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USING THE AIR SELF-DETERMINATION SCALE TO PREDICT  
THE PERFORMANCE OF MIDDLE SCHOOL STUDENTS  
WITH EMOTIONAL AND BEHAVIORAL  
DISORDERS

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USING THE AIR SELF-DETERMINATION SCALE TO PREDICT THE  
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EMOTIONAL AND BEHAVIORAL DISORDERS

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## **DEDICATION**

This work is dedicated to the ones who made my world so much better, Alex, Arthur, Dreshawn, Justina, Effi, Tylena, Tiffany, Nisha, Matthew, Kristen, Ray, Aquan, Cyrus, and Harold. Though we parted ways for me to go to school, always know that you guys were the best thing that ever happened to me. You changed my life for the better. I promise to always work for those students who feel disenfranchised, unloved, and unwanted by their schools. We made magic together! I love you all.

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## **ABSTRACT**

Students with emotional and behavioral disorders (EBD) have historically faced discouraging outcomes in the four postsecondary outcome areas of employment, education, independent living, and community adjustment. These students usually begin to exhibit behavioral difficulties early in their school careers and typically interrupt and often stop their education at some point prior to or while in high school. Self-determination has become an effective educational tool for students with disabilities, and has been shown to lead to improved postschool outcomes. Students with EBD typically have lower levels of capacity for self-determination skills due to limited opportunities learn and practice self-determined behaviors. It is important to understand how middle school students with EBD view their levels of self-determination and what impact their perceptions have on their school engagement.

The purpose of this study was to describe how the perceived capacity and opportunity scores of middle school students with EBD on the AIR Self-Determination Scale (student version) were related to their grade point averages, school absences, and frequency of school disciplinary encounters. Using a correlational design, linear relationships between the subscale scores of capacity and opportunity on the student version the AIR Self-Determination Scale, were examined in relationship to the school engagement variables of grade point average, school absences, and school disciplinary encounters.

The participants were 36 middle school students, with emotional and behavioral disorders, ranging in age from 11 to 15 years, and 15 teachers who either directly taught students in the classroom or provided resource assistance daily. Data were collected in

the last semester of the 2010-2011 school year using the AIR-S, student, and teacher demographic forms. Three multiple regression models were used to determine the correlational predictive relationships between the subscale scores of Capacity and Opportunity and GPA, Absences, and Discipline. General findings from this study revealed that when combined, higher scores for capacity and opportunity predicted higher student grade point averages, lower student absences, and lower disciplinary encounters for students at school. Additionally, findings demonstrated that increased opportunities at school to learn and practice self-determined behaviors predicted higher GPA's and lower absences, while opportunities at home to learn and practice self-determined behaviors predicted lower frequencies of disciplinary encounters for students at school. Results of this study suggest several major implications for instructional practices at school and home for middle school students with EBD.

## **CHAPTER ONE**

### **Introduction**

“For most youth, life after high school offers an exciting array of promising opportunities and new pursuits—emerging careers, postsecondary learning, community involvement, increasing independence, and new relationships” (Lane & Carter, 2006, p. 66 ). Unfortunately, this statement does not appear to apply to students with emotional disturbances because they generally experience poor postschool outcomes. The interest and research in the area of postschool outcomes for students with disabilities, especially for those with emotional disturbance, has been growing rapidly since the early 1980s (Wood & Cronin, 1999; Gage, Lewis, & Adamson, 2010).

The three national longitudinal studies (National Longitudinal Transition Study-2 (NLTS-2), National Child and Adolescent Treatment Study (NCATS), and the Special Education Elementary Longitudinal Study (SEELS), provide a historical picture of students with emotional and behavioral disorders that depicts little to no improvement in their overall progress in postschool outcome areas over time (Newman, Wagner, Cameto, & Knokey, 2009; Wagner, Newman, Cameto, Garza, & Levine, 2005). This is a fact that is especially disconcerting given the investment of immense resources for studying this group of students and presenting their outcomes on a nation wide level since 1987 (Newman, Wagner, Cameto, Knokey, & Shaver, 2010; Wagner, 1995).

The disaggregation of categorical outcomes for students with disabilities places those who have emotional disturbances lagging behind in almost every area of adulthood (Newman, Wagner, Cameto, & Knokey, 2009; Wagner, 1995; Wagner, Newman, Cameto, & Levine, 2005). Students with emotional disturbance have the lowest graduation rate (Jolivette, Stichter, Nelson, Scott, & Liaupsin, 2000; Kortering, Braziel,

& Tompkins, 2002), highest dropout rate (Greenbaum & Dedrick, 1996; U.S. Department of Education, 2009; Wagner, Newman, & Cameto, 2004), and the highest rates of arrests (Newman et al., 2009). When compared to their peers with learning disabilities or speech impairments, they also have the highest rates of unemployment or underemployment (Lane & Carter, 2006; Zigmond, 2006), and lowest rates of enrollment in postsecondary education (Bradley, Doolittle, & Barolotta, 2008; Clark & Unruh, 2009).

Currently, there are 438,867 students age 6-21 attending the nation's schools under the disability classification of emotional disturbance (U.S. Department of Education, 2009), which is down from 457,731 in the 2005-06 and 463,172 in the 1998-99 school year (Pierangelo & Giuliani, 2004; Turnbull, Turnbull, & Wehmeyer, 2007). Unfortunately, an overview of national education from 1975 to the present does not present a hopeful picture for students with emotional disturbance, which comprises 7% of the population of students with disabilities (U.S. Department of Education, 2009).

### **Statement of the Problem**

Research demonstrates that students who have higher levels of self-determination are more likely than those who have lower levels to achieve favorable postschool outcomes (Wehmeyer & Palmer, 2003; Wehmeyer & Schwartz, 1997). Carter, Lane, Pierson, and Glaeser (2006) investigated the self-determination of adolescents with EBD in comparison to students with learning disabilities. The researchers sought to answer three questions: (a) what were the self-determination prospects of students with EBD, (b) how did their perceptions of capacity and opportunity to engage in self-determined behaviors compare to students with learning disabilities, and (c) to what extent educators, parents, and students shared similar or divergent views of these opportunities?

Carter et al. (2006) found that students with EBD had limited perceived capacity to engage in self-determined behavior, had less knowledge of self-determination in general, and were rated significantly lower on their capacity skills by their teachers. Furthermore, students with EBD identified having very few opportunities and supports at school or home to engage in self-determined behavior when compared to their peers with learning disabilities.

Eisenman (2007) stated that when schools intentionally promoted self-determination they could help students to develop protective developmental assets that could be effective in reducing students' involvement in nonproductive behaviors, thereby increasing their persistence in school, which would then improve their postschool outcomes. Carter et al. (2006) suggested that students with EBD would benefit from curricular attention on explicit self-determination components, such as goal setting, choice making, problem solving, and self-evaluation; however, substantial academic needs, high rates of absenteeism, and behavioral challenges of students with EBD oftentimes prohibited teachers from viewing self-determination instruction as a high priority for this group of students.

“Theory, research, and practice, have suggested that to keep youth in school, educators must encourage students perceived competence and self-determination” (Eisenman, 2007, p. 3). Lehr, Hansen, Sinclair, and Christenson (2003) suggested that schools should develop practices that accurately identify students who are at risk of dropping out of school. Reschly and Christenson (2006) identified students with EBD as those who were in a high-risk category for school dropout. They examined the

engagement of students with learning disabilities and EBD and the association of their engagement to high school dropout after the eighth grade school year.

The results of the study revealed that student engagement factors such as achievement, school attendance, and grade retention emerged as significant predictors for those students who would interrupt their education before entering high school.

Vallerand, Fortier, and Guay (1997), in their test of a motivational model of high school dropouts, found motivation from self-determination to be a key predictor of persistence in school. They posited that students should receive a motivation assessment early in the academic year, as a way to predict their future academic behaviors including inclinations toward dropping out of school.

Gage et al. (2010) found in their examination of the journal *Behavioral Disorders*, that over a 35-year period researchers in the area of emotional and behavioral disorders tended to use assessments such as the IOWA Conners and the Woodcock-Johnson systems as measures of behaviors and academics, but identified no studies using assessments of self-determination or transition. An additional finding within the studies included the heavy concentration on early childhood. Furthermore, they noted that very few studies used regression procedures and instead tended more toward small-n designs. The current gap in the literature represents a potential issue for students with emotional and behavioral disorders, especially those in middle school.

Schloss, Apler, and Jayne (1993) asserted that assessment methods must be directly related to education and training decisions because variables that are relevant to academic subjects, intelligence, or behavioral scales may only indicate immediate educational needs, and are not predictive of long-term functioning. Most of the current



literature assessing self-determination and its immediate or long-term effects has involved students with learning disabilities or those with cognitive impairments, but very little self-determination information exists for students with EBD (Algozzine, Browder, Karvonen, Test, & Wood 2001; Benitez, Lattimore, & Wehmeyer, 2005; Gerber, Ginsberg, & Reiff, 1992; Goldberg, Higgins, Raskind, & Herman, 2003; Raskind, Goldberg, Higgins, & Herman, 1999; Martin et al., 2003). Additionally, there are no studies that directly assess the impact of students' perceptions of their self-determination on identified school engagement factors including grade point average, school absences, and frequency of school disciplinary encounters.

I addressed the gap in the literature by examining the correlational predictive relationships between scores on the AIR Self-Determination Scale and the above mentioned school engagement factors of grade point average, school absences, and frequency of school disciplinary encounters. This study attempted to add to the knowledge base through the identification of an assessment tool that could provide the ability to predict school behaviors of middle school students with EBD prior to entering the period for provision of transition services and before most students with EBD decide to drop out of school.

## **Review of Related Literature**

### **Transition Education**

The release of a federal report to Congress in 1977 demonstrated the barriers many youth with disabilities were facing in their transitions to employment and postsecondary education. Congress promptly responded with subsequent amendments to the Education for All Handicapped Children Act (P.L. 98-199) (EAHCA) in 1983, authorizing funding for research and demonstration projects for transition from schools (Kochhar-Bryant & Greene, 2009). Upon realizing that no single agency had the direct responsibility for collecting data for the postsecondary needs of students with disabilities, Congress also included Section 618 (b)(3) within the same reauthorization, as a method of identifying, at the state level, the number of students who would require continued services upon leaving high school (Cobb & Hasazi, 1987).

In 1985, two seminal follow-up studies tracked the postschool experiences of students with disabilities in Vermont and Colorado, and found interesting patterns of employment, but very limited successful, community adjustment for students with disabilities (Hasazi, Gordon, & Roe, 1985; Mithaug, Horiuchi, & Fanning, 1985). Both studies called for the national tracking of outcomes for students with disabilities on a more frequent basis as a way to improve service delivery. Research in the area of outcomes for students with disabilities was influential in establishing the need for support of these students with their transition to postschool life (Flexer, Simmons, Luft, & Baer, 2005).

**The reauthorization of EAHCA to IDEA.** The reauthorization of the EAHCA (P.L. 99-457) in 1986 provided additional funding specifically targeting the needs of

students with disabilities who were both in and leaving secondary schools. The reauthorized act also encouraged the improvement of vocational and life skills as well as promoted studies for preventing dropout (Berkell & Brown, 1989). The 1990 reauthorization of the Education for all Handicapped Children Act evolved into the Individuals with Disabilities Education Act (P.L. 101-476), now known as IDEA. It was within this reauthorization that transition became a required component of the Individual Education Plan (IEP). Transition was integrated as a coordinated set of activities for all students 16 or younger (Steere, Rose, & Cavaiuolo, 2007).

**The influence of research on policy.** Research tracking the postschool outcomes of students with disabilities began on a national level in 1983 with the commission of the National Longitudinal Study (NLTS) (Blackorby, Edgar, & Kortering, 1991; Wagner, 1995). Following NLTS three additional follow-up studies took place, including the Special Education Elementary Longitudinal Study, the National Transition Longitudinal Study-2, and the National Adolescent and Child Treatment Study (Wagner, Kutash, Duchnowski, & Epstein, 2005). All three studies provided follow-up data for students with disabilities attending secondary school and at least one to five years after leaving school (Greenbaum & Dedrick, 1996; Newman et al., 2009; Wagner, Newman, Cameto, & Levine, 2005).

The data from the first National Longitudinal Study in 1985 were helpful in understanding the outcomes of students with disabilities and influencing national policy (Wagner, Newman, Cameto, Garza et al., 2005). In 1994, the Council for Exceptional Children's (CEC) Division of Career Development and Transition included in their position statement the need to begin services at age 14 (Halpern, 1994). The IDEA

reauthorization of 1997 (P.L. 105-17), while maintaining the original transition language of IDEA 1990, lowered the age requirement for receipt of statements for transition on the IEP from 16 to 14, to increase the amount of planning opportunities for students before exiting school (Kochhar-Bryant & Greene, 2009; Steere et al., 2007).

Key changes in the transition language between IDEA 1997 and the most recent 2004 reauthorization, included the definition of transition services changing from a coordinated set of activities for a student with a disability, to a coordinated set of activities for a child with a disability. The terminology for the type of process changed from an outcome-oriented to a results-oriented process, and the word "strengths" was added in consideration of a student's preferences and interests (Kochhar-Bryant, Shaw, & Izzo, 2007, p. 85). Changes in this reauthorization included (a) the reversal of the requirement age from 14 back to 16 (Kochhar-Bryant & Greene, 2009), (b) the mandate to invite students to the meeting, (c) emphasis placed on including "appropriate and measurable postsecondary goals," and (d) age-appropriate transition assessments were included to provide a baseline (Shaw, 2006, p. 109).

Using the IDEA definition of transition, coupled with the snapshots of national outcomes for students with disabilities, educators have focused their efforts to improve opportunities for students to lead successful postschool lives. The knowledge base for effective transition planning using evidence-based practices presents information for assisting secondary students with disabilities. However, data describing effective-practices for students with EBD remains very limited.

Hasazi, Furney, and Destefano (1996) conducted a multi-state study on the implementation practices of IDEA mandates. Researchers recommended the expansion of

transition options for students with EBD to improve their in-school and postschool outcomes. Furthermore, they suggested that the federal government “play a key role” in focusing research efforts toward these students in the effort to locate promising practices and disseminate them to state and local audiences (Hasazi et al., 1996, p. 564). One promising practice for students with EBD may be to begin transition planning at an earlier point within their school careers.

### **Traditional Outcomes for EBD**

Postschool outcome data for students with emotional and behavioral disabilities depict fluctuating trends across time in their number of successful transitions to adulthood. Early follow-up studies surveying leavers of special education, in two states, found that the greatest areas of concern were postschool employment, postsecondary school enrollment, adult living situations, and social adjustment (Hasazi et al., 1985; Mithaug et al., 1985). Since that time, there have been a number of follow-up studies documenting the outcomes of students leaving special education both on national and regional levels.

The following section presents the findings of two decades of follow-up studies in the four postschool outcome areas. Studies are divided into time periods as a representation of data collection between the years of 1983 and 1990 including NLTS and 2000 to 2005 for three waves of NLTS-2. Currently, there is no additional outcome information available, beyond 2005, using the national sample of students from NLTS-2 (Newman et al., 2010). It is important to note that sample sizes varied for each study therefore, findings here will be presented using ranges. Table 1 presents the comparisons of outcomes for students with EBD across national and regional transitional studies.

**Postschool employment.** Follow-up studies examined postschool employment as working for pay other than around the home, holding a paid position at the point of follow-up, or holding a job continuously or at some point since leaving high school (Newman et al., 2009; Wagner, Newman, Cameto, Garza et al., 2005; Zigmond, 2006). Studies revealed that between the years of 1985 and 1999, youth with EBD had employment rates ranging from 47% to 60% (Blackorby & Wagner, 1996; Edgar & Levine, 1987; Neel, Meadows, Levine, & Edgar, 1988; Sitlington, Frank, & Carson, 1992; Wagner, 1995).

Employment data for these students between the years of 2000 and 2005 revealed that employment decreased by three percentage points from 47% in 1990 to 43.8% in 2003, wave two of NLTS-2 (Wagner, 1995; Newman et al., 2009; Wagner, Newman, Cameto, & Levine, 2005; Zigmond, 2006). Employment remained fairly consistent across three waves of NLTS-2, dropping only to 42.3% by 2005. This is in sharp contrast to the peers of students with emotional and behavioral disabilities in the general population, with employment rates of 62% (Clark & Unruh, 2009).

**Enrollment in postsecondary education.** The NLTS-2 reports that three out of 10 students with disabilities have enrolled in some type of postsecondary education program upon exiting high school (Wagner, Newman, Cameto, Levine, & Garza, 2006). Postsecondary education includes enrollment in a four-year college or university, two-year junior/community college, vocational, business, or technical school. Between the years of 1985 to 1999, the attendance rates in any postsecondary education institution for students with emotional and behavioral disorders were 15% to 25.6% (Blackorby &

Wagner, 1996; Edgar & Levine, 1987; Neel et al., 1988; Sitlington et al., 1992; Wagner, 1995).

Postsecondary education rates between 2000 and 2005 presented a much more discouraging picture. Enrollment rates for students with emotional and behavioral disorders had a five-percentage point decrease from 25.6% in 1990 to 20.8% in 2001 (Wagner, 1995; Wagner, Newman, Cameto, & Levine, 2005). The sharpest drop in percentage points occurred between waves one and two of NLTS-2 when they plummeted to 7% from 20.8% for enrollment (Newman et al., 2009; Wagner, Newman, Cameto, & Levine, 2005). Although there has been some improvement in enrollment in postsecondary education, students with EBD continue to achieve this outcome at far lower rates than students in other disability categories or those without disabilities (Clark & Unruh, 2009).

**Independent living.** Most students with or without disabilities live with family after leaving high school (Newman et al., 2009). For some, independent living status can result in a number of living situations, including college dormitories, military barracks, living with a roommate, incarceration, or homelessness (Wagner, 1995). Findings in the area of independent living during the period of 1985 to 1999, revealed that students with EBD achieved independent living status at rates of 27% to 58% (Edgar & Levine, 1987; Neel et al., 1988; Sitlington et al., 1992). NLTS findings for the national sample of students with emotional and behavioral disorders revealed a 23-percentage point increase in independent living statuses for students from 11.9% in 1987 to 40.2% in 1990 (Blackorby & Wagner, 1996; Wagner, 1995).

Table 1. *Comparison of Outcomes for Students with EBD Across Regional and National Transition Studies*

	Type of Study	Length of Follow-up	Employment (Percent)	Postsecondary Education (Percent)	Independent Living (Percent)	Community Adjustment (Percent)
Edgar & Levine (1987)	Regional	1984-1986	52	23	31	35
Neel, Meadows, Levine, & Edgar (1988)	Regional	1978-1986	60	17	58	31
Sitlington, Frank, & Carson (1992)	Regional	1985-1986	58	15	27	—
Wagner (1995)	NLTS	1985-1990	47.4**	25.6**	40.2**	42.3**
Blackorby & Wagner (1996)	NLTS	1986-1987	40.7*	17.0*	11.9*	—
Wagner, Newman, Cameto, Garza, & Levine (2005)	NLTS-2 Wave 2	2001-2003	43.8	20.8	35	22
Zigmond (2006)	Regional	—	56	48	—	—
Newman, Wagner, Cameto, & Knokey (2009)	NLTS-2 Wave 3	2001-2005	42.3	7	22	46

*Note:* Findings from each research study are presented here as percentages; — = Information that was either unavailable or could not be determined; Regional = Research conducted on students leaving special education in a specific geographic region or state; NLTS= Unpublished report; National Longitudinal Transition Study; 8,000 participants leaving special education from 1985-1987; \* = Subset of NLTS students with EBD who had been out of secondary school for 2 years in 1987; \*\* = Same subset of NLTS students with EBD who had been out of secondary school for 3-5 years in 1990; NLTS-2= National Longitudinal Transition Study-2; Waves 2 and 3 of 5; 11,000 participants leaving special education from 2001-2010



For the years between 2000 and 2005, independent living rates decreased by five-percentage points to 35% in 2003 (Wagner, Newman, Cameto, & Levine, 2005). Independent living rates decreased 13 percentage points to 22% in 2005 (Newman et al., 2009). Clark and Unruh (2009) attributed the decrease in independent living status to national demographic trends for the US population, illustrating that more students, including those with EBD, were remaining in their parents' homes.

**Community/social adjustment.** Halpern (1985) stated that the ability to successfully live and function in the community would significantly influence various aspects of postschool outcomes, including employment; thus, the concept of community adjustment emerged as a significant area of postschool outcomes. Newman et al. (2009) defined community and social adjustment as friendship interactions, participation in community/civic activities, and engagement in the community.

Results from follow-up studies in this area demonstrated rates of community adjustment for students with EBD between the years of 1985 to 1999 at 31% to 42.3%. Students with EBD also had a 41% arrest rate for adults at some point after leaving high school (Edgar & Levine, 1987; Neel et al., 1988; Wagner, 1995). Between 2000 and 2005, there was a 24-percentage point increase in the rates of community adjustment, from 22% in 2003 to 46% in 2005. Rates of arrests for these students also significantly increased to 60% (Newman et al., 2009; Wagner, Newman, Cameto, & Levine, 2005). The rates of arrests and incarcerations were higher for students with EBD than for any other disability group (Wagner, 1995).

