AN EXAMINATION OF THE EXTRACURRICULAR ACTIVITY PARTICIPATION, SOCIAL SKILLS, AND SCHOOL ENGAGEMENT OF STUDENTS WITH EMOTIONAL AND BEHAVIORAL DISORDERS

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SEAN WACHSMUTH

Dr. Timothy J. Lewis, Dissertation Supervisor

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The undersigned, appointed by the dean of the Graduate School,

Have examined the Dissertation entitled

AN EXAMINATION OF THE EXTRACURRICULAR ACTIVITY PARTICIPATION, SOCIAL SKILLS, AND SCHOOL ENGAGEMENT OF STUDENTS WITH EMOTIONAL AND BEHAVIORAL DISORDERS

Presented by Sean Wachsmuth

A candidate for the degree of

Doctor of Philosophy

And hereby certify that, in their opinion, it is worthy of acceptance.

Dr. Timothy J. Lewis

Dr. Erica Lembke

Dr. Janine Stichter

Dr. Mike Pullis

Dr. Wendy Reinke
DEDICATION

I dedicate this dissertation to Laura, Ella, and Everett. You have been my motivation and inspiration throughout this entire exciting and challenging adventure. This dissertation is the product of your hugs, smiles, encouragement, understanding, and love. I could not have done this without you. Thank you.

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ABSTRACT

Students with EBD have difficulties both academically and socially and experience poor outcomes compared to their peers with and without disabilities. Extracurricular activities are positively associated with improved academic performance, social interaction with peers and adults, and school engagement. The availability of extracurricular activities and the benefits associated with them make participation a potentially valuable addition to current interventions for students with EBD. The present study surveyed 80 students with EBD and 41 typical students about their involvement in school and community-based extracurricular activities as well as their social skill use and level of school engagement. Results supported previous research reporting that students with EBD participate in extracurricular activities at similar rates to typical students. Further, students with EBD who report participation in extracurricular activities scored higher on measures of social skills and school engagement than students with EBD who do not report participation. This study provides initial evidence that extracurricular activity participation may provide an avenue for students with EBD to improve behaviors related to academic performance, generalize and maintain skills they learn through social skills training programs, and increase their engagement with school which as a key component in reducing dropout. Limitations are presented along with implications for future research and practice.
CHAPTER I
LITERATURE REVIEW

Statement of Problem

Outcomes for students with Emotional and Behavioral Disorders (EBD) are poor when compared to other disability areas (Culinan & Sabornie, 2004; Walker, Ramsey, & Gresham, 2004). These students tend to experience poor attendance, low academic achievement, failing grades, conflicts with adults and peers, disruptive behavior, and numerous mental health issues (Lane, Carter, Pierson, & Glaeser, 2006; Merrell & Walker, 2004). According to the US Department of Education’s 30th Annual Report to Congress on the implementation of IDEA (2008), during the 2005-2006 school year only 43% of students with EBD graduated with a regular diploma (less than any other disability category except Intellectual Disabilities), 44.9% of students with EBD dropped out of school before graduation, and students with EBD are nearly four times more likely to be suspended or expelled from school than all other disability categories excluding deaf-blindness (US Department of Education, 2008).

Characteristics of Students with EBD

By definition students with EBD have difficulties both academically and socially. While most students with EBD function in normal ranges of intelligence (Epstien, Cullinan, Quinn, & Cumblad, 1995) their social deficits have a significant impact on their academic performance and school outcomes (Cook et. al., 2008). The Individuals with Disabilities Education Improvement Act (2004) defines students with emotional disturbances as having (a) an inability to build and maintain satisfactory relationships
with peers and adults; (b) inappropriate types of behaviors under normal circumstances; and (c) an inability to learn that cannot be explained by intellectual, sensory, or health factors. This definition is cited as one explanation for the under identification of students in need of services related to internalizing and externalizing behaviors (Merrell & Walker, 2004). According to data from the US Department of Education (2008), less than 1% of the school age population is identified for special education services under the current IDEA definition. It has been estimated that as many as 5% to 6% of students exhibit emotional and/or behavioral problems that warrant behavioral and mental health services (Merrell, 2003). A more broad and inclusive definition of EBD that may go beyond the strict definition in IDEA was adopted for the present study to reflect the actual population of students with EBD in schools today.

There are several characteristics of students with EBD that lead to the poor outcomes described above. Walker, Ramsey, and Gresham (2004) divide the characteristics of students with EBD into three categories a) aggression, b) classroom behaviors, and c) behaviors during unstructured time. Aggression in students with EBD can be physical, gestural, and verbal and often is highly aversive to others (Coie & Kupersmidt, 1983). These aversive aggressive behaviors lead to social isolation and rejection by peers. Students with aggressive behaviors often misinterpret social cues, misunderstand the motives of the social behaviors of others, and often misinterpret benign interactions from peers and adults as hostile and respond inappropriately (Crick, Grotpeter, & Bigbee, 2002).

Students with EBD tend to have difficulty adjusting to the expectations of the classroom (Walker, Ramsey, & Gresham, 2004). Typical classrooms require students to
attend to instruction and complete assigned tasks while not interfering with the learning
of others or the teacher’s ability to teach effectively. Students with EBD have lower rates
of academic engaged time (Walker, Shinn, O’Neill, & Ramsey, 1987) and high rates of
disruptions (Walker, Ramsey, & Gresham, 2004). These classroom behaviors make it
difficult for students with EBD to maintain adequate academic engagement and achieve
satisfactory academic outcomes. In addition to behavioral problems in the classroom this
population of students is prone to adjustment problems during unstructured time.

Walker, Ramsey, and Gresham (2004) describe the behaviors of students with EBD during unstructured time as particularly problematic. Unstructured time (e.g.
playground time and social time) provides students with EBD numerous opportunities to
express aggressive behaviors. While playground time is not applicable to adolescents
there is a parallel between the unstructured time experienced by elementary students on
the playground and high school students during unstructured times such as passing times
between classes, lunch time, etc. The history of aggressive behavior by students with
EBD and increased rates of aggressive behavior in unstructured settings makes positive
peer relationships difficult during this time.

In addition to the behaviors described above, internalizing behaviors such as
depression, anxiety, social withdrawal, and somatic problems affect a significant portion
of students with EBD (Merrell & Walker, 2004). Unfortunately, the covert nature of
internalizing behaviors makes the identification of students in need of services
challenging (Walker, Ramsey, & Gresham, 2004). While internalizing behaviors are less
disruptive and thus less noticeable to school staff, administrators, and teachers they still
have great impacts on social and academic outcomes (Duchesne, Vitaro, Larose, & Tremblay, 2008).

In summary, students with EBD experience poor outcomes when compared to students in other disability categories and typical peers. Students with both internalizing (e.g., depression, anxiety, and social withdrawal) and externalizing behaviors (e.g., aggression, hyperactivity, and disruptions) tend to have challenges both academically and socially that can lead to disengagement from school and eventual dropout (Reschly & Christenson, 2004). The following sections describe academic and social skills interventions designed to increase school engagement and prevent the negative outcomes associated with EBD.

**Student Engagement**

Students with EBD tend to be less engaged with school than their typically developing peers (Sinclaire, Christenson, Evelo, & Hurley, 1998). This is evidenced by the high rate of dropout experienced by students with EBD (Finn, 1989). Lohmeier and Lee (2011) define engagement in terms of school connectedness and state that students who are not connected to school are more likely to engage in anti-social behavior and are at higher risk for dropout. Contrarily, students who are connected to school tend to realize higher academic performance, more academic engagement, and greater peer acceptance.

Research examining school dropout and dropout prevention is responsible for much of what we know about school engagement. Two primary models explaining dropout are pervasive in dropout research, Tinto’s (1975) mediation model and Finn’s (1989) participation-identification model. Tinto’s mediation model (1975) describes school dropout as an unfolding process of gradual disengagement stemming from
negative interactions with the school environment combined with other factors such as socioeconomic status and individual skills. Students with EBD are especially susceptible to dropout given their histories of negative interactions at school. During the 2005-2006 school year only 43% of students with EBD graduated with a regular diploma and 44.9% of students with EBD dropped out (U.S. Department of Education, 2008).

High rates of school engagement are related to a host of positive outcomes for adolescents including decreased dropout rates, improved academic performance, and improved interactions with adults and peers (Fall & Roberts, 2012; Finn, 1989; Finn, 1993; Finn & Rock, 1997; Finn & Owings, 2006; Lohmeier & Lee, 2011). Increasing school engagement has been described as an important factor in reducing dropout rates among high school students (Archambault, Janosz, Fallu, & Pagani, 2008; Reschly & Christenson, 2004). Finn’s (1989) participation-identification model states that students who participate in school through classroom and extracurricular activity involvement are more likely to develop a sense of identification with the school (see figure one).
The participation-identification model describes four components: Responsiveness to school requirements, participation in the classroom, participation in extracurricular activities, and involvement in the decision making process at school. As students increase participation in these components they increase their identification with school and reduce their likelihood of dropout.

