that PD is a chief component in creating a culture of early intervention and prevention. The researchers indicate that PD has the potential to (1) develop policy and practice in schools; (2) open lines of communication; (3) educate stakeholders, including students and parents; and (4) encourage partnerships between schools and community stakeholders. By having clear communication, education, and developing

partnerships, the possibility of developing professional learning communities becomes attainable (Gonsoulin et al., 2012). Darling-Hammond et al. affirm that the most effective form of PD is achieved through professional learning communities. These learning communities consist of collaborative efforts in which educators engage in continuous dialogue with colleagues and examine their own instructional methods and student performance in order to develop more effective instructional practices (Darling-Hammond et al., 2009). Educators can gain invaluable knowledge and support from professional learning communities, as interactions with colleagues can provide important sources of information and knowledge.

Moreover, it is of great importance for educators to apply new ideas learned from PD to classroom instruction. If the educator fails to do so, students will not benefit from the teacher's PD (Yoon et al., 2007).

PD in juvenile corrections. Though the emphasis on providing PD for teachers has increased tremendously since the mandates of IDEA and the NCLB, specialized PD for staff working with at-risk or incarcerated youth has not been emphasized with the same vigor (Nelson, Jolivette, Leone, & Mathur, 2010). The Coalition for Juvenile Justice (2000) has expressed concerns about the training of teachers in juvenile corrections. The Coalition states that the inadequate training of its teachers and staff members not having proper certification are major concerns in juvenile corrections (JC). Most teachers in JC receive the same preservice preparation as that of teachers in traditional educational settings. Although these teachers need additional training in a variety of areas (e.g., content; instructional strategies; behavior management; vocation; assessment/evaluation; knowledge of the juvenile justice system), many are forced to learn on-the-job, delaying the efficacy of their impact on student outcomes (Shippen et al., 2012). When they do receive training, many teachers reported they did not

receive PD that was beneficial or relevant to their job assignment (Grossman & Hirsch, 2009). Wright (2005) suggests that teacher preparation programs should recognize correctional education as a separate field and provide supplemental coursework specific to the correctional environment, due to the unique needs of that environment that are generally incomparable to the traditional educational setting. Bullock and McArthur (1994) argue that special education preparation programs could provide a solid base for personnel working in the juvenile correctional system.

Teachers in JC are held to the same accountability standards set forth in the NCLB, and are required to be highly qualified and knowledgeable in core academic content areas, in the same manner as teachers in traditional settings. However, research has found that teachers in JC often do not have the prerequisite skills to provide adequate academic instruction and behavioral interventions to detained and committed youth (Houchins, et al., 2009). Data shows that a high percentage of incarcerated youth have a disability; yet, many teachers report an insufficient amount of training in working with SWD (Darling-Hammond et al., 2009). Thus, a need for PD on working with incarcerated SWD is crucial for educators in JC settings.

Since special educators are highly trained in working with SWD and since a high percentage of youth within the juvenile correctional system have disabilities, Gagnon et al. (2009) questioned if it would be favorable to hire more special education teachers in JC. However, one notable disadvantage of doing so is related to the fact that most special education teachers are typically not content-focused and may feel unprepared to teach higher level courses. Thus, content-focused PD for teachers in JC may be an area of need (Gagnon et al., 2012). JC teachers have also identified PD in the implementation of effective instructional approaches as being critical (Maccini, Strickland, Gagnon, & Malmgren, 2008). To receive appropriate PD,

Gagnon and colleagues suggest that JC facilities collaborate with local school districts to have JC teachers participate in their PD activities, or that JC teachers use online PD certification programs. The researchers also argue that state administrators should offer statewide training that meets the PD needs of JC teachers. Houchins et al. (2009) found that teachers in JC facilities noted the participation in relevant PD as being critical to effective work environments in the JC setting.

Providing PD to administrators is also an area of need. Gagnon et al. (2009) found that many principals in JC do not have sufficient knowledge of legislative mandates regarding educating SWD which makes it challenging for them to provide adequate support to teachers. Houchins, Shippen, and Cattret (2004) found that a decisive factor impacting the attrition and retention of special education teachers in JC was their perceived level of administrative support. Therefore, it is imperative that administrators receive PD relating to legislative mandates, educating SWD, and providing support to their staff.

Similarly, there is a great need to provide PD to individuals (e.g., correctional officers; probation officers; counselors; care workers) who work closely with or provide related services to incarcerated youth. To provide better services, these individuals need to be knowledgeable about the mental health, social, and educational needs of the youth they serve. In a survey of juvenile corrections and court services personnel, Kvarfordt, Purcell, and Shannon (2005) found that less than two-thirds reported having received training on SWD. Providing PD to these individuals on the use of effective strategies when working with youth who may exhibit behavioral and cognitive issues is warranted.

PD for staff (e.g., teachers; administrators; direct-service providers) working with youth at-risk of entering the STPP, or those already incarcerated, is crucial for both the academic

achievement and the social achievement of the youth. These staff members have the unique opportunity to break the cyclical route between the youths' negative experiences with school and their involvement in the juvenile delinquency system (Gonsoulin, et al., 2012; Shippen, et al., 2012).

Gaps in PD. Despite the emphasis on PD in IDEA and NCLB, there continues to be a significant gap between research, practice, and student achievement (Fixsen, Russell, Latessa, & Travis, 2009; Grossman & Hirsch, 2009). One cause for the gap can be attributable to the shortage of high-quality PD programs (Odom, 2009; Yoon, Duncan, Lee, Scarloss, & Shapley, 2007). Of particular criticism is the prevalence of single, one-day workshops that are often not individualized and generally lack in duration and intensity, thus making the PD opportunity disconnected from issues of curriculum and learning, superficial, fragmented, and noncumulative (Yoon et al.). The NCLB set five specific criteria for PD to be considered high quality: it is sustained, intensive, and content-focused; it is aligned with and directly related to state academic content standards, student achievement standards, and assessments; it improves and increases teachers' knowledge of the subjects they teach; it advances teachers' understanding of effective instructional strategies founded on scientifically-based research; and it is regularly evaluated for effects on teacher effectiveness and student achievement. Nevertheless, little consensus exists regarding how these criteria should be implemented.

Perhaps another cause for the gap in PD and student achievement is the challenge of evaluating the gains. Researchers have found that the most effective way to evaluate the effectiveness of teachers' PD on student achievement is to have data systems linking information on student learning and the PD a teacher receives. Grossman and Hirsch (2009) suggest that data should be collected that detail what PD a teacher has completed and linked to student learning

data to determine the impact on student learning. In addition, the researchers contend that states could supply funding for program evaluation to determine how student learning is affected. By utilizing evaluative procedures, the data can help researchers make decisions about what is effective and what is not. Moreover, the data can provide researchers pertinent information in the improvement of PD opportunities for educators.

Research has shown that at-risk youth can be deterred from entering the STPP when protective factors such as early intervention programs are in place and when schools build positive conditions for learning. Researchers also argue that enhancing the literacy skills of youth can also be an effective preventative approach for reducing delinquency and recidivism (Leone & Cutting, 2004).

High-quality Literacy Instruction

The Center on Crime, Communities, and Culture (1997) noted that quality educational interventions are the most significant protective factors against delinquency. Research has shown that when students are provided with quality literacy instruction, their chances of engaging in inappropriate behavior decreases (Brunner, 1993; Drakeford, 2002). Research has also shown that increasing literacy skills through quality education has been shown to reduce recidivism (Center on Crime, Communities and Culture, 1997; Malmgren & Leone, 2000). Therefore, it is imperative that students at-risk of entering the STPP, and those who have already come in contact with it, are provided with quality literacy interventions.

The vast amount of existing literature on literacy and at-risk youth focuses on reading literacy, and how increasing the reading skills of these youth can assist in deterring them from the STPP. However, the current author argues that writing literacy is just as important in the fight for dismantling the STPP. Developing the writing skills of at-risk and incarcerated youth

may discourage them from engaging in violence and instead develop a spirit of introspection and a love of learning. Writing instruction may also help youth express their negative feelings through writing, rather than through violence or other inappropriate behaviors.

High-quality Literacy Instruction in Juvenile Correctional Facilities

Coulter (2004) explains that designing and implementing high-quality literacy instruction in correctional facilities is difficult. Reasons include the transient nature of facilities, resistance from youth, and challenges of attaining materials due to funding issues. Coulter suggests that correctional facilities should implement evidence-based interventions that are short-termed and cost effective.

While past and current research have found evidence of links between poor literacy skills and increased involvement in delinquent behavior, there continues to be limited empirical research on literacy interventions for incarcerated youth, but a wealth of research stating that these youth are significantly below grade level in academic skills. For more than 30 years, researchers have been calling for the implementation of scientifically-based literacy instruction to be used in correctional facilities as a means of improving academic and behavioral outcomes for incarcerated youth. Yet, there has not been a substantial amount of studies conducted to examine the efficacy of literacy interventions in JC facilities. Harris et al. (2006) conducted a literature review of reading interventions on incarcerated youth. Although the author found 156 articles on incarcerated youth, only four were reading interventions studies (i.e., Brier, 1994; Coulter, 2004; Drakeford, 2002; Malmgren & Leone, 2000) with incarcerated youth. Houchins et al., (2010) conducted a review of literature on reading interventions in JC facilities and found three additional studies (i.e., Allen-DeBoer, Malmgren, & Glass, 2006; Houchins, et al., 2008; Shippen et al., 2012). These studies found the use of direct instruction and other evidence-based

reading interventions to be effective with incarcerated youth. Additionally, the current author conducted a review of literature on writing interventions in JC facilities, but the search yielded no results.

The shortage of empirical studies in JC facilities may be due to the transient nature of the environment, and thus, the difficulty in conducting controlled research in these facilities. Moreover, the amount of emphasis that JC facilities place on literacy instruction range from extensive to minimal and is influenced by factors such as student characteristics, length of stay, and the type of facility. Nevertheless, Leone, Krezmien, Mason, and Meisel (2005) note that although the literature on literacy research in juvenile correctional facilities is limited, promising practices illustrate the potential to develop and implement high quality literacy interventions for incarcerated youth.