**Summary.** Overall, the outcomes for students with EBD are significantly more discouraging than their peers in disability categories such as learning disabilities, speech

impairments or peers without disabilities. Even more discouraging is the fact that students of racially diverse backgrounds, including African American, Native American and Hispanic American, experience poorer transition outcomes than their Euro-American peers (Geenen, Powers, Vasquez, & Bersani, 2003). If the goal of education is to prepare students for life beyond school, then the outcomes for this group of students, suggest that we may still have enormous problems in education. Bradley et al., (2008) suggested that the responsibility for their outcomes expands beyond changing the individual student to examining the environment and the adults that interact with these students.

### **Characteristics of Emotional Disturbance**

In order to understand the outcomes for students with emotional disturbances, it is necessary to first understand their characteristics (Wagner, 1995). The Individuals with Disabilities Education Act, (IDEA) 2004 defined emotional disturbance as:

a condition exhibiting one or more of the following characteristics over a long period of time and to a marked degree that adversely affects a child's educational performance: (a) an inability to learn that cannot be explained by intellectual, sensory, or health factors, (b) an inability to build or maintain relationships with peers and teachers, (c) inappropriate types of behavior or feelings under normal circumstances, (d) a general pervasive mood of unhappiness or depression, (e) a tendency to develop physical symptoms or fears associated with personal or school problems [C.F.R., Title 34, Section 300.8 (c)(4)(i)]

A national profile of students under this definition typically includes those who are male between the ages of 12 and 17, African American, and students from disadvantaged socioeconomic backgrounds (Newman et al., 2009; Wagner, 1995). Students with

emotional disturbance generally demonstrate externalizing or internalizing behaviors that may significantly impede their ability to achieve academically (McLeod & Kaiser, 2004). They are more likely to exhibit behaviors such as distorted thinking, excessive anxiety, and abnormal mood swings and, in more severe, cases psychosis (Pierangelo & Giuliani, 2004).

Emotional disturbance is a federally defined disability category under the IDEA, but is also a category that provides eligibility to receive services under mental health (Burns, 1996). Research in mental health reports 8% to 12% of the student population has an emotional disturbance; however, only 1% of this population has received services in the schools under IDEA (Bateman, 1996; Turnbull et al., 2007; Wagner, 1995; Wagner, Kutash et al., 2005). According to the 28<sup>th</sup> Annual Report to Congress (U.S. Department of Education, 2009), there was an increase in 2004 in the number of students receiving services, increasing to 7% from the traditionally reported 1%. This may have been a result of the issues with the referral process regarding who would qualify under this category (Wagner, 1995).

The category of emotional disturbance does include schizophrenia, but does not include social maladjustment in the definition. However, Cullinan and Sabornie (2004) found in their study of middle and high school students with emotional disturbance they were more likely than their peers without disabilities to display severe social maladjustment. They suggested, because of their findings, that the definition be revised to include both emotional and behavioral traits.

The Council for Exceptional Children preceded this suggestion by adopting the emotional and behavioral disorder terminology as their position in response to the federal

definition. They maintained that a change to the label emotional and behavioral disorder (EBD) would encourage a strengthened relationship between the schools and mental health service providers as it would signal a two-step diagnostic process for referral, as in the case of learning and intellectual disabilities (Council for Children with Behavioral Disorders, 2000). Currently, under the federal definition, students with EBD continue to falter within the service system, as they are unable to receive the full range of services, from social emotional instruction to interagency linkages that may be available to them and thus, continue to endure poor postschool outcomes (Bradley et al., 2008; Burns, 1996; McLeod & Kaiser, 2004).

### **In-School Barriers to Successful Adult Transitions**

School barriers for these students seem to fall within four domains, including behavioral, academic, social, and school personnel. The following section provides a discussion on these barriers in terms of contributing factors within each domain.

**Behavioral barriers.** Bateman (1996), in a survey of teachers in the Midwest, found that one of the greatest concerns teachers had for students with EBD was the under-identification of students at earlier ages. He stated teachers attributed this issue to overlooking various behaviors while students were younger. Research in this area demonstrates a clear and present trajectory of externalizing behaviors including classroom disruption and physical aggression, and internalizing behaviors including depression and antisocial disposition from early in the child's school career. Forness (2003) agreed with this finding, stating that in dealing with EBD, there is an apparent behavioral trajectory that may oftentimes lead to under-identification or misdiagnosis of a learning disability.

McLeod and Kaiser (2004) found that externalizing behaviors in earlier grades were significantly related to the attainment of a high school diploma. Kellam, Ling, Merisca, Hendricks-Brown, and Ialongo (1998) and Montague, Enders, and Castro (2005) established a predictive relationship between behavioral problems of students in elementary school and their behaviors in middle school. According to the Special Education Elementary Longitudinal Study (SEELS) data, students exhibiting such behaviors were more likely to have had issues with a change in the marital status of their parents, most likely live in poverty, have lower social skills, and low parental support within the home. Further, they are significantly more likely to face suspension or expulsion in elementary and middle school (SRI International, 2004).

Classroom environments for students with emotional behavioral disorders become increasingly more complicated as they progress through school (Burns, 1996). Exclusionary practices, such as suspension and expulsion, tend to be the first resort of school personnel in response to behaviors (Kortering et al., 2002; Skiba & Peterson, 2000). Skiba and Peterson (2000) attested that within the past ten years, zero tolerance policies have begun to act in direct conflict with IDEA mandates for students with EBD who are afforded protections under the law. In the 2000-2001 school year, 44% of these students reported suspension or expulsion for their behaviors while in school (Wagner et al., 2004). Achilles, McLaughlin, and Croninger (2007) found the common and disproportionate application of disciplinary actions to certain disability and ethnic groups. All three studies reported that students who were male, African American, and have emotional and behavioral disorders were two to three times more likely than any of their

peers to repeatedly face suspension or expulsion from school (Achilles et al., 2007; Skiba & Peterson, 2000; Wagner et al., 2004).

Wagner et al. (2004) found a strong correlation between school disciplinary actions and the probability of arrest. Adults with EBD who dropped out of secondary school up to two years had a 29% arrest rate (Wagner, Newman, Cameto, Garza et al., 2005). Doren, Bullis, and Benz (1996) examined predictors of postschool arrests and found that early in-school arrests had the most significant relationship to the probability of postschool arrest. Furthermore, they found that students with EBD were 17% more likely to face arrest while in school. The National Adolescent and Child Treatment study reported that at least 67% of the students with EBD in their sample had been in contact with law enforcement during their school career (Greenbaum & Dedrick, 1996). Newman et al. (2009) found that 60% of adults with EBD were also arrested at some point within two years of leaving high school. Under-identification in early grades, suspension or expulsion, and arrests, all seem to correlate to the postschool outcomes of adults with EBD.

**Academic barriers.** Behavioral barriers have a significant impact on school performance and may prohibit academic achievement. Nelson, Benner, Lane, and Smith (2004) identified externalizing behaviors such as, disturbing other people, disrupting class, and delinquent and aggressive behaviors, to be somewhat related to their academic achievement. The researchers, using a cross-sectional sampling approach, examined the academic achievement levels from kindergarten through 12th grade and found students with EBD to have stable reading and written language skills, but found math achievement deficits deepen as grade levels increase. For students with EBD, academic achievement,

though not necessarily a function of their behavior, especially in math, does not appear to improve over time (Greenbaum & Dedrick, 1996; Montague et al., 2005; Nelson et al., 2004).

“It is becoming increasingly clear that an interactive relationship exists between school and student factors and that both components contribute to the dropout phenomenon” (Gajar, Goodman, & McAfee, 1993, p. 110). For example, students with EBD are more likely to have similar levels of academic achievement to their peers with learning disabilities and ADHD in reading, math, and written expression (Bradley et al., 2008; Kortering et al., 2002; Trout, Nordness, Pierce, and Epstein 2003; Wagner, 1995). Wagner, Kutash et al., (2005) reported they have consistently had the lowest grades of any disability category. They were also the most likely to have higher rates of absenteeism (Lane & Carter, 2006; Wagner, 1995; Wagner et al., 2004; Wagner, Kutash et al., 2005) and, as a result, were more likely to face multiple grade retentions (Bradley et al., 2008; Montague et al., 2005). Students with EBD were also more likely to engage in substance abuse (Bradley et al., 2008; Greenbaum & Dedrick, 1996).

Greenbaum and Dedrick (1996) found in their longitudinal study of adolescents and children with EBD, found that there were 15 distinct reasons for dropout, which fell into the three global categories of (a) behavioral (frustration, suspension/expulsion, truancy), (b) programmatic (incarceration, transition from correctional or mental health facility), and (c) situational (employment, parenthood, geographic relocation). For example, Skiba and Peterson (2000) indicated that there was a significant relationship between suspension and dropout, which Greenbaum and Dedrick (1996) classify as behavioral. Dropping out is most often the result of poor academic performance, grade

retention, and absenteeism, coupled with disengagement and apathy toward school (Bateman, 1996; Oswald & Coutinho, 1996; Reschly & Christenson, 2006).

Jolivet et al. (2000) reported academic failure, including lack of basic skills in math and reading, as strong predictors of dropout. Oswald and Coutinho (1996) found within their national sample of students who left high school between the years of 1989 and 1992, that family intactness and school transfers predicted school dropout. The Special Education Elementary Longitudinal Study (SEELS) data confirmed these findings. Students with EBD had high rates of school disengagement, were most likely to have high rates of absenteeism, and had an overall poor academic performance (SRI International, 2004). These students were also more likely to experience a change in their parent's marital status, three times more likely to move to new schools, and were at least one academic year behind their peers. Blackorby et al., (1991) presented encouraging evidence that students with disabilities in school were more likely to interrupt their school years, but return to school to receive their diploma.

The 29<sup>th</sup> Annual Report to Congress revealed that of 47,000 or so students with EBD exiting high school, 40% (18,939) left with a regular diploma, while 48% (22,723) dropped out of school (U.S. Department of Education, 2010). Speculation about these results relates back to arguments surrounding school reform initiatives, which have set the educational course toward academic excellence, most times to the detriment of all students with disabilities and especially those with EBD who continually face academic challenges (Elrod & Lyons, 1987). Kortering et al. (2002) found in their study of youth with EBD who left school between 1997 and 2000 that many students equated a high school diploma with attaining a successful future, but that there were too many barriers



on the path to school completion to receive a diploma. Many of those challenges may have very little to do with academics directly and may have more to do with variables beyond the control of students, such as social and/or emotional behavioral issues that too often result in students being asked to leave school.

**Social barriers.** Cartledge and Talbert-Johnson (1996) stated “aggressive, externalizing children and youth make up the majority of students in programs for students with EBD” (p. 52). Further, they attested that these students present significant differences in adaptive behaviors and, as a result, are subject to classroom removal by their teachers and impaired relationships with their classmates. Students with EBD typically exhibit severe difficulties with adjustment to various environments due to lack of social skills (Lane, Givner, & Pierson, 2004). Schools are responsible for the social integration of students with EBD, but in most cases do not offer social or emotional instruction to their students (Wagner, 1995; Wagner, Kutash et al., 2005; Zigmond, 2006).

Gajar et al. (1993) cautioned that the lack of social skills instruction in schools for all students could likely lead to social rejection of students with disabilities by their peers because of special school placements. Lane and Carter (2006) stated that the absence of social, behavioral, and academic skills could hinder attainment of postschool goals. Carter and Wehby (2003) found in their study of job performances of adolescents with EBD that the lack of social skills exhibited by students resulted in poor ratings by their supervisors. The lack of social skills places students with EBD at risk for pejorative outcomes, including academic underachievement, failed social relationships, and strained relationships with teachers (Lane et al., 2004).

**School personnel barriers.** Students' behavioral problems tend to prevent teachers from delivering academic instruction, resulting in minimal amounts of time spent on academic content (Wehby, Lane, & Falk, 2003). The lack of praise or positive statements, low rates of instructional demands, and high rates of reprimands tend to occur around instances of inappropriate behaviors, causing teachers to suspend instruction and remove the student from the room. Cartledge and Talbert-Johnson (1996) argued teacher attitudes were a significant barrier to classroom adjustment for students with EBD entering general education classrooms. This is especially discouraging as the majority of students with EBD spend more than 80% of their time in general education (U.S. Department of Education, 2009). Research in the area of teacher attitudes points to lack of teacher preparation as a significant influence on attitudes concerning students with EBD. Navigating school environments for students with EBD can be very difficult when teacher attitudes are a barrier.

Labeling of students may play a major role in the perceptions their teachers hold about students' abilities and behaviors (Gajar et al., 1993). Entwisle and Hayduk (1988) argued that labeling is often difficult to overcome for these students as a "paper person" is created that follows the child from grade to grade; therefore, the cumulative records that travel through the child's school career may affect the subsequent teacher's expectations. Many teachers report that their preservice programs did little to prepare them for the multitude of issues surrounding students with EBD, and that their lack of training led to increased negative classroom interactions with these students (Wehby et al., 2003). Bradley et al. (2008) indicated that there are significant issues with recruitment and retention of qualified teachers for students with EBD. Many of the newly hired

teachers have emergency licenses, alternative certifications, and are generally the newest teachers to the building. Teacher attitudes and inadequate preparation for working with students who have EBD seems to pose a significant barrier to student success.

“Childhood problems influence educational outcomes primarily because they are associated with educational failures throughout the elementary, middle school, and high school years” (McLeod & Kaiser, 2004, p.652). Students with EBD, it would seem, begin school with the same hopes and dreams as every other student, but are simply not on the same behavioral trajectory. The in-school and postschool outcomes for students with EBD demonstrate there is much to do to improve their opportunities for a better quality of life. Bradley et al. (2008) stated that for youths who become adults with EBD, their quality of life generally does not get better; therefore, quality of life issues remain a primary goal of effective transition services. Lane and Carter (2006) stated that perhaps teachers are just unsure how to intervene to help with this population of students. Since these students seem to have the most trouble adjusting to school and post school life, Kortering et al. (2002) suggested “the key may be to focus attention on changing how high school teachers and the school setting respond to these youths instead of just trying to ‘fix’ them” (p. 153).

**Summary.** Students with EBD face a number of barriers that severely influence their ability to receive a free and appropriate public education. For example, they are more likely to face suspension or expulsion at a rate of two to three times that of their peers with disabilities or those without disabilities, especially if they are African American (Skiba & Peterson, 2000). They are most likely to have failing grades, and most likely to be in academic settings below their grade level (Greenbaum & Dedrick,

1996), and are most likely to have teachers who lack adequate training (Wehby et al., 2003).

There is a critical need for promising practices in the area of effective transition education and EBD. Nelson et al. (2004) cautioned that without more knowledge in this area, students with EBD would likely have deficits that continued throughout their early school careers and would ultimately make service delivery at the high school level more challenging. Lee, Wehmeyer, Palmer, Williams-Diehm, Davies, and Stock (2010) stated that studies should be conducted that expand to younger students to better examine their trajectories for the development of intraindividual factors and self-determination.

### **Transition Education and Middle School**

“The middle school years represent major transformations in the student and in the educational environment, and expectations and needs of students at this stage are complex” (Kochhar-Bryant & Greene, 2009, p. 55). A number of factors compound these complexities for students with EBD. They are more likely to first experience severe disability-related problems during the adolescent years, which is generally the time they receive referral for evaluation (Carter & Lunsford, 2005; Kortering et al., 2002; Wagner, 1995). Behavioral issues in adolescents are most often the beginning signs of EBD; however, comorbid disorders such as depression or mental illness typically precede this stage of development (Forness, 2003; Greenbaum & Dedrick, 1996).

Given the traditional in-school difficulties and postschool outcomes for students with EBD, it would seem critical to begin transition services for these students as early as possible, as is done currently with early childhood education. Early childhood transition plans are required to assist young children in their transitions at various stages from

infancy to kindergarten (Amos, 2006). Historically, special education legislation, beginning with Education for all Handicapped Children Act in 1975 to the most current version of the IDEA in 2004, has only mandated transition provisions for students in high school (Kochhar-Bryant & Greene, 2009). If it is true that students with EBD display issues early in their school careers that continue through adulthood, why are there no legislative provisions to assist these students with critical transitions while in late elementary or middle school? “Students with emotional disabilities are particularly vulnerable during the transition to middle school” (Kochhar-Bryant & Greene, 2009, p. 57).

By the time students with EBD reach middle school, they become less interested in the process of school and begin to seek out others who exhibit similar attitudes about disengagement (Skiba & Peterson, 2000). Reschly and Christenson (2006) stated that disengagement is a significant predictor of dropout, especially among students with EBD. This fact alone would make them practical candidates for early transition planning, because waiting until age 16 is too late to begin the planning process (Kochhar-Bryant et al., 2007).

Rusch, Hughes, Agran, Martin, & Johnson (2009) suggested the need for new transition bridges, which included holding middle schools accountable for introducing transition practices such as self-directed learning and teaching self-determination skills, which would continue throughout the student’s high school career. Transition for early adolescence should focus on developing youth’s self-knowledge as well as knowledge of the various adult roles that would be compatible with their needs, interests, and preferences (Flexer et al., 2005). They go on to explain that this could eliminate “the

discrepancy between ideal and actual self-perceptions that could later cause frustration and embarrassment and in turn lead to dropout” (Flexer et al., 2005, p. 5).

Failure to address transition education and transition services for youth with disabilities during elementary and middle school years leaves a gap in their development (Amos, 2006). The “concept of a coordinated set of activities” should indicate that transition practices will not only continue throughout the student’s education, but will also systematically integrate instruction on adult outcomes at the appropriate developmental time, which generally occurs during the elementary and middle school years (Amos, 2006, p. 114).

Clark, Carlson, Fisher, and D’Alonzo (1994) addressed the emerging barriers to transition by recommending that transition education begin prior to the student entering secondary school. Recommendations based on results of the national follow-up studies of “special education school leavers” (p. 110), included that “elementary school was the level where the critical foundations for career development and transition skills should be considered as important as basic academic skills” (p. 113). “By starting early in the process to focus on the transition needs and continuing this process through the elementary grades and into high school, we believe fragmentation of services and education would be lessened” (Amos, 2006, p. 118).

### **Self-Determination Emerges in Transition Education**

While pausing to reflect upon current educational efforts, Will (1984) indicated that transition education in secondary school was greatly in need of improvement. She conceptualized effective transition services in special education as leading to higher education, competitive work, and supported employment; however, school completers

continually faced joblessness in association with “social isolation, dependence, poverty, family disruption, behavior disorders, and difficulty establishing a personal adult identity” (Will, 1983, p. 15).

In accordance with this call for improving transition efforts, Mithaug, Martin, and Agran (1987) and others identified the failure of current transition models in describing instructional procedures that would lead to effective programs to assist students with disabilities in adapting to dynamic work, home, and community environments. Students with disabilities need adaptability skills, such as problem-solving, decision-making, independent performance, self-evaluation, and adjustment that would generalize across settings after leaving secondary school. The adaptability skills model laid the foundation for what would soon become known as self-determination skills instruction, a major part of secondary transition education practices (Wehmeyer, Palmer, Agran, Mithaug, & Martin, 2000).

In 1989, the Office of Special Education and Rehabilitation Services issued grants for 26 model demonstration projects to develop self-determination interventions, curricula, and strategies (Field, Hoffman, & Posch, 1997; Field, Martin, Miller, Ward, & Wehmeyer, 1998; Ward, 2005; Ward & Kohler, 1996). The increased interest in self-determination for people with disabilities came as an indirect result of the federal pursuits of OSERS (Ward & Kohler, 1996). Research on self-determination was prompted by the discouraging outcomes for students with disabilities after transitioning from secondary school (Hasazi et al., 1985; Mithaug et al., 1985; Schloss et al., 1993), and resulted in self-determination emerging as a promising practice to meet the need for improved postschool outcomes (Field et al., 1998).

Self-Advocacy and Independent Living movements, in concert with progressive federal special education legislation and research on postschool outcomes, assisted in bringing about the impetus for acceptance of self-determination as an educational outcome (Field & Hoffman, 1994; Field et al., 1998; Shapiro, 1994; Wehmeyer, Agran, & Hughes, 1998). Mithaug et al., (1987) suggested that successful transition to postschool outcomes would require that adolescents assume more prominent roles in creating their Individualized Education Program (IEP), understand their strengths and needs, self-select goals, learn to advocate for themselves, and assess their progress toward completing selected goals. Three years later the reauthorization of the Individuals with Disabilities Education Act in 1990 (P.L. 101-476) introduced the mandate to include a statement of transition needs for students age 16 and older on their IEP (Field & Hoffman, 1994; Flexer et al., 2005; Martin, Huber-Marshall, & Maxson, 1993; Spencer & Sands, 1999).