Research on engagement has identified academic engagement and social engagement as important elements of overall school engagement (Janosz, Archambault, Morizot, & Pagani, 2008). Academic engagement refers to student interaction with and responsiveness to classroom instruction. Social engagement refers to positive interactions with peers and adults at school. Research in the special education field has focused on increasing academic and social behavioral engagement in several ways including increasing opportunities to respond to instruction (Deno, 1998; Gunter & Coutinho, 1997,
Gunter & Denny, 1998; Niesyn, 2009; Sutherland, Alder, Gunter, 2003; Sutherland & Wehby, 2001; Sutherland, Wehby, & Yoder, 2002), mentoring intervention packages like Check and Connect (Sinclaire, Christenson, Evelo, & Hurley, 1998), and social skills training (Cook, et al., 2008; Gresham, Cook, Crews, & Kern, 2004; Gresham, Sugai, & Horner, 2001; Maag, 2006; Patterson, Jolivette, & Crosby, 2006; Snider & Battalio, 2011).

**Increasing Academic and Social Engagement**

A significant body of research exists examining classroom interventions designed to improve academic and social outcomes in students with EBD. In their review of classroom management practices, Simonsen and colleagues (2008) outlined several evidenced-based practices aimed at improving academic and social outcomes for students including maximizing structure (Kostewicz, Ruhl, & Kubina, 2008; Davis and Fox, 1999, DePry & Sugai, 2002), increasing engagement (Sutherland, Alder, Gunter, 2003; Sutherland, Wehby, & Yoder, 2002; Haydon, et. al, 2010), and providing performance feedback (Lingo, Jolivette, & Barton, Arwood, 2009; Codding, Feinberg, Dunn, & Pace, 2005; Hawkins & Hefflin, 2009; Maggs & Morgan, 1986; Sutherland, Wehby, Copeland, 2000; Stormont & Reinke, 2009; Maggin, Chafouleas, Goddard, & Johnson, 2011; Lassman, Jolivette, & Wehby, 1999; Vollmer & Iwata, 1992).

**Increasing Academic Engagement.** One classroom intervention that specifically addresses student engagement is increasing opportunities to respond to instruction (OTR). Interventions to increase OTR have been shown to improve academic performance, reduce problem behavior, and increase academic engagement (Skinner, Pappas, & Davis, 2005). OTR takes several forms including the use of verbal responding
(Haydon, Mancil, & Van Loan, 2009; Haydon, et al, 2010) response cards (Duchaine, Green, Jolivette, 2011; George, 2010; Munro & Stephenson, 2009; Narayan, Heward, Gardner, Courson, & Omness, 1990), peer tutoring (Spencer, Simpson, & Oatis, 2009; Sutherland & Snyder, 2007), and guided notes (Konrad, Joseph, & Eveleigh, 2009; Larwin, Erickson, Larwin, & Dawson, 2012; Lazarus, 1991). The basic premise of OTR is that through the various methods listed above students are given a vehicle to interact with classroom instruction through written, verbal, or gestural responses. These interactions provide teachers with ongoing opportunities to check for understanding as well as numerous chances to deliver performance feedback. Increasing OTR in the classroom is an inexpensive and relatively simple intervention that has demonstrated positive results across both elementary and secondary students (Adamson, 2013).

Check and Connect is an intervention aimed at increasing engagement and connection to adults at school in an effort to decrease adolescent dropout (Sinclaire, Christenson, Evelo, & Hurley, 1998). Check and Connect is designed to keep education and school important to students at risk for dropout by regularly monitoring student performance and providing individualized interventions as appropriate. Schools that implement Check and Connect assign a mentor to a student for a minimum of two years. The mentor regularly “checks” student data including grades and office discipline referrals and meets (connects) with a student on a regular basis. In addition to student meetings, Check and Connect mentors also work closely with the student’s family. The success of Check and Connect is promising but the reach of effective intensive interventions such as Check and Connect is limited given the cost involved in implementation and maintenance.
**Increasing Social Engagement.** Socially competent students have the tools to interact appropriately with adults and peers. Students with EBD exhibit significant deficits in social competence that result in difficulties building and maintaining relationships with others (Cook et al., 2008). Research has demonstrated that students with social competence deficits exhibit more delinquent behaviors, experience higher rates of depression and social withdrawal, and poor academic performance compared to socially competent students (Cook, et al., 2008). These social competence deficits have led to a great deal of research directed at social skills training for students with EBD (Cook, et al., 2008; Gresham, Cook, Crews, & Kern, 2004; Gresham, Sugai, & Horner, 2001; Maag, 2006; Patterson, Jolivette, & Crosby, 2006; Snider & Battalio, 2011).

Gresham (2002) describes social skills as specific behaviors a student engages in to interact effectively with others. Improving social skills can be especially important for adolescents with EBD given the increasing social demands of middle and high schools. Cook et al. (2008) describe the importance of becoming competent in both interactions with adults and peers as well as the consequences of inadequate social competence for adolescents. Students in high school who lack social skills fall short of teacher behavioral demands and fail to develop important social relationships with peers. These social failures have been shown to lead to a myriad of negative outcomes including academic failure disengagement with school and eventual dropout.

The consequences of inadequate social skills for adolescents has led to the development of social skills training programs designed to improve the social competence of students with EBD. Social skills training programs typically have four objectives: (a) Teach skills related to social interactions with peers and adults, (b)
enhance existing social skills, (c) reduce problem behaviors that are incompatible with positive social skills, and (d) work toward generalization and maintenance of the newly acquired or enhanced social skills (Gresham, 1998; Walker et al., 2004). Cook et al. (2008) conducted a meta-analysis examining the effectiveness of social skills training for adolescents. The meta-analysis analyzed 77 studies with a total of approximately 5000 adolescent participants. Results showed a medium effect size (.32) indicating that social skills training programs produce notable differences in social competency for adolescents with EBD. In addition to results supporting the positive impact of social skills training the authors discussed the need to prioritize future research related to the challenges associated with social skills training put forth by Maag (2006).

Maag (2006) examined several reviews related to social skills training and found that even though many studies have been conducted related to the instruction and effectiveness of social skills there are still a significant number of limitations surrounding the research. The most commonly described limitation of social skills training is a lack of generalization programming (Ager & Cole, 1991; Beelman, Pfingsten, & Lösel, 1994; Coleman, Wheeler, & Webber, 1993; Gresham, 1998; Landrum & Lloyd, 1992; Schloss, Schloss, Wood, & Kiehl 1986; Templeton, 1990). Several issues arise when attempting to impact generalization of social skills including the social validity of the skills and the need to include peer groups in the process of instruction (Maag, 2006). The value of peers in the acquisition and reinforcement of social skills becomes especially important in the secondary setting given the importance placed on peer relationships during adolescence (Crockett, Losoff, & Peterson, 1984). Unfortunately, students with EBD are generally placed in the most restrictive settings in schools (US Department of Education,
making opportunities for increasing social competence though interactions with peers challenging.

The interventions described above have been shown through research to be effective for improving the academic and social performance of students with EBD. Despite the effectiveness of interventions like OTR, check and connect, and social skills training, outcomes for students with EBD have not improved (US Department of Education, 2008). This lack of overall improvement needs to be addressed through continued efforts to refine and improve existing interventions as well as a search for potential missing rungs in the ladder that leads to success for students with EBD. The following sections examine one possible new rung that has the potential to not only increase student engagement but also serve as a value-add to existing interventions that address student academic and social performance and influence engagement.

**Extracurricular Activity Participation**

Increasing school engagement through academic and social interventions is important for students with EBD. As outlined above, numerous effective interventions are available to teachers and schools that address these needs. The continued challenges and consistently poor outcomes experienced by students with EBD necessitate the exploration of new opportunities to improve academic and social performance and increase school engagement. Extracurricular activities have been shown through research to have positive impacts on many of the challenges faced by students with EBD and are an established part of high schools today. Between 50% and 70% of adolescents participate in some sort of extracurricular activity (Feldman & Matjasko, 2007, Larson & Verma, 1999). In 2010, 40% of high school seniors participated in athletics, 32% in
school clubs, 23% in performing arts, 14% in academic clubs, 10%, in newspaper/yearbook, and 9% in student government (National Center on Educational Statistics, 2012).

Extracurricular activities are typically highly structured student activities that require an adherence to a schedule and rules. Mahoney and Stattin (2000) define highly structured activities as including "regular participation schedules, rule-guided engagement, direction by one or more adult activity leaders, an emphasis on skill development that is continually increasing in complexity and challenge, activity performance that requires sustained active attention, and clear feedback on performance" (pp. 114-115). Extracurricular activities have the potential to benefit students as (a) a value-added to existing academic and social interventions, (b) an opportunity for authentic peer and adult interactions to practice social skills, and (c) a vehicle to increase school engagement. The following sections will elaborate on the theoretical foundations of extracurricular activities as well as the research surrounding extracurricular activities in an effort to illuminate the potential benefits of extracurricular activity participation and explain possible reasons for the improved outcomes of participants.