High-quality Literacy Instruction in the General Curriculum

Though writing is an essential skill, as a focus of research, it has received little attention compared to reading, math, and oral language. Writing is often thought of as the weakest dimension of effective instruction, and, unfortunately, it is not regarded as a priority for schools. For example, the National Commission on Writing (College Board, 2003) reported that of the three R's, writing is the most neglected in schools, and although many models of effective ways to teach the skill exist, both the teaching and the practice of writing is often overlooked throughout the school and college years. Miller and McCardle (2011) argue that focused research on writing and its relationship to language development and reading is needed to address the writing and broader literacy needs of today's youth and employees.

In order to be proficient in writing, students must master a variety of skills, to include, ideation, vocabulary, organization of thoughts, text structures, self-regulation, and basic

mechanics, such as spelling, grammar, and punctuation (Bui, Schumaker, & Deshler, 2006). To master such skills requires considerable effort and time. As a result, writing instruction is often not a high priority in the general education classroom (Joseph & Konrad, 2009). Therefore, it is imperative that writing instruction is implemented in the primary grades and intentionally continued as students progress through secondary school. Waiting until the later grades to address writing difficulties is often not successful. In order to change the current state of affairs and to facilitate student learning, it is critical that all students are taught how to write, using effective, research-based instructional strategies, especially those at-risk for school failure including incarcerated youth.

Evidence-Based Instructional Strategies in Writing

Although most researchers agree that there is need for instructional strategies that help students with LD write more effectively, there has been much debate about the specific components of writing that should be emphasized. Some argue that instructional strategies should focus less on mechanics, and more on content (e.g., Hillocks, 1984), while others argue that instruction in basic skills is needed to improve the writing performance of students with LD (e.g., Graham et al., 1997). Several researchers have conducted literature reviews on writing studies to identify the most effective interventions for improving the writing skills of students with disabilities. For instance, Andrews et al. (2006) conducted a review of literature on the effect of grammar teaching on writing development in students aged five to16. The researchers found little positive effect for teaching grammar to improve the writing performance of students. Graham and Perrin (2007) conducted a meta-analysis to identify effective writing treatments for students in Grades 4 through 12. Similar to Andrews et al., Graham and Perrin also found that basic grammar or usage instruction was not an effective treatment for improving writing skills.

In contrast, Rogers and Graham (2008) conducted a meta-analysis of single-subject design writing studies and found that instruction in basic skills could increase writing skills. These contradicting findings may be explained by the fact that the participants in the earlier studies were mostly students with typically developing writing skills; whereas participants in the latter studies were all students with known writing deficits.

Strategic Instruction

Researchers argue that an essential goal in writing instruction for students with LD is to assist them in incorporating self-regulatory techniques into their writing (Graham & Harris, 1989). In order to achieve this goal, instruction in writing strategies is needed. Over the years, writing researchers have highlighted several instructional strategies that have been identified as being effective for improving the writing performance of students with LD. These strategies can be organized into three broad categories: explicit teaching through the use of strategies and procedural facilitators; adherence to a framework of planning, writing, and revising; and feedback (Baker, Gersten, & Graham, 2003; Gersten & Baker, 2001). Specific intervention research has included teaching text structures (Welch, 1992), planning (De La Paz & Graham, 1997; Englert Raphael, Anderson, Anthony, & Stevens, 1991); peer feedback (MacArthur, Schwartz, & Graham, 1991); styles of transcription (MacArthur & Graham, 1987); and sentence construction (Saddler & Graham, 2005).

Nearly 25 years ago, researchers at the University of Kansas developed a system of learning and instructional strategies called Strategic Instruction Modeling (SIM). SIM encompasses a system of learning strategies for students with disabilities and teacher instructional strategies that assist students in developing necessary literacy skills and learning complex subject content as well as assist teachers in incorporating effective strategies into the

curriculum (Horowitz, 2012). Strategies can provide structured and explicit instruction that meets students' individualized needs (Harris, Graham, & Mason, 2003). Effective strategy instruction can encourage active student participation while engaged in task-specific behavior (De La Paz & Graham, 1997). Several researchers have examined the effectiveness of using strategy instruction and have found it to be effective in teaching specific interventions to students with LD (Graham & Harris, 1989).

Explicit teaching through strategy instruction. Recent research on explicitly teaching the steps of the writing process focuses on planning, drafting, and revising. Teachers can use various aides, such as think sheets, planning sheets, prompt cards, or other mnemonic strategies, to explicitly teach the steps of the writing process. These instructional aides or procedural facilitators can serve as reminders that provide students structure and encouragement to complete the necessary steps involved in developing a written product (Baker, Gersten, & Graham, 2003).

POWER and EmPOWER. Englert et al. (1991) examined an approach to the writing strategy called cognitive strategy instruction in writing (CSIW). The researchers conducted their study simultaneously in both general and special education classrooms and included both students with and without disabilities. Students in the CSIW condition received five months of instruction that consisted of four phases: text analysis, modeling the writing process, guided student practice in composition, and independent writing. Students in the control group received regular writing instruction, which included opportunities to compose texts two to three times per week. The experimental curriculum utilized a set of think sheets with the acronym POWER (Plan, Organize, Write, Edit, Revise) to encourage students to follow the steps of the writing process. The think sheets were used extensively during all four phases of the writing instruction. Teachers were taught to model the inner dialogue that skilled writers engage in

during the writing process. Instruction began with teachers modeling strategies for how to brainstorm ideas and how to organize those ideas. Initially, teachers provided extensive support by leading the writing of a class paper, while the students provided ideas using the POWER strategy. Eventually, over time, the students were required to write independently using the POWER strategy. The students were required to demonstrate mastery of each stage of the writing process. It is important to note that expectations were not modified for students with LD. Instead, guidance, feedback, and extended practice served as modifications for these students. Englert et al. found consistently positive effects across achievement levels for students in the experimental group, indicating that the CSIW approach benefited both students with and without disabilities. The researchers suggest that the think sheets were effective in the writing gains made by students in the experimental group.

Seeking to add to Englert and colleagues (1991) research of the POWER technique, Singer and Bashir (2006) added steps to the POWER technique to allow students to be more self-regulated as they compose a written text. Singer and Bashir believed that writing should be thought of as a problem-solving task that requires internal self-regulation. According to their model, EmPOWER utilized a six-stage approach to guide students through the writing process: Evaluate, make a Plan, Organize, Work, Evaluate, and Re-work. Like its predecessor, EmPOWER was designed as an intervention for writing difficulties to be used with both students with and without disabilities.

Self-regulated Strategy Development

Self-regulated strategy development (SRSD) is an instructional strategy approach that combines instruction in self-regulation procedures with strategy instruction. It involves explicitly teaching students writing strategies along with procedures for regulating the strategies

and the writing process. Students are taught how to set goals, monitor their performance, self-instruct, and self-reinforce (Harris, Graham, &Mason, 2003). SRSD is designed to improve students' strategic behavior, knowledge, and motivation. With SRSD, students learn how to compose text (e.g., planning, drafting, revising) and how to develop the knowledge and self-regulatory strategies (e.g., goal-setting, self-monitoring, self-reinforcement) needed to apply the writing strategies. SRSD also focuses on enhancing students' motivation, by developing skills such as self-efficacy and attributions for effort (Lane, Harris, Graham, Weisenbach, Brindle, & Morphy, 2008). The SRSD model includes six strategic stages of instruction: Develop Background Knowledge, Discuss It, Model It, Memorize It, Support It, and Independent Performance. The stages are flexible and may be reordered, deleted, combined, modified, or repeated, based on students' needs.

For more than 30 years, SRSD has shown to improve the writing performance of students with LD (e.g., Harris, Graham, & Mason, 2003; Graham, Harris, & Larsen, 2001; Graham, & Perrin, 2007; Saddler, 2006), as well as students without an identified disability who struggle with writing (Harris, Graham, & Mason, 2006). Its effectiveness has been documented in recent meta-analyses with results showing SRSD yielding high effect sizes compared to other interventions studied (see Graham & Harris, 2003; Graham & Perrin, 2006; Graham, 2006a).

SRSD has also been considered a promising intervention for students with ED. Mason and Shriner (2008) examined the effectiveness of SRSD with six elementary students, grades 2 through 5, with or at risk for ED. A multiple-probe across participants, grouped into comparison baselines, was used to evaluate students' writing performance prior to and after instruction. The researchers found improvements in the writing skills of all participants. However, generalization and maintenance outcomes were varied across participants, perhaps caused by the severity of

problem behaviors (Lane et al., 2008). Lane and colleagues provided further evidence showing the effectiveness of SRSD with students with ED. The researchers sought to examine the effectiveness of teaching 2nd grade students at risk for ED to write stories using the SRSD approach. Participants were identified as at-risk for ED and co-morbid difficulties in writing. The researchers hypothesized that the SRSD approach would have a positive impact on the length, completeness, and qualities of stories produced by participants, both after intervention and at maintenance. Maintenance probes were administered six and eleven weeks following intervention. Results showed positive gains for all students. Moreover, results showed substantial increases in average total words written between baseline and post intervention phases. Overall, findings demonstrated consistent improvements in the completeness, length, and quality of students' writing following intervention and at maintenance.

Teaching students with LD and ED to write is often challenging for teachers. However, research has shown the effectiveness of the SRSD intervention in improving the writing skills of students. Findings in the research on SRSD have shown that the approach significantly improves what students write, how students write, and how students perceive the writing process (Mason, Harris, & Graham, 2011).