This reauthorization was the first time that schools had to legally include students in the process of planning for their future and the activities recorded in the IEP had to resemble students' needs, preferences and interests (Field & Hoffman, 2002; Martin et al., 1993; Wehmeyer, Agran, & Hughes, 2000). Field and Hoffman (2002) state that the intentions of the IDEA 1990 were to place the student directly in the center of the planning process. Although there were slight changes in both the IDEA 1997 and 2004, including fluctuation in the age requirement from 14 to 16, these reauthorizations maintained the requirement for students to have an active voice in their IEP planning (Eisenman & Chamberlin, 2001; Snyder, 2002).



The amendments of the Rehabilitation Act in 1992 were also clearly in support of self-determination as a necessary component of the human experience, stating that individuals with disabilities had the right to enjoy self-determination (Field & Hoffman, 1994). Self-determination has become a significant part of transition as it promotes effective and evidenced-based practices for use as transition tools (Wehmeyer et al., 2000). In a position statement for the Council for Exceptional Children's Division of Career Development and Transition, Halpern (1994) stated, "if the transition process is to be successful, it must begin with helping students to gain a sense of empowerment with respect to their own transition planning" (p. 118).

### **What is Self-Determination?**

"Self-determination philosophy is embraced by many human rights groups and is based on core social values of personal freedom, choice, responsibility, equal access, and support" (Kochhar-Bryant & Greene, 2009, p. 86). Self-determination is both sociopolitical and psychological in nature (Mithaug, 2003). There are two very distinct, yet intricately entwined schools of thought for the concept of self-determination. On the one hand, self-determination has its foundation in intrinsic motivation (Ryan & Deci, 2000) and on the other, self-determination calls to action the universality of the desire for control over one's life, and the empowerment to acquire such control (Wehmeyer, 2003).

Martin, Mithaug, Oliphint, Husch, and Frasier (2002) asserted that self-determination empowered people in society to take control of the issues that may affect their lives so that they could direct their futures. Self-determined people are the causal agents in their lives, acting volitionally and intentionally to produce desired effects, to either maintain or improve their quality of life (Wehmeyer & Field, 2007). Mithaug

(2005) added that being self-determined was more than volitional action; it was the amount of choices made available to make pursuits of self-interest more or less optimal for individuals.

Abery and Stancliffe (2003) stated that it was possible to view self-determination as the intersection of the amount of control one desired, the extent to which they were free to exercise that control, and the amount of importance they ascribed to the situations in their lives where they had to exercise control. Wehmeyer (2003) cautioned that there are several common misperceptions arising from the various conceptualizations of self-determination, including self-determination means having total control over one's life, only concerns making choices, and is simply planning for the individual or providing a service.

Schloss et al. (1993) defined self-determination as having “the personal ability to consider options and make appropriate choices regarding residential life, work, and leisure time” (p. 215). Field and Hoffman (1994) defined self-determination as ‘the ability to define and achieve goals based on a foundation of knowing and valuing oneself’ (p.164). Using a combined definition, Field et al. (1998) defined self-determination as:

a combination of skills, knowledge, and beliefs that enable a person to engage in goal-directed, self-regulated, autonomous behavior. An understanding of one's strengths and limitations together with a belief in oneself as capable and effective are essential to self-determination. When acting on the basis of these skills and attitudes, individuals have greater ability to take control of their lives and assume the role of successful adults. (p. 2)

Wehmeyer et al. (1998) attested that self-determination is actually a lifelong learning process that must begin when children are very young and span across a student's educational experience.

**Self-determination instructional components.** Ward and Kohler (1996) found in their review of the self-determination-based model demonstration projects that most efforts focused on the skills of decision-making, goal setting, self-awareness, and self-advocacy. Using a meta-analysis of 51 self-determination interventions, Algozzine et al. (2001) found self-advocacy and choice making to be among the most widely used interventions for students with disabilities, including those with emotional and behavioral disorders.

Abery and Stancliffe (2003) identified three distinct personal domains in association with self-determination that included skills, knowledge, and attitudes and beliefs. Additionally, they recognized eight skill areas which are “particularly supportive” of self-determination: (a) goal setting skills, (b) decision-making abilities, (c) self-regulation capacities, (d) interpersonal problem-solving abilities, (e) personal advocacy skills, (f) communication capacities, (g) social skills, and (h) independent living abilities (p. 53). Wehmeyer and Field (2007) listed problem-solving, decision-making, goal setting, choice making, self-advocacy, self-awareness, and self-regulation as the most commonly studied components of self-determination. Research surrounding many of these components has proven to not only enhance the opportunities for improved quality of life, but has also demonstrated their importance to transition education (Martin, Oliphant, & Weisenstein, 1994).

**The evolution of self-determination instruction.** Self-determination is more about empowering people with disabilities, regardless of the severity, through the provision of skills instruction and opportunities to practice choice and decision-making to obtain their desired outcomes (Ward, 2005). Early advances in self-determination, including the Adaptability Model (Mithaug et al. 1987), which serves as the foundation for instructional models in transition education, began forging the way to fulfill the needs of students with disabilities. The purpose of the Adaptability Model was to teach generic adaptability skills, enhance self-direction, and teach goal setting and adjustment skills in classrooms, community sites, and work settings (Mithaug et al., 1987). This model focused on problem solving and adjustment and established the foundation that self-determination built upon by adding additional self-management and self-advocacy skills (Mithaug, Wehmeyer, Agran, Martin, & Palmer, 1998).

Martin et al. (1993) argued that many students in special education were not receiving opportunities to learn how to plan and manage their lives and should therefore learn to self-direct their IEP meetings, because self-management of the process would provide opportunities for student planning and self-advocacy. Field and Hoffman (1994) developed a model of self-determination to assist in guiding the development of strategies and materials and promoting knowledge, skills, and values that would lead to self-determination. They posited that students, based on a foundation of knowing and valuing themselves, should be taught to plan, act, experience outcomes, and learn from their experiences in order to adjust in various settings.

Contributions by Martin and Huber-Marshall (1995) in their self-determination curriculum set the foundation for additional models, using seven constructs, including

self-advocacy, self-awareness, self-efficacy, decision making, independent performance, self-evaluation, and adjustment. Serna and Lau-Smith (1995) proposed the Learning with a Purpose model for students who were at risk for school and community failure, suggesting that by teaching personal awareness of self, students would learn to set goals, make choices, advocate at appropriate times, and exercise social skills to become productive members of their community.

In their introduction of the Self-determined Learning Model of Instruction (SDLMI), Mithaug and his colleagues (1998) stated that students with disabilities had to learn more than the ability to adapt; they had to learn self-determined behaviors. They asserted that the SDLMI was a variant of the self-regulation process and identified problem-solving activities, including what goals to set, what plans to construct, and what behaviors to adjust, that students would need to participate in student-directed learning. Test, Fowler, Wood, Brewer, and Eddy (2005) examined self-advocacy as a building block to self-determination and successful transition. Using an extensive literature review process, they were able to create a conceptual framework of self-advocacy to guide teachers, families, students, administrators, and other researchers in developing effective instructional strategies and evaluations in self-advocacy. Each of these models made a significant contribution to self-determination practices with much of the research seemingly focused on self-direction of the learning process.

**Self-determination as an evidenced-based practice.** The components of self-determination and the instructional models establish a foundation for teaching and learning self-determination skills that are critical to successful transition to adulthood. Follow-up studies tracking the outcomes of school leavers with disabilities continually

demonstrate that higher levels of self-determination lead to improved postschool outcomes (Wehmeyer & Palmer, 2003).

Wehmeyer and Lawrence (1995) provided 53 students with various disabilities, including emotional disorders, training in student-involved self-directed transition planning using the *Whose Future is it Anyway?* curriculum. They measured students' self-determination and perceptions about their abilities to participate in the planning process using the ARC Self-Determination Scale. Although there were many limitations to the study Wehmeyer and Lawrence (1995) found that the practice of student-directed transition planning, when influenced by higher self-determination, was both beneficial and achievable for students with disabilities.

Wehmeyer and Schwartz (1997) found in their follow-up study of students one year after graduation from secondary school that those who had higher levels of self-determination were more likely to have achieved positive postschool employment outcomes, including receiving higher wages and benefits over their peers with less self-determination. Similarly, in a follow-up study tracking the outcomes of school leavers with cognitive disabilities three years after leaving school Wehmeyer and Palmer (2003) found that students who were more self-determined continued to achieve better outcomes in multiple life categories, including employment, financial independence, residential status, and access to employment benefits.

To further establish self-determination as an evidenced-based practice, Algozzine et al. (2001) conducted a meta-analysis of 51 self-determination interventions, they found “only 22 of these studies amenable to meta-analysis” and divided them into group design and single-subject analysis groups (p. 266). Their findings revealed that group studies on

teaching various components of self-determination to students with disabilities yielded moderate effect sizes of .60 and single-subject designs teaching one self-determination component to students with disabilities yielded strong effects with a percent of non-overlapping data (PND) at 95%.

Although the studies included in the meta-analysis demonstrated moderate to strong effect sizes, Algozzine et al. (2001) suggested that future research continue to focus on increasing the variety of self-determination interventions through the use of comprehensive self-determination curricula. The following section presents a brief review of studies, focused on self-determination constructs that further lend themselves to the establishment of teaching self-determination skills as an evidenced-based practice.

**Studies on self-determination constructs.** Van Reusen and Bos (1994), in one of the earliest efficacy studies, evaluated the effectiveness of teaching 21 students with learning disabilities to participate in their IEP planning using a five-step process. Results indicated that when providing students a tool for identifying and organizing information for the IEP conference, they would generate more goals and information about future pursuits.

Abery (1995) examined a multi-component program for enhancing self-determination opportunities for 18 students with intellectual disabilities and their parents. He stated there was a lack of conceptual frameworks to guide the curriculum development of instructional goals, objectives, and activities, for providing opportunities for students to practice self-determined behaviors at school and in the home. Following a seven-month period of instruction, students in the study demonstrated enhanced choice-making, interpersonal problem solving, self-regulation, and personal advocacy skills.

German, Martin, Huber-Marshall, and Sale (2000) found that using self-determination curricula to teach students with mild to moderate intellectual disabilities to plan, act, evaluate, and adjust would improve their ability to set and attain their IEP goals. Wehmeyer, Palmer et al. (2000) in their field test of the Self-determined Learning Model of Instruction found that when teachers used the model to teach 40 students to solve a sequence of problems toward constructing a means-end chain, that 80% of the students made progress toward their goals and 55% achieved or exceeded the goals they set.

Zhang (2001) investigated the effect of the *Next S.T.E.P.* instructional curriculum on the self-determination skills of 71 high school students with learning disabilities. He found the curriculum could improve students' general capacity for self-determination through teaching self-evaluation, goal setting, achievement, and planning for the future. Martin et al. (2003) conducted an investigation to determine whether self-determination contracts would help eight, early adolescent males with severe behavioral disorders, to plan, work, evaluate, and adjust their academic performances. They found that by using detailed adjustment instruction, students would use their contracts to self-direct completion of their independent work. Furthermore, they stated that when students received optimal choices about their learning goals, they would regulate their behaviors to adjust to changing demands.

Benitez et al. (2005) examined the effectiveness of the Self-determined Career Development Model (SDCDM) on five youth with emotional and behavioral disorders. The researchers taught them to self-direct problem-solving processes, enabling them to set employment goals, plan toward goal attainment, evaluate their progress, and adjust



their plans if necessary. Findings revealed great variability in student responses to the intervention, but all participants demonstrated improvement in their self-determined behaviors over time.

According to the literature, the most important methods for increasing self-determined behaviors occurs when providing students with disabilities choices about learning, frequent opportunities to exercise those choices, and support for adjustment after experiencing the outcomes of their choices (Cosden, Gannon, & Haring, 1995; Dunlap et al., 1994; Kern, Bambara, & Fogt, 2002). The multiple benefits of transition would increase by providing opportunities to enhance the capacity for self-determination and allowing youth to express their preferences and make choices in their educational planning (Wehmeyer & Field, 2007).

Participation in the IEP process is an evidenced-based practice that engages students with disabilities in meaningful and effective transition education activities (Arndt, Konrad, & Test, 2006; Martin, Huber-Marshall, & Sale, 2004; Martin, Van Dycke, Christensen, Greene, & Gardner, 2006; Snyder & Shapiro, 1997). Allen, Smith, Test, Flowers, and Wood (2001) evaluated the effects of teaching a modified version of the SD-IEP to four students with moderate intellectual disabilities. They found statistically significant pre to post skill increases, indicating that students were able to generalize what they learned during the five mock IEP meetings to real IEP meetings. Snyder (2002) examined the effects of the SD-IEP program on five students with a combined diagnosis of intellectual disability and behavioral disorders. His findings demonstrated that students could manage their IEP meetings under actual IEP meeting conditions and develop self-advocacy skills, a self-awareness of their strengths and

needs, show improvement in the ability to self-monitor, and work toward improving self-regulation of academic and behavioral goals. Multiple studies of student participation in the IEP process reveal there is much more work to do to increase the opportunities of students to assume greater roles in learning self-determination skills (Martin, Van Dyke, Greene et al., 2006; Test et al., 2005). Pierson, Carter, Lane, and Glaeser (2008) stated:

Although self-determination has clear implications for transition planning, its relevance is far broader than this annual planning meeting. The ability of youth to make sound choices, work toward self-selected goals, solve unexpected problems, recognize and communicate their strengths, advocate for needed services and supports, and self-assess their progress can indirectly influence their engagement and success in school, as well as the outcomes that they later achieve. (p. 115)

The current literature addresses self-determination as a way to provide instructional aims toward transition practices; however, very few studies address using self-determination as an assessment to gauge the correlational predictive relationships between self-determination and other factors such as grade point average, discipline records, and school attendance for students with emotional and behavioral disorders.

**Summary.** The acquisition of self-determination skills has become a critical part of the transition process for students in special education (Trainor, 2005). Self-determination skills are a necessary part of the transition process; however, limited opportunities to practice these skills, in a supportive learning environment may contribute to disappointing outcomes for students with EBD (Carter et al., 2006). In 2006, 50% of students with EBD were receiving their education in special classes, special schools, and residential facilities (Turnbull et al., 2007). Recent data illustrates a change in educational

placement for these students with more than 81% receiving services in general education classrooms for more than 40% of their day (U.S. Department of Education, 2009). “There is evidence that general education teachers perceive students with EBD more pejoratively than special education teachers, and their attitudes and accompanying behaviors play a role in the classroom adjustment of these students” (Cartledge & Talbert-Johnson, 1996, p. 52).

Lane et al. (2004) suggested that many students with EBD were unprepared to enter general education classrooms as they lack both the academic and behavioral skills necessary for success and were more likely to endure negative outcomes, such as poor expectations from their teachers and social rejection by peers. Benz, Lindstrom, and Yovanoff (2000) attested that, in order to be successful, adolescents with disabilities, including those at risk for adjustment failures, desperately need a foundation complete with a trusted adult relationship and curricular activities that focus on increasing self-determination skills. Carter et al. (2006) stated that there is a need for continued research to examine how limited self-determination skills continue to contribute to the disappointing outcomes for students with EBD.

### **The Need for Self-determination Assessments**

“Assessment of a student’s self-determination knowledge and skills is essential before and after instruction. The assessment of self-determination skills is complementary to, but distinct from, the assessment of task-related or academic skills” (Sale & Martin, 2004, p. 73). Currently, in the field of special education, there are four commonly used self-determination assessments available. Each measures a distinctly different aspect of self-determination and generally involve a self-report by the students

accompanied by evaluations from their teachers and parents. The following section will briefly discuss these assessments.

**Choicemaker Self-Determination Assessment.** The ChoiceMaker Self-Determination Assessment is a comprehensive curriculum referenced assessment accompanying the ChoiceMaker Self-Determination Curriculum (Martin & Huber-Marshall, 1995). It contains 51 items, used to evaluate both the level of self-determination skills and the opportunities, while in school, to practice these skills for middle and high school students with mild to moderate disabilities. ChoiceMaker is divided into three instructional sections: Choosing Goals, Expressing Goals, and Taking Action. The 51 items on the ChoiceMaker assess areas such as knowledge of rights and goal-setting, expression of transition interests including postschool employment and education, leadership skills, capacity to express level of abilities to others, and the ability to plan, act, evaluate and adjust. Items require the student to answer using a 5-point Likert-type scale.

**Self-Determination Assessment Battery.** The Self-Determination Assessment Battery (Hoffman, Field, & Sawilowsky, 2004) measures cognitive, affective, and behavioral factors related to self-determination. The theory underlying the Self-Determination Assessment Battery comes from five components of Field and Hoffman's (1994) self-determination model including (a) knowing one's self, (b) valuing ones self, (c) planning, (d) acting, and (e) experiencing outcomes and learning. The battery has five instruments including the Self-determination Knowledge Scale, Self-determination Parent Perception Scale, Self-determination Teacher Perception Scale, the Self-determination Observation Checklist, and the Self-determination Student Scale. Each scale provides

feedback on the progress related to students' skills and knowledge of self-determination. The scales contain between 30-92 items and typically require one class period for completion. Hoffman et al., (2004) posited that there are many educational uses for the battery such as a tool for both discussions in educational planning and identifying appropriate educational interventions.

**Arc's Self-Determination Scale.** The ARC's Self-determination Scale (Wehmeyer, 1995a) is a self-reported assessment, for use by students with mild intellectual and learning disabilities. The theoretical framework underlying the scale derives from perceiving self-determination as an educational outcome (Wehmeyer, 1992, 1997). Wehmeyer (1995a) stated that the Arc's Self-determination Scale is a tool for empowerment that would allow individuals with disabilities to (a) evaluate their own beliefs about themselves and their self-determination, (b) work collaboratively with educators and others to identify their areas of strengths and areas in need of improvement relative to their self-determination goals, and (c) evaluate progress in the levels of self-determination over time.

The ARC's Self-Determination Scale provides an overall measure of the self-determination of an individual using four domains including, autonomy, self-regulation, psychological empowerment, and self-realization. The scale has 72 items, divided across the four domains each of which requires a different response action from the consumer. The autonomy section has (32) questions assessing various areas of daily living including self-and family care, self-management, recreation, social, and vocational areas. Responses are recorded using a 4-point Likert-type scale. The self-regulation section requires the user to complete the middle portion (6) scenario statements and answer (3)

open-ended questions related to independent living situations. The psychological empowerment section has (16) self-descriptive questions and the self-realization section has (15) agree/disagree items related to self-knowledge and self-awareness. The educational uses for the Arc's Self-determination Scale include assistance with educational decisions regarding placement, a measure of strengths and areas of improvement, a guide for educational interventions and an evaluation of intervention effectiveness.

**Air Self-Determination Scale.** The AIR Self-determination Scale is a self-reported, criterion-referenced measure of the capacity and opportunity for students with disabilities to understand and engage in self-determined behaviors in various settings (Wolman, Campeau, DuBois, Mithaug, & Stolarski, 1994). The theoretical framework underlying the AIR derives from the belief that self-determination depends on capacity and opportunity to improve one's position in life (Mithaug, 1996). The AIR is for use with students, of school age, both with and without disabilities. There are four versions of the scale, which include a scale for students, written in English and Spanish, a research version, and a version for teachers and parents. Educational uses for the AIR include assessing the skills and behaviors that may allow students to assume more control over their educational paths, achieve maximum independence, and learn to plan for their long-term goals (Wolman et al., 1994; Zarrow Center, n.d., Self-determination assessment tools section, para. 2).

The AIR assesses the perceptions of capacity and opportunity for students with emotional and behavioral disorders to display self-determined behaviors. Mithaug (1996) posited that, within the theory of equal opportunity, that individuals' prospects for self-

determination would decline over time as the individuals' capacity to adjust to circumstances was affected by their perception of opportunities. Mithaug, Campeau, and Wolman (2003) found in their correlational study of self-determination and academic achievement that both were positively correlated, as they were equally a function of the ability to adjust to challenging circumstances for students with disabilities. *Capacity* refers to the ability to adjust based on the learning and development of knowledge, beliefs, and perceptions about individual needs, wants, expectations, choices, and actions, leading to self-determined gains. *Opportunity* refers to the chance to apply knowledge and abilities, within environmental and experiential situations controlled by the student, at home or school to produce wanted gains (Carter et al, 2006; Mithaug et al., 2003; Lee et al., 2010; Sale & Martin, 2004; Wolman et al., 1994). Students with emotional and behavioral disorders were found to have very little capacity for self-determination and even fewer opportunities to acquire and practice these skills in educational settings (Carter et al, 2006).

Shogren et al. (2008) found the AIR Self-determination Scale to be the most appropriate measure for determining the perceptions of capacity and opportunities for students with disabilities. Furthermore they found that selection of an appropriate scale should be directly influenced by the specific information sought. In examining the capacity and opportunity of these students, it may be possible to isolate additional variables, such as grade point average, school attendance, and disciplinary records, which may also be related to students' perceptions of these two constructs.

The purpose of this study was to describe how middle school students with emotional and behavioral disorders capacity and opportunity scores' on the AIR Self-

Determination Scale were related to their GPA, school absences, and frequency of school disciplinary encounters. Results from this study extend the knowledge base by providing a better understanding of the nature of relationships between levels of self-determination and critical school engagement factors such as grade point average, school absences, and frequency of school disciplinary encounters.