Theoretical Foundations of Extracurricular Activities

In their review of the literature, Holland and Andre (1987) identified the need to incorporate theory into extracurricular activity research. This review led to the emergence of numerous theories related to the benefits of participation as well as the reasons students participate. Ecological Systems theory (Feldman & Matjasko, 2005; Mahoney, 2000), Capital theory (Broh, 2002; McNeal, 1999), and Social Control theory (Finn, 1989; Wong, 2005) have all played a role in the research surrounding extracurricular
activities. Ecological Systems Theory (Bronfenbrenner, 1979) provides a framework for understanding one’s environment by dividing it into levels or systems that interact and affect one another. Recent literature related to extracurricular activities has utilized Ecological Systems Theory to separate participation in extracurricular activities into a unique system that has an effect on other important systems in adolescence such as the classroom and home. Capital Theory (Liu et al., 2004), specifically social capital acquisition, has been applied to extracurricular activities as a way to explain the social benefits of participation. Extracurricular activities provide an opportunity for social interaction with peers and adults that can lead to the acquisition of social capital and the generalization of social skills taught in other environments. Finally, Social Control Theory (Hirschi, 1969) states that involved and connected students are less likely to exhibit deviant behavior or dropout of school (Finn, 1989). Extracurricular activities have the potential to increase engagement in school and decrease the likelihood of behavioral issues and lower dropout rates.

**Ecological Systems Theory.** The study of extracurricular activities in secondary schools has taken many forms and utilized numerous theoretical frameworks. In the most comprehensive review of extracurricular activity research to date, Feldman and Matjasko (2005) suggested that while targeted theories are valuable they are not sufficient to explain the complex phenomenon of extracurricular activity participation. They argue that an overarching theoretical framework must be established in order to move the field of study forward in a unified direction.

Ecological Systems theory (Bronfenbrenner, 1979) states that many different levels of the environment influence an individual’s development. Feldman and Matjasko
(2005) propose that this theory is valuable in guiding the study of extracurricular activities given the complexity of the topic. Student participation and the benefits they derive from that participation are the result of many different aspects of a student’s environment including home life, school culture, and peer group. For example, students with parents who themselves participated in extracurricular activities may encourage participation more than parents who did not participate. Schools who value and encourage academic performance over extracurricular activity participation may limit involvement in non-academic activities based on student grades. Students from low SES backgrounds may not be able to afford the activity fees associated with participation. In each of the preceding examples systems outside of the student interact to influence participation.

Feldman and Matjasko (2005) suggest applying Ecological Systems theory as a way of expanding our knowledge of the selection mechanisms that affect student participation in extracurricular activities. The authors outlined four contextual levels beyond the individual level that include family, peer, school, and neighborhood. The individual level includes characteristics such as gender and age. The remaining contextual levels present a complex set of factors to be considered when attempting to explain selection mechanisms. Each of these levels interacts to influence a student’s decision to self-select into participation in extracurricular activities. Various factors play a role in self-selection at the family level including the relationship quality between the parent and student and the parents level of education. As students transition into adolescence the peer group plays an increasing role. At the peer contextual level, factors such as college plans, academic performance, risk-taking behaviors, and emphasis on activities begin to
influence a student’s decision to participate. The school and neighborhood contextual levels described by Feldman and Matjasko influence decisions to participate through the availability of activities and the involvement of adults such as teachers and members of the community. Each of these contextual levels represents a valuable area of study united under a single theoretical framework that can serve to guide future extracurricular research.

Given the high rates of participation in extracurricular activities during adolescence (between 50% and 70% of adolescents participate in some sort of activity) (Feldman & Matjasko, 2007, Larson & Verma, 1999) it is reasonable to assume that extracurricular activity participation is itself an important context for adolescent development. Feldman and Matjasko (2007), building on previous research examining breadth and depth of participation in extracurricular activities, examined portfolios of adolescent participation. The authors utilized Ecological Systems theory as a framework for explaining participation as a specific context of adolescent development. The study identified a new way to categorize extracurricular activities by dividing them into mutually exclusive portfolios that include sports only, academics only, school only, performance only, multiple activities, and non-participants. Ecological Systems theory is utilized in this application as a way to organize the study as opposed to a way to explain a phenomenon, as is the case with the other theories described below.

Ecological Systems Theory provides a framework for understanding the potential value-add extracurricular activity participation provides to academic and social interventions. There are many similarities between current evidence-based practices in the classroom context and extracurricular activities. The characteristics of extracurricular
activities described by Mahoney and Stattin (2000) (i.e., regular participation schedules, rule-guided engagement, direction by one or more adult activity leaders, an emphasis on skill development that is continually increasing in complexity and challenge, activity performance that requires sustained active attention, and clear feedback on performance) parallel many of the characteristics of evidence-based classroom management practices outlined by Simonsen, et al. (2008). Extracurricular activities maximize structure through rule guided engagement, scheduling, and adult leadership; increase engagement by requiring sustained active attention and an emphasis on progressive skill development; and provide regular performance feedback.

**Capital Theory.** Capital theory provides a framework for understanding the social benefits of participation in extracurricular activities. In Capital theory individuals seek social, human, and cultural capital in an effort to maintain resources and bolster their position in their environment (Liu et al., 2004). Social capital refers to relationships and connections that lead to social class benefits (Broh, 2002). In the workplace, social capital exists in the form of a friendship with a supervisor or in a vast array of business contacts that yield new accounts. In schools, social capital ranges from a large friend network to belonging to the “in crowd.” These social connections afford the holder a better position in the social structure of the school.

Human capital is a perceived value gained from education, intelligence, or physical attributes such as beauty or strength (Liu et al., 2004). For adults, human capital is often manifested as a high paying or respected career and results in greater social capital. Human capital is often more superficial for students and comes in the form of
physical strength, athletic ability, or beauty. Individuals with high human capital often have high social capital (Liu et al., 2004).

Broh’s (2002) study of the effects of extracurricular activity participation on academic performance utilized Capital theory to explain the benefits of involvement in extracurricular activities. Broh used the National Educational Longitudinal Study of 1988 (NELS; 1988) to examine the effects of extracurricular participation on academic achievement. The study supported previous research concluding that participation in sports, specifically interscholastic sports, is related to higher math test scores and overall better classroom grades. In addition to supporting these previously established findings, Broh uses Capital theory to hypothesize that students from disadvantaged backgrounds often lack social capital and that participation may serve as a vehicle for social capital acquisition through greater interactions with peers and school personnel. Further, Broh stated that students who gain social capital from participation in extracurricular activities identify with the source of their social capital and, in turn, are less likely to exhibit negative behaviors. In other words, students who participate in extracurricular activities form connections with the school environment and, in turn, are more likely to engage in pro-social behaviors.

Maag’s (2006) review of social skills training programs described the need for improved generalization programming for social skills training that includes opportunities to practice socially valid social skills in authentic environments with peers. Capital Theory as it specifically relates to social capital acquisition helps make a connection between social skills training and participation in extracurricular activities. Extracurricular activity participation may be one avenue for social skills training.
programs to overcome the hurdle of generalization of social skills for students with EBD in two ways. First, participation in extracurricular activities provides students with an opportunity to practice social skills that have been learned through social skills training programs in authentic environment with peers. Second, participation in extracurricular activities can potentially lead to increased social capital that can reinforce the use of social skills in a new environment.

*Social Control Theory.* Social Control Theory (Hirschi, 1969) states that involved and connected students are less likely to exhibit deviant behavior or drop out of school (Finn, 1989). According to Finn’s (1998) participation-identification model extracurricular activities are one avenue to increased engagement in school that can result in decreased likelihood of behavioral issues and lower dropout rates. He argues that participation in extracurricular activities leads to a greater sense of belonging or connection with the school that translates to lower dropout rates.

The participation-identification model is an adaptation of Social Control theory (Finn, 1989). Social control theory states that an individual who bonds with an institution is less likely to exhibit deviant behavior. The bonds consist of four elements: (a) concern for others’ opinions; (b) a decision to behave in an acceptable manner; (c) using time in ways encouraged by the organization or institution; and (d) a view that the organization’s principles are valid and worthwhile (Hirschi, 1969). Research shows that when these bonds are weakened the student is more likely to engage in negative behaviors (Hirschi, 1969; Liska & Reed, 1985).

Finn (1989) suggests encouraging students to participate in extracurricular activities to increase connection with school. He argues that students who spend more
time in the school environment have a greater chance of developing a connection with the school. Extracurricular activities may be even more important for students whose academic abilities are weak, making classroom efforts to increase the connection to school less effective.

The theories described above provide a framework for understanding how extracurricular activities can serve as (a) a value-added to existing classroom behavioral interventions, (b) an opportunity for authentic peer and adult interactions to practice social skills, and (c) a vehicle to increase school engagement. Ecological Systems theory provides researchers with a theoretical framework for studying extracurricular activities. By focusing on the contexts of adolescent development (peers, family, self, etc.) researchers are better able to focus their efforts and narrow their lens when studying a complex subject such as extracurricular activities. Feldman and Matjasko (2007) suggested that given the high rates of participation by adolescents, extracurricular activities could even serve as its own context of adolescent development. Ecological Systems Theory also illuminates the connection between the classroom and extracurricular activity contexts.

Capital theory, specifically social capital provides a rationale for the social benefits of extracurricular activity participation. Broh used Capital theory to hypothesize that participation may serve as a vehicle for social capital acquisition through greater interactions with peers and school personnel. Students with EBD who lack social skills and have few opportunities to acquire social capital may benefit from the peer interaction opportunities available through extracurricular activity participation. Capital Theory provides a framework for understanding the potential usefulness of extracurricular
activity participation in overcoming the challenge of generalization in social skills training programs.

Social control theory states that an individual who bonds with an institution is less likely to exhibit deviant behavior. Finn (1998) discussed the potential for extracurricular activities to serve as a vehicle for increasing a student’s sense of belonging and identification with the school and peers. This sense of belonging and identification, also known as school connectedness (Lohmeier & Lee, 2011), has the potential to lead to decreases in problem behaviors and lower dropout rates for students with EBD.