Revising and Feedback

Although the use of procedural facilitators and other strategic instruction have been shown to improve the writing performance of students with learning disabilities, researchers have noted that the writing quality of these students was still much weaker in style than their peers (Englert et al., 1991; Graham & Perrin, 2007). Therefore, researchers began to examine the explicit teaching of the revision process. The process of revision is one of the critical stages of the writing process, and teaching students how to revise has been a critical component of

writing intervention. Graham, MacArthur, and Schwartz (1995) found that, when revising, students with LD generally focus more on mechanical changes instead of on substantive changes. The researchers noted that most of the revisions made by students with LD were aimed at the appearance of the paper – making it neater, and correcting grammatical errors, all of which have very little impact on the quality of writing. Thus, the researchers examined the effects of procedural facilitators on students' revision techniques and their final written products. Participants in the control group were asked to think about what they wanted to change or add to their first drafts to improve them. Participants in the experimental group were taught to use procedural facilitators (i.e., planning sheets) to add at least three things to their story to make them better. Results showed that participants in the experimental group wrote final drafts of overall higher quality than students in the control group. No significant difference was found in terms of length between the two groups. Another important finding centered on the actual changes made in the revision process. Participants in both groups made about the same number revisions in their first drafts – about 23 revisions per 100 words; however, participants in the experimental group made more revisions that altered the meaning of the text than students in the control group. These revisions tended to improve the quality of the final draft. Graham et al. findings support the research on the use of procedural facilitators in helping students with LD reflect on, analyze, and improve their writing (Baker et al. 2002). However, the researchers caution that despite the positive effects, the majority of the revisions that participants made were at the individual word level only, and were mostly simple improvements, focusing only on mechanics rather than clarity. Graham and colleagues suggested that an ideal instructional strategy in writing for students with LD would be to combine self-monitoring techniques with more instructional methodologies such as strategy instruction or teacher modeling.

Procedural facilitators and cognitive strategies may help rouse students thinking and promote better organizational skills, but these strategies are furthered enhanced when they are accompanied with interactive dialogue. Researchers (e.g., Baker, Gersten, & Graham, 2003; Graham & Harris, 1995; Wong, 1994) agree that interactive dialogue and feedback is a vital instructional component in enhancing the quality of students' writing. Other researchers have also consistently emphasized the importance of the social nature of learning (see Vygotsky, 1978), arguing that doing so helps promote independence and flexibility in students' thinking (Englert & Mariage, 1996; Scanlon, Deshler, & Schumaker, 1996; Wong et al., 1997).

Interactive dialogue is a verbal exchange about a complex activity between a teacher and students and/or students and their peers. Dialogue can include explicit modeling of strategies, evaluation and feedback of students' verbal or written responses, questioning, and elaborated responses (Baker, Gersten, & Scanlon, 2002). During dialogue, students learn to engage in higher, more detailed and richer forms of thinking and expression (Englert & Mariage, 1996; Wong et al., 1997). Researchers suggest that dialogue helps bridge the gap between oral and written language (MacArthur, et al., 1997; Wong et al., 1997). The underlying theory behind using dialogues is that students learn best through verbal interactions with others, and that thinking aloud leads to internalization of the procedures, processes, and ways of thinking (Baker et al., 2002). Moreover, when teachers provide feedback to students' attempts at organization, originality, and interpretation, students began to construct and practice new ways of thinking. MacArthur et al. (1991) found that when students work together, they made more revisions than they did when they worked independently. The researchers also found significant improvements in the quality of student writing when students consulted with a partner. Baker, Gersten and Graham (2003) note that positive effects of dialogue and feedback may be due to something as

simple as a combination of having a fresh eye to read and evaluate the writings and establishing a structure for dialogue that give students specific suggestions for improving their compositions.

Research data have demonstrated consistent positive effects indicating that students can benefit from the incorporation of dialogue with the use of concrete aids (e.g., think sheets, mnemonics, and story maps) as tools to help them learn the writing process while also helping teachers to effectively teach it.

Direct Instruction and Evidence-Based Writing Programs

Direct instruction (DI) is another intervention that has been found to be effective for the literacy development of SWD and incarcerated youth (Coulter, 2004; Foley, 2001). DI is a research-validated method of instruction that has been shown to be effective in teaching students with LD. Created by Engelmann and colleagues in the 1960s, DI is an explicit instructional approach based on task analysis, scripted lessons, frequent opportunities for student response, and sequenced instructional steps. It is also based on the theory that clear instruction eliminating misinterpretations can improve academic performance and promote learning (NIFDI, 2012). Unfortunately, very few research studies exist regarding DI and the development of writing skills. Two DI programs that have been shown to be effective at improving student writing performance are *Expressive Writing* (Engelmann & Silbert, 1983) and *Reasoning and Writing* (Engelmann & Silbert, 1991).

Expressive Writing is a DI program designed to promote the written expression skills of students who exhibit deficits in writing. The intervention program presents fundamental components of the writing process (i.e., sentence and paragraph writing; drafting, revising; editing) in sequential order, and promotes student success through systematic presentation, numerous opportunities for practice, and review of skills necessary for writing. Expressive

Writing focuses specifically on narrative writing as an intervention for students who face challenges with written expression. *Reasoning and Writing* is another DI writing program designed for students with and without disabilities. The writing intervention program is developmental in nature and can be used as a grade appropriate curriculum (Walker, Shippen, Alberto, Houchins, & Cihak, 2005). In *Reasoning and Writing*, the stages of the writing process are presented, and various genres of writing are included. For example, as students' progress through the program, they are introduced to narrative writing, expository passages, essays, directions, summaries, critiques, and letter writing.

Reasoning and Writing. Three studies using the *Reasoning and Writing* program have been reported (Finn, Keel, & Fredrick, 2002; Keel & Anderson, 2002; Roberts, 1997). Participants included students who were gifted (Finn, Keel, & Anderson, 2002) and students with mild disabilities (Keel & Anderson, 2002; Roberts, 1997).

Keel and Anderson (2002) examined the effectiveness of the *Reasoning and Writing* program (Engelmann & Silbert, 1991) for SWD. Using a pretest/posttest comparison group design, the researchers looked at whether students with LD and ED would make significant gains in written language after using the Reasoning and Writing program, and whether these students' performance level on the posttest would be comparable to their peers without disabilities. Participants in the intervention group included six students with LD, four students with ED, and one student with co-occurring LD and BD. All participants received special education services in the area of written expression. Participants received instruction for 50 minutes per day for 5 weeks using the program in the special education resource room. From pretest to posttest, six of the participants made gains of more than one-half of a standard deviation after 5 weeks of instruction. On average, participants showed statistically significant gains on three components

of the Test of Written Language, 2nd edition (TOWL-2; Hammill & Larsen, 1988). Additionally, students in the intervention group showed significantly greater gains in writing achievement compared to the control group who received instruction using only the general education curriculum.

Expressive Writing. In a review of literature on the use of the *Expressive Writing* program as an intervention for students who experience difficulties in writing, only two studies have been conducted, to date. Walker, Shippen, Houchins, and Cihak (2005; 2007) conducted a study to examine the effectiveness of *Expressive Writing* on the writing performance of students with deficits in written expression. The researchers used a single-subject multiple-baseline across participants design to study the acquisition and maintenance of narrative writing skills for three high school students with LD. Instruction was provided for 45 minutes per day, and participants completed all 50 lessons of *Expressive Writing* throughout the course of intervention. The paragraph-writing component of each lesson served as the probe, and was scored for CWS. Maintenance probes were taken at 2, 4, and 6 weeks after completion of the intervention. A functional relation between the program and increased CWS was established. In addition, all participants made gains between pre- and posttest scores on the Spontaneous Writing subscales on the TOWL-3.

Viel-Ruma, Houchins, Jolivette, Fredrick, and Gama (2010) sought to replicate Walker et al. (2005; 2007) study of examining the effectiveness of *Expressive Writing*. Viel-Ruma et al. sought to extend the research on DI programs in writing by examining the effect of an abbreviated implementation using *Expressive Writing* with students who are English language learners (ELLs) and have LD. Six students, ranging from grade 9 through 11, participated in the study. All participants qualified for services under the LD category; three were English-only

speaking with a learning disability in the area of written expression; the other three were students who qualified for both a learning disability in the area of written expression and for ELL services. A multiple-probe-across-participants design was used to determine if there was a functional relation between implementation of *Expressive Writing* and participant writing performance. Only 26 of the 50 lessons in the program were delivered to the students as this study sought to determine if any effects could be found using an abbreviated version of the program as Keel and Anderson (2002) found when they implemented only half of the lessons using the *Reasoning and Writing* program. Instruction was provided for 45 minutes daily, and the paragraph-writing component of each lesson served as the probe, and was scored for correct writing sequences (CWS). Maintenance probes were conducted at 2 and 4 weeks following completion of the instructional sessions. A functional relation between the program and increased CWS was established. All participants showed an increase in the percentage of CWS written during intervention and an increase in the length of their writing samples as they progressed through the program. Viel-Ruma et al. warn that despite students' improvements from baseline to intervention, the variability in the data points along with low levels of change and the slow rate of growth for some participants does not allow for the assumption that gains were necessarily caused by the intervention. Thus, the researchers posit that it is difficult to generalize about the effects of an abbreviated implementation of *Expressive Writing* with other students.

The effectiveness of using DI programs is well-documented in certain content areas. However, literature on using DI writing programs continues to emerge and more research in written expression is needed. Keel & Anderson (2002), Walker et al. (2005; 2007), and Viel-Ruma et al. (2010) provide evidence on the effectiveness of using DI to teach writing skills to

students with LD. The findings of these studies add to the limited existing research by suggesting that DI have a positive impact on the writing skills of students with LD.

Professional Development in Evidence-Based Literacy Strategies

In recent years, there has been an increased interest in providing evidence-based literacy practices and programs to all students, and even more so to youth along the school-to-prison continuum. Research has shown that one way to improve instructional literacy practices is through the PD of teachers (Sailors & Shanklin, 2010). The increased interest in the professional growth of educators is a direct result of the increasing demand for accountability set forth by IDEA and NCLB legislative mandates. Specifically, the NCLB legislation requires states and districts to provide professional development for teachers as the basis for increasing the likelihood that the quality of instruction and student achievement will improve (Carlisle & Berebitsky, 2011).

Although these mandates exist, there continues to be a gap between research and practice. For example, a number of research studies have identified evidence-based practices that can accelerate learning; however, the implementation of those practices by classroom teachers are slower than expected (Greenwood, Tapia, Abbott, & Walton, 2003). Possible solutions for reducing the gap include (a) implementing PD opportunities that are intense, and not the rudimentary one-day inservice teacher training, and (b) establishing coaches in schools whose duties include identifying and translating research into practice through work with teachers (Logan & Stein, 2001).