### **Research Questions**

The purpose of this study was to examine how middle school students with emotional behavioral disorders scores' on the AIR Self-Determination subscales of capacity and opportunity were related to their GPA, school attendance, and disciplinary record. The general research questions for this study are:

1. How do student perceptions of capacity and opportunity for self-determined pursuits in school relate to their overall grade point average?
2. How do student perceptions of capacity and opportunity for self-determined pursuits in school relate to their school attendance?
3. How do student perceptions of capacity and opportunity for self-determined pursuits in school relate to their school disciplinary record?
4. How do opportunities at home or school for self-determined pursuits relate to overall grade point average, school attendance, and disciplinary record?
5. How do the teaching factors of years of teaching experience or level of teaching degree influence to students' perceptions of capacity and opportunity?



## **CHAPTER TWO**

### **Methodology**

This correlational study explored the relationships between scores on the AIR Self-determination Scale and three in-school variables; (a) grade point average, (b) school absences, and (c) frequency of school disciplinary encounters. There are six general research questions for the study that seek to identify relationships between school experiences for students with EBD and their perceptions of the capacity and opportunities to learn and practice self-determined behaviors. More specifically, I examined how these variables were related and if there were any correlational predictive qualities for the AIR Self-determination Scale. The research questions are listed below:

1. Do higher scores on the Student AIR Self-Determination Scale for capacity and opportunity predict higher grade point averages for middle school students with emotional behavioral disorders?
2. Do higher scores on the Student AIR Self-Determination Scale for capacity and opportunity predict lower school absences for middle school students with emotional behavioral disorders?
3. Do higher scores on the Student AIR Self-Determination Scale for capacity and opportunity predict lower disciplinary encounters for middle school students with emotional behavioral disorders?
4. Is there a relationship between opportunities provided at home and opportunities provided in school and grade point averages, school attendance, or disciplinary records of middle school students with emotional and behavioral disorders?

5. Does the number of years of teaching experience influence the perceptions of capacity and opportunity, for self-determination, of middle school students with emotional and behavioral disorders?
6. Does the type or level of teaching degree influence the perceptions of capacity and opportunity, for self-determination, of middle school students with emotional and behavioral disorders?

## **Participants**

**Recruitment procedures.** The study had two rounds of recruitment. The first round of the recruitment process began with phone calls, emails, and in-person visits to prospective middle school principals, teachers, and personnel in school districts across Oklahoma. Each of the principals contacted received a follow-up email including a recruitment letter detailing the purpose and background of the study. In some cases, additional steps were taken to submit formal proposals for district-level research committee approval. Due to the limited setting parameters for this study only half of the school districts within a 100-mile radius were contacted.

Initial recruitment efforts yielded 17 districts that had middle school students with emotional and behavioral disorders. The selection criteria for participants included middle school students, in grades six through eight who were served by the school under the disability category of emotional disturbance. Participants could have a comorbid disability listed as their secondary impairment if it did not significantly impair their ability to participate in the study.

After four of the 17 districts agreed to participate in the study, I met individually with appointed school personnel to discuss the structure of conducting research within

their school systems. Two of the participating districts, one rural and one urban, did not allow direct contact between outside parties and their students and teachers. Thus, district liaisons were appointed to work with me. In one district, a transition coordinator and in the other the director of special services were appointed as the liaisons for the middle schools in the district. The liaisons identified a total of six middle schools eligible for participant recruitment because each of the schools served students with emotional and behavioral disorders. The rural district had one middle school serving 10 students and the urban district had five middle schools serving 45 students in the target student population. Of the five schools in the urban district, four actually participated in the study.

In the other two districts, both the suburban and second urban district, I received approval to contact the principals directly to begin the second round of recruitment at the school level. The suburban district had four middle schools, with only one principal agreeing to participate in the study and the second urban district had 13 middle schools with six principals agreeing to participate. The suburban school served five students in the target population and collectively the six schools in the urban district had 68 students eligible for participation.

At the end of the two rounds of recruitment, 12 schools and a total of 128 students were eligible for participation in the study. At the end of the data collection process, one school from the first urban district and two schools from the second urban district opted not to participate in the study, due to the time constraints of state testing, reducing the number of eligible students to 98 at 10 schools. Additionally, 62 students in the study did not complete the instruments due to suspension from school ( $n = 48, 77.4\%$ ), or failure to

obtain parental consent (n = 14, 22.6%). This left a total of 36 participants who fully completed the data collection instruments.

**Student participants.** The characteristics of the participating students are provided in Table 2. The participants in the study were 36 middle school students ranging in age from 11 to 15 years. The majority of the students in the sample (n = 30) attended schools located in the two urban districts (83%), two attended school in the suburban district (6%), and four attended school in the rural district (11%).

Table 2. *Demographics of Participating Students*

	n	%
Gender		
Male	29	80.6
Female	7	19.4
Age		
Mean	13	
SD	1.17	
Grade		
6 <sup>th</sup>	16	44.4
7 <sup>th</sup>	9	25.0
8 <sup>th</sup>	11	30.6
Race/Ethnicity		
American Indian	3	8.3
Black/African American	7	19.4
Hispanic/Latino/Spanish	4	11.1
Mexican/Mexican American	2	5.6
White/Caucasian	13	36.1
Bi-Racial	3	8.3
Tri-Racial	3	8.3
Other	1	2.8
Free/Reduced Lunch		
Yes	31	86.1
No	3	8.3
Disability		
Emotional Disturbance	36	100.0

The sample consisted of 29 males (80.6%) and seven females (19.4%) in grades six, seven, and eight. American Indians constituted 8.3% of the sample, while 19.4% were African American, 11.1% were Hispanic/Latino/Spanish, 5.6% were Mexican or

Mexican American, and 36.1% were Caucasians. Additional students in the sample identified themselves as bi-racial (8.3%), multi-racial (8.3%), or other (2.8%). The race and ethnicity of the students in the sample was representative of the student populations from each of the participating districts and was fairly consistent when compared to the national percentages of students served under this disability category (U.S. Department of Education, 2010). More than 90% of the participating students were eligible for free or reduced lunch. All student participants in the study were served under the disability category of emotional disturbance. Teachers provided demographic information about themselves and for the participating students.

**Teacher participants.** The sample consisted of 15 teachers who either taught students directly or had very close working relationships with the students and knew them well enough to provide the necessary demographic information. The characteristics of teacher participants are provided in Table 3.

Table 3. *Demographics of Participating Teachers*

	n	%
Years Teaching		
Mean	12.74	
SD	10.19	
Degree		
Bachelors	9	64.0
Masters	5	36.0

Principals were asked to recommend teachers who had the best relationships with the students participating in the study. There were 14 classroom teachers and one resource room teacher who provided information for their students. The majority of the teachers in the sampler were female. Of the 15 teachers in the sample nine had bachelor's

degrees (60.0%), five held masters degrees (33.3%), and one (6.7) did not declare their type of degree. The years of teaching ranged from 0 – 34 years with a mean of 13 years.

## Settings

Information provided in this section has been de-identified and altered to maintain the confidentiality for each school district and school that participated in this study. Data for this study were collected from 10 schools in four school districts in Oklahoma.

Table 4. *Demographics of Participating Districts*

	Freedom	Liberty	Independence	Autonomy
	%	%	%	%
Race/Ethnicity				
Caucasian	48	73	21	30
African American	31	7	30	2
Asian	3	4	3	1
Hispanic	6	8	41	12
Native American	12	8	5	55
Poverty Average	12	18	24	32
Free/Reduced Lunch	64	41.9	84	70.3
% Special Education Services	14	16	12	15.4

**District settings.** The urban Freedom district consisted of a total of 26 schools with four of the five middle schools participating in the study. The racial and ethnic make-up of the district for the 2010 academic year was 48% Caucasian, 31% African American, 3% Asian, 6% Hispanic, and 12% Native American. Twelve percent of the student population was at or below the poverty average for the state and 64% of the students qualified for free/reduced lunch. The total percentage of students receiving special education services in the Freedom district was 14%. The characteristics of the participating districts are provided in Table 4.

The suburban Liberty district consisted of 22 schools with one of the four middle schools participating in the study. The racial and ethnic make-up of the district for the 2010 school year was 73% Caucasian, 7% African American, 4% Asian, 8% Hispanic, and 8% Native American. Eighteen percent of the student population was at or below the poverty average for the state and 41.9% of the students qualified for free/reduced lunch. The total percentage of students receiving special education services in the Liberty district was 16%.

The urban Independence district was the largest district in the study, with 80 schools and four of the 13 middle schools participating in the study. The racial and ethnic make-up of the district for the 2010 school year was 21% Caucasian, 30% African American, 3% Asian, 41% Hispanic, and 5% Native American. Twenty-four percent of the student population was at or below the poverty average for the state and 84% of the students qualified for free/reduced lunch. The total percentage of students receiving special education services in the Independence district was 12%.

The rural Autonomy district consisted of six schools with one middle school participating in the study. The racial and ethnic make-up of the district for the 2010 school year was 30% Caucasian, 2% African American, 1% Asian, 12% Hispanic, and 55% Native American. Thirty-two percent of the students lived at or below the poverty average for the state and 70.3% of the students qualified for free/reduced lunch. The total percentage of students receiving special education services in the Autonomy district was 15.4%.

Table 5. *Demographics of Participating Schools*

	Banneker		Dubois		Garvey		King		Marshall	
	n	%	n	%	n	%	n	%	n	%
Gender										
Male	290	51.2	365	53.8	413	48.9	255	49.5	356	53.8
Female	276	48.8	313	46.2	431	51.1	260	50.5	306	46.2
Grade										
6 <sup>th</sup>	189	33.4	201	29.6	276	32.7	185	35.9	212	32.0
7 <sup>th</sup>	165	29.2	227	33.5	257	30.5	164	31.8	222	33.5
8 <sup>th</sup>	209	36.9	250	36.9	311	36.8	166	32.2	228	34.4
Free/Reduced Lunch	345	61.0	405	59.7	327	38.7	406	78.8	327	49.4
Race/Ethnicity										
American Indian	70	12.4	90	13.3	147	17.4	76	14.8	62	9.4
Asian American	10	1.8	17	2.5	14	1.7	3	0.6	23	3.5
Black/African American	208	36.7	231	34.1	210	24.9	180	35.0	85	12.8
Hispanic/Latino/Spanish	34	6.0	28	4.1	28	3.3	21	4.1	40	6.0
White/Caucasian	244	43.1	312	46.0	445	52.7	235	45.6	452	68.3
% Special Education		15.1		20.1		10.1		19		17.5
Average Teaching Years	8.7		14.9		17.1		9.4		10.2	

	Truth		Tubman		Washington		Wells		Woodson	
	n	%	n	%	n	%	n	%	n	%
Gender										
Male	412	50.2	211	53.1	324	53.7	272	54.6	432	51.3
Female	406	49.8	186	46.9	279	46.3	226	45.2	410	48.7
Grade										
6 <sup>th</sup>	242	29.5	123	31.0	199	33.0	276	32.7	186	22.1
7 <sup>th</sup>	297	36.2	143	36.0	194	32.2	257	30.5	205	24.3
8 <sup>th</sup>	282	34.3	131	33.0	210	34.8	311	36.8	227	27.0
Free/Reduced Lunch	818	99.6	394	99.2	572	94.9	484	97.2	565	67.1
Race/Ethnicity										
American Indian	58	7.1	14	3.5	45	7.5	35	7.0	423	50.2
Asian American	3	0.4	1	0.3	8	1.3	0	0	9	1.1
Black/African American	72	8.8	316	79.6	197	32.7	39	7.8	23	2.7
Hispanic/Latino/Spanish	572	69.7	15	3.8	195	32.3	352	70.7	103	12.2
White/Caucasian	116	14.1	51	12.8	158	26.2	72	14.5	284	33.7
% Special Education		15.5		23.3		17.4		12.8		14.8
Average Teaching Years	9.3		12.5		14.3		16		10.8	



**School settings.** There were 10 middle schools that participated in this study. The characteristics of all of the participating schools are provided in Table 5. Banneker Middle School had a total student population of 566 students; males (n = 290) and females (n = 276). Thirty-three percent of the student population was in the sixth grade while 29.2% and 36.9% were in the seventh and eighth grades, respectively. More than half of the student population qualified for free/reduced lunch (61%). The racial and ethnic make-up of the school was 12.4% American Indian, 1.8% Asian, 36.7% African American, 6% Hispanic, and 43.1% Caucasian. Fifteen percent of the student population received special education services and the average years of teaching was roughly nine years.

Dubois Middle School had a total student population of 678 students; males (n = 365) and females (n = 313). Thirty percent of the student population was in the sixth grade while 33.5% and 36.9% were in the seventh and eighth grades, respectively. More than half of the student population qualified for free/reduced lunch (59.7%). The racial and ethnic make-up of the school was 13.3% American Indian, 2.5% Asian, 34.1% African American, 4.1% Hispanic, and 46% Caucasian. Roughly 20% of the student population received special education services and the average years of teaching was 15 years.

Garvey Middle School had a total student population of 885 students; males (n = 413) and females (n = 431). Thirty-three percent of the student population was in the sixth grade while 30.5% and 36.8% were in the seventh and eighth grades, respectively. Less than half of the student population qualified for free/reduced lunch (38.7%). The racial and ethnic make-up of the school was 17.4% American Indian,

1.7% Asian, 24.9% African American, 3.3% Hispanic, and 52.7% Caucasian. Ten percent of the student population received special education services and the average years of teaching was 17 years.

King Middle School had a total student population of 515 students; males (n = 255) and females (n = 260). Thirty-six percent of the student population was in the sixth grade while 31.8% and 32.2% were in the seventh and eighth grades respectively. More than three-fourths of the student population qualified for free/reduced lunch (78.8%). The racial and ethnic make-up of the school was 14.8% American Indian, 0.6% Asian, 35% African American, 4.1% Hispanic, and 45.6% Caucasian. Nineteen percent of the student population received special education services and the average years of teaching was nine years.

Marshall Middle School had a total student population of 662 students; males (n = 356) and females (n = 306). Thirty-two percent of the student population was in the sixth grade while 33.5% and 34.4% were in the seventh and eighth grades, respectively. Less than half of the student population qualified for free/reduced lunch (49.4%). The racial and ethnic make-up of the school was 9.4% American Indian, 3.5% Asian, 12.8% African American, 6% Hispanic, and 68.3% Caucasian. About 18% of the student population received special education services and the average years of teaching was 10 years.

Truth Middle School had a total student population of 818 students; males (n = 412) and females (n = 406). Thirty percent of the student population was in the sixth grade while 36.2% and 34.3% were in the seventh and eighth grades respectively. Almost 100% of the student population qualified for free/reduced lunch (99.6%). The

racial and ethnic make-up of the school was 7.1% American Indian, 0.4% Asian, 8.8% African American, 69.7% Hispanic, and 14.1% Caucasian. Roughly 16% of the student population received special education services and the average years of teaching was nine years.

Tubman Middle School had a total student population of 397 students; males (n = 211) and females (n = 186). Thirty-one percent of the student population was in the sixth grade while 36% and 33% were in the seventh and eighth grades, respectively. Almost 100% of the student population qualified for free/reduced lunch (99.2%). The racial and ethnic make-up of the school was 3.5% American Indian, 0.3% Asian, 79.6% African American, 3.8% Hispanic, and 12.8% Caucasian. Twenty-three percent of the student population received special education services and the average years of teaching was about 13 years.

Wells Middle School had a total student population of 498 students; males (n = 272) and females (n = 226). Thirty-three percent of the student population was in the sixth grade while 30.5% and 36.8% were in the seventh and eighth grades respectively. Almost 100% of the student population qualifies for free/reduced lunch (97.2%). The racial and ethnic make-up of the school was 7% American Indian, 0% Asian, 7.8% African American, 70.7% Hispanic, and 14.5% Caucasian. Roughly 13% of the student population received special education services and the average years of teaching was 16 years.

Woodson Middle School had a total student population of 842 students; males (n=432) and females (n=410). Twenty-two percent of the student population was in the sixth grade while 24.3% and 27% were in the seventh and eighth grades, respectively.

More than half of the student population qualified for free/reduced lunch (67.1%). The racial and ethnic make-up of the school was 50.2% American Indian, 1.1% Asian, 2.7% African American, 12.2% Hispanic, and 33.7% Caucasian. About 15 percent of the student population received special education services and the average years of teaching was roughly 11 years.

### **Design**

This correlational study measured the size and direction of the linear relationship between three variables (GPA, Absences, and Discipline) and prediction measures on the AIR Self-Determination Scale – Student Version (Capacity and Opportunity) (Gall, Gall, & Borg, 2003; Mertens, 2005; Tabachnick & Fidell, 2007).

**Regression models.** The three models explored in this study were used to determine the strength of the relationship between each of the in-school variables (GPA, Absences, and Discipline) and the AIR-S subscale scores of capacity and opportunity. The three regression equations are:

1.  $GPA = A + B_1(\text{Capacity}) + B_2(\text{Opportunity})$
2.  $Attendance = A + B_1(\text{Capacity}) + B_2(\text{Opportunity})$
3.  $Discipline = A + B_1(\text{Capacity}) + B_2(\text{Opportunity})$

where A equals the intercept of all independent values equaled to zero and B equals the regression coefficients assigned to the independent variables of capacity and opportunity.

### **Criterion Variables**

**In-school variables.** There were three in-school variables for which teachers provided data using student demographic forms: grade point average (GPA), absences,

and disciplinary encounters. Information for each of the variables was collected at the end of the school year (See Appendix A).

- *Grade point average:* Jessor, Den-Bos, Vanderryn, Costa, and Turbin (1995) found that low grade point averages suggests a detachment from school, which may lead to school interruptions such as dropout or grade retention. Students with emotional and behavioral disorders are the most likely to experience grade retention during their time in school (Bradley et al., 2008; Kortering et al., 2002; Wagner, 1995). Similar to what others researchers have done (Altschul, Oyserman, & Bybee, 2006; Hallfors, Vevea, Iritani, Cho, Khatapoush, & Saxe, 2002), I operationalized the grade point average (GPA) variable as the cumulative score of grades received from all courses during the most recent school year.
- *Number of school absences:* Dropping out is most often the result of poor academic performance, grade retention, and absenteeism coupled with disengagement and apathy toward school (Bateman, 1996; Carter et al., 2006; Oswald & Coutinho, 1996; Reschly & Christenson, 2006). Students with emotional and behavioral disorders were found to have higher rates of absenteeism contributing to their school disengagement and to the inability of school staff to provide services (Pierson et al., 2008). I operationalized the school absences (Absences) variable as the number of days a student was absent from school during the 2010-2011 academic year.
- *Frequency of disciplinary encounters:* Exclusionary practices, such as suspension and expulsion, tend to be the first resort of school personnel in

response to behaviors by students with a history of being labeled emotionally disordered (Kortering et al., 2002; Skiba & Peterson, 2000). Bradley et al. (2008) reported that students with emotional and behavioral disorders were subject to the same disciplinary policies as their peers without disabilities regardless of their disability status and protections under IDEA. I operationalized the disciplinary encounters (Discipline) variable as the number of times a student received disciplinary actions, within the past academic year, such as lunch detention, after school detention, office referral, or in-school or out-of-school suspension.

### **AIR Self-Determination Student Scale**

**AIR student scale.** The AIR Self-Determination Scale – Student Version (Wolman et al., 1994) served as the independent variable. The AIR provides an assessment of students' levels of self-determination, identifies areas of strengths and those needing improvement, assists in identifying educational goals and objectives, and provides information for developing strategies to increase students' capacity and opportunities to acquire self-determination skills at school and at home. The scale was designed for use with all school-aged students with and without disabilities. The AIR features three representative components of self-determination: *thinking* (identifying and expressing needs, setting expectations and goals to meet needs), *doing* (making choices and plans to meet goals and expectations, taking actions), and *adjusting* (evaluation, altering plans to meet goals more effectively). Each of these components relates to the constructs of capacity and opportunity measured by the AIR. The constructs of capacity and opportunity are further defined below:

- *Capacity-Ability* refers to knowledge of skills required to perform the specific steps to identify one's own interests and needs and then satisfy them using self-determined behaviors.
- *Capacity-Knowledge* refers to the level of understanding a student has about self-determination.
- *Capacity-Perceptions* refers to the feelings or confidence an individual has to act without the influence of others to accomplish goals.
- *Opportunity-School/Home* refers to resources and opportunities within supportive school or home environments that enable students to become self-determined.

**Organization of the scales.** There are currently four forms of the AIR Self-determination Scale: the Educator (AIR-E), the Student (AIR-S), the Parent (AIR-P) and a research scale. I only used the AIR-Student scale in this study because I was primarily interested in student perceptions. This is a self-report measure of student perceptions of the capacity and opportunity for self-determination at home and school. The independent variables relate to controllable aspects of a students' education and I am generally hypothesizing that the scores obtained from the scale will provide information as to how students' perceptions of these two constructs, predicted their performance on GPA, Absences, and Discipline.