These theories provide researchers with both a rationale for improved outcomes and a framework for organizing research. The following sections present the research surrounding extracurricular activities. This research includes longitudinal and cross-sectional studies examining the effects of participation on student outcomes, the roles of peers in extracurricular activities, identity formation and extracurricular activities, and extracurricular activity participation and antisocial/deviant behavior. The limitations of the existing body of research surrounding extracurricular activities as it relates to students with EBD will also be discussed.

**Extracurricular Activity Research**

The prevalence of extracurricular activities in American high schools has led to a significant amount of research examining the effects of student participation. The majority of research conducted to date has been longitudinal and cross-sectional in nature and has clearly demonstrated a relationship between extracurricular activity participation by adolescents and improved outcomes across a myriad of factors. This research has examined several aspects of extracurricular activities including its effects on academic
and post-school outcomes, risk taking behavior, peer relationships, identity formation, and anti-social behaviors.

Extracurricular Activities and Student Outcomes. Early research examining the effects of extracurricular activities on typically developing student outcomes drew a clear link between participation and increased academic performance (Otto, 1975); subsequent longitudinal and cross-sectional research supports these early claims (Darling, Caldwell, & Smith, 2005; Denault & Poulin, 2009; Eccles & Templeton 2002; Fredricks & Eccles, 2005; Marsh & Kleitman, 2002; Zaff, Moore, Papillo, & Williams, 2003). With a clear relationship established between academic performance and participation in extracurricular activities, researchers attempted to unpack the association to determine specific details about the benefits of extracurricular activities.

Eccles, Barber, Stone, and Hunt (2003) examined different types of activities and their effect on student outcomes using data from the Michigan Study of Adolescent Life Transitions (MSALT), a longitudinal study that followed 1800 youth from 6th grade through age 25. Researchers divided activities into five categories: (a) Pro-social activities (e.g., church attendance and volunteering); (b) performance activities (e.g., band, choir, and drama); (c) team sports; school involvement activities (e.g., student government and cheerleading); (d) and academic clubs (e.g., debate and foreign language clubs). Results from students’ self-report of participation indicated that students participating in pro-social activities reported lower rates of drinking alcohol, getting drunk, using drugs, and skipping school. Even though student participation in team sports predicted greater involvement in risk behaviors (e.g., drinking), sport participation continued to be associated with improved academic outcomes. Students participating in
team sports reported enjoying school more and were more likely to attend and graduate from college. Students participating in performing arts were less likely to exhibit risky behaviors than non-participating peers. Student involvement activities predicted enjoyment of school as well as higher GPAs in 12th grade and greater likelihood of college attendance and graduation. Students participating in academic clubs received higher GPAs, enjoyed school more, and were more likely to enroll in college.

In a similar longitudinal study examining the effects of specific activities, Bartko and Eccles (2003) used data from the Maryland Adolescent Development in Context (MADIC) study to examine the effects of student choice of activities on academic, behavioral, and emotional outcomes. The study examined outcomes associated with both structured activities (e.g., school sponsored extracurricular activities) and unstructured activities (e.g., watching television and spending time with friends). Findings supported previous research concluding that students who report participating in activities considered to be pro-social and structured resulted in the most favorable outcomes, including increased academic performance, fewer antisocial behaviors, and lower rates of depressive symptoms. Uninvolved students and students involved in more passive activities realized lower academic performance, higher rates of self-reported behavior problems, and higher rates of parent reported internalizing and externalizing behavioral problems.

Beyond participation in specific activities Fredricks and Eccles (2006a) examined the importance of duration, amount, and breadth of extracurricular activities. Their study found that positive outcomes were associated with student self-report of participation in a greater number and wider variety of activities during high school. A similar study
conducted by Denault and Poulin (2009) examined the relationship of intensity and breadth of involvement in extracurricular activities in grade 7 through 11 with academic orientation, risky behaviors, internalizing problems, and civic behaviors. Students were surveyed annually from grade 6 through grade 11. The study indicated that both intensity and breadth of involvement declined over the years; however, early involvement in extracurricular activities was a good predictor of a positive developmental trajectory over time. Students with high levels of early involvement demonstrated a greater commitment to school and developed more positive attitudes toward society by later grades.

**Extracurricular Activities, Peers, and Identity.** In addition to establishing participation in extracurricular activities as a contributor to positive outcomes, researchers recognize the need to understand why participation leads to positive outcomes. One possible explanation indicates that participation in extracurricular activities leads to greater involvement with a positive peer group. As part of the MSALT study, Eccles et al. (2003) asked students in 10th and 12th grades about the characteristics of their friends. Results indicated that participants in all activity types, except team sports, reported a higher proportion of friends who had college aspirations and were currently doing well in school.

Fredricks and Eccles (2005) used data from the Childhood and Beyond (CAB) study that gathered longitudinal data on three cohorts of children starting in kindergarten, 1st, and 3rd grades through high school and into their mid-twenties to examine the role of peer relationships on participation. Adolescents completed surveys in their classrooms asking about activity participation, school engagement, academic performance, psychological adjustment, peer relationships, and risk behavior. In this cross-sectional
study the researchers conducted two sets of analyses, the first set examined the
relationship between participation and student outcomes. The second set attempted to
show a relationship between involvement in activities and having pro-social friends and
that having pro-social friends is a predictor of involvement. Consistent with the previous
research by Eccles and Barber (1999), this study’s findings indicated that participation in
extracurricular activities led to greater school engagement and a decrease in depressive
symptoms. The authors attribute this to the social nature of participation and support from
peers and adults that are a significant part of extracurricular activities. The second set of
analyses found that the student’s peer group may help influence participation, and in turn
increase engagement in school and decrease the report of symptoms related to depression.
The findings suggest that involvement with extracurricular activities and realizing the
benefits of involvement may be due in part to the peer group a student identifies with.

The formation of an identity is a very important feature of adolescence. Eccles et
al. (2003) attempted to look past outcomes associated with involvement and instead into
what specific aspects of involvement may lead to positive outcomes. The researchers
asked students to identify themselves with one character from the then popular movie
“The Breakfast Club” (the study began in the early 1980’s). Students identified
themselves as “the jock,” “the princess,” “the brain,” “the criminal,” or “the basket-case.”
Findings indicated that how students identified themselves related to their participation
and outcomes. As expected, students identifying with jocks were highly involved in
sports. “Princesses” were overrepresented in performing arts and school-based activities
and “brains” in prosocial activities such as volunteering and church. Both “criminals” and
“basket-cases” were characterized by low participation, except in team sports and
performing arts, respectively. “Criminals” had the highest rates of risky behavior, but both “criminals” and “jocks” reported equal use of alcohol in grade 12. In 10th grade, 47% of “criminals” participated in extracurricular activities; however, by 12th grade 70% of those participants had stopped participating in extracurricular activities, representing the largest decline in participation of any group. This significant decrease in participation may be indicative of a gradual decline in school engagement that in many cases leads to dropouts and associates with behavioral problems. While the use of movie characters in a serious research study examining the outcomes of young people is dated, it demonstrates that the group a student identifies with contains significant influence on student outcomes and wellbeing.

**Extracurricular Activities, Antisocial Behavior, and Delinquency.** Several researchers have examined the effects of extracurricular activity participation on risky and antisocial behaviors of adolescents. Students who participate in extracurricular activities report fewer behavior problems, exhibit fewer risky behaviors (Eccles & Barber, 1999; Eccles, et al., 2003; Harrison & Narayan, 2003; Mahoney & Stattin, 2000), experience lower rates of mental health problems (e.g., depression; Bartko & Eccles, 2003; Bohnert, Kane, & Garber, 2008 Mahoney, Larson, Eccles, & Lord, 2005), and are less likely to drop out of school (Mahoney & Cairns, 1997; McNeal, 1999).

Mahoney (2000) examined the relationship between participation in extracurricular activities and patterns of antisocial behaviors utilizing data from the Carolina Longitudinal Study. This Carolina Longitudinal Study interviewed students about their social skills, aggression, and academic performance among other constructs. Mahoney reported that participation in structured extracurricular activities illustrated a
significant effect on students who previously exhibited antisocial behavior. Students involved in at least one activity prior to 11th grade exhibited low rates of school dropout and criminal arrest compared to non-participants.

Mahoney and Stattin (2000) examined adolescent tendency toward antisocial behaviors in both structured and unstructured activities in Sweden. By directly surveying youth participating in structured after school activities and youth attending the unstructured Swedish youth recreation center (similar to the Boy’s and Girl’s Club in the United States), the authors’ noted distinct differences between the two groups on measures of antisocial activities. Adolescents participating in structured activities exhibited low levels of antisocial behaviors, whereas, adolescents attending the low structure youth recreation center experienced much higher levels of antisocial behaviors. In addition to these findings, the study indicated that students with no activity participation illustrated lower levels of antisocial behavior than those in unstructured activities. These results may indicate that the other participants exert more influence on an adolescent’s display of antisocial behavior than the activities themselves, therefore the researchers concluded that non-participation may be better than a high risk individual’s participation with potentially deviant peers.