Implementing new practices in classrooms is far from easy and often requires a great deal of time in order to be implemented effectively. Teachers must learn how to combine evidence-based practices into a single, comprehensive instructional program (Greenwood et al., 2003).

For example, teachers may use a variety of instructional strategies in their classroom; however, they may have difficulty combining these practices into one comprehensive instructional program. Therefore, PD on integrating various evidence-based literacy strategies may be beneficial.

Data show that the use of literacy coaches is beneficial in terms of improving student achievement and teacher practice (L'Allier & Elish-Piper, 2006). The main responsibility of a literacy coach involves assisting classroom teachers to improve their instruction through ongoing PD. PD activities provided by the literacy coach may include large-group presentations about literacy education, facilitating teacher-study groups and grade-level or departmental level team meetings, and supporting teachers as they strive to develop their instructional skills (IRA, 2004). With the help of literacy coaches, teachers are engaged in continuous and reflective PD.

If there is truly a desire to improve the literacy skills of youth through the use of evidence-based literacy interventions, then the time and resources allocated to the professional growth of teachers is imperative. Improving teachers' knowledge of evidence-based literacy strategies will help teachers gain a better understanding of the value of the strategies when teaching in their classrooms (McKenna & Robinson, 1990). Moreover, teachers must be able to make connections from what was learned in PD to their classroom practice (Kinnucan-Welsch, Rosemary, & Grogan, 2006). To assist teachers in making the connection, opportunities for teachers to be collaboratively involved in designing and implementing PD opportunities to support student learning is essential. Researchers have argued that teacher content knowledge, pedagogical training, and education are critical factors in promoting student achievement (Druva, & Anderson, 1983; Goldhaber & Brewer, 2000; Kamil, 2003).

Implications for Practice

History has shown that the route from the schoolhouse to the doors of the jailhouse is heavily traveled. Disturbingly, many of the travelers are the ones with the most unique needs: minority males with academic and/or behavioral challenges who come from impoverished backgrounds (Townsend, 2012). Research have found that many incarcerated youth, as well as those on the STPP continuum, have been diagnosed with a learning disability. Brunner (1993) argues that students who exhibit academic challenges and who are unable to perform at the level of their peers often engage in disruptive behavior out of frustration or embarrassment. Therefore, to dismantle the STPP, there must be a focus on decreasing students' academic challenges and restoring quality education to these students. Perhaps the first step in doing so is to increase the literacy skills of these troubled youth, particularly their writing skills.

Throughout the literature on reducing the academic failure of at-risk and incarcerated youth, researchers have called for the implementation of evidence-based programs and practices. Despite the small number of published studies and their limitations, research findings indicated that students with LD can benefit from being taught instructional strategies to help them improve the quantity and quality of their writing (Joseph & Konrad, 2009). Examples of evidence-based strategies that have been shown to improve the writing skills of students with learning disabilities include: Strategic Instruction; SRSD; and Direct Instruction. Teachers of students with LD are encouraged to find ways to include such strategies into their daily curriculum. Moreover, it is imperative that teachers are provided with focused and intense PD on successfully implementing these strategies in the classroom.

Developing the writing skills of troubled youth has many benefits. Explicit and organized writing instruction will allow at-risk and incarcerated students to broaden their modes

of communication, as well as develop positive ways to express their emotions. Instead of acting out with violence, students can learn to express their emotions through the art of writing. Smitherman and Thompson (2002) reported students' willingness and ability to candidly express their feelings through writing while participating in the "Writing our Stories" anti-violence creative writing program at a JC facility. Through developing their writing skills, these troubled youth can develop a stronger self-concept and skills that can equip them to be successful in their communities, as well as reading, writing, and critical-thinking skills which can have a positive effect on their future academic success, employment, and life (Smitherman & Thompson).

There is no quick-fix in breaking the cycle of journeying down the STPP. However, with a focus on students as individuals with potential, instead of problems to be solved, the STPP can possibly be dismantled. The field would be well served to focus intense research on the underserved including at-risk and incarcerated youth.

CHAPTER III. METHODOLOGY

Research shows a general trend of low proficiency in the writing skills of youth today (Miller & McCardle, 2011). Findings from the 2011 NAEP writing assessment highlight the ongoing need to develop and improve the writing skills of youth (National Center for Education Statistics, 2011). These findings also convincingly argue for the importance of providing interventions to struggling learners. Research shows that many incarcerated youth have significant problems with literacy and could greatly benefit from quality literacy interventions (Malmgren & Leone, 2000; Shippen et al., 2011). Although numerous studies exist examining the reading literacy skills of incarcerated youth, few empirical studies have examined the writing skills of these youth. The purpose of this study was to examine the writing skills of incarcerated youth.

This chapter details the methodology used to conduct this study. First, a description of the participants and setting are discussed. Next, a description is given of the instrument used. Also presented in this chapter are a list of research questions and the procedures used to answer the questions.

Methods

Participants and Setting

Participants in the study were all male 9th and 10th grade students (N = 83) adjudicated to the Alabama Department of Youth Services (ADYS) who participated in the QualityCore English EOC standardized assessment during the 2012-2013 school year. The 83 participants

represented the entire population of 9th and 10th grade students who were incarcerated at ADYS at the time of testing.

All participants were committed to ADYS for a minimum of 28 days. Participants' commitments ranged from a minimum of 28 days to over a year. At ADYS, juveniles being held for an extended period of time as a result of criminal charges are considered "committed."

This study obtained student data from all ADYS school campuses, to include the L.B. Wallace School (Mt. Meigs campus), the McNeel School (Vacca campus), and the L.B. Wallace Annex IV (Autauga campus). Students attending ADYS schools are given the opportunity to receive educational services and vocational training in a variety of trade areas. The educational services are mandatory for all residents; however, in addition to academic instruction, residents ages 16 and above receive vocational training as part of their educational program. Instruction is individualized by an Educational Service Plan (ESP) for students without disabilities, or an Individualized Education Program (IEP) for those with identified disabilities. Although a variety of content areas are taught, the general focus of education for residents is two-fold: (a) the development of functional literacy and (b) the development of skills to continue formal education. The ADYS also offer *Writing Our Stories,* an anti-violence creative writing program, to students at the L.B. Wallace School and the L.B. Wallace Annex IV. Students voluntarily participate in the program, which lasts for up to nine months.

Instrumentation

Materials included the QualityCore EOC assessment student score report. The QualityCore score report provides information on student achievement, including the student's overall QualityCore composite score- and subscore-level results. In addition, the score report provides local, state, and national comparisons of student's performance within each course, as

well as provides data on the student's progress toward college and career readiness. Recommendations on how students can improve their skills in the particular content area are also included on the score report (ACT, 2013).

ACT QualityCore EOC assessments focus on the knowledge and skills that students should learn in their high school courses. EOC assessments measure the learning outcomes all students must acquire in order to be successful in college and careers. Assessments include problem-based questions with both academic and real-world contexts that are applicable and attainable to high school students (ACT, 2013). Each EOC assessment reports a total score and three to five diagnostic subscores. The subscores allow educators to see specific areas of strength and weakness in student learning (ACT, 2013).

The ACT QualityCore English EOC assessment has four diagnostic subtests: Reading Comprehension, Critical Reading, Mechanics of Writing, and Modes of Writing. The writing component of this EOC assessment is embedded in two subtests. Mechanics of Writing focuses on correcting errors in sentence construction, understanding how sentence structure shapes meaning, correcting common usage and punctuation errors, and using punctuation to clarify meaning and create variety. Modes of Writing focuses on identifying and analyzing effective writing techniques in various modes, demonstrating understanding of effective organization, adding important information and deleting irrelevant information, and using organizational strategies to clarify meaning and maintain consistency.

Procedures

The principal investigator submitted a formal request to the ADYS to access the data for this study. The request was approved. The principal investigator then submitted a formal request to the Institutional Review Board (IRB) at Auburn University (AU) to complete research

involving human subjects. The request was approved. Once the principal investigator received clearance from the IRB committee, the principal investigator collected data at the ADYS central office located at the Mt. Meigs campus in Montgomery, Alabama.

The principal investigator was not allowed access to any identifiable information about the students, as all data collected from ADYS were anonymous. Prior to the principal investigator visiting ADYS' central office, the Director of Curriculum and Instruction at ADYS redacted students' identifiable information, including students' name and students' identification number, from the ACT QualityCore English EOC assessment score reports. The director prepared separate de-identified educational files for the principal investigator. The principal investigator did not have any access to students' original educational files. The de-identified educational files contained the student's ACT QualityCore English EOC assessment score report and demographic information related to the participants' race/cultural background and special education status, which the director manually wrote on each anonymous score report. Grade, facility type, and scores on the EOC assessment were already indicated on the score reports. Although all data were de-identified and anonymous, the principal investigator stored the de-identified educational files in a locked file cabinet at a secure location.

Once all data were obtained, the principal investigator entered the data into the Statistical Package for the Social Sciences 22.0 (SPSS) program for analysis. The second researcher ensured the accuracy of the data entry into the SPSS program.

Research Questions

The following research questions were examined in this study:

1. Are there any significant differences in the writing mechanics skills of incarcerated male 9^{th} and 10^{th} grade students based on grade level?

2. Are there any significant differences in the written expression skills of incarcerated male 9th and 10th grade students based on grade level?
3. Are there any significant differences in the writing mechanics skills of incarcerated male 9th and 10th grade students based on campus?
4. Are there any significant differences in the written expression skills of incarcerated male 9th and 10th grade students based on campus?
5. Are there any significant differences in the writing mechanics skills of incarcerated male 9th and 10th grade students based on race/cultural background?
6. Are there any significant differences in the written expression skills of incarcerated male 9th and 10th grade students based on race/cultural background?
7. Are there any significant differences in the writing mechanics skills of incarcerated male 9th and 10th grade students based on special education status?
8. Are there any significant differences in the written expression skills of incarcerated male 9th and 10th grade students based on special education status?
9. Are there any significant differences in the writing mechanics skills of incarcerated male 9th and 10th grade students based on participation in a creative writing program?
10. Are there any significant differences in the written expression skills of incarcerated male 9th and 10th grade students based on participation in a creative writing program?
11. Given the population of male 9th and 10th grade students incarcerated in Alabama were participants, what percentage of students are college-ready?