There are 24 items on the AIR-S answered using a 5-point scale (Never, Almost Never, Sometimes, Almost Always, Always). Each section has six items producing two subscale scores, one for capacity and the other for opportunity. The capacity subscale relates to questions pertaining to what the student does to promote

their self-determination (Things I Do) and how they feel when they perform these skills (How I Feel). The opportunity subscale examines the perceptions of the student in relation to performance of self-determined behaviors at school and home (What Happens in School, What Happens at Home). Each of the subscale scores combines to form an overall score, which indicates the level of students' self-determination.

**AIR reliability and validity.** Wolman et al. (1994) field-tested the AIR-E and AIR-S in 70 different educational sites in both California and New York, using 450 students with and without disabilities. The field-test version of the AIR-E proved to have adequate reliability after an analysis using alternative-item correlation producing coefficients ranging from .91 to .98; a split-half test of internal consistency, yielding a correlation of .95; and a test-retest of consistency over a period of three months producing a correlation of .74 (Mithaug et al., 2003). A factor analysis of the AIR-E yielded results of consistency with the conceptual structure of the scale assessing capacity and opportunity (Wolman et al., 1994).

Shogren et al. (2008) found that the AIR-S to have a strong relationship between capacity and opportunity, thus making the AIR-S a valid tool for use when measuring perceptions of capacity and opportunity (Cronbach's  $\alpha = .92$ ). Furthermore, they posited that the AIR-S may measure the precursors for developing the essential characteristics of self-determination. For this study, reliability analyses using Cronbach's alpha were conducted for the individual subscales of capacity ( $\alpha = .83$ ) and opportunity ( $\alpha = .89$ ). The overall alpha score found for this study using the AIR-S (Cronbach's  $\alpha = .923$ ) was consistent with the Shogren et al.'s (2008) findings.



## **Procedures**

Data were collected from the participating students and teachers using three methods (a) collection by school liaison, (b) collection by special education coordinator, and (c) direct collection from students. Due to the schedule for school end-of-year, I made arrangements in advance of the distribution of the research materials for collection near the end of the school year, but prior to dismissing for the summer.

**Autonomy and Freedom school districts.** In these two districts data was collected from students and teachers by the school liaisons. First, after obtaining approval from the districts, I met with the director of special services of the Autonomy district and the transition coordinator of the Freedom district to discuss the research protocols. In keeping with districts' policies, all research packets were distributed to the both liaisons along with detailed instructions. Research packets included all parent, student, and teacher consent forms, along with the student and teacher demographic forms and the AIR-S. The student demographic form collected information on the students' age, grade, gender, and race/ethnicity. The teacher demographic form collected information on the students' length of time in their class, total number of absences, grade point average, eligibility for free/reduced lunch, and total number of disciplinary encounters (See Appendix A for copies of these forms).

Teachers were also provided an additional demographic form, which asked for their number of years teaching and highest degree. Materials were collected on the last day of school from the Freedom district as each participating school had returned all the materials, used and unused, to the transition coordinator prior to this day. The

special services director placed the instruments into a secure envelope and mailed them back to me one week after her middle school closed for summer vacation. Of the possible 55 student participants in these two districts, the recruitment procedures yielded the return of 14 completed student research packets. There were eight teachers who completed demographic forms from these two districts.

**Liberty school district.** Data were collected from the participating school in this district by the special education coordinator within the school. After obtaining district approval from Liberty school district, I met with the special education coordinator and a school principal to discuss the possibility of recruitment of students within the school. The special education coordinator identified several students who met the criteria based on the current enrollment in the school and agreed to recruit the students, as they were each in his class during the day. This method of recruitment was also used to ensure that the policies of the school concerning outside contact with students were followed. The policies of the school required limited contact between outside parties and students with disabilities; however, I was able to speak with teachers who could identify and work with students and parents. I provided parent, student, and teacher consent forms to the special education coordinator. Once all parties signed consents, I distributed two sets of data collection instruments and collected them again on the last day of school. Of the possible five students, recruitment procedures yielded the return of two completed student research packets. The other three students did not complete the AIR-S student assessment or demographic forms due to lack of parental consent for participation. There was only

one teacher, the special education coordinator who was also the resource room teacher for all of the eligible students, who completed the teacher demographic form.

**Independence school district.** Data were collected from the participating schools in the Independence district using direct participant collection. After obtaining permission from six building principals, I met with three of the special education coordinators and three self-contained classroom teachers, at their respective schools, to discuss research protocols. According to the school principals, two of the six schools decided not to participate in the study due to time constraints caused by end-of-the-year state testing. In four schools I assisted the teacher in the classroom recruitment of students by providing students with a question and answer session about the purpose of the study. After each session, I distributed the parent consent forms to each of the students and asked the teachers to inform me once they began collecting signed parent consent forms. I made several trips to the schools during this time to redistribute the parent consent forms and to answer student and parent questions. Students and parents had questions about the depth of personal information required by the instruments and how the information would be kept private.

After distributing the data collection materials at each school, I frequently visited the school sites to ensure the integrity of the instrument administration. Due to the volatile nature of students with emotional and behavioral disorders, several of the students were only sporadically available to complete the instrument due to behavior and resulting disciplinary action, such as being suspended from school. Schools in the district concluded at various times over a two-week period, therefore, collection of the research materials was staggered. Of the possible 66 students with EBD available,

recruitment procedures yielded the return of 20 completed student research packets. There were a total of six teacher participants from this district who completed the teacher demographic forms.

**Summary of recruitment and assessment procedures.** At the end of the data collection process there was a total of 36 completed student research packets and 15 completed teacher demographic forms, from 10 participating schools.

### **Agreement**

When school ended and I had received the completed assessments, I scored the AIR-S and obtained data agreement on scoring the AIR-S and entering the data into the statistical spreadsheet.

**AIR-S scoring agreement.** I scored each AIR-S by hand and then entered the domains and total scores into an SPSS spreadsheet. I then selected another colleague, familiar with the AIR-S, to independently score each AIR-S to check the accuracy of my original scores. This process was done in order to calculate the percentage of scoring agreement to obtain the estimate of the reliability in scoring procedures (Baer, 1977). The independent scorer checked the all of the subscale scores for the capacity and opportunity domains as well as the overall self-determination score. The independent scorer checked each of the 36 AIR-S assessments and found a 100% score agreement in scoring.

**Data entry agreement.** The same individual who checked the AIR-S scoring independently checked the accuracy of the data entered into the SPSS spreadsheet. The independent scorer checked each of the 36 cases and 45 variables entered. The data checked included district and school identification codes, teacher demographic

information for years of teaching experience and type of degree, student demographic information including age, grade, gender, race/ethnicity, length of time in class, number of absences, grade point average, eligibility for free/reduced lunch, and frequency of disciplinary encounters, 24 items from the AIR-S, section scores for the subscales of capacity and opportunity, and an overall self-determination score. After comparing the original data for the measures entered into the spreadsheet, the independent rater found 100% agreement in the accuracy of all the data entered.

## **CHAPTER THREE**

### **Results**

The purpose of this study was to examine the relationship among middle school students with emotional behavioral disorders' scores on the Capacity and Opportunity subscales of the AIR-S and GPA, Absences, and Discipline. Additional variables including the number of years of teaching experience and the level of degrees held by teachers were also compared to students' levels of capacity and opportunity. Results for this study are described and presented beginning with the descriptive statistics for the student demographics, followed by the bivariate correlations among the variables and findings from several multiple regression analyses. Lastly, the results are presented for teacher demographics variables.

#### **Student Demographics and Descriptive Statistics**

Thirty-six middle school students with emotional behavioral disorders participated in this study. The sample consisted of 29 males (80.6%) and seven females (19.4%) in grades six, seven, and eight at 44%, 25%, and 31% respectively. American Indians constituted 8.3% of the sample, while 19.4% were African American, 11.1% were Hispanic/Latino/Spanish, 5.6% were Mexican or Mexican American, and 36.1% were Caucasians. Additional students in the sample identified themselves as bi-racial (8.3%), multi-racial (8.3%), or other (2.8%). Preliminary data analysis found no difference in the mean scores by race and ethnicity or gender; therefore, no further analysis was conducted using these variables. The age range of the participants was from 11 to 15 ( $M = 13$ ,  $SD = 1.71$ ) old years (See Table 1 for student demographics).

Additional demographic information collected on the students included the length of time the student had been in class this school year, the total number of

absences for the 2010-2011 school year, the overall grade point average at the end of school, eligibility for free/reduced lunch, and the total number of disciplinary actions the student had over the course of the school year. The minimum length of time in class was zero months and the maximum was 10 months ( $M = 6.8, SD = 3.23$ ). The minimum number of absences for the school year was zero and the maximum was 54 ( $M = 10.1, SD = 11.33$ ). Grade point averages were weighted on a 4.0 scale for each of the participating districts. The minimum grade point average on a 4.0 scale was zero and the maximum was 4.00 ( $M = 2.6, SD = .954$ ). Eighty-six percent of the sample qualified for Free/Reduced Lunch (See Table 1). Disciplinary encounters included office referrals, lunch/after-school detention, and in-school or out-of-school suspension, which were recorded as a frequency count. The minimum number of disciplinary encounters was zero and the maximum was 35 ( $M = 7.12, SD = 8.12$ ). Educational demographic information is provided in Table 6. (See Appendix A for the demographic data collection sheets.)

Table 6. *Educational Demographics of Students*

	Min – Max	<i>M</i>	<i>SD</i>
Length of Time in School	0-10	6.8	3.23
Absences	0-54	10.1	11.33
Grade Point Average	0-4.00	2.6	.954
Disciplinary Encounters	0-35	7.12	8.12

### **Instrument and Subscale Statistics**

Cronbach’s alpha reliability coefficients were calculated for the subscales of Capacity and Opportunity and for the entire AIR-S Self-Determination Scale (Wolman et al., 1994) as a measure of internal consistency. Alpha coefficients for the subscales

of Capacity and Opportunity were .828 and .894, respectively. Each subscale is comprised of two sections that produce an overall subscale score. Alpha coefficients for sections Things I Do and How I Feel, which make up the capacity subscale, were .824 and .584, respectively. Coefficients for the sections What Happens at School and What Happens at Home, which make up the opportunity subscale, were .817 and .897, respectively. As originally presented previously in the methodology, the alpha reliability coefficient for the AIR-S was .923, which was consistent with the findings of Mithaug et al., (2003) and Shogren et al. (2008). Alpha coefficients for each component are presented in Table 7.

Table 7. *Descriptive Statistics for All Scales and Subscales*

Subscales of AIR-S	$\alpha$	<i>M</i>	Min-Max	<i>SD</i>	N of items
Things I Do	.824	3.53	3-4	5.08	6
How I Feel	.584	3.77	3-4	3.75	6
What Happens at School	.817	.326	3-3.5	5.45	6
What Happens at Home	.897	3.76	4	6.0	6
Capacity	.828	3.65	3-4	7.97	12
Opportunity	.894	3.51	3-4	10.14	12
Overall AIR-S Scale	.923	3.58	3-4	17.16	24

*Note:* Things I Do and How I Feel = Capacity subscale; What Happens at School and What Happens at School = Opportunity subscale; AIR-S=Air Self-Determination Scale Student Version

### **Intercorrelations Between Variables**

The Pearson product-moment correlation coefficient *r* was used to assess the linear relationship of the in-school variables and the subscales of capacity and opportunity within a correlation matrix to address research questions 1-3 (Tabachnick



& Fidell, 2007). Results revealed eight statistically significant correlations between the variables of Capacity, Opportunity, GPA, Absences, and Discipline with moderate to large effect sizes from .364 to .512 (Cohen, 1988). The correlation matrix and effect size scale are shown in Table 8.

**Grade point average.** A negative correlation was present between Absences and GPA,  $r(34) = -.422, p < .05$ , meaning that as GPA increases for students, absences would likely decrease. GPA was also positively correlated with Capacity,  $r(34) = .364, p < .05$ , meaning that as scores on Capacity (the ability to learn and acquire self-determined behaviors) increases, student GPA's will also likely increase. There was a positive relationship between GPA and Opportunity,  $r(34) = .485, p < .01$ , meaning that as overall Opportunities to learn and practice self-determined behaviors at school and home increases, student GPA's will also increase.

Table 8. *Pearson's Product Moment Correlations Among Variables*

	GPA	Absences	Discipline	Capacity	Opportunity	WHAS Score	WHAH Score
GPA	-						
Absences	-.422*	-					
Discipline	-.175	.239	-				
Capacity	.364*	-.281	-.290	-			
Opportunity	.485**	-.404*	-.426*	.797**	-		
WHAS Score	.512**	-.452*	-.300	.652**	.874*	-	
WHAH Score	.348	-2.63	-.452**	.756**	.898*	.571	-

*Note:* GPA = grade point average; WHAHScore = What Happens at School Score; WHAHScore = What happens at Home Score; \*  $p < .05$ ; \*\*  $p < .01$ ;  $r = .10$  (small),  $r = .30$  (medium), and  $r = .50$  (large) (Cohen, 1988)

The largest correlation occurred between GPA and What Happens at School Score (WHASScore),  $r(34) = .512, p < .01$ , meaning that as opportunities at school to acquire self-determined behaviors increases, student GPA's will also increase.

**Absences.** Absences were negatively correlated to Opportunity,  $r(34) = -.404, p < .05$ , meaning that as opportunities to learn and practice self-determined behaviors at school and home increases, the number of student absences will decrease. There was also a negative relationship between What Happens at School (WHASScore) and Absences,  $r(34) = -.452, p < .05$ , meaning that when there are opportunities at school for students to acquire self-determined behaviors, their absences will decrease.

**Discipline.** There was a negative relationship present between Opportunity and Discipline,  $r(34) = -.426, p < .05$ , meaning that as opportunities to learn and practice self-determined behaviors at school and home increases, the number of disciplinary encounters will also decrease. Interestingly, there was also a negative relationship between What Happens at Home Scores (WHAHScore) and Discipline,  $r(34) = -.452, p < .01$ , meaning that as opportunities to acquire self-determined behaviors at home increase, the number of disciplinary encounters in the school environment will decrease.

### **Multiple Regression Analyses**

Prior to the analysis, data were inspected for any inaccuracies in data entry, outliers, and missing values. Two of the cases had missing demographic information for length of time in class, absences, GPA, eligibility for free/reduced lunch, and discipline due to parental choice not to respond. Two additional cases did not contain entries for GPA, but all other data were available. Three outliers were located in the

absences variable. The range of absences were from 0-54 with the last three data points representing extreme cases in absences from 35-54 mixed school days. Initial data analysis on the variable yielded extreme variations in the results. Overall, there was less than 5% of data missing in the sample.

Two methods were used to control for the extreme cases, including transforming the variable into groups and using the square root of the variable, but neither were successful. In the two districts where the absences occurred the school year ranged from 173-180 days. For students exhibiting extreme or excessive absences, missing 25% or more of the school year, it would be difficult to ensure that they were exposed to the same conditions at school as the other participants and they were therefore removed from this variable set (Gall et al., 2003).

The subscales of capacity and opportunity each had a maximum score of 60, and for this reason, unstandardized regression coefficients were used to report the raw score influences on GPA, Absences, and Discipline. Effect size for each multiple regression were calculated using Cohen's (1988)  $f^2$  formula,  $f^2 = R^2/(1 - R^2)$ , yielding a scale of .02 (small), .15 (medium), and .35 (large).

**Research question 1.** Do higher scores on the Student AIR Self-Determination Scale for capacity and opportunity predict higher grade point averages for middle school students with emotional behavioral disorders? The first multiple regression analysis was conducted to evaluate how well measures of capacity and opportunity predicted student grade point averages (GPA). The linear combination of capacity and opportunity were related to student GPA,  $F(2, 28) = 4.304, p = .023$ . The sample multiple correlation coefficient was .485, indicating that approximately 24% of the

variance of GPA for the sample could be accounted for by students' perceptions of capacity and opportunity. The relative strength of this regression produced a moderately large effect size ( $f^2 = .307$ ). The relative influence of the individual predictors is represented in Table 9.

Table 9. *Predictors of GPA*

	B	SE	<i>t</i>	Sig.
(Constant)	.536	.902	.594	.557
Capacity	-.001	.031	-.039	.969
Opportunity	.049	.025	1.938	.063

*Note:* B = Unstandardized Regression Coefficient; SE = Standard Error; *t* = T-statistic; Sig. = significance level  $p < .05$

The regression coefficients revealed that capacity was negatively correlated to GPA, while opportunity had a positive correlation, but neither was statistically significant. Interpretation of the unstandardized regression coefficients revealed that for every one raw score increase in Capacity, GPA would decrease by .001 and for every one raw score increase in Opportunity, GPA would increase by .05.

Interestingly, Opportunity accounted for 10.2% of the unique proportion of variance in the model, while Capacity accounted for less than 1%. The regression equation for predicting GPA from student scores on the subscales of Capacity and Opportunity from the AIR-S was:  $GPA = .536 + -.001(\text{Capacity}) + .049(\text{Opportunity})$ .

**Research question 2.** Do higher scores on the Student AIR Self-Determination Scale for capacity and opportunity predict lower Absences for middle school students with emotional behavioral disorders? The second multiple regression analysis was conducted to evaluate how well measures of Capacity and Opportunity predicted

Absences. The linear combination of capacity and opportunity were related to student Absences,  $F(2, 27) = 2.673, p = .044$ . The sample multiple correlation coefficient was .407, indicating that approximately 17% of the variance of Absences for the sample could be accounted for by students' perceptions of capacity and opportunity. The relative strength of this regression produced a medium effect size ( $f^2 = .198$ ). The relative influence of the individual predictors is represented in Table 10.

Table 10. *Predictors of Absences*

	B	SE	<i>t</i>	Sig.
(Constant)	15.645	5.276	2.965	.006
Capacity	.046	.180	.253	.253
Opportunity	-.241	.144	-1.674	.106

*Note:* B = Unstandardized Regression Coefficient; SE = Standard Error; *t* = T-statistic; Sig. = significance level  $p < .05$

The regression coefficient revealed that capacity was positively correlated to school absences while opportunity had a negative correlation, but neither was statistically significant. Interpretation of the unstandardized regression coefficients revealed that for every one raw score increase in Capacity, Absences would increase by .046 and for every one raw score increase in opportunity, Absences would decrease by -.241. Opportunity accounted for 9% of the unique proportion of variance in the model, while Capacity accounted for less than 1%. The regression equation for predicting Absences from student scores on the subscales of Capacity and Opportunity from the AIR-S was:  $Absences = 15.645 + .046(Capacity) + -.241(Opportunity)$ .

**Research question 3.** Do higher scores on the Student AIR Self-Determination Scale for capacity and opportunity predict decreased frequency of Discipline

encounters for middle school students with emotional behavioral disorders? The third multiple regression analysis was conducted to evaluate how well measures of capacity and opportunity predicted student Discipline encounters. The linear combination of capacity and opportunity were related to student Discipline,  $F(2, 30) = 3.408, p = .046$ . The sample multiple correlation coefficient was .430 indicating that approximately 19% of the variance of Discipline occurring for the sample could be accounted for by students' perceptions of Capacity and Opportunity. The relative strength of this regression produced a moderately large effect size ( $f^2 = .227$ ). The relative influence of the individual predictors is represented in Table 11.

Table 11. *Predictors of Discipline*

	B	SE	<i>t</i>	Sig.
(Constant)	21.441	7.916	2.708	.011
Capacity	.097	.275	.351	.728
Opportunity	-.432	.224	-1.928	.063

*Note:* B = Unstandardized Regression Coefficient; SE = Standard Error; *t* = T-statistic; Sig. = significance level  $p < .05$

The regression coefficient revealed that Capacity was positively correlated to school attendance while Opportunity had a negative correlation, but neither was statistically significant. Interpretation of the unstandardized regression coefficients revealed that for every one raw score increase in Capacity, Discipline for the students would increase by .097 and for every increase in Opportunity, Discipline would decrease by -.432. Opportunity accounted for 10% of the unique proportion of variance in the model, while Capacity accounted for less than 1%. The regression equation for

predicting Discipline from student scores on the subscales of Capacity and Opportunity from the AIR-S was:  $\text{Discipline} = 21.441 + .097(\text{Capacity}) + -.432(\text{Opportunity})$ .

### Further Exploration of Regression Models

GPA, Absences, and Discipline were recoded into three groups, low, medium, and high, by dividing the standard deviations in half and adding and subtracting the halves from the overall mean to establish cut points. Descriptive information for each group is provided in Table 12.