Wong (2005) reported similar findings regarding the role of peers in participation utilizing social control theory as a foundation for the research. Social control theory states that the more an individual is attached to a particular institution the less likely that individual is to exhibit delinquent behavior (Hirschi, 1969). Wong (2005) slightly reconfigured the theory to focus on a student’s attachment to a social setting such as school or friends. The study surveyed 578 students in grades 5-8 on their extracurricular
activity involvement and delinquent behaviors. Results indicated that time spent working on homework was the only activity related to lower levels of delinquency. This particular finding still has implications for the benefits of extracurricular activities given the “pass before play” policies pervasive in American schools. Extracurricular activity participation was a neutral factor in relation to reported rates of delinquency. Despite finding no direct support for extracurricular involvement Wong states that involvement in extracurricular activities remains important and outlines two potential characteristics of extracurricular activities that may lead to reduced delinquency. First, the activity must expose the student to positive peers and second, the students must have a strong relationship with those positive peers. In other words, the benefits of participation may result more from the influence of a positive peer group and less from the actual activity.

In their comprehensive review of the most recent literature surrounding extracurricular activities, Feldman-Farb, and Matjasko (2012) reviewed several longitudinal and cross-sectional studies examining the effects of participation on adolescent delinquency. The authors defined delinquency as antisocial behaviors, misconduct, arrest and risky behavior. Results of the reviewed studies generally indicated negative relationships between adolescent delinquency and participation in extracurricular activities.

Fleming et al. (2008) examined the relationships between teacher reported misbehavior in the classroom and self-reported delinquency between 6th and 9th grade. Students who participated in structured activities (e.g., youth groups, clubs, scouts, hobbies, homework, reading, dance, martial arts) reported lower rates of delinquency than students who participated in unstructured activities (e.g., hanging out at the mall or
neighborhood). Similarly, Guest and McRee (2009) used the National Longitudinal Study of Adolescent Health (Add Health, 2008) to examine the association between delinquency and extracurricular activity participation. The findings indicated that students who participate exhibit fewer delinquent behaviors than non-participants. While these studies are promising, other research indicates that participation in extracurricular activities does not always lead to improved outcomes or lower levels of delinquency.

A different analysis of the same database (Add Health) by Kreager (2007) demonstrated a significant relationship between participation in contact sports and serious fighting. Fauth et al. (2007) found that sports participation was associated with an increase in self-reported delinquency while community-based clubs, church groups, arts, and student government were not significant indicators of delinquent behaviors. Gardner, Roth, and Brooks-Gunn (2009) found that boys who reported participating in sports were more likely to report involvement in non-violent delinquent behaviors such as damaging property, shoplifting, and burglary than boys who participated in non-athletic activities.

The longitudinal and cross-sectional studies described above have shown that students who participate in extracurricular activities tend to perform better academically demonstrate improved interactions with adults and peers and have improved connections with schools than non-participants. This research has provided a foundation for future researchers who wish to examine the relationship between extracurricular activity participation and student outcomes and characteristics on a more detailed level using different research designs and more direct data sources.
Limitations of Current Extracurricular Activity Research

The literature base supporting extracurricular activities as a way to increase student engagement, improve interactions with adults and peers, and bolster academic achievement is vast but not without limitations. First, the majority of research conducted to date is descriptive in nature and gathered from student and parent report through longitudinal and cross-sectional studies. These studies have produced a wealth of information regarding the relationship between student outcomes and extracurricular activity participation; however, these relationships must be interpreted with caution given the lack of true experimental studies examining the effects of participation. Unfortunately, true experimental research is not possible because random assignment of students to experimental and control groups is not possible or ethical in extracurricular activity research. Second, no research has been conducted to date examining the relationship between extracurricular activities and the social skills and school engagement of students identified as having EBD. Research has demonstrated that extracurricular activity participation is positively related to improved outcomes in deficit areas of students with EBD (e.g., academic performance, social interactions with peers and adults, and school engagement) making this group of students ideal subjects for research examining the effects of extracurricular activity participation on social skills and school engagement for two reasons. First, the potential benefits of participation are socially and clinically valid for students with EBD. Second, this population of students has the potential to show measurable growth in all the areas extracurricular activity participation has been reported to affect. Table 1 provides an overview of major
extracurricular research findings to date and organized by key academic and social behavior concerns among students with EBD.

Table 1

*Extracurricular Activities, Academics, Social Skills, and School Engagement*

<table>
<thead>
<tr>
<th>Benefits of Extracurricular Activity Participation</th>
<th>Supporting Research</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improved Academic Performance</td>
<td>Broh (2002); Darling, Caldwell, &amp; Smith, 2005; Denault &amp; Poulin, 2009; Eccles, Barber, Stone, &amp; Hunt (2003); Eccles &amp; Templeton 2002; Feldman &amp; Matjasko (2005); Fredricks &amp; Eccles (2006); Fredricks &amp; Eccles, (2005); Marsh &amp; Kleitman, (2002); Otto, (1975); Zaff, Moore, Papillo, &amp; Williams, (2003)</td>
</tr>
<tr>
<td>Improved Peer and Adult Interactions</td>
<td>Broh (2002); Eccles, Barber, Stone, &amp; Hunt (2003); Fredricks &amp; Eccles (2006); Denault &amp; Poulin (2009); Fredricks &amp; Eccles (2005); Mahoney &amp; Stattin (2000); Wong (2005); Feldman-Farb, &amp; Matjasko (2012); Fleming et al. (2008); Guest &amp; MaRee (2009)</td>
</tr>
<tr>
<td>Improved School Engagement</td>
<td>Eccles, Barber, Stone, &amp; Hunt (2003); Fredricks &amp; Eccles (2006); Finn, (1989); Finn (1998); Denault &amp; Poulin (2009); Eccles &amp; Barber (1999); Mahoney (2000); Mahoney &amp; Cairns, (1997); McNeal, (1995)</td>
</tr>
</tbody>
</table>
Potential Role of Extracurricular Activities for Students with EBD

The body of existing research and the established need of students with EBD suggest extracurricular activities have the potential to play an important role in improving outcomes for students with EBD in three ways. First, the characteristics of extracurricular activities may serve as a value added to the existing classroom practices aimed at improving academic and social outcomes for students with EBD. Second, extracurricular activities may provide authentic opportunities for students with EBD to practice social skills learned within classroom settings to generalized settings. Third, extracurricular activity participation has the potential to increase school engagement for students with EBD.

*Extracurricular Activities and Academic Performance.* By definition, extracurricular activities are adult led, structured, and rule-guided activities emphasizing skill development, and requiring sustained active attention with clear feedback on performance (Mahoney & Stattin, 2000). There are clear parallels between the current body of evidence-based classroom practices (Simonsen, et al, 2008) for students with EBD and Mahoney and Stattin’s (2000) widely accepted definition of extracurricular activities (See Table 2).
Table 2

Evidence-Based Classroom Practices for Students with EBD and Key Features of Extracurricular Activities

<table>
<thead>
<tr>
<th>Evidence-Based Classroom Management (Simonsen, et al., (2008))</th>
<th>Extracurricular Activity Characteristic (Mahoney &amp; Stattin, 2000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Maximize Structure</td>
<td>- Adult-led, Regular Schedule, Rule Guided Engagement,</td>
</tr>
<tr>
<td>- Increase Engagement</td>
<td>- Regular Schedule, Sustained and Active Attention, Progressive Skill Development</td>
</tr>
<tr>
<td>- Performance Feedback</td>
<td>- Provide Clear Feedback Regarding Performance or Participation</td>
</tr>
</tbody>
</table>

_Extracurricular Activities and Social Skills._ Extracurricular activities have the potential to provide an authentic environment for students with EBD to practice social skills they have learned in more restrictive settings. This addresses Maag’s (2006) observation of limited generalization programing in social skills training programs. Sports, clubs, and other extracurricular activities typically involve direct and sustained interactions with peers and adults. These interactions may serve as an opportunity to work toward generalization and maintenance of the newly acquired or enhanced social skills learned in social skills training programs (Gresham, 1998).

_Extracurricular Activities and School Engagement._ According to the US Department of Education (2008), 44.9% of students with EBD dropped out of school before graduation. Dropout prevention research indicates that increasing student engagement in school is an important weapon to battle dropout (Finn, 1989). One way to increase engagement in school is through participation in extracurricular activities. Research clearly shows that students who are involved in structured, adult led activities at school are more connected to the school and less likely to dropout (Eccles, Barber, Stone,
Participation has the potential to increase school engagement across peers, adults, and the school as a whole for students with EBD. Extracurricular activity participation also has the potential to serve as a value-add to existing academic and social interventions designed to increase engagement.

Summary

Outcomes for students with emotional and behavioral disorders (EBD) are poor when compared to other disability areas (Culinan & Sabornie, 2004; Walker, Ramsey, & Gresham, 2004). These students tend to experience poor attendance, low academic achievement, failing grades, conflicts with adults and peers, disruptive behavior, and numerous mental health issues (Lane, Carter, Pierson, & Glaeser, 2006; Merrell & Walker, 2004). Interventions have been developed to address the low academic achievement, conflicts with adults and peers, and high dropout rates for this population of students yet the outcomes to date show limited impact on overall rates of each of these issues (US Department of Education, 2008). Given the continued poor outcomes of students with EBD despite concerted efforts to develop interventions within the school day it is important to continue to search for new opportunities to improve the outcomes for this population of students.