Variables

The analytical component of this study consisted of five independent variables and two dependent variables. The independent variables were campus, race/cultural background, grade level, disability status, and participation in a creative writing program. The two dependent variables were the participant's percent correct score on both the Mechanics of Writing subtest and the Modes of Writing subtest on the ACT QualityCore English EOC assessment. Additionally, descriptive data on the population included percent of students with disabilities, percent of students in each facility, percent of students in grade nine or 10, percent of students in each ethnic background category, and percent of students who participated in the creative writing program.

Data Analysis

Data were analyzed descriptively and inferentially in this study. The descriptive data included demographic variables such as grade level, race/cultural background, special education status, school campus, participation in a creative writing program. Additionally, descriptive data included means and standard deviations for the two dependent variables. Finally, descriptive data were collected on the college readiness scores as determined by the PLAN (see www.act.org, 2014).

Inferential data analysis was used to determine if a statistically significant difference existed between the scores from the ACT QualityCore English EOC assessment subtests and the independent variables. The data were analyzed through an analysis of variance (ANOVA). The variance between the scores on the ACT QualityCore EOC subtests and the independent variables were evaluated. The principal investigator analyzed relationships and variance of

scores between and among the two subtests scores and the five independent variables in the study.

This chapter provided information about methodology used to complete the study. First, a description of the participants and setting were discussed, followed by a description of the ACT QualityCore EOC assessment. Next, procedures for collecting and analyzing data were provided, along with descriptions of the variables in the study and the research design. Chapter 4 presents the results of the analysis and descriptive data.

CHAPTER IV. RESULTS

Results from the data analysis are presented in this chapter. Participants' demographic information is discussed and illustrated in a chart. Next, raw scores from two ACT QualityCore English EOC assessment subtests, Mechanics of Writing and Mode of Writing, are examined to evaluate their relationship to five independent variables, to include grade level, race/cultural background, special education status, school campus, and participation in a creative writing program. Finally, descriptive data are discussed and illustrated in charts. A series of ANOVAs were conducted to assess whether means on the dependent variables are significantly different among groups. Using information from the ANOVA, each research question is presented and followed by an explanation of the results.

Participants in this study (N=83) were all male 9th and 10th grade students incarcerated at ADYS at the time of testing. The participants represent the entire population of 9th and 10th grade students at ADYS and not a sample. The study included 56 9th graders and 27 10th graders. Nineteen of the participants attended the L.B. Wallace Annex IV (Autauga campus), 22 attended the L.B. Wallace School (Mt. Meigs campus), and 42 attended the McNeel School (Vacca campus). Of the participants, 74 were Black, eight were White, and one was Latino. Nineteen of the participants qualified for special education services under the IDEIA. There are 13 disability categories identified under the IDEIA. Participants in this study were representative of five of the 13 categories: Fourteen qualified for services under Special Learning Disability (SLD), one qualified for Emotional Disability (ED), two qualified for Intellectual Disability (ID), one qualified for Autism Spectrum Disorder (ASD), and one qualified for Other Health Impairment

(OHI). One participant was labeled as Gifted, which is not one of the 13 disability categories under the IDEIA. The ADYS offer *Writing Our Stories,* an anti-violence creative writing program, to students at the Mt. Meigs campus and the Vacca campus. Sixteen students voluntarily participated in the creative writing program. Table 5 shows information about the participants' demographic make-up.

Table 5

Demographics of Participants (N=83)

Characteristics	**N (%)**
Grade level	
9th grade	56 (68%)
10th grade	27 (33%)
Campus	
Autauga	19 (23%)
Mt. Meigs	22 (27%)
Vacca	42 (51%)
Race/Cultural Background	
Black	74 (89%)
White	8 (10%)
Latino	1 (1%)
Writing Our Stories	
Yes	16 (19%)
No	67 (80%)
Special Education Status	
Yes	19 (23%)
No	64 (77%)
Special Education Category	
Specific Learning Disability	14 (17%)
Emotional Disability	1 (1%)
Intellectual Disability	2 (2%)
Autism Spectrum Disorder	1 (1%)
Other Health Impaired	1 (1%)
Gifted	1 (1%)
None	63 (77%)

Purpose of Study

The purpose of this study was to examine the writing skills of incarcerated male youth. A series of ANOVAs were conducted to determine any significant differences between the independent variables and the dependent variables. The independent variables were grade level, race/cultural background, special education status, school campus, and participation in a creative writing program. The dependent variables were raw scores from the writing mechanics subtest and the written expression subtest of the ACT QualityCore English EOC assessment. Results of the analysis are presented for each research question.

Research Question 1

The first research question was stated as follows: Are there any significant differences in the writing mechanics skills of incarcerated male 9th and 10th grade students based on grade level?

A one-way ANOVA was conducted to address the research hypothesis that different grade levels impact the writing mechanic skills of incarcerated male students. Grade level acted as the independent variable in the analysis and writing mechanics scores as the dependent variable. The omnibus test yielded statistically significant results, $F(1,81) = 4.14$, $p = .04$, indicating that students do perform differently in writing mechanics based on their grade level. Table 6 represent the means and standard deviations for the two groups. The mean on the mechanics of writing mechanics subtest for the 9th graders were higher than the mean on the mechanics of writing for the 10th graders.

Research Question 2

The second research question was stated as follows: Are there any significant differences in the written expression skills of incarcerated male 9th and 10th grade students based on grade level?

A one-way ANOVA was conducted to address the research hypothesis that different grade levels impact the written expression skills of incarcerated male students. Grade level acted as the independent variable in the analysis and written expression scores as the dependent variable. The omnibus test did not yield statistically significant results, $F(1,81) = 1.57$, $p = .21$, indicating that students do not perform differently in written expression based on their grade level. Table 6 shows the means and standard deviations for the two groups. The mean on the written expression subtest for the 9th graders were slightly higher than the mean on the written expression subtest for the 10th graders.

Table 6

Group Means and Standard Deviations by Grade Level

	9th grade		10th grade	
	M	*SD*	*M*	*SD*
Mechanics	56.2	27.0	44.4	18.8
Mode	56.1	18.4	50.5	20.3

M=Mean, SD = Standard Deviation, Mode = Written Expression

Research Question 3

The third research question was stated as follows: Are there any significant differences in the writing mechanics skills of incarcerated male 9th and 10th grade students based on school campus?

A one-way ANOVA was conducted to address the research hypothesis that different school campuses impact the writing mechanic skills of incarcerated male students. School campus acted as the independent variable in the analysis and writing mechanic scores as the dependent variable. The omnibus test did not yield statistically significant results, $F(2,80) = 1.85$, $p = .16$, indicating that students do not perform differently in writing mechanics based on the school campus they attend. Table 7 shows the means and standard deviations for school campuses. The mean on the mechanics of writing subtest for the Vacca campus was higher than the means on the mechanics of writing subtest for both the Mt. Meigs campus and the Autauga campus.

Research Question 4

The fourth research question was stated as follows: Are there any significant differences in the written expression skills of incarcerated male 9th and 10th grade students based on campus?

A one-way ANOVA was conducted to address the research hypothesis that different school campuses impact the written expression skills of incarcerated male students. School campus acted as the independent variable in the analysis and written expression scores as the dependent variable. The omnibus test did not yield statistically significant results, $F(2,80) = .573$, $p = .57$, indicating that students do not perform differently in written expression based on the school campus they attend. Table 7 shows the means and standard deviations for school campuses. The means on the written expression subtest were relatively similar across school campuses. However, on average, students at the Mt. Meigs campus had slightly higher means than those at the Autauga and Vacca school campus.

Table 7

Group Means and Standard Deviations by Campus

	Autauga		Mt. Meigs		Vacca	
	M	*SD*	*M*	*SD*	*M*	*SD*
Mechanics	43.5	24.9	51.9	19.2	56.7	27.4
Mode	53.1	22.0	58.0	21.4	52.8	16.4

M=Mean, SD = Standard Deviation, Mode = Written Expression

Research Question 5

The fifth research question was stated as follows: Are there any significant differences in the writing mechanics skills of incarcerated male 9th and 10th grade students based on race/cultural background?

A one-way ANOVA was conducted to address the research hypothesis that race/cultural background impact the writing mechanics skills of incarcerated male students. Race/cultural background acted as the independent variable in the analysis and writing mechanic scores as the dependent variable. The omnibus test did not yield statistically significant results, $F(2,80) = 1.88$, $p = .16$, indicating that students do not perform differently in writing mechanics based on their race/cultural background. Table 8 shows the mean and standard deviation for race/cultural background. The mean on the writing mechanics subtest was higher for the Latino participant, while the means on the writing mechanics subtest for the Black participants and the White participants were relatively similar.

Research Question 6

The sixth research question was stated as follows: Are there any significant differences in the written expression skills of incarcerated male 9th and 10th grade students based on race/cultural background?

A one-way ANOVA was conducted to address the research hypothesis that race/cultural background impact the written expression skills of incarcerated male students. Race/cultural background acted as the independent variable in the analysis and written expression scores as the dependent variable. The omnibus test did not yield statistically significant results, $F(2,80) = 1.21$, $p = .30$, indicating that students do not perform differently in written expression based on their race/cultural background. Table 8 shows the mean and standard deviation for race/cultural background. The mean for the Latino participant was higher than the means for both the Black participants and the White participants.

Table 8

Group Means and Standard Deviations by Race/Cultural Background

	Black		White		Latino	
	M	*SD*	*M*	*SD*	*M*	*SD*
Mechanics	52.0	25.9	50.0	9.1	100	.
Mode	53.4	18.8	58.8	20.9	80.0	.

M=Mean, SD = Standard Deviation, Mode = Written Expression

Research Question 7

The seventh research question was stated as follows: Are there any significant differences in the writing mechanics skills of incarcerated male 9th and 10th grade students based on special education status?