Table 12. *Levels of GPA School Attendance, and Discipline*

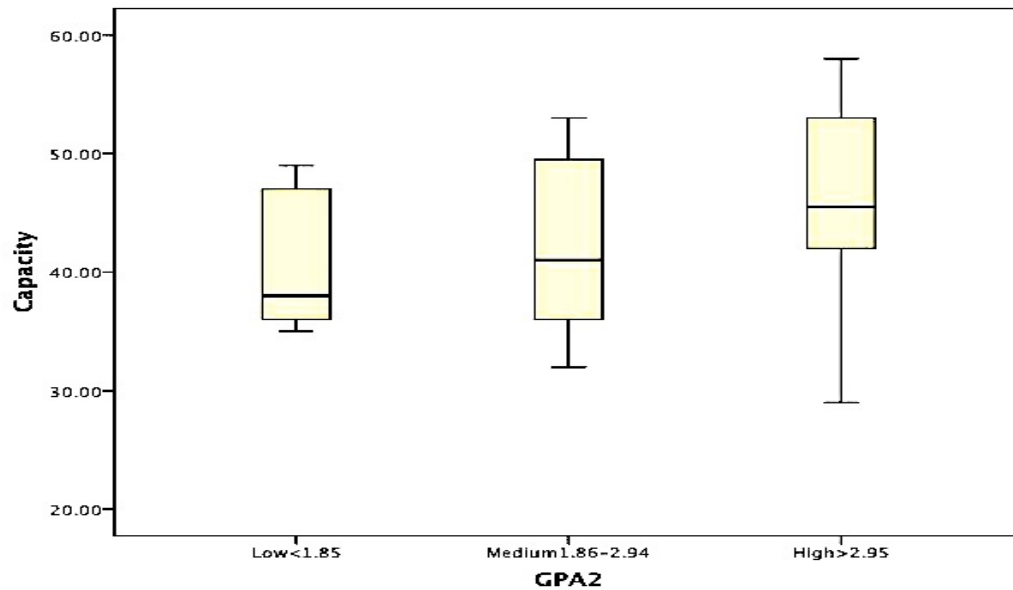
	Low	Medium	High
GPA	<1.85	1.86 - 2.94	>2.95
Absences	<4.65	4.66 - 6.04	>6.05
Discipline	<3	4 - 11.3	>11.4

*Note:* GPA = Grade Point Average; Absences = School Attendance

**Capacity and opportunity by GPA level.** After the recoding process was complete a total of five students had GPA's of 1.85 or below. Student scores within the low group for capacity, ranged from 35 to 49 ( $M = 41, SD = 6.52$ ) and their scores for opportunity ranged from 25 to 56 ( $M = 38, SD = 11.2$ ). There were a total of 12 students in the medium group with GPA's ranging from 1.86 to 2.94. Their scores for capacity ranged from 32 to 53 ( $M = 42.08, SD = 7.7$ ) and scores for opportunity ranged from 25 to 56 ( $M = 40.3, SD = 9.6$ ). The high group contained 14 students with a GPA of 2.95 and above. Their scores for capacity ranged from 29 to 58 ( $M = 46.3, SD = 7.9$ ) and their scores for opportunity ranged from 24 to 59 ( $M = 46, SD = 8.17$ ). The overall means between the three groups and capacity ranged from 29 to 58 ( $M = 43.8, SD =$

7.71). The corresponding boxplots for Capacity by GPA level are presented in Figure 1.

Figure 1. *Boxplot for Capacity by GPA Level*



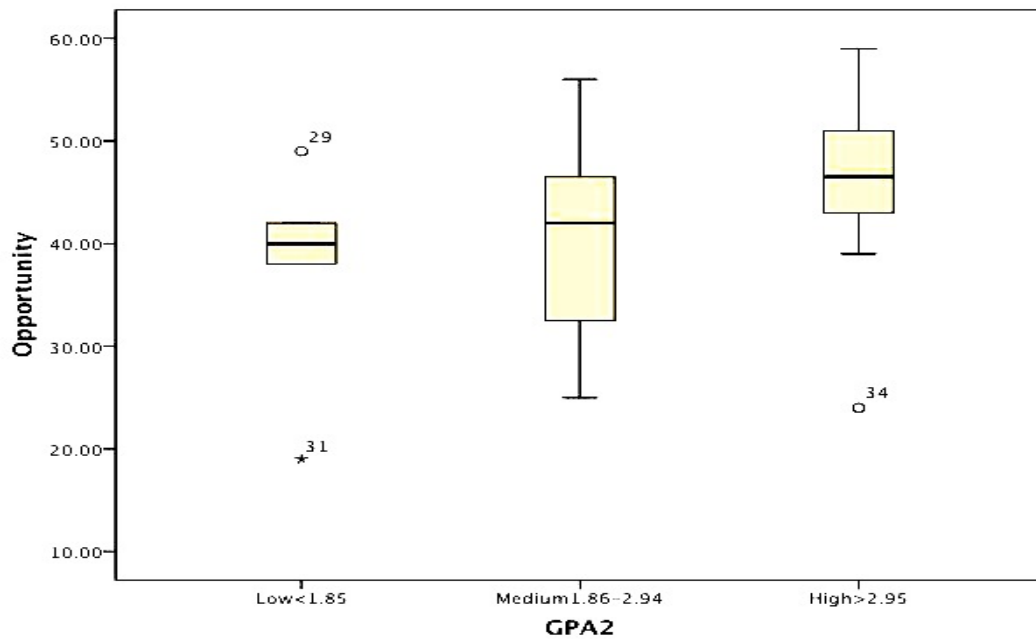
There was a larger variation in the scores between the three groups and Opportunity, ranging from 19 to 59 ( $M = 42.4$ ,  $SD = 9.5$ ). Although the relationship between Opportunity and GPA was not significant, there was a participant score that may have contributed to this relationship. One student had a high GPA, but scored low on the Opportunity subscale. Other than this, students with higher GPA's scored higher on the Opportunity subscale. The corresponding boxplot for and Opportunity by GPA level is presented in Figure 2.

**Capacity and opportunity by Absence level.** Nine students in the sample had missed a total of 4.65 days or less within the school year. Student scores within the low absence group for capacity ranged from 37 to 54 ( $M = 47.1$ ,  $SD = 5.6$ ) and scores for opportunity ranged from 41 to 59 ( $M = 48$ ,  $SD = 5.7$ ). There were a total of four students in the medium group with absences ranging from 4.66 to 6.04 days. Their



scores for capacity ranged from 41 to 52 ( $M = 46$ ,  $SD = 4.7$ ) and scores for opportunity ranged from 48 to 51 ( $M = 50$ ,  $SD = 2$ ). The high group contained 17 students with absences of 6.05 or more days.

Figure 2. *Boxplot for Opportunity by GPA Level*



Their scores for capacity ranged from 29-58 ( $M = 43.3$ ,  $SD = 9.1$ ) and opportunity scores ranging from 19 to 56 ( $M = 39.24$ ,  $SD = 10.7$ ). The overall means between the three groups and capacity ranged from 29 to 58 ( $M = 45$ ,  $SD = 7.7$ ). The corresponding boxplot for Capacity by Absence level is presented in Figure 3. There was a larger variation in the scores between the three groups and opportunity ranging from 19 to 59 ( $M = 43.2$ ,  $SD = 9.7$ ). The seemingly curvilinear relationship between the two variables indicates that most of the students in the middle group scored the highest on the Opportunity subscale. The corresponding boxplot for Opportunity by Absence level is presented in Figure 4.

Figure 3. *Boxplot for Capacity by Absence Level*

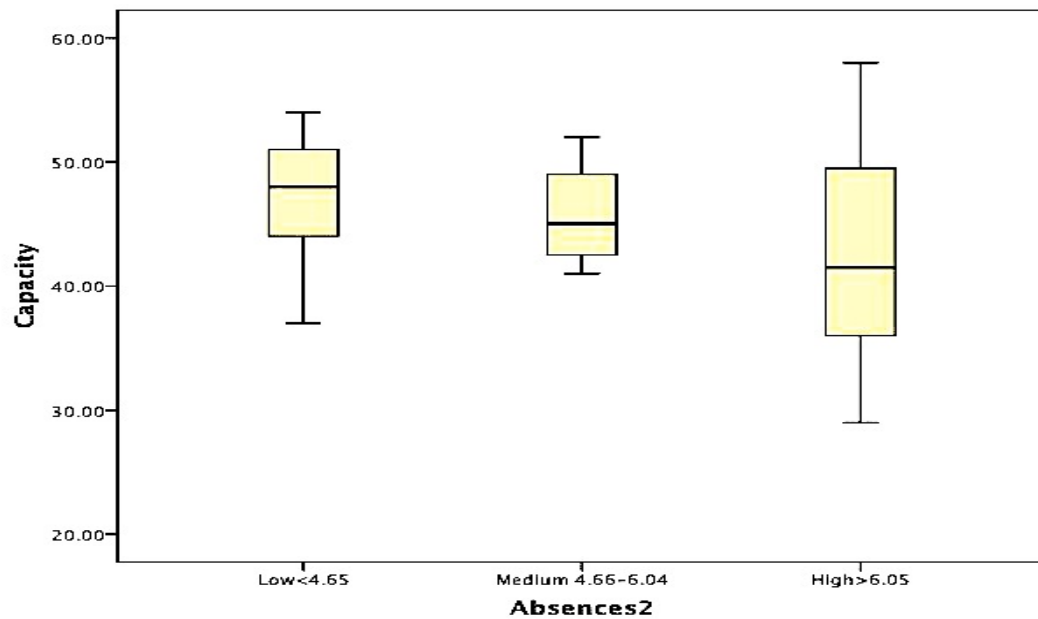
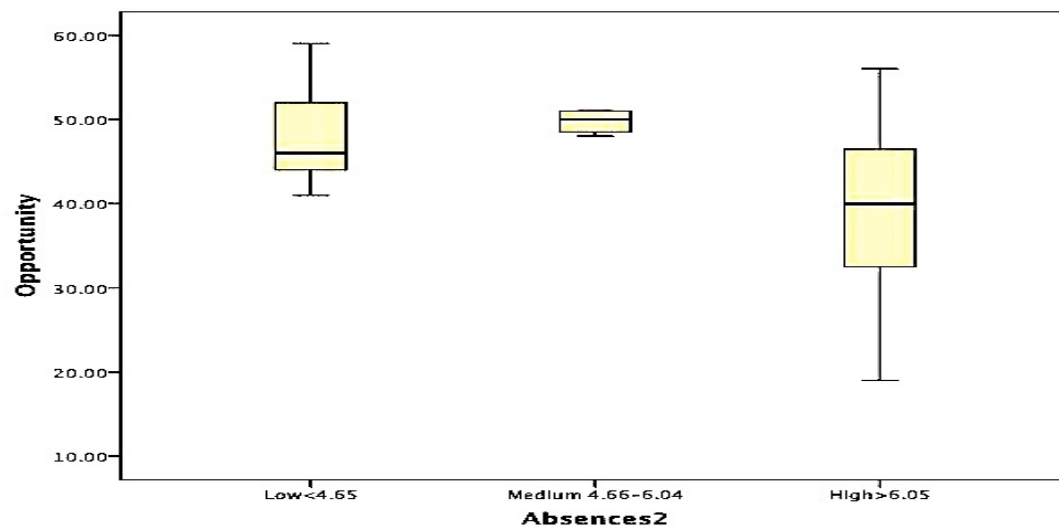


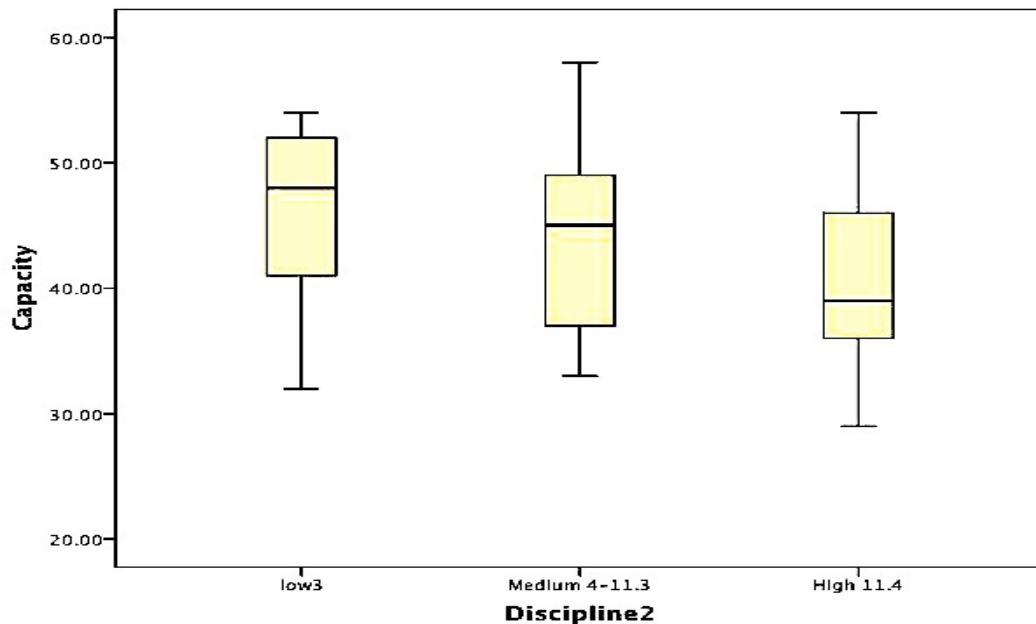
Figure 4. *Boxplot for Opportunity by Absence Level*



**Capacity and opportunity by discipline level.** Fourteen students in the sample had a total of three or less disciplinary encounters within the school year. Student scores within the low discipline group for capacity ranged from 32 to 54 ( $M = 46.1$ ,  $SD = 7.2$ ) and scores for opportunity ranged from 33 to 59 ( $M = 48$ ,  $SD = 6.7$ ). There were a total of 13 students in the medium group with discipline ranging from 4 to 11.3

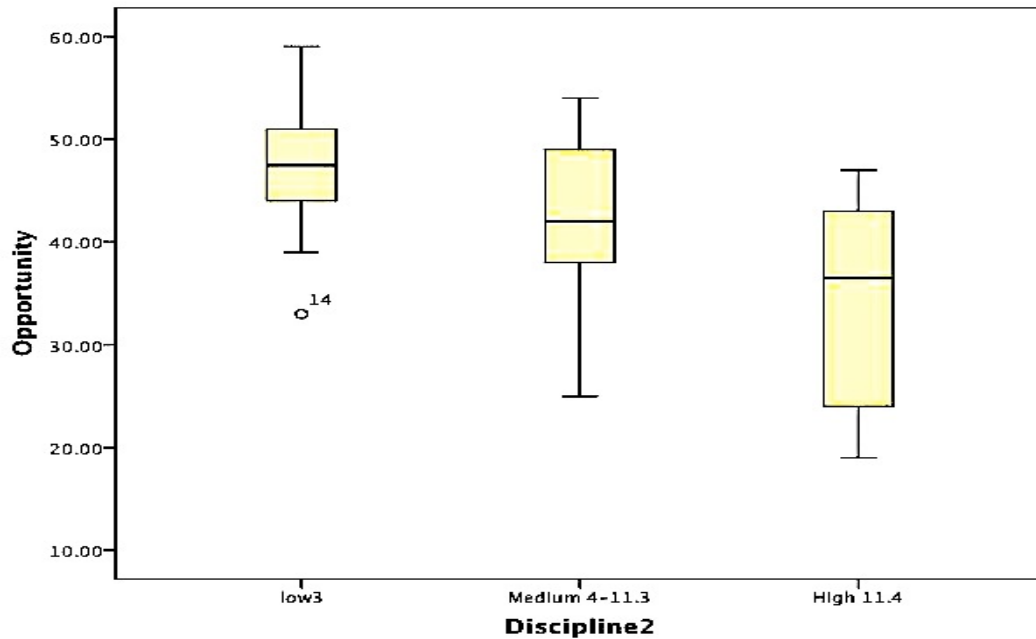
encounters. Their scores for capacity ranged from 33 to 58 ( $M = 44$ ,  $SD = 7.7$ ), and scores for opportunity ranged from 25 to 54 ( $M = 42$ ,  $SD = 8.5$ ). The high group contained six students with 11.4 or more disciplinary encounters. Their scores for capacity ranged from 29 to 54 ( $M = 41$ ,  $SD = 9$ ), and opportunity scores ranging from 19 to 47 ( $M = 34.3$ ,  $SD = 11.2$ ). The overall means between the three groups and capacity ranged from 29 to 58 ( $M = 44.2$ ,  $SD = 7.7$ ). The corresponding boxplot for Capacity by Discipline level is presented in Figure 5.

Figure 5. *Boxplot for Capacity and Discipline Level*



There was more variation in the scores between the three groups and opportunity ranging from 19 to 59 ( $M = 42.9$ ,  $SD = 9.5$ ). The corresponding boxplot for Opportunity by Discipline level is presented in Figure 6.

Figure 6. *Boxplot for Opportunity by Discipline Level*



**Research Question 4.** Is there a relationship between opportunities provided at home or opportunities provided in school and grade point averages, school attendance, disciplinary records of middle school students with emotional and behavioral disorders? Three additional regressions were conducted to address this question.

***What happens at school and home scores and GPA.*** A multiple regression analysis was conducted to explore how well the opportunities provided at school (WHASScore) or at home (WHAHScore) predicted student grade point averages. The linear combination of opportunities at home and school was significantly related to GPA,  $F(2, 28) = 5.121, p = .013$ . The sample multiple correlation coefficient was .517, indicating that approximately 27% of the variance of GPA for the students in the sample can be accounted for by the linear combination of what happens at school and home to provide opportunities to acquire self-determined behaviors. The relative

strength of this regression produced a large effect size ( $f^2 = .366$ ). The relative influence of the individual predictors is represented in Table 13.

Table 13. *Predictors of GPA*

	B	SE	<i>t</i>	Sig.
(Constant)	.598	.703	.851	.402
WHASScore	.083	.035	2.366	.025
WHAHScore	.015	.034	.087	.659

*Note:* B = Unstandardized Regression Coefficient; SE = Standard Error; *t* = T-statistic; Sig. = significance level  $p < .05$ ; WHASScore = What Happens at School Score; WHAHScore = What Happens at Home Score

The regression coefficient revealed that WHASScore and WHAHScore were positively correlated to student GPA, but only WHASScore was statistically significant ( $p = .025$ ). Interpretation of the unstandardized regression coefficients revealed that for every increase in opportunities at school, student GPA's would increase by .083. WHASScore accounted for 15% of the unique proportion of variance in the model, while WHAHScore accounted for less than 1%.

***What happens at school and home scores and absences.*** A second multiple regression analysis was conducted to explore how well the opportunities provided at school (WHASScore) or at home (WHAHScore) predicted students' school attendance. The linear combination of opportunities at home and school was significantly related to Absences,  $F(2, 27) = 3.464, p = .046$ . The sample multiple correlation coefficient was .452, indicating that approximately 20.4% of the variance of Absences for the students in the sample can be accounted for by the linear combination of what happens and school and home to provide opportunities to acquire

self-determined behaviors. The relative strength of this regression produced a large effect size ( $f^2 = .256$ ). The relative influence of the individual predictors is represented in Table 9.

Table 14. *Predictors of Absences*

	B	SE	<i>t</i>	Sig.
(Constant)	15.767	4.060	3.883	.001
WHASScore	-.415	.194	-2.142	.041
WHAHScore	-.014	.192	-.071	.944

*Note:* B = Unstandardized Regression Coefficient; SE = Standard Error; *t* = T-statistic; Sig. = significance level  $p < .05$ ; WHASScore = What Happens at School Score; WHAHScore = What Happens at Home Score

The regression coefficient revealed that WHASScore and WHAHScore were negatively correlated to students' school attendance, but only WHASScore was statistically significant ( $p = .041$ ). Interpretation of the unstandardized regression coefficients revealed that for every increase in opportunities at school, student Absences would likely decrease by -.415. WHASScore accounted for 14% of the unique proportion of variance in the model, while WHAHScore accounted for less than 1%.

***What happens at school and home scores and Discipline.*** A third multiple regression analysis was conducted to explore how well the opportunities provided at school (WHASScore) or at home (WHAHScore) predicted students' disciplinary encounters at school. The linear combination of opportunities at school and home were significantly related to Discipline,  $F(2, 30) = 3.927$ ,  $p = .031$ . The sample multiple correlation coefficient was .456, indicating that approximately 21% of the variance of

Discipline for the students in the sample can be accounted for by the linear combination of what happens at school and home to provide opportunities to acquire self-determined behaviors. The relative strength of this regression produced a large effect size ( $f^2 = .261$ ). The relative influence of the individual predictors is represented in Table 9.

Table 15. *Predictors of Discipline*

	B	SE	<i>t</i>	Sig.
(Constant)	23.873	6.264	3.811	.001
WHASScore	-.104	.306	-.341	.735
WHAHScore	-.631	.299	-2.110	.043

*Note:* B = Unstandardized Regression Coefficient; SE = Standard Error; *t* = T-statistic; Sig. = significance level  $p < .05$ ; WHASScore = What Happens at School Score; WHAHScore = What Happens at Home Score

The regression coefficient revealed that WHASScore and WHAHScore were negatively correlated to students' disciplinary encounters at school, but only WHAHScore was statistically significant ( $p = .043$ ). Interpretation of the unstandardized regression coefficients revealed that for every increase in opportunities at home, Discipline would likely decrease by -.631. WHAHScore accounted for 12% of the unique proportion of variance in the model, while WHASScore accounted for less than 1%.