Extracurricular activities are prevalent in high schools and communities across America. The availability of extracurricular activities and the benefits associated with them make participation a potentially valuable addition to current interventions for students with EBD. Research has demonstrated that students who participate in
extracurricular activities realize improved outcomes in many of the areas students with EBD continue to struggle. Extracurricular activity participation may provide an avenue for students with EBD to improve behaviors related to academic performance, generalize and maintain social skills they learn in more restrictive settings, and increase their engagement with school. Each of these factors has the potential to lead to improved outcomes.

**Need for the Study**

Extracurricular activity research has consistently found a positive relationship between participation, social skills, and student engagement. Researchers agree that students who participate in extracurricular activities tend to demonstrate positive interactions with peers and adults and are more engaged in school making them less likely to dropout. Despite this clear connection, no research has been conducted specifically examining these relationships in students with EBD. Determining a relationship exists between extracurricular activity participation, social skills, and school engagement may lead to further research examining ways to increase participation by students with EBD and the potential use of extracurricular activities as an intervention for students with EBD.

The proposed study has four aims: (1) identify rates of participation in extracurricular activities by students with EBD and determine the types of activities students with EBD participate, (2) examine the relationship between extracurricular activity participation and social skills of students with EBD, (3) examine the relationship between extracurricular activity participation on the school engagement of students with EBD, and (4) examine potential differences between student participants and non-
participants with and without EBD on measures of social skills and school engagement. Each of these aims will help determine the need for further research into extracurricular participation and students with EBD.

**Research Questions**

This study is designed to examine the following questions:

1. What is the current state of participation in extracurricular activities by students with EBD and how does participation differ from typical students?
   a. Do students with EBD participate in extracurricular activities?
   b. What kinds of extracurricular activities do students with EBD participate?
   c. Is there a difference between the rates of participation of students with EBD and students who are not identified as EBD?
   d. Do students with EBD participate in the same types of activities as students who are not identified as EBD?

2. Is there a relationship between participation in extracurricular activities and the reported social skills of students with EBD?

3. Is there a relationship between participation in extracurricular activities and the level of reported school engagement of students with EBD?

4. Are breadth and intensity of extracurricular activity participation indicators of appropriate levels of social skills and school engagement in students with EBD?

5. Are there differences between students with EBD who participate in extracurricular activities and typical students who participate in extracurricular activities on measures of social skills and school engagement?
CHAPTER II

METHOD

Study Overview

The purpose of this study was to investigate the relationship between extracurricular activity participation, social skills, and school engagement in students with EBD. The study was designed to answer the following research questions:

1. What is the current state of participation in extracurricular activities by students with EBD and how does participation differ from typical students?
   a. Do students with EBD participate in extracurricular activities?
   b. What kinds of extracurricular activities do students with EBD participate in?
   c. Is there a difference between the breadth and intensity of participation of students with EBD and students who are not identified as EBD?
   d. Do students with EBD participate in the same types of activities as students who are not identified as EBD?

2. Is there a relationship between participation in extracurricular activities and the reported social skills of students with EBD?

3. Is there a relationship between participation in extracurricular activities and the level of reported school engagement of students with EBD?

4. Are breadth and intensity of extracurricular activity participation indicators of appropriate levels of social skills and school engagement in students with EBD?
5. Are there differences between students with EBD who participate in extracurricular activities and typical students who participate in extracurricular activities on measures of social skills and school engagement?

A survey was developed to study student involvement in school and community-based extracurricular activities as well as student reported social skill use, and level of school engagement. An ex-post facto causal-comparative design was used to determine if participation in extracurricular activities was related to student report of social skills and school engagement. Following IRB approval, the study was conducted in three phases: (a) development/adaptation of survey instruments, (b) recruitment of research sites, (c) survey and related measure administration and data analysis. This chapter describes the sample and settings where the study was conducted as well as detailed description of the studies procedures.

Participants and Setting

School Recruitment

Student participants were drawn from high schools that were currently participating in the Center for Adolescent Research in Schools (CARS) project (Kerns, Evans, & Lewis, 2012). The CARS project is a national randomized control trial study examining the effects of packaged interventions for high school students with and at-risk for emotional and behavioral disorders. Two of the university sites participating in the CARS study, the University of Missouri and the University of Kansas, were selected for the present study based on their proximity to the researcher and their willingness to participate. Across these two sites twelve schools were recruited for participation based
on their involvement in the CARS project. Schools ranged from rural to urban and varied in student demographics (see table 3).
### Table 3

**School Demographics**

<table>
<thead>
<tr>
<th>School</th>
<th>Setting</th>
<th>Enrollment</th>
<th>Free/Reduced Lunch (Percent)</th>
<th>Race/Ethnicity Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Asian</td>
<td>Black</td>
</tr>
<tr>
<td>School 1</td>
<td>Urban</td>
<td>1882</td>
<td>38.9</td>
<td>4.8</td>
</tr>
<tr>
<td>School 2</td>
<td>Suburban</td>
<td>1790</td>
<td>19.1</td>
<td>6.2</td>
</tr>
<tr>
<td>School 3</td>
<td>Rural</td>
<td>766</td>
<td>45.1</td>
<td>.7</td>
</tr>
<tr>
<td>School 4</td>
<td>Rural</td>
<td>381</td>
<td>47.6</td>
<td>0</td>
</tr>
<tr>
<td>School 5</td>
<td>Urban</td>
<td>1929</td>
<td>40.1</td>
<td>1.5</td>
</tr>
<tr>
<td>School 6</td>
<td>Suburban</td>
<td>908</td>
<td>43</td>
<td>.1</td>
</tr>
<tr>
<td>School 7</td>
<td>Rural</td>
<td>602</td>
<td>39.1</td>
<td>.5</td>
</tr>
<tr>
<td>School 8</td>
<td>Urban</td>
<td>1482</td>
<td>52.9</td>
<td>9.4</td>
</tr>
<tr>
<td>School 9</td>
<td>Urban</td>
<td>1382</td>
<td>39.5</td>
<td>2.5</td>
</tr>
<tr>
<td>School 10</td>
<td>Urban</td>
<td>1346</td>
<td>48</td>
<td>2</td>
</tr>
<tr>
<td>School 11</td>
<td>Urban</td>
<td>1471</td>
<td>20.9</td>
<td>&lt;5*</td>
</tr>
<tr>
<td>School 12</td>
<td>Urban</td>
<td>758</td>
<td>77.7</td>
<td>&lt;5.2*</td>
</tr>
</tbody>
</table>

NR=Not Reported; * Kansas schools report totals lower than 10 and <10 per FERPA, numbers are estimates
Participants

Two samples of students were targeted for the present study, an EBD sample and a typical sample. The EBD sample included students with both internalizing and externalizing behaviors including both IDEA identified students under the categories of Seriously Emotionally Disturbed, Learning Disabled, and Other Health Impaired, as well as non-IDEA high risk students being served on 504 plans. The typical sample included students who had not been identified as having a disability. The sampling procedures described below were designed to increase the likelihood that the results of the study could be generalized to the population of students diagnosed as having an EBD as well as to make a comparison between the EBD and Typical samples. The following sections detail the inclusion and exclusion criteria for both student samples.

The EBD sample was identified to determine if there is a difference in student report of social skills and school connectedness between participating and non-participating students with EBD. All students in this sample were previously consented and found eligible to participate in the CARS study. CARS participants were determined in the following ways. First, schools were asked to nominate students for the study with a record of office discipline referrals, classroom disruptions, absences, or tardies. After the lists of students meeting these criteria were obtained each nominated student was screened by CARS project staff and excluded if they met any of the following exclusionary criteria: (a) student is diagnosed as having an IQ of 70 or lower, or an autism spectrum disorder; and (b) student attended a school in an alternative setting including but not limited to homebound instruction, career centers, alternative schools, or post-secondary enrollment options that cause the student to be at the school and in class.
for the entire school day. Remaining students were administered the Behavior Assessment System for Children, Second Edition (BASC-2) (Reynolds & Kamphaus, 2004). The BASC-2, Teacher, Parent, and Self-report, Adolescent version, is a comprehensive behavior rating scale that measures both internalizing and externalizing behaviors. The assessment is suitable and normed for high school students. The special education teacher (if applicable), two general education teachers, the student, and parents completed this assessment. The BASC-2 requires the individual to rate child/adolescent behavior on two scales, adaptive and clinical, with subscales consisting of Aggression, Anxiety, Attention Problems, Atypicality, Conduct Problems, Depression, Hyperactivity, Learning Problems, Somatization, and Withdrawal. The Self-Report version subscales are Alcohol Abuse, Anxiety, Attention Problems, Attitude to School, Attitude to Teachers, Atypicality, Depression, Hyperactivity, Locus of Control, School Maladjustment, Sensation Seeking, Sense of Inadequacy, Social Stress, and Somatization. Test reliability and scale inter-correlations are adequate (Gladman & Lancaster, 2003). Students with social, emotional, or behavioral problems as indicated by BASC-2 parent reports on a broad band rating scale or BASC-2 student self-report on measures of anxiety and depression were eligible for participation in the CARS and present study. Finally, student records were reviewed to determine if the students had a record of discipline problems including office referrals, absences, and tardies as well as a history of failing grades. A total of 82 students were eligible for participation based on the above criteria and 80 students were included in the EBD sample across the twelve participating CARS schools in Kansas and Missouri (see Table 4). Two eligible students were suspended during assessment administration and did not complete assessments.
### Table 4