A one-way ANOVA was conducted to address the research hypothesis that special education status impact the writing mechanic skills of incarcerated male students. Special education status acted as the independent variable in the analysis and writing mechanics scores as the dependent variable. Although the omnibus test did not yield statistically significant results, $F(1,81) = 2.94$, $p = .09$, indicating that students do not perform differently in writing

mechanics based on special education status, results were near significant. Table 9 shows the means and standard deviations for special education status. The mean on the writing mechanics subtest for participants who did not qualify for special education services were higher than the mean on the writing mechanics subtest for those who did qualify for special education services.

Research Question 8

The eighth research question was stated as follows: Are there any significant differences in the written expression skills of incarcerated male 9th and 10th grade students based on special education status?

A one-way ANOVA was conducted to address the research hypothesis that special education status impact the written expression skills of incarcerated male students. Special education status acted as the independent variable in the analysis and written expression scores as the dependent variable. The omnibus test yielded statistically significant results, $F(1,81) = 5.30$, $p = .02$, indicating that students do perform differently in written expression based on special education status. Table 9 shows the means on the written expression subtest for participants who did not qualify for special education services were higher than those who qualified for special education services, while the standard deviations for both groups were relatively similar.

Table 9

Group Means and Standard Deviations by Special Education Status

	Yes		No	
	M	*SD*	*M*	*SD*
Mechanics	43.8	18.0	54.9	26.5
Mode	45.6	19.3	56.8	18.4

Note. Yes = qualified for services under IDEIA 2004, No = did not qualify for services under IDEIA 2004. M=Mean, SD = Standard Deviation, Mode = Written Expression

Research Question 9

The ninth research question was stated as follows: Are there any significant differences in the writing mechanics skills of incarcerated male 9th and 10th grade students based on participation in a creative writing program?

A one-way ANOVA was conducted to address the research hypothesis that participation in a creative writing program impact the writing mechanic skills of incarcerated male students. Participation in the creative writing program acted as the independent variable in the analysis and writing mechanic scores as the dependent variable. The omnibus test did not yield statistically significant results, $F(1,81) = 2.33$, $p = .13$, indicating that students did not perform differently in writing mechanics based on participation in a creative writing program. Table 10 shows the means and standard deviations on the writing mechanics subtest for the two groups. The mean for students who did participate in the creative writing program were higher than those who did not, while the standard deviations for both groups were relatively similar.

Research Question 10

The tenth research question was stated as follows: Are there any significant differences in the written expression skills of incarcerated male 9th and 10th grade students based on participation in a creative writing program?

A one-way ANOVA was conducted to address the research hypothesis that participation in a creative writing program impact the written expression skills of incarcerated male students. Participation in the creative writing program acted as the independent variable in the analysis and written expression scores as the dependent variable. The omnibus test did not yield statistically significant results, $F(1,81) = 2.20$, $p = .14$, indicating that students did not perform differently in written expression based on participation in a creative writing program. Table 10 shows the means and standard deviations on the written expression subtest for the two groups. The mean for students who did participate in the creative writing program were higher than those who did not participate.

Table 10

Group Means and Standard Deviations by Participation in a Creative Writing Program

	Yes		No	
	M	*SD*	*M*	*SD*
Mechanics	60.9	26.3	50.3	24.7
Mode	60.6	16.5	52.8	19.4

Note. Yes = participated in creative writing program, No = did not participate in creative writing program. M=Mean, SD = Standard Deviation, Mode = Written Expression

Research Question 11

Given the population of male 9th and 10th grade students incarcerated in Alabama were participants, what percentage of students are college-ready?

Descriptive data were collected on participants' estimated PLAN English score range, as indicated on their ACT QualityCore English EOC assessment score report. Of the population of students in this study (N=83), 21(25%) students scored at or above the college readiness benchmark of 15, indicating their readiness for some college-level work.

All students who take ACT QualityCore EOC assessments receive estimated PLAN® or ACT® test score ranges. PLAN, typically administered in the 10th grade, provides students with an early indication of how their educational progress relates to their post-high school educational and career plans and allows students to make adjustments to their coursework to ensure they are prepared for what they want to do after graduation. ACT has conducted research to compare ACT QualityCore test scores to ACT or PLAN test scores and provides an estimated ACT or PLAN subject test score range on the student score report, along with an indication of whether the student is or will be ready for college-level work. The estimated ACT or PLAN score range is an estimation of what a student's score on the ACT or PLAN subject test would be if that test were taken at the same time as the ACT QualityCore test. The scores are only estimates, not guarantees, based upon national samples tested as part of a special research study (see ACT, 2014). Some suggestions about how students might improve their college readiness, based upon ACT's research and College Readiness Standards®, are included on their ACT QualityCore student report (see Appendix 3 for an example score report).

Summary

This chapter provided results from the study, participants' demographic information, and descriptive data on college readiness. A series of ANOVAs were conducted to analyze the writing skills of incarcerated youth using subtest scores from the ACT QualityCore English EOC assessment. The independent variables were grade level, race/cultural background, special education status, school campus, and participation in a creative writing program. The dependent variables were scores on the writing mechanics and written expression subtests. The results comparing participants' grade level to mechanics of writing scores were statistically significant (p = .04) at the .05 level. Also, the results comparing participants' special education status to written expression scores were statistically significant (p = .02) at the .05 level. Interestingly, results comparing participants' special education status to mechanics of writing scores were near significance (p = .09) at the .05 level. All other results were not statistically significant at the .05 level. Additionally, 25% (n = 21) of students scored at or above the ACT PLAN college readiness benchmark of 15, indicating their readiness for some college-level work.

CHAPTER V. DISCUSSION

This final chapter begins by providing an overview on writing skills and the purpose of the study. Next, results will be discussed, followed by limitations and implications of the research.

Overview and Purpose

Overview

A large number of American students have poor writing skills. The latest results from the National Assessment of Educational Progress (National Center for Education Statistics, 2011) indicate that 20% of 8th grade students and 21% of 12th grade students were not able to perform at even the most basic level in writing. Writing is a complex skill and many students have difficulties mastering the process. Some students exhibit challenges with mastering basic writing mechanics, while many exhibit challenges with composition (Graham, Harris, & Larsen, 2001; Graham, Swartz, & MacArthur, 1993; Montgomery, 2008). Unfortunately, these students often progress through school without developing the basic writing skills needed to be successful in school, in employment, and in society.

A review of literature found that the majority of students incarcerated in juvenile correctional facilities have problems with literacy skills (Center on Crime, Communities, & Culture, 1997; Coulter, 2004; Malmgren & Leone, 2000; Shippen et al., 2011) and most youth are significantly below grade level upon entry into correctional facilities (The Center on Crime, Communities, & Culture, 1997). Thus, researchers have been calling for the implementation of

scientifically-based literacy instruction to be used in correctional facilities as a means of improving academic and behavioral outcomes for incarcerated youth.

Although numerous studies exist examining the reading literacy skills of incarcerated youth, few empirical studies have examined the writing skills of these youth. Based on the importance of writing, it is imperative that this population is efficient in writing. Writing is a basic skill that is necessary for communication in all aspects of life. Individuals who demonstrate significant deficits in writing are more likely to experience negative outcomes as compared to their more competent peers (Gersten & Baker, 2001).

The focus of this study was to examine the writing skills of incarcerated youth as measured by the ACT QualityCore English end-of-course (EOC) assessment for 9th and 10th grade students incarcerated at the ADYS. Outcomes from this research provide information about the writing skills of incarcerated youth while also showing the need for the implementation of effective writing interventions in juvenile correctional facilities. This information can be used to guide correctional educators and policymakers when developing curriculum for juvenile correctional facilities and when organizing professional development for teachers.

Purpose

The purpose of this study was to examine the writing skills of incarcerated male youth as measured by the ACT QualityCore English end-of-course (EOC) assessment. The following research questions were investigated:

1. Are there any significant differences in the writing mechanics skills of incarcerated male 9th and 10th grade students based on grade level?
2. Are there any significant differences in the written expression skills of incarcerated male 9th and 10th grade students based on grade level?

3. Are there any significant differences in the writing mechanics skills of incarcerated male 9th and 10th grade students based on campus?
4. Are there any significant differences in the written expression skills of incarcerated male 9th and 10th grade students based on campus?
5. Are there any significant differences in the writing mechanics skills of incarcerated male 9th and 10th grade students based on race/cultural background?
6. Are there any significant differences in the written expression skills of incarcerated male 9th and 10th grade students based on race/cultural background?
7. Are there any significant differences in the writing mechanics skills of incarcerated male 9th and 10th grade students based on special education status?
8. Are there any significant differences in the written expression skills of incarcerated male 9th and 10th grade students based on special education status?
9. Are there any significant differences in the writing mechanics skills of incarcerated male 9th and 10th grade students based on participation in a creative writing program?
10. Are there any significant differences in the written expression skills of incarcerated male 9th and 10th grade students based on participation in a creative writing program?
11. Given the population of male 9th and 10th grade students incarcerated in Alabama were participants, what percentage of students are college-ready?

To address the aforementioned questions, the principal investigator acquired the 2012-2013 ACT QualityCore English EOC assessment data of all 9th and 10th grade students from the ADYS central office. All participants were incarcerated at ADYS at the time of testing. The principal investigator was not allowed access to any identifiable information about the students, as all data collected from ADYS were anonymous. Instead, the principal investigator received

de-identified educational files that contained the student's ACT QualityCore English EOC assessment score report and demographic information related to the participants' race/cultural background and special education status, which the Director of Curriculum at ADYS manually wrote on each anonymous score report. Grade, facility type, and scores on the EOC assessment were already indicated on the score reports. Once all data were obtained, the principal investigator entered the data into the Statistical Package for the Social Sciences 22.0 (SPSS) program for analysis.

Data were analyzed descriptively and inferentially in this study. The descriptive data included demographic variables such as grade level, race/cultural background, special education status, school campus, participation in a creative writing program, and college readiness. Inferential data analysis was used to determine if a relationship existed between the scores from the ACT QualityCore English EOC assessment subtests and the independent variables. The data were analyzed through a series of analysis of variance (ANOVA). The variance between the scores on the ACT QualityCore EOC subtests and the independent variables were evaluated. The principal investigator analyzed relationships and variance of scores between and among the two subtests scores and the five independent variables in the study.