**Research Question 5.** Does the number of years of teaching experience influence the perceptions of capacity and opportunity for self-determination of middle school students with emotional and behavioral disorders? To further explore the relationships between Capacity and Opportunity at school and student perceptions, the

variable for years of teaching experience (Years\_Teaching) was recoded into three groups, low, medium, and high, by dividing the standard deviation in half and adding and subtracting the halves from the overall mean to establish cut points. Descriptive information for each group is provided in Table 16.

Table 16. *Levels of Years of Teaching Experience*

	Low	Medium	High
Years_Teaching	<7.6	7.7-18	>19

*Note:* Years\_Teaching = Years of Teaching Experience

After the recoding process was complete, a total of seven teachers had at least 7.6 years of teaching experience. Scores for students of teachers within the low group for capacity ranged from 36 to 54 (M = 47, SD = 7.7) and scores for opportunity ranged from 33 to 59 (M = 44, SD = 8). There were a total of four teachers in the medium group with years of teaching experience ranging from 7.7 to 18 years. Their student scores for capacity ranged from 28 to 50 (M = 42, SD = 10.2), and scores for opportunity ranged from 17 to 56 (M = 42, SD = 17.4). The high group contained four teachers with a total of 19 or more years teaching. Their student scores for capacity ranged from 36 to 45 (M = 41, SD = 4.7), and their scores for opportunity ranged from 25 to 44 (M = 37.3, SD = 8.4). The overall means between the three groups and capacity ranged from 28 to 54 (M = 44, SD = 7.8). Corresponding boxplots for Capacity and Years Teaching level is shown in Figure 7. There was a larger variation in the scores between the three groups and opportunity ranging from 17 to 59 (M = 42, SD = 11). The corresponding boxplot for Opportunity and Years Teaching level is presented in Figure 8.



Figure 7. *Boxplot for Capacity by Years Teaching Level*

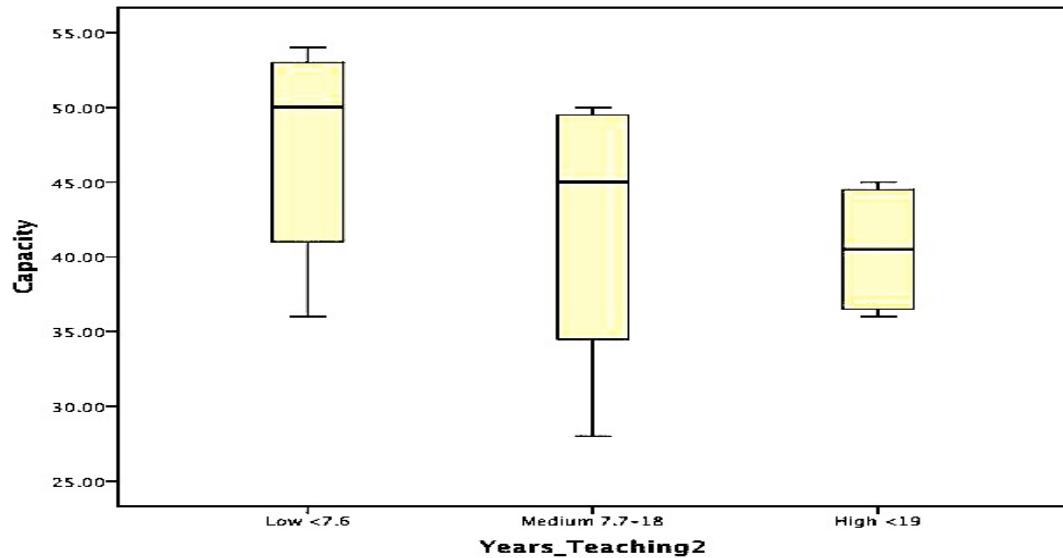
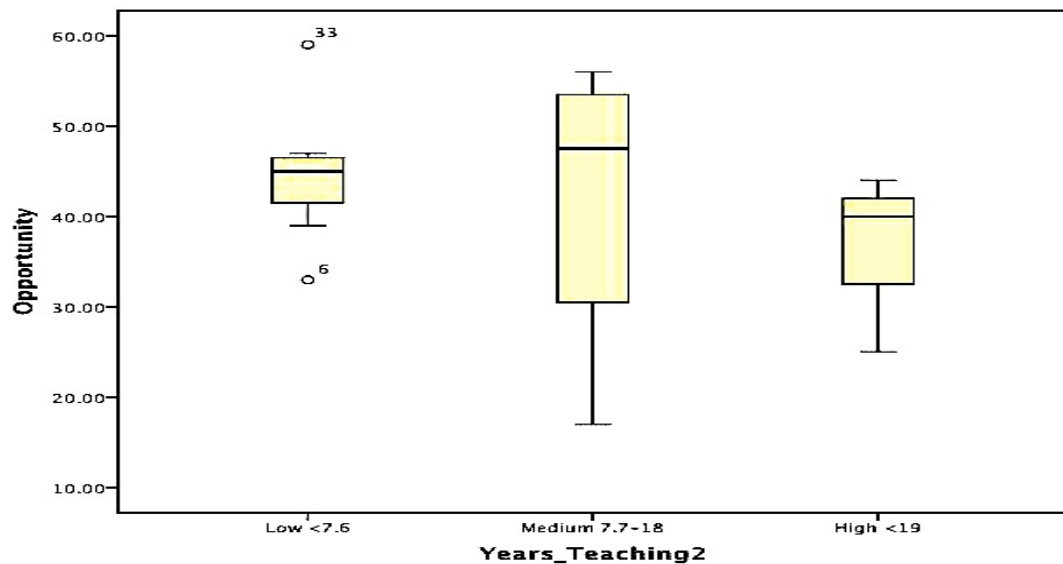


Figure 8. *Boxplot for Opportunity by Years Teaching Level*



**Research Question 6.** Does the type or level of teaching degree influence the perceptions of capacity and opportunity for self-determination of middle school students with emotional and behavioral disorders? To further explore the relationships between Capacity and Opportunity at school and student perceptions, a comparison of means was done on the variable for type of teaching degree (Teaching Degree), and the

subscale scores of capacity and opportunity. Descriptive information for each group is provided in Table 17.

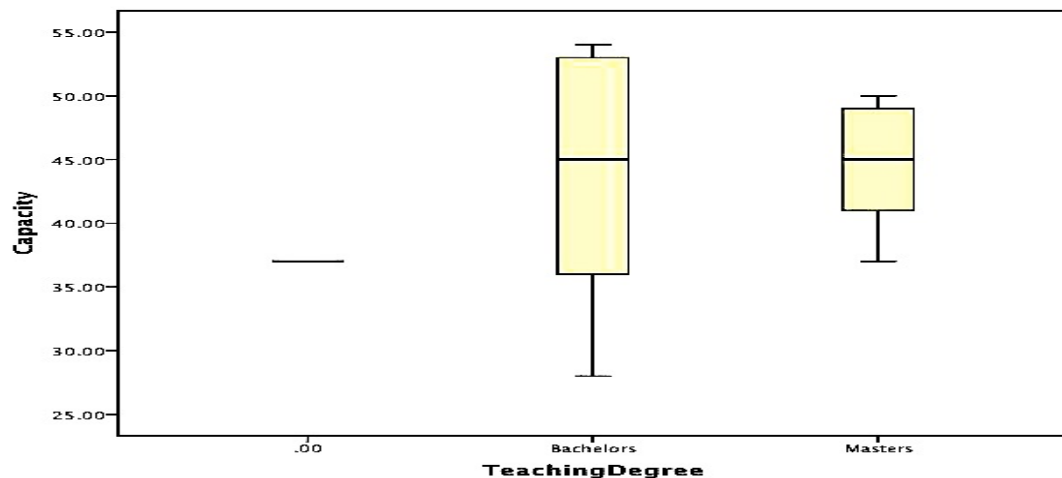
Table 17. *Types of Teaching Degree*

	n	%
Bachelors	9	60
Masters	5	33
System Missing	1	7

Note: System Missing = Undeclared Degree Type

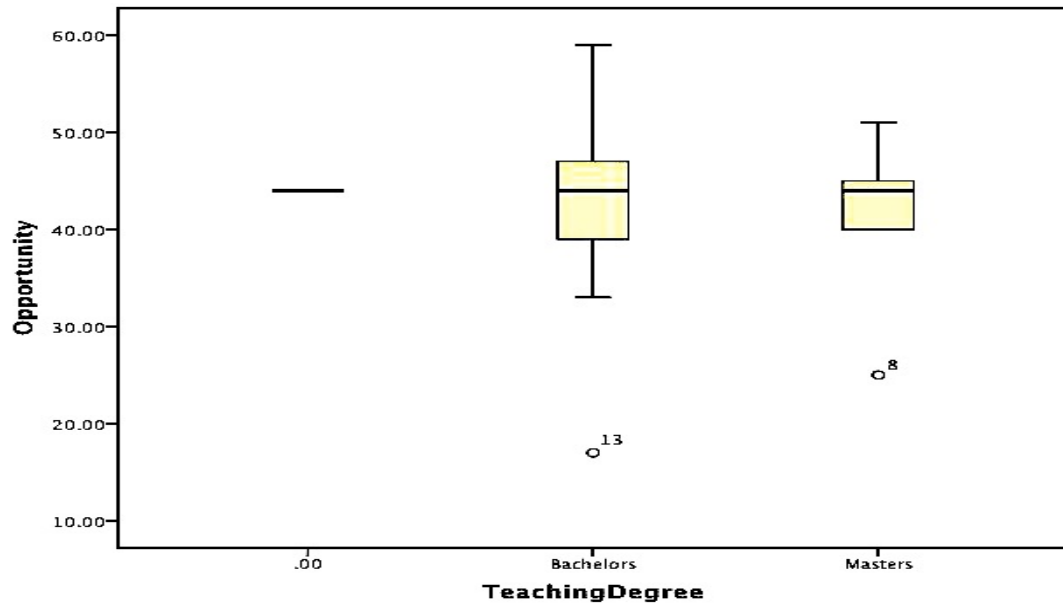
Nine teachers in the sample had a Bachelor’s degree, five had a Master’s degree and one was undeclared. For the nine teachers holding Bachelor’s degrees, students’ scores on the subscale Capacity ranged from 28 to 54 ( $M = 44.33$ ,  $SD = 9.23$ ), and Opportunity scores ranged from 17 to 59 ( $M = 42.33$ ,  $SD = 12.5$ ). There were five teachers in the Master’s group whose students’ Capacity scores ranged from 37 to 50 ( $M = 44.4$ ,  $SD = 5.5$ ), and the Opportunity scores ranged from 25 to 51 ( $M = 41$ ,  $SD = 9.8$ ). The corresponding boxplot for Capacity by type of Teaching Degree is presented in Figure 9.

Figure 9. *Boxplots for Capacity by Teaching Degree*



The overall scores for Capacity in both groups ranged from 28 to 54 ( $M = 43.9$ ,  $SD = 7.8$ ) and for Opportunity ranged from 17 to 59 ( $M = 42$ ,  $SD = 11$ ). There was little to no variation in the means for either group. The corresponding box plot for Opportunity and type of teaching degree is presented in Figure 10.

Figure 10. *Boxplots for Opportunity by Teaching Degree*



## **CHAPTER FOUR**

### **Discussion**

Results of this study demonstrated that higher levels of self-determination capacity and opportunities to learn and practice self-determined behaviors predicted positive in-school outcomes for middle school students with EBD. Increased opportunities at school and home, predicted higher GPA's, lower absences, and lower disciplinary encounters. Specifically, higher levels of opportunity at school predicted higher GPA's and lower absences. Higher levels of opportunity at home predicted fewer disciplinary encounters at school.

This chapter will begin with a summary of the major findings of this study. Next the impact of this study on the current literature will be presented, followed by the implications for practice. Last, suggestions for future research will be offered.

#### **Summary of Major Findings**

General findings from this study revealed that higher scores for capacity and opportunity predict higher student grade point averages, lower student absences, and lower disciplinary encounters for students at school. Capacity and opportunity together were significantly related to GPA, Absences, and Discipline. When capacity and opportunity were examined separately, neither was strong enough by itself to make a statistically significant impact on GPA, Absences, or Discipline. This study represents the first attempt, to my knowledge, to examine how students' perceptions of self-determination, as evidenced by their scores on the AIR-S, influenced their performance on three dropout indicators: GPA, Absences, and Discipline.

The AIR-S measures the perceptions of the capacity that students have to adjust to available opportunities at school and home for meeting their self-selected goals

(Mithaug et al., 2003). Results from this study revealed that there was not a significant difference in capacity scores for students across the three variables and the cumulative nature of capacity that occurs for students over time limited these findings. Although current teachers may participate in helping students build capacity, the influences of previous teachers on the capacity built over time cannot be neglected. Therefore, caution is recommended when interpreting these findings. Perhaps capacity did not have a meaningful bearing on the results because in order to acquire and sustain capacity, individuals must have opportunities to practice applying the knowledge in meaningful ways. Although not statistically significant, opportunities to learn and practice self-determined behaviors had a noticeable and positive impact on GPA, Absences, and Discipline, thus opportunity was further examined.

**Impact of opportunities at school and home.** In this study, opportunity assessed the extent students had to learn and practice self-determined behaviors at school and home (Wolman et al., 1994). Opportunities to learn and practice self-determination skills had a noticeable impact on students achieving higher grade point averages, having fewer absences, and experiencing fewer disciplinary encounters at school.

***Opportunities at school.*** Results from this study demonstrated that increased opportunities at school to learn and practice self-determined behaviors predicted higher grade point averages and a lower number of absences. Schools serve an important role in teaching and promoting self-determined behaviors to all students, especially those with disabilities. In general, for students with emotional and behavioral disorders acquiring and practicing self-determined behaviors such as goal setting, goal

attainment or other self-determination skills such as self-advocacy, are especially critical given the nature of the disability. But when students with EBD self-advocate, educators may perceive this behavior as talking back or aggression, which may lead to disciplinary encounters (Carter et al., 2006). Yet, it is important for educators to teach self-advocacy and other self-determination skills as a means to reduce students' inappropriate behaviors (Eisenman, 2007), and increase their grade point averages and school attendance.

*Opportunities at home.* Increased opportunities to learn and practice self-determined behaviors at home, predicted fewer disciplinary actions at school. This finding demonstrates how important home life can be to facilitate appropriate behavior at school and supports. Grigal, Nuebert, Moon, and Graham's (2003) conclusion that family members who teach and promote self-determination at home may more likely demand their children demonstrate appropriate behaviors at school.

Carter et al. (2006) suggested that there might be very little discussion between teachers and parents about facilitating self-determination at school or home. Perhaps the communication that exists currently centers on poor grade point averages, high numbers of absences, or frequent disciplinary encounters, without taking into account the influence of student perceptions of their self-determination in either environment. Schools should pay particular attention to the roles and behaviors of parents both in and out of the school to learn more about the interactions between children and their families, and how those relationships may impact the school environment (Bransford, Brown, & Cocking, 2000; Geenen et al., 2003; Lane & Carter, 2006).

These findings regarding the impact of opportunity at school and home to learn and practice self-determination skills are particularly important for two reasons. They represent the first examination of how opportunities at school or home, correlate with the grade point average, absences, and frequency of school disciplinary encounters of students with EBD. These findings demonstrate the importance of educators and parents supporting students with EBD learning and mastering self-determination skills.

Findings from this research represent the completion of the first part of a comprehensive line of prediction research geared toward early identification of student performance on critical school engagement factors and targeted self-determination interventions.

#### **Unexpected Findings: Impact of Years Teaching on Students Self-Determination**

Teachers participating in the study provided demographic information about themselves, including their number of years teaching and their highest degree. I compared the number of years teaching to students' capacity and opportunity scores and although there were no significant differences in the mean scores, there was a decreasing trend in the pattern of mean scores between each teaching experience group. Simply stated, there was clear decrease in the group scores across the teaching experience groups. Teachers who had taught for 19 years or more had students with the lowest perceptions of capacity and opportunity to learn and practice self-determination skills. Likewise, Grigal et al. (2003) found that teacher perceptions of student's opportunities to acquire and practice self-determined behaviors were influenced by the number of years of teaching experience. These results indicate that teachers with 20 or

more years teaching experience could have a negative impact on students' self-determination.

Grigal et al. (2003) suggested that teachers with many years of experience received their preservice training when self-determination was not addressed. As a result, teachers with 20 or so years of experience may be unfamiliar with self-determination instructional strategies, and simply may not know how to provide opportunities for students to develop self-determined behaviors. More research needs to be done to better understand the relationship between increased years teaching and lower levels of providing opportunities for students to learn and practice self-determination skills.

### **Impact on Literature**

This study makes four important contributions to the literature addressing transition and self-determination for middle school students with EBD. First, the extant transition and self-determination literature has few studies of students with EBD (Algonzine et al., 2001; Test et al., 2005), and fewer studies set in middle schools (Benitez et al., 2005; Carter & Wehby, 2003). This study is unique in that it was done using only middle school students with EBD enrolled in sixth, seventh, and eighth grades. This study provides an initial profile of the self-determination skills of middle school students with EBD and the opportunities at school and home that they perceive they have to learn and practice these skills, and how their perceptions of those opportunities are related and predictive of critical school engagement factors including GPA, absences, and disciplinary encounters.



Second, previous studies used personal, engagement, or academic variables to predict scores on the student version of the AIR Self-Determination Scale (AIR-S) (Lee et al., 2010), or other motivational assessments (Reschley & Christenson, 2006). In contrast, this study examined the correlational predictive qualities of the AIR-S on the performance of in-school success factors including grade point average, number of absences, and number of school disciplinary encounters. GPA, Absences, and Discipline were selected as variables because of their relationship to students with disabilities, especially those with emotional and behavioral disorders, dropping out of school (Bateman, 1996; Bradley et al., 2008; Kortering et al., 2002; Oswald & Coutinho, 1996; Reschly and Christenson, 2006; Skiba & Peterson, 2000; Wagner, 1995).

This study represents the first attempt to use self-determination assessments to identify middle school students with EBD who may benefit from self-determination interventions to increase their performance on student school engagement factors such as grade point averages, decreased absences, and decreased the frequency of school disciplinary encounters. After identification occurs, educators may find themselves better equipped to provide students opportunities to learn specific and relevant self-determination skills such as self-advocacy, decision-making, and goal setting and attainment. Each of these skills could have a direct impact on the way students conduct their behavior in the school environment. For example, when students with disabilities are taught to self-advocate they develop: (a) an increased knowledge of themselves, (b) an understanding of their rights, and (c) appropriate and assertive communication skills (Test et al., 2005). When students learn the process of goal setting and move toward

goal attainment, both help to (a) regulate behavior, (b) increase the relevance of school, and (c) decrease apathy toward school (Benz et al., 2000; Wehmeyer & Field, 2007).

When teachers provide students with disabilities the opportunities to engage in decision-making they (a) learn to take risks, (b) learn from their consequences, (c) evaluate outcomes, and (d) adjust for new decisions (Field & Hoffman, 2002; Field & Hoffman, Posch, 1997; Wehmeyer, 1995b). By teaching students with EBD critical self-determination skills, teachers may be systematically preventing students from forming intentions to drop out later in their school career.

Third, this study found that reliability analysis of the AIR-S mirrored that found by Shogren et al. (2008). Analysis of my findings indicates that the AIR-S was indeed measuring the students' perceptions of their capacity and opportunity to learn and practice self-determined behaviors both at home and school. These findings can be particularly useful to teachers of students with disabilities, especially those with EBD, as it can provide them with valuable information on how students perceive their capacity and opportunities within their classroom, and how those perceptions may impact their grade point averages, absences, and school disciplinary encounters.

Finally, findings from this study demonstrated how perceived opportunities to learn and practice self-determined behaviors at school and home individually impacted and could predict students' performance on grade point average, school absences, and school disciplinary encounters. To my knowledge there has not been another study that has examined the impact of how school and home environments contribute to these factors. These findings are particularly relevant to practitioners and parents because

they generally serve as the primary influence for the outcomes of students both in and out of school.

### **Implications for Practice**

Results of this study suggest several major implications for instructional practices at school and home for middle school students with emotional and behavioral disorders. Although the development of self-determined behaviors are a necessary part of the transition process, students perceiving themselves as having limited opportunities to develop and practice these skills in supportive environments continues to contribute to poor in-school outcomes for middle school students with EBD. Both educators and parents play an important role in the success of middle school students with EBD when they provide increased opportunities to learn, practice, and apply self-determined behaviors. The results of this study indicate that students need more opportunities at school and home to learn and practice self-determination skills.

**Self-determination and school learning environments.** Implementation of effective practices, especially for adolescents with EBD, should not only occur early in their education, but should also occur frequently, and with integrity to make an impact on their educational trajectories (Landrum, Tankersley, & Kauffman, 2003). If educators continue to provide services at the point when the need becomes critical, students may continue to endure barriers while in school which ultimately lead to poor postschool outcomes. “The need to structure the special education classroom to meet educational, behavioral, and administrative requirements too often results in an environment that promotes dependence and limits choice and decision making” (Wehmeyer, 1995b, p. 159). Educators who strive to provide autonomy in supportive

environments that encourage self-determination competencies, teach students to be responsible for effectively identifying and communicating their needs, wants, and preferences (Hardre & Reeve, 2003; Wehmeyer et al., 1998).