**EBD Sample Demographics**

<table>
<thead>
<tr>
<th>School</th>
<th>Gender</th>
<th>Race</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
<td>White/Caucasian</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>School 2</td>
<td>6</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>School 3</td>
<td>6</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>School 4</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>School 5</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>School 6</td>
<td>6</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>School 7</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>School 8</td>
<td>7</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>School 9</td>
<td>5</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>School 10</td>
<td>4</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>School 11</td>
<td>6</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>School 12</td>
<td>3</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>51</td>
<td>29</td>
<td>48</td>
</tr>
</tbody>
</table>
The Typical sample was obtained by inviting non-CARS students at each of the 12 high schools to participate in the study. No students in this sample were screened or tested and all participants remained completely anonymous. This sample was identified to serve as a comparison group for the EBD sample. Inclusionary criteria for the Typical sample includes: (a) student is in grades 9-12, and (b) student is enrolled in a participating high school. Students were not included in this sample if they did not give their assent to participate in the survey. The Typical sample was recruited by contacting administrators via phone or in person at the twelve schools participating in the CARS study in Kansas and Missouri and requesting that they post or distribute a flyer with directions to access the extracurricular activity survey online (see appendix A). The flyer requested student participants for a study examining extracurricular activity participation, social skills, and school engagement. The recruitment flyer also stated that students who complete the survey would be eligible to win a $50 iTunes gift card. The iTunes gift card was purchased by the researcher and a winner was drawn from emails students entered in a survey that was linked to the main survey yet was separate to maintain the anonymity of student participants. Students accessed the survey by either entering the URL into their browser and completing the survey or by emailing the researcher to receive a link to the survey. In addition to the recruitment flyer, student participants for the typical sample were also recruited by handing out small “business cards” in the media centers of participating schools. The “business card” contained a brief description of the study and a URL that linked to website with the complete recruitment flyer approved by the IRB. Students could then link directly to the survey using a link in the recruitment flyer on the website. Upon accessing the survey by either the hard copy recruitment flyer, emailed
link, or web-based recruitment flyer the students prompted to respond to a question about if they were over or under 18 years old. The student’s response directed them to an online consent form based on their age. Students were prompted to read the online consent form and were given the option to consent or decline consent by clicking “yes” or “no” at the end of the form. If a participant agreed to the consent form and clicked “yes” the survey began. If a participant did not agree to the consent form and clicked “no” they were redirected to the end of the survey and not allowed to answer any questions. Students who declined to consent were still eligible to enter their email address for the drawing for the iTunes gift card. The typical sample for the present study consisted of a final total of 41 students.

**Procedures**

The study utilized survey data consisting of student self-report of extracurricular activity participation, social skills, and school engagement. The study was conducted in three phases. Phase one included the development/adaptation of an instrument to measure student involvement in extracurricular activities and obtaining and preparing existing measures for administration. Phase two included the administration of the student surveys to both samples of students. Phase three consisted of data analysis from the student survey including a comparison between participants and non-participants and analyzing descriptive data gathered form the surveys.

**Development and Adaptation of Student Surveys and Related Student Measures**

Phase one involved three core tasks: Develop/adapt a survey to measure student extracurricular activity participation, obtain existing measures (i.e., social skills measure
and school engagement measure), and prepare all measures for distribution and administration.

In order to measure participation in extracurricular activities the researcher developed a short survey based on Denault and Poulin’s 2009 study examining the breadth and depth of extracurricular activity participation and its effect on student outcomes. Development of this measure required clearly defining extracurricular activities based on the existing literature, writing the measure, soliciting reviews of the measure by teachers and fellow doctoral students, revising the measure, determining readability, testing it with students, and finally adapting it for use with both samples of students. Each of these tasks is discussed in detail below.

Extracurricular activity research has focused on school-sponsored activities, however, in their recent review of extracurricular activity research, Feldman-Farb and Matjasko (2012) discussed the difficulty of disentangling community based activities and their effect on students from school-based activities. For this reason the extracurricular activity definition adopted for this study was developed by Mahoney and Stattin, (2000) and includes community based activities (see table 5). This is a common definition in extracurricular activity research (Eccles, Barber, Stone, & Hunt, 2003; Fredricks and Eccles, 2006) and the definition used by Denault and Poulin in their 2009 study described above.
Table 5

*Definition of Extracurricular Activities (Mahoney and Stattin, 2000)*

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adult led</td>
<td><em>An adult coach or sponsor who is responsible for directing the activity is present for the duration of every practice or meeting.</em></td>
</tr>
<tr>
<td>Regular participation schedules</td>
<td><em>The activity has a written schedule that includes meetings, practices, performances, or meets at least once per week.</em></td>
</tr>
<tr>
<td>Rule guided engagement</td>
<td><em>Participation in the activity follows specific rules and conventions.</em></td>
</tr>
<tr>
<td>Emphasis on progressive skill development</td>
<td><em>The activity requires participants to learn new skills and continue to develop and hone skills as the activity progresses.</em></td>
</tr>
<tr>
<td>Participation requires sustained and active attention</td>
<td><em>Participants cannot passively participate in the activity. Examples of activities that require sustained and active attention include team and individual sports, performance groups such as band and choir, and student government organizations. Activities such as Boys and Girls Club and other similar activities do not require active and sustained attention.</em></td>
</tr>
<tr>
<td>Clear feedback</td>
<td><em>Participants are provided clear feedback regarding their performance or participation.</em></td>
</tr>
</tbody>
</table>
Extracurricular activities that met the definition above were divided into seven categories based on Denault and Poulin’s (2009) study of breadth and intensity of participation in extracurricular activities. The categories are as follows: (1) individual sports including martial arts, gymnastics, swimming, wrestling, etc.; (2) team sports including baseball, football, volleyball, soccer, hockey, basketball, etc.; (3) fine arts activity including drama, dance, art, band, choir, etc.; (4) academic clubs including math club, chess club, computer club, newspaper, radio, student government, etc.; (5) community oriented activity such as Boy Scouts, Girl Scouts, 4-H, etc.; (6) organized service activity including volunteer experience, teacher assistant, special Olympics coach/assistant, etc.; and (7) faith-based youth groups.

After determining a definition of extracurricular activities (Mahoney and Stattin, 2000) and defining categories of extracurricular activity participation (Denault & Poulin, 2009; Fredricks & Eccles, 2006) using the most current literature surrounding extracurricular activities a survey was developed to ascertain student involvement in extracurricular activities. The survey consisted of 21 questions (see appendix B). Each category of ECA (e.g., Team Sports) made up a cluster of three questions. The first question in each cluster required a yes/no response regarding student participation in the ECA category. The second and third questions asked about depth of participation by asking participants to report how many months they participated in the activity and how many hours per week students participated. Each cluster of questions required the same responses, however students were given the option to skip the second two questions in the cluster if the answer to the first question was “no” meaning they did not participate in that ECA category. The Flesch-Kincaid readability score for the measure is 76.1 with a
grade level score of 6.6 meaning the survey should be readable for students in 6th through 12th grade.

The completed survey was reviewed by teachers and special education doctoral students and revised by the researcher based on recommendations by the reviewers. The survey was administered to a subset of the students participating in the CARS study to determine completion time and the clarity of the questions. Each test participant completed the survey in under 5 minutes.

The ECA survey was scored in the same manner described by Denault and Poulin (2009) for their survey examining the breadth and intensity of participation in ECA’s. Each cluster of questions was given two scores, the first question in the cluster was scored as 1 if the answer was yes meaning the participant did participate in the category of ECA in the present school year and a 2 if the participant did not participate in the category of ECA in the present school year. The second two questions in the cluster regarding intensity of participation were scored by first assigning a value to each possible response. The two values were then multiplied together to give an intensity of participation score for each cluster. For example, if a student participated in team sports for 3-4 months (scored 3) for 3-4 hours per week (scored 4) the intensity of participation score for that cluster will be 12. After scoring each cluster, a total breadth score was calculated by adding all the 1’s together. The total intensity score was calculated by adding all the cluster intensity scores together (see table 6).
Table 6

_ECA Scoring Table – Intensity of Participation_

<table>
<thead>
<tr>
<th>Response</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Months</strong></td>
<td></td>
</tr>
<tr>
<td>Less than 1 month</td>
<td>1</td>
</tr>
<tr>
<td>1-2 months</td>
<td>2</td>
</tr>
<tr>
<td>3-4 months</td>
<td>3</td>
</tr>
<tr>
<td>More than 4 months</td>
<td>4</td>
</tr>
<tr>
<td><strong>Hours Per Week</strong></td>
<td></td>
</tr>
<tr>
<td>Less than 1 hour per week</td>
<td>1</td>
</tr>
<tr>
<td>1-2 hours per week</td>
<td>2</td>
</tr>
<tr>
<td>2-3 hours per week</td>
<td>3</td>
</tr>
<tr>
<td>3-4 hours per week</td>
<td>4</td>
</tr>
<tr>
<td>4-5 hours per week</td>
<td>5</td>
</tr>
<tr>
<td>More than 5 hours per week</td>
<td>6</td>
</tr>
</tbody>
</table>

Social Skills and School Connectedness. Two existing measures were utilized to assess student social skills and school connectedness. The Social Skills Rating System (SSRS) Student Report (Gresham & Elliott, 1990) and the School Connectedness Scale (SCS) (Lohmeier & Lee, 2011) were administered to all students in the study. These measures were chosen because they assess factors related to participation in extracurricular activities that are outlined in the literature and theory surrounding extracurricular activities (Eccles, Barber, Stone, & Hunt, 2003; Fredricks & Eccles, 2006; Denault & Poulin, 2009; Fredricks & Eccles, 2005; Eccles & Barber, 1999; Harrison & Narayan, 2003; Mahoney & Stattin, 2000; Mahoney & Cairns, 1997; McNeal, 1995). As highlighted in the preceding chapter, participation in extracurricular activities provides students with opportunities to generalize and maintain social skills through interactions with positive peers (Wong, 2005) and to connect with peers, adults, and the school as a whole (Finn, 1989). Improved social skills and increased connection with school are
possible contributing factors to the positive outcomes experienced by extracurricular activity participants.