Discussion of Findings

Research Questions 1 and 2 – Grade Level

The results related to questions one and two were somewhat unexpected. For question one, the ANOVA indicated that students do perform differently in writing mechanics based on their grade level. What is most noteworthy is that 9th grade students had a higher group mean on the mechanics of writing subtest than 10th grade students. These results indicate that 9th grade students performed better than 10th grade students in mechanics, which is somewhat unexpected

since they have one fewer year of instruction. For question two, the ANOVA indicated that students do not perform differently in written expression based on their grade level. Again, the 9th grade students' group mean on the written expression subtest was also higher than 10th grade students. Research has shown that writing mechanics improve with age (Graham & Harris, 2009), which appears to be contradictory to findings in this study. Drawing a firm conclusion about these results may be problematic, as few studies to date have specifically examined the writing skills of incarcerated students' by grade level.

Research Questions 3 and 4 – School Campus

For questions three and four, the ANOVA test did not yield statistically significant results, indicating that students do not perform differently in writing mechanics and written expression based on the school campus they attend. The group mean on the mechanics of writing subtest for the Vacca campus was higher than both the Mt. Meigs campus and the Autauga campus. Group means on the written expression subtest were relatively similar across school campuses. Although there were slight variations, the group means at all three campuses would be considered failing if the participants had been assigned a grade for their performance. These results are not surprising, as research has shown that incarcerated students have histories of academic failure and for performing below grade level (The Center on Crime, Communities, & Culture, 1997).

One possible explanation for these results may be related to the transient nature of incarcerated students and the juvenile correctional system. This lack of continuity in education services could impact academic skills.

Transiency. Students were assessed with the ACT QualityCore EOC assessment during April 2013. Although participants were in the custody of ADYS at the time of testing, it is

unknown how long they were incarcerated prior to testing. Synder and Sickmund (2006) report that the average stay for juveniles in correctional facilities is approximately eight months. However, depending on the type of facility, some juvenile's length of stay may be as short as a few days or as long as a few years (Houchins, et al., 2008). In the current study, participants' maximum stay at the Autauga campus was 28 days. Participants' stay at the Mt. Meigs and Vacca campus ranged from a few month to over a year. Because of the transient nature of juvenile correctional facilities, it may be difficult to plan and implement interventions and instruction to students. Unlike teachers in public schools who typically have an entire school year to provide instruction, teachers in correctional facilities often have limited time to deliver vital instruction to students. Additionally, if participants were not incarcerated at ADYS for a significant amount of time prior to testing, it is unknown if they were actual enrolled in or attending their traditional zone school. These factors could have negatively impacted participants' performance on the assessment.

Research Questions 5 and 6 – Race/Cultural Background

Historically, a gap in literacy skills has been observed between Black incarcerated males and White incarcerated males, with Blacks typically exhibiting lower performance (Greenberg, Dunleavy, & Kutner, 2007). However, in this study, no statistical significance was found for questions five and six, indicating that students do not perform differently in writing mechanics and written expression based on their race/cultural background. These results should be interpreted with caution, due to the small population of participants. Only one participant was identified as Latino and eight participants were identified as White. All other participants (n = 74) were identified as Black. Future research might examine the writing proficiency of racial/cultural backgrounds using a larger population of participants.

Research Questions 7 and 8 – Special Education Status

For question seven, the ANOVA test did not yield statistically significant results, indicating that students do not perform differently in writing mechanics based on special education status. However, results neared significance. The group mean for participants who did not qualify for special education services was nearly eleven points higher on the writing mechanics subtest than the group mean for participants who did qualify for special education services. Graham and Harris (2009) found that students with disabilities often experience difficulty mastering basic writing skills, such as spelling, capitalization, and punctuation. The results of question seven, although not statistically significant, cannot be ignored as they shed light on the gap between students with disabilities and their non-disabled peers, and the need for interventions in the most basics of writing skills. Future efforts should be made to improve the basic writing skills of students with disabilities in order to improve their overall writing proficiency.

The ANOVA did yield statistically significant results for question eight, indicating that students do perform differently in written expression based on special education status. Naturally a gap will exist between the two groups, simply due to the essence of certain disabilities, but it is the amount of gap that is most concerning. Results show an eleven point difference in group means between students who did not qualify for special education services compared to those who did qualify for special education services. One possible explanation for the gap relates to the complexity of written expression. Graham and Harris (2009) note that students with disabilities often experience difficulty regulating the mental operations involved in complex processes such as expressive writing. Written expression is a metacognitive skill that rely on an individual's knowledge, basic skills, strategies, and ability to coordinate multiple

processes (Walker et al., 2005). Although research has identified metacognition as a significant challenge for students with disabilities (Cass, 2011), interventions in this area is integral in improving writing proficiency.

Research Questions 9 and 10 – *Writing Our Stories*

For questions nine and ten, the ANOVA tests did not yield statistically significant results, indicating that students do not perform differently in writing mechanics and written expression based on participation in a creative writing program. However, it is worth mentioning that the group means for students who did participate in the creative writing program were higher on both subtests than those who did not participate.

In a meta-analysis examining writing interventions for struggling writers, Gersten and Baker (2001) found that providing writing interventions to students can considerably improve writing quality. However, findings of the current study suggest differently. Possible explanations for the finding of this study may be related to the program components, intensity, and time of engagement.

Program components. *Writing Our Stories* creative writing program focuses on writing as a way for students to express themselves in a nonviolent manner. Students learn the craft of poetry, fiction, and/or creative nonfiction writing through participation in the program (Barton, Cooper, Gamble, Smitherman, & Thompson, 2002). Lessons focus on concepts such as personification, imagery, metaphor, point of view, free-writing, and editing. Although the program is used as part of students' therapeutic experience and has shown to increase students' willingness to express themselves (Smitherman & Thompson, 2002), the program may not encompass the necessary components that Gersten and Baker (2001) found to be instrumental in improving writing proficiency. The researchers' findings indicate that explicit instruction in

both transcription skills (spelling and writing) and writing strategies enhance students' overall writing ability. Perhaps, results from the current study can best be explained by the fact that, although students participated in a creative writing program, the program did not incorporate the skills that research has shown to improve writing proficiency. However, results should be interpreted with caution due to the size of the population of the study.

Time of engagement. The time that participants were actually engaged in the program may have also negatively impacted the results of the study. As mentioned before, students were assessed with the ACT QualityCore EOC assessment in April 2013. It is unknown how long participants were engaged in the creative writing program prior to testing. Also unknown is participants' skill level prior to beginning the program. *Writing Our Stories* creative writing program requires students to voluntarily participate, and does not have pre-qualification criteria that participants must meet to enter the program. Therefore, it is unknown whether or not participants were skillful in basic writing mechanics or more advanced skills such as revising and editing. Although *Writing Our Stories* has shown therapeutic successes, students with writing challenges may benefit more from writing interventions that emphasize a combination of mechanics and strategy.

Research Question 11 – College Readiness

Descriptive analysis was used to examine question 11. Results indicate that only 25% of participants were capable of some college-level work. These results were expected, as research has shown that many incarcerated youth are significantly below grade level and have histories of academic failure (The Center on Crime, Communities, & Culture, 1997).

Results of this study also show that some youth incarcerated in juvenile correctional facilities may have abilities and skills that could assist them in breaking out of the pipeline.

Black et al. (1996) found a 12% recidivism rate for higher-achieving juvenile offenders six months after their release compared to a 20% recidivism rate for lower-achieving juvenile offenders. Thus, it is important that juvenile correctional facilities develop educational programs that emphasize academic and vocational competencies that provide youth with the necessary tools to transition successfully into society.

Limitations

There are several limitations in this study. These limitations include generalizability, study design, and the functioning level of participants.

Generalizability

Eighty-three students were included in this study and represent the entire population of 9th and 10th grade students incarcerated at ADYS at the time of testing. However, the findings of this study cannot be generalized to other populations. The participants in this study attended one of three school campuses at a juvenile correctional facility in Alabama and these findings may or may not be comparable to other juvenile facilities or to students in public schools who are not incarcerated. Also, the findings may be different than other juvenile facilities across the nation. The data collected only represent the findings from one juvenile correctional facility at one point in time.

Study Design

The current study focused on the collection of quantitative data that was intended to provide preliminary information and insights into the writing skills of incarcerated male youth, using their percent correct scores from two subtests. An intervention or true experimental design would have been stronger to provide more extensive information about the writing proficiency of this population of students, but these were the first data available. Additionally,

analyzing participants' writing samples would have proven to be a better measure of their true abilities.

Functioning Level

ACT QualityCore EOC assessments incorporate problem-solving skills that require practical applications of concepts, theories, principles, and processes. Test items are assigned a depth-of-knowledge (DOK) level (Webb, 2002) to describe the thinking processes measured on the EOC assessments. Level one requires the recall of information. Level two is more cognitively demanding and requires mental processing that goes beyond recalling or reproducing an answer. Students must make some decisions about how to approach a problem. The cognitive demands of level three are much more complex and abstract and requires planning, thinking, explaining, justifying, using evidence, conjecturing, and postulating (ACT, 2014).

Research suggests that many incarcerated students function in the low-average to below-average range of intelligence and perform academically between fifth- and ninth-grade levels (Foley, 2001). However, no attempt was made to obtain data on the actual intellectual functioning level of participants. Although the ACT QualityCore EOC assessments do not indicate a level of student functioning appropriate for the program, one would assume that students functioning considerably below grade level would have difficulty with items beyond level one. One could also assume that participants in the current study had varying ranges of functioning levels, which could impact the results of the study.

Though there are limitations to this study, the study does provide a basis for future research. This study supports a design by which future research can be modeled. The next section will discuss implications of this study.

Recommendations for Future Research

Results from this study suggest that a student's grade level does have an impact on their writing mechanic skills, and their special education status does affect their written expression skills. These results implicate that further research is needed to identify evidence-based writing curriculum that could impact the writing skills of incarcerated students with and without disabilities. Since this study descriptively assessed the writing skills of incarcerated 9th and 10th grade males, future researchers may consider utilizing a true experimental design to analyze actual writing samples of incarcerated students. The researcher might also consider assessing the benefit of incarcerated youth participating in a writing intervention that specifically focuses on the systematic teaching of the writing process.