***Providing opportunities for self-determination in the learning environment.***

Teachers, who are not providing opportunities for self-determined pursuits by students with EBD, may not have sufficient understanding of the impact self-determination exerts on the type of learning environments they create. Self-determination instruction should be incorporated throughout the school day in every aspect of the learning process in order to be effective (Shogren, Faggella-Luby, Bae, & Wehmeyer, 2004). Practitioners help students to benefit more when they teach new skills and facilitate the use of those skills by providing frequent opportunities for practice (Carter & Lunsford, 2005). Teachers may provide opportunities such as inviting students to participate in their IEP by asking them to set future goals, make decisions about their course of study, and participate in their meetings (Arndt et al., 2006; Kortering et al., 2002; Martin et al., 2004; Martin, Van Dyke, Christenson et al., 2006).

Wehmeyer et al. (1998) stated in order to fulfill the intent of IDEA, students with disabilities, to the greatest degree possible, should be equal partners in making decisions about themselves and their futures. Students with disabilities, especially those with EBD, must be allowed to take appropriate risks that will result in experiencing a meaningful outcome (Field & Hoffman, 1994). Furthermore, they must “learn to solve problems and make decisions, provide informed consent, identify and evaluate goals and objectives and be able to advocate on their own behalf, negotiate and compromise, and provide leadership” (Wehmeyer et al., 1998, p. 57). Current and

past research in self-determination continually promotes the need for more opportunities to engage in practices that will lead to self-determination as an educational outcome (Martin, Huber Marshall, & De Pry, 2001; Wehmeyer, 1997).

**The interaction between home and school.** Increased communication between school personnel and families helps to decrease the frequency of behavioral issues at school for students with EBD. Educators often view parents as the source of school discipline problems and may oftentimes exclude them from aspects of the educational processes (Skiba & Peterson, 2000); however, research reveals that parents exert a significant amount of influence on their children during their primary and secondary years. Parents, who are more involved in their child's education, have children who are more likely to achieve improved postschool outcomes (Wagner, 1995). The fact that parents have such a significant impact on their child's education may help educators who work collaboratively with them to have more successful relationships with students. School personnel and parents should form meaningful and collaborative relationships to facilitate the streamline of an agreed upon set of culturally responsive values and behaviors, which are modeled in both environments.

#### **Enhancements that Would have Benefited this Study**

Learning from hindsight, changes to several methodological components would have improved the study, and these changes will aid in better replication. First, begin the recruitment process no later than the beginning of the second school semester. The data for this study was collected at the end of the year to provide a longer picture of student performances on the in-school variables. As a result of the recruitment process occurring so close to the end of the year, it became difficult to recruit districts, schools,

or student participants. By beginning earlier, more teachers may have agreed to participate because they would have been more prepared to incorporate the data collection procedures into their regular school routine.

Second, use districts where researchers are granted full access to teachers and students. In this study two districts would not allow me to talk directly with teachers, or administer the AIR-S in classrooms. Instead, liaisons were assigned by the districts to recruit participants, answer questions, disseminate blank assessments, and collect completed research materials. It was difficult communicating with the teachers through the liaisons. Using liaisons delayed time sensitive information, caused information to be lost at times in translation, and at times the liaisons could not accurately answer all of the teacher's questions, which caused confusion and misunderstanding.

Third, additional teacher demographic information should be collected. I opted to limit the length of the demographic data sheets to facilitate teacher acceptance and completion. Teachers provided their number of years of teaching and the type of degree they held, but it would have been more beneficial to the study to also collect information about their level of knowledge of self-determination. Collecting additional information such as year of school completion, geographic location, and type of institution, about their preservice and graduate programs, and completion of transition preservice classes and in-services, would also have provided much richer insight into the training of the participating teachers.

Lastly, I would expand the radius for participant recruitment. There are many school districts within a 100-mile radius of the original search area that I was unable to

contact due to the limited setting parameters. Increasing the number of school districts will increase the number of schools and potential participants from which to sample.

### **Suggestions for Future Research**

Self-determination promotes the learning and acquisition of necessary skills that will lead to improved outcomes (Mithaug, 2003; Wehmeyer, 2003), and educators believe that these skills are important for students with disabilities. However, many educators do not explicitly teach self-determination skills (Agran, Snow, & Swaner, 1999; Wehmeyer, Agran, & Hughes, 2000). Why do teachers who know the importance of self-determination, not teach students these skills? Perhaps, the methodology to teach self-determination skills is not useable for most educators. Therefore, self-determination instruction must become easier to incorporate and use in the typical general education or content resource classroom. Additional reasons include that there are a number of teachers who do not know how to teach self-determination skills, and are not encourage by their administration to focus on these skills.

Second, future research should first replicate this study, including the improvements, with a larger and more nationally representative sample of students with EBD. These efforts should provide researchers with a profile of how students with EBD scores would likely predict their performance on grade point average, school absences, and disciplinary encounters at school.

Third, new participants, who meet the selection criteria, should be assessed at the beginning of the school year (Vallerand et al., 1997). This will provide researchers with a picture of students' perceptions of capacity and opportunity as they begin the school year. At the close of the semester, researchers should re-collect the

demographic information for students and teachers including their grade point averages, number of absences, and total number of disciplinary encounters. This data collection is necessary to reexamine the fit of the prediction models.

Fourth, if the prediction models yield similar results to the first profiles, researchers may then be able to provide suggestions to teachers on effective self-determination strategies that they could implement in their practices. Carter, et al. (2006) suggested that students with EBD would benefit from curricular attention on explicit self-determination components, such as goal setting, choice making, problem solving, and self-evaluation. There is currently a lack of research on methods of delivering effective academic and social instruction for students with EBD.

Finally, Teaching appropriate skills to students with EBD requires a vast investment of teacher time and effort (Landrum et al., 2003). Teachers must become more methodical in incorporating opportunities to engage in practices that will lead to students acquiring self-determined behaviors. More research is needed to examine how teachers may impact the ability of students with EBD to learn and practice self-determination skills. There have been no studies examining teachers' perceptions of their own orientation toward self-determination, nor currently are there any scales to measure teacher self-determination. Therefore, it is necessary to examine the self-determination of teachers who are teaching students with emotional and behavioral disorders, to determine if their personal level of self-determination may prohibit opportunities to develop and practice self-determined behaviors for students in the learning environment.



## **Applied Research and the Reality of EBD**

One reason so few studies include students with EBD is that they are difficult to include in applied research. The population of students who have EBD that was available throughout the research process limited results of this study. At the beginning of April, there were a possible 128 students who met the selection criteria for participation in this study. By the time I completed the initial recruitment efforts in the middle of May, almost half who met the selection criteria were no longer available. Although these students received parental consent forms, they had to be excluded from the participant pool for one of two reasons, failure to obtain parental consent or removal from school for disciplinary reasons.

**Parental consent.** The reason is unknown as to why students could not obtain parental consent for participation. During the elementary school years, parents are often actively involved in their children's education, but as students get older and more independent, parents generally become more passive (Amos, 2006). Parent involvement seems to be critical for students with EBD, especially at the middle school level. Families generally experience high rates of stress when raising children with EBD (Burns, 1996). The SEELS data reported parents of students who have EBD had the lowest levels of positive perceptions with their child's overall school process as well as the lowest satisfaction levels with teacher abilities to maintain discipline within the classroom (SRI International, 2004). The fact that parents have such a significant impact on their child's education may help educators and researchers who work collaboratively with them to have more successful encounters with students.

**Suspension or expulsion.** Difficulty in recruiting students with EBD as study participants is intensified through the administration of zero-tolerance discipline policies, which automatically remove students from school, and cause attrition in the sample size. Students with EBD are more likely to face suspension or expulsion at a rate of two to three times that of their peers with disabilities or those without disabilities (Skiba & Peterson, 2000). They are also more likely to face classroom removals from minor behavioral infractions (Cartledge & Talbert-Johnson, 1996). We know that students with EBD hold the key to their success. Unlocking those factors that may improve their education becomes more difficult when they are continuously removed from classrooms or excluded from school.

### **Conclusion**

Findings from this study confirmed that higher scores on the subscales of capacity and opportunity predicted higher grade point averages, fewer absences, and fewer disciplinary encounters. Students scoring within the higher groups for perceptions of capacity and opportunity consistently demonstrated improved performances when there was an interaction between their perceived self-determined capacity and opportunities to act in self-determined ways. Adolescents will become more self-determined when they can perceive themselves as worthy enough to engage in actions that will have an impact on their lives (Wehmeyer, 1995b). Collaboration between researchers, policy makers, parents, and educators is imperative to help these students remain in school and ultimately improve their quality of life.

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## **APPENDIX A**

### Student and Teacher Demographic Forms

## Student Demographics

To Be Completed by the Student

School:	Date Completed:
Name of Student: (Please Print)	

### Student Demographic Information

1. What is your age? \_\_\_\_\_
2. What is your gender?  
\_\_\_\_\_ Male  
\_\_\_\_\_ Female
3. What grade are you in currently?  
\_\_\_\_\_ 6<sup>th</sup>  
\_\_\_\_\_ 7<sup>th</sup>  
\_\_\_\_\_ 8<sup>th</sup>
4. Please choose your race/ethnicity (select all that apply)  
\_\_\_\_\_ Asian  
\_\_\_\_\_ American Indian or Native American  
\_\_\_\_\_ Black or African American  
\_\_\_\_\_ Mexican or Mexican American  
\_\_\_\_\_ Hispanic, Latino, Spanish origin  
\_\_\_\_\_ White or Caucasian  
\_\_\_\_\_ Other; Please specify \_\_\_\_\_

## Student Demographics

To Be Completed by the Teacher

Name of Student:  
(Please Print)

Name of Teacher:

### Student Demographic Information

1. How long has this student been in your class? \_\_\_\_\_ (months)
2. What is the student's total number of absences (excused + unexcused + suspensions) for school year 2010-2011? \_\_\_\_\_
3. What is the student's current GPA? \_\_\_\_\_
4. Is the student eligible for free/reduced lunch?  
\_\_\_\_\_ 1. Yes  
\_\_\_\_\_ 2. No
5. How many times has the student received disciplinary actions (lunch detention, after school detention, office referral, in-school suspension) in the school year 2010-2011? \_\_\_\_\_

Name of Teacher:

**Teacher Demographic Information**

1. How long have you been teaching?

\_\_\_\_\_ Years    \_\_\_\_\_ Months

2. What is your highest degree?

\_\_\_\_\_ 1. Bachelors    \_\_\_\_\_ 2. Masters    3. \_\_\_\_\_ Specialist    \_\_\_\_\_ 4. Ph.D./Ed.D

## **APPENDIX B**

### AIR Self-Determination Scale

## AIR Self-Determination Scale<sup>®</sup>

### STUDENT FORM

Student's Name \_\_\_\_\_ Date \_\_\_\_\_

School Name \_\_\_\_\_ Your Grade \_\_\_\_\_

Your Date of Birth \_\_\_\_\_  
Month Day Year

#### HOW TO FILL OUT THIS FORM

Please answer these questions about how you go about getting what you want or need. This may occur at school, or after school, or it could be related to your friends, your family, or a job or hobby you have.

**This is not a Test.** There are no right or wrong answers. The questions will help you learn about what you do well and where you may need help.

**Goal** You may not be sure what some of the words in the questions mean. For example, the word **goal** is used a lot. A **goal is something you want to get or achieve**, either now or next week or in the distant future, like when you are an adult. You can have many different kinds of goals. You could have a goal that has to do with school (like getting a good grade on a test or graduating from high school). You could have a goal of saving money to buy something (a new iPod<sup>®</sup> or new sneakers), or doing better in sports (getting on the basketball team). Each person's goals are different because each person has different things that they want or need or that they are good at.

**Plan** Another word that is used in some of the questions is **plan**. A **plan is the way you decide to meet your goal, or the steps you need to take in order to get what you want or need**. Like goals, you can have many different kinds of plans. An example of a plan to meet the goal of getting on the basketball team would be: to get better by shooting more baskets at home after school, to play basketball with friends on the weekend, to listen to the coach when the team practices, and to watch the pros play basketball on TV.

The AIR Self-Determination Scale was developed by the American Institutes for Research (AIR), in collaboration with Teachers College, Columbia University, with funding from the U.S. Department of Education, Office of Special Education Programs (OSEP), under Cooperative Agreement HO23J200005

1 AIR Self-Determination Scale, Student Form

**HOW TO MARK YOUR ANSWERS**

**EXAMPLE QUESTION:**

I check for errors after completing a project.

**EXAMPLE ANSWER:**

Circle the number of the answer which tells what you are most like:  
(Circle **ONLY ONE** number).

- 1 Never.....student never checks for errors.
- 2 Almost Never.....student almost never checks for errors.
- 3 Sometimes.....student sometimes checks for errors.
- 4 Almost Always.....student almost always checks for errors.
- 5 Always.....student always checks for errors.

**REMEMBER**

**There are NO right or wrong answers.**

This will not affect your grade. So please think about each question carefully before you circle your answer.

### THINGS I DO

1. I know what I need, what I like, and what I'm good at.	Never <input type="checkbox"/> 1	Almost Never <input type="checkbox"/> 2	Sometimes <input type="checkbox"/> 3	Almost Always <input type="checkbox"/> 4	Always <input type="checkbox"/> 5
2. I set goals to get what I want or need. I think about what I am good at when I do this.	Never <input type="checkbox"/> 1	Almost Never <input type="checkbox"/> 2	Sometimes <input type="checkbox"/> 3	Almost Always <input type="checkbox"/> 4	Always <input type="checkbox"/> 5
Things I Do – Total Items 1 + 2					
3. I figure out how to meet my goals. I make plans and decide what I should do.	Never <input type="checkbox"/> 1	Almost Never <input type="checkbox"/> 2	Sometimes <input type="checkbox"/> 3	Almost Always <input type="checkbox"/> 4	Always <input type="checkbox"/> 5
4. I begin working on my plans to meet my goals as soon as possible.	Never <input type="checkbox"/> 1	Almost Never <input type="checkbox"/> 2	Sometimes <input type="checkbox"/> 3	Almost Always <input type="checkbox"/> 4	Always <input type="checkbox"/> 5
Things I Do -- Total Items 3 + 4					
5. I check how I'm doing when I'm working on my plan. If I need to, I ask others what they think of how I'm doing.	Never <input type="checkbox"/> 1	Almost Never <input type="checkbox"/> 2	Sometimes <input type="checkbox"/> 3	Almost Always <input type="checkbox"/> 4	Always <input type="checkbox"/> 5
6. If my plan doesn't work, I try another one to meet my goals.	Never <input type="checkbox"/> 1	Almost Never <input type="checkbox"/> 2	Sometimes <input type="checkbox"/> 3	Almost Always <input type="checkbox"/> 4	Always <input type="checkbox"/> 5
Things I Do – Total Items 5 + 6					

Please go on to the next page ⇒



## HOW I FEEL

1. I feel good about what I like, what I want, and what I need to do.	Never <input type="checkbox"/> 1	Almost Never <input type="checkbox"/> 2	Sometimes <input type="checkbox"/> 3	Almost Always <input type="checkbox"/> 4	Always <input type="checkbox"/> 5
2. I believe that I can set goals to get what I want.	Never <input type="checkbox"/> 1	Almost Never <input type="checkbox"/> 2	Sometimes <input type="checkbox"/> 3	Almost Always <input type="checkbox"/> 4	Always <input type="checkbox"/> 5
How I Feel – Total Items 1 + 2					
3. I like to make plans to meet my goals.	Never <input type="checkbox"/> 1	Almost Never <input type="checkbox"/> 2	Sometimes <input type="checkbox"/> 3	Almost Always <input type="checkbox"/> 4	Always <input type="checkbox"/> 5
4. I like to begin working on my plans right away.	Never <input type="checkbox"/> 1	Almost Never <input type="checkbox"/> 2	Sometimes <input type="checkbox"/> 3	Almost Always <input type="checkbox"/> 4	Always <input type="checkbox"/> 5
How I Feel – Total Items 3 + 4					
5. I like to check on how well I'm doing in meeting my goals.	Never <input type="checkbox"/> 1	Almost Never <input type="checkbox"/> 2	Sometimes <input type="checkbox"/> 3	Almost Always <input type="checkbox"/> 4	Always <input type="checkbox"/> 5
6. I am willing to try another way if it helps me to meet my goals.	Never <input type="checkbox"/> 1	Almost Never <input type="checkbox"/> 2	Sometimes <input type="checkbox"/> 3	Almost Always <input type="checkbox"/> 4	Always <input type="checkbox"/> 5
How I Feel – Total Items 5 + 6					

Please go on to the next page ⇒

## WHAT HAPPENS AT SCHOOL

1. People at school listen to me when I talk about what I want, what I need, or what I'm good at.	Never <input type="checkbox"/> 1	Almost Never <input type="checkbox"/> 2	Sometimes <input type="checkbox"/> 3	Almost Always <input type="checkbox"/> 4	Always <input type="checkbox"/> 5
2. People at school let me know that I can set my own goals to get what I want or need.	Never <input type="checkbox"/> 1	Almost Never <input type="checkbox"/> 2	Sometimes <input type="checkbox"/> 3	Almost Always <input type="checkbox"/> 4	Always <input type="checkbox"/> 5
What Happens at School – Total Items 1 + 2					
3. At school, I have learned how to make plans to meet my goals and to feel good about them.	Never <input type="checkbox"/> 1	Almost Never <input type="checkbox"/> 2	Sometimes <input type="checkbox"/> 3	Almost Always <input type="checkbox"/> 4	Always <input type="checkbox"/> 5
4. People at school encourage me to start working on my plans right away.	Never <input type="checkbox"/> 1	Almost Never <input type="checkbox"/> 2	Sometimes <input type="checkbox"/> 3	Almost Always <input type="checkbox"/> 4	Always <input type="checkbox"/> 5
What Happens at School – Total Items 3 + 4					
5. I have someone at school who can tell me if I am meeting my goals.	Never <input type="checkbox"/> 1	Almost Never <input type="checkbox"/> 2	Sometimes <input type="checkbox"/> 3	Almost Always <input type="checkbox"/> 4	Always <input type="checkbox"/> 5
6. People at school understand when I have to change my plan to meet my goals. They offer advice and encourage me when I'm doing this.	Never <input type="checkbox"/> 1	Almost Never <input type="checkbox"/> 2	Sometimes <input type="checkbox"/> 3	Almost Always <input type="checkbox"/> 4	Always <input type="checkbox"/> 5
What Happens at School – Total Items 5 + 6					

Please go on to the next page ⇒

### WHAT HAPPENS AT HOME

1. People at home listen to me when I talk about what I want, what I need, or what I'm good at.	Never <input type="checkbox"/> 1	Almost Never <input type="checkbox"/> 2	Sometimes <input type="checkbox"/> 3	Almost Always <input type="checkbox"/> 4	Always <input type="checkbox"/> 5
2. People at home let me know that I can set my own goals to get what I want or need.	Never <input type="checkbox"/> 1	Almost Never <input type="checkbox"/> 2	Sometimes <input type="checkbox"/> 3	Almost Always <input type="checkbox"/> 4	Always <input type="checkbox"/> 5
What Happens at Home – Total Items 1 + 2					
3. At home, I have learned how to make plans to meet my goals and to feel good about them.	Never <input type="checkbox"/> 1	Almost Never <input type="checkbox"/> 2	Sometimes <input type="checkbox"/> 3	Almost Always <input type="checkbox"/> 4	Always <input type="checkbox"/> 5
4. People at home encourage me to start working on my plans right away.	Never <input type="checkbox"/> 1	Almost Never <input type="checkbox"/> 2	Sometimes <input type="checkbox"/> 3	Almost Always <input type="checkbox"/> 4	Always <input type="checkbox"/> 5
What Happens at Home – Total Items 3 + 4					
5. I have someone at home who can tell me if I am meeting my goals.	Never <input type="checkbox"/> 1	Almost Never <input type="checkbox"/> 2	Sometimes <input type="checkbox"/> 3	Almost Always <input type="checkbox"/> 4	Always <input type="checkbox"/> 5
6. People at home understand when I have to change my plan to meet my goals. They offer advice and encourage me when I'm doing this.	Never <input type="checkbox"/> 1	Almost Never <input type="checkbox"/> 2	Sometimes <input type="checkbox"/> 3	Almost Always <input type="checkbox"/> 4	Always <input type="checkbox"/> 5
What Happens at Home – Total Items 5 + 6					

Please go on to the next page ⇒

**PLEASE WRITE YOUR ANSWERS TO THE FOLLOWING QUESTIONS...**

Give an example of a goal you are working on.

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What are you doing to reach this goal?

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How well are you doing in reaching this goal?

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**THANK YOU!**