Future research may consider using data from this study and subsequent studies to develop effective writing strategies for students. The Self-Regulated Strategy Development (SRSD; Graham & Harris, 1989) and Cognitive Strategy Instruction in Writing (Englert et al., 1991) have proven to be effective for students with learning disabilities. Perhaps future researchers can assess the effectiveness of these writing strategies for incarcerated youth with and without disabilities.

For over 30 years, researchers have been calling for the implementation of effective literacy programs in juvenile correctional facilities. A review of literature on literacy interventions in juvenile correctional facilities found only a limited number of intervention studies for students in this population. It is worth noting that all of the existing studies assessed the effectiveness of various reading interventions for incarcerated youth. Future research might want to focus on the effectiveness of writing interventions for this population of students. The exploratory nature of this study supports that additional research is needed, in which more

students are included, a true experimental design is used, students' writing samples are analyzed, and students' functioning level is assessed.

Summary

The participants in this study were 9th grade and 10th grade male students (N=83) incarcerated at ADYS. The participants attended school at one of three ADYS' school campuses: Mt. Meigs campus, the Vacca campus, and the Autauga campus.

Data were collected from the students' ACT QualityCore English EOC assessment taken in April 2013. The independent variables were campus, race/cultural background, grade level, disability status, and participation in a creative writing program. The two dependent variables were the participant's percent correct score on both the Mechanics of Writing subtest and the Modes of Writing subtest on the ACT QualityCore English EOC assessment. Descriptive data were collected to analyze students' college-readiness. A series of ANOVAs were conducted to assess whether means on the dependent variables are significantly different among groups. The results of the study show significant difference in students' writing mechanics skills based on grade level, and in written expression skills based on special education status. What is most noteworthy is that no significant differences were found in students' writing mechanics skills or written expression skills based on their participation in a creative writing program.

Although, results of this study did not show statistical significance for participants who participated in a creative writing program, writing interventions have been found to be promising for incarcerated youth (Long & Davis, 2011; Smitherman & Thompson, 2002). As such, there is a need to explore effective writing strategies and writing curriculum for teaching writing in correctional facilities to incarcerated youth with and without disabilities in order to improve students' future academic success, employability, and overall quality of life.

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Appendix 1

AUBURN
UNIVERSITY

Office of Research Compliance
115 Ramsay Hall, basement
Auburn University, AL 36849

Telephone: 334-844-5966
Fax: 334-844-4391
IRBadmin@auburn.edu
IRBsubmit@auburn.edu

February 14, 2014

MEMORANDUM TO: Kemeche Green
Department of Special Education, Rehabilitation, and Counseling

PROTOCOL TITLE: "Examination of the Written Expression Skills of Incarcerated Male Youth"

IRB AUTHORIZATION NO: 13-385 EP 1311

APPROVAL DATE: November 7, 2013
EXPIRATION DATE: November 6, 2014

Your protocol was approved as "Expedited" by the IRB under 45 CFR 46.110(5):

> "(5) Research involving materials (data, documents, records, or specimens) that have been collected, or will be collected solely for non-research purposes (such as medical treatment or diagnosis)."

Note the following:

1. RECORDS: Keep this and all protocol approval documents in your files. Please reference the complete protocol number in any correspondence.
2. MODIFICATIONS: You must request approval of any other changes to your protocol before implementation. Some changes may affect the assigned review category.
3. RENEWAL: Submit a renewal a month before expiration. If your protocol expires and is administratively closed, you will have to submit a new protocol to continue your research.
4. FINAL REPORT: When your study is complete, please submit a final report to the Office of Research Compliance, Human Subjects.

If you have any questions concerning this Board action, please contact the Office of Research Compliance.

Sincerely,

Chair of Institutional Review Board #2
for the Use of Human Subjects in Research

cc: Dr. Everett Martin
Dr. Margaret Shippen

Appendix 2

P.O. Box 66
1000 Industrial School Road
Mt. Meigs, AL 36057

Telephone: (334) 215-3850
Fax: (334) 215-3857
www.dys.alabama.gov

Dr. Rafael Richardson
Alabama Department of Youth Services
P. O. Box 66
1000 Industrial School Road
Mt. Meigs, Alabama 36057

October 2, 2013

Auburn University Institutional Review Board
c/o Office of Human Subjects
307 Samford Hall
Auburn, AL 36849

RE: Site Authorization

Please note that Ms. Kemeche L. Green, AU Graduate Student, has the permission of the Alabama Department of Youth Services (ADYS) to conduct research at our Mt. Meigs, Alabama facility for her study, "Examination of the Written Expression Skills of Incarcerated Male Youth".

I understand that the purpose of the study is to examine student achievement in the area of written expression as measured by the QualityCore English end-of-course (EOC) assessment for 9th and 10th grade students. The primary activity will be collecting and analyzing scores from students' QualityCore student report. I understand that Ms. Green is requesting anonymous data with no identifiable information about the students. Specifically, I understand that Ms. Green is requesting students' writing scores from the 2012-2013 administration of the QualityCore English EOC, grade level, gender, ethnicity, special education status, and the type of facility attended (i.e., long-term or short-term facility).

Ms. Green has agreed to provide to ADYS a copy of all Auburn University IRB-approved, stamped consent documents before she begins collecting data. Ms. Green has also agreed to provide to us a copy of the aggregate results from her study, as well as any data that ADYS requests regarding her dissertation.

I understand that Ms. Green's on-site research activities will only take one day to complete. Ms. Green has agreed not to enter any of our campus classrooms or come into contact with any students on campus.

If the IRB has any concerns about the permission being granted by this letter, please contact me at the phone number listed below.

Signed,

Dr. Rafael Richardson, Ed.D
334-215-3859

Appendix 3

AUBURN UNIVERSITY

DEPARTMENT OF
SPECIAL EDUCATION,
REHABILITATION, AND COUNSELING

August 4, 2013

Mrs. Tracy Smitherman
Alabama Department of Youth Services
P. O. Box 66
1000 Industrial School Road
Mt. Meigs, AL 36057

RE: Quality Core Assessment Data

Dr. Smitherman,

Thank you for meeting with me recently to discuss ideas for my dissertation research. As I explained, I am interested in examining the writing skills of adjudicated youth with and without disabilities. I believe that this area of literacy is often overlooked and needs to be examined to better serve our youth.

As such, this letter serves as a request to analyze the Quality Core Assessment data in written expression from 9th and 10th grade DYS students. This data would come from the 2012-2013 school year tests. I believe that these data will show unprecedented norm-referenced information about the writing skills of youth and will also pinpoint the areas of greatest need. I am requesting anonymous data with no identifiable information about the students. I am only asking for students' writing scores, grade level, gender, ethnicity, special education status, and the type of facility attended (i.e., long term or short term facility). These data will be compared to the State of Alabama data and National Assessment of Educational Progress Quality Core Assessment written expression data.

Upon approval from DYS, I will seek approval from Auburn University's Human Subjects research office as well. I will share any all data that DYS requests regarding my dissertation. Again, thank you for taking time out of your schedule to meet with me. You are greatly appreciated.

Sincerely,

Kemeche L. Green

Kemeche L. Green, PhD Candidate

Auburn University

Approved 8/6/2013

2084 Haley Center, Auburn, AL 36849-5222; Telephone: 334-844-7676; Fax: 334-844-7677

www.auburn.edu/serc

Appendix 4

QualityCore® ACT®

STUDENT REPORT

Student Name:
Quality Core ID:
Teacher:

School:
District:
State: AL

Course: ENGLISH 9
Group Name:
Test Date: 05/15/2013

Your QualityCore Score:

153

Scale Score Range
125-175

Percent of students scoring at or below your score:

Learn more about the ACT College Readiness Benchmarks.

Scan this QR code with your smart phone.

Your College Readiness

Your Estimated PLAN English Score Range is 12 - 16

Your estimated PLAN English Score Range is 'At or Above' the College Readiness Benchmark of 15

To learn more about the ACT College Readiness Benchmarks navigate to http://www.act.org/standard.

How to Improve your College Readiness

English

- Identify the central idea or main topic of a straightforward piece of writing
- Decide the most logical place to add a sentence in an essay
- Use the word or phrase most consistent with the style and tone of a fairly straightforward essay

How to Improve your College Readiness (cont.)

- Recognize and correct marked disturbances of sentence flow and structure (e.g., participial phrase fragments, missing or incorrect relative pronouns, dangling or misplaced modifiers)
- Ensure that a verb agrees with its subject when there is some text between the two

Reading

- Understand the overall approach taken by an author or narrator (e.g., point of view, kinds of evidence used) in more challenging passages
- Discern which details, though they may appear in different sections throughout a passage, support important points in more challenging passages
- Identify clear relationships between characters, ideas, and so on in more challenging literary narratives
- Use context to determine the appropriate meaning of some figurative and nonfigurative words, phrases, and statements in more challenging passages
- Draw generalizations and conclusions about people, ideas, and so on in more challenging passages

English 9 Course Objectives and Subscores

Subscores -- Points Received / Possible Points

Reading Comprehension	15 of 29
Critical Reading	17 of 25
Mechanics of Writing	6 of 10
Modes of Writing	4 of 6

Reading Comprehension

- Identify key characteristics in various genres; interpret how form shapes meaning
- Identify elements of fiction; recognize how they shape meaning
- Summarize and paraphrase information
- Identify author's purpose and basic elements of style
- Use context clues to determine the meaning of unfamiliar words
- Understand how organization and writer's techniques shape meaning

Critical Reading

- Analyze various common literary devices
- Analyze various common poetic devices
- Analyze persuasive techniques and detect bias
- Make logical inferences
- Use important details and facts to support conclusions

Mechanics of Writing

- Correct errors in sentence construction; understand how sentence structure shapes meaning
- Correct common usage and punctuation errors
- Use punctuation to clarify meaning and create variety

Modes of Writing

- Identify and analyze effective writing techniques in various modes
- Demonstrate understanding of effective organization
- Add important information and delete irrelevant information
- Use organizational strategies to clarify meaning and maintain consistency

Generated on 6/26/13