The SSRS Student Form was used to assess social skills of student participants and non-participants. The Secondary Level version of the SSRS is applicable up to age 18, grade 12 and assesses five areas of social skills: 1) cooperation (helping others, sharing materials, and following expectations and instructions), 2) assertion (initiating behaviors such as asking others for help and introducing oneself to others), 3) responsibility (behaviors that demonstrate a regard for property and others), 4) empathy (behaviors that show concern and respect for others points of view), and 5) self-control (behaviors that emerge in conflict situations such as responding to teasing as well as behaviors related to taking turns and compromising). Items are rated on a 3-point scale: 0 = “Never,” 1 = “Sometimes,” 2 = “Very Often.” The internal consistency, test-retest reliability, and concurrent validity of the SSRS are adequate (Gresham, Elliot, Vance, & Cook, 2011). The student form of the SSRS has been shown to have acceptable concurrent validity with the teacher report form on the total scale as well as the cooperation and assertion subscales (Diperna & Volpe, 2005).

The SCS was used to assess the influence of participation in extracurricular activities on school connectedness. The SCS assesses school connectedness across three levels of connectedness (general, specific, and engagement) and three sources of connectedness or relationships (school, teachers/adults, and peers) and is conceptualized as a 3x3 matrix crossing the three relationships and the three levels of connectedness. Items include questions about observable behavior (e.g., My teachers give me extra help when I need it) and feelings or values (e.g., I think school is important). All items are
rated on a five-point scale from 1 (not true at all) to 5 (completely true). The psychometric properties of the SCS were examined using a sample of 260 high school students from a suburban school in the northeastern United States and 669 high school students from a large urban school. Students with special education classifications, low SES, and English Language Learners were included in both samples. The SCS has acceptable reliability (Chronbach’s alpha= .78) and clear factor structure. The researcher acquired the SCS by contacting the developer and requesting a copy for use in the present study. The purpose of the study was explained to the developer and an agreement was reached to share the results of the study to assist the developer in further efforts in assessing reliability and validity of the SCS in exchange for use of the measure.

The researcher combined the three surveys into both a paper and online format. The EBD sample was administered the paper version of the survey and the typical sample only had access to the online version in order to maintain confidentiality per IRB requirements. The final combined survey totaled 114 questions. The paper format consisted of five double-sided pages. Both Qualtrics and Survey Monkey hosted the online survey. Qualtrics is a survey website that allows researchers to develop surveys and manage responses securely and anonymously. The survey was hosted using Qualtrics. Survey Monkey was used to allow for students to enter the drawing for a $50 iTunes giftcard in a separate survey to ensure that no student identities were connected with the main survey responses (see below for details).

**Administration of Survey Instruments to Student Participants**

**Preliminary Power Analysis.** An a-priori power analysis to determine the approximate number of participants needed to achieve a power of at least .80 at a 95%
confidence level (Gersten, et al., 2005) for the expected analysis (independent t-tests and multiple-regression) indicates the need for a sample size of at least 57 for multiple regression and 128 (64 per group) for ANOVA or independent t-tests.

**Survey distribution and administration.** Survey administration began in late April and continued through mid-May in order to ensure that spring activities could be included in the results. The EBD sample was administered the complete survey by the researcher, special education doctoral student, or CARS staff. Prior to distribution of surveys all survey administrators were trained in the administration procedures for the paper pencil survey. Directions to the administrators included the following: (1) Complete all identifying information on the front of the survey using pen prior to administration, (2) read the front page of the survey aloud to the student, (3) read section one aloud to the student and solicit answers, (4) encourage students to complete sections two and three independently (the administrator may read sections two and three to the student if the student requests it to be read), (5) instruct students who opt to take sections two and three independently to read the directions before each section carefully before proceeding, and (6) collect completed surveys and return to the researcher for scoring and analysis.

The typical sample completed the survey online through Qualtrics and Survey Monkey as described above. Students could take the survey at any time they had access to a computer and the internet. Completed surveys were monitored online through the Qualitrics website by the researcher and additional students were recruited using the methods described above in an effort to increase participation as needed. Participants in the typical sample progressed through the survey by clicking on the survey “next” button.
Students were allowed to skip questions or quit the survey at any time. At the end of the survey students were shown a message thanking them for their participation and redirected to another, separate survey on Survey Monkey where they could enter their email for a chance to win a $50 iTunes gift card. The winner of the gift card was drawn on June 1st and notified by email he/she had won. The email asked for an address to send the gift card. The researcher mailed the gift card to the winner upon the receipt of mailing instructions.

**Scoring and data entry procedures.** After all the paper pencil surveys were completed and returned to the researcher each survey was sorted by school and site and stored in a secure location. On the day the online survey closed for the typical sample of students the survey results were downloaded from the Qualtrics website into an excel spreadsheet and sorted on a secure password protected laptop owned by the researcher. The researcher used the developed and prescribed scoring procedures to score each survey. Five surveys from the EBD group were missing an average of one response per survey. Missing responses were replaced with the mean response from the sample (Raaijmakers, 1999). In the typical group a total of 67 surveys were started and 41 surveys were included in the final sample. 26 of the 67 surveys started online from the Typical group were not complete. These incomplete surveys included students who started the survey and chose not to consent or consented and completed only 1 item (n=23) and students who started the survey and logged off before completing the ECA survey (n=3). These 26 surveys were eliminated because none of them included a complete ECA survey, SSRS, or SCS making analysis impossible. None of the included surveys from the typical group contained missing items. The results of each survey were
entered into a previously constructed spreadsheet to allow for sorting and export to statistical software. A total of 80 surveys were completed for the EBD group and 41 were completed for the typical group resulting in a total of 121 completed surveys.

**Analysis of Survey Data**

Data gathered through the surveys administered to both samples were analyzed based upon the research questions. Question one was answered using the results of the researcher developed extracurricular activity survey described above. Data from the survey was entered into excel. Participation in extracurricular activities by students with EBD as well as the kinds of extracurricular activities students with EBD participate in were calculated and reported in tables. Differences between reported participation of students with EBD and typical students were calculated and reported in the same way. Finally, student participation across both samples was reported in table format by the seven categories of extracurricular activities described above.

Questions two and three were answered by conducting independent t-tests to determine if a relationship existed between participation in extracurricular activities and the social skills and school engagement of students in both the EBD and typical sample.

Questions four and five were answered using a bivariate correlations to determine if a relationship existed between the independent variable of participation and the dependent variables of social skills and school engagement for both samples of students. ANOVA was used to determine if a relationship existed between the independent variables of social skills or school engagement and the dependent variable of participation in activities by type, breadth, and intensity.
CHAPTER 3
RESULTS

The present study surveyed student involvement in school and community-based extracurricular activities as well as student reported social skill use, and level of school engagement. An ex-post facto causal-comparative design was used to determine if participation in extracurricular activities was related to student report of social skills and school engagement. The study was conducted in three phases: (a) development/adaptation of survey instruments, (b) recruitment of research sites (c) survey and related measure administration and data analysis. This chapter presents the analyses of the data gathered through the surveys described in chapter two. Survey distribution and response rate statistics are described first. Subsequent sections report the results of each of the research questions in order. Descriptive statistics, hypothesis tests, and correlations are presented as appropriate by research question.

Survey Distribution and Response Rate

The response rate was the number of participants who completed the survey divided by the number of students eligible to complete the survey in the identified sample. In the EBD group 80 of 82 CARS students completed surveys for a completion rate of 97.5%.

Exact response rates for the typical sample could not be tracked or analyzed based on the recruitment methods employed. Per IRB requirements, students remained anonymous throughout the survey process in order to be exempt from written parent consent. Compliance with this requirement made tracking response rates difficult. Survey
flyers were distributed at nine of the twelve school sites after school administrators granted permission. Three school administrators did not grant permission to distribute survey flyers. A total of 650 recruitment flyers were distributed to the 9 schools with administrator permission. The Internet firewall in school 6 did not allow access to the survey so the school was eliminated from the list of participating schools bringing the total number of participating schools to 8. In addition to recruitment flyers, cooperating teachers and the researcher distributed business card sized flyers with the URL of an online version of the recruitment flyer to students during non-academic time at participating schools. Survey distribution methods for each school are described in table 7. A total possible typical sample across the 8 participating schools was 10,877. The final sample of typical students consisted of 41 complete surveys and represents 0.004% of the total possible sample. Several surveys from the Typical group were incomplete and not included in the final sample. A total of 67 surveys were started and 41 were completed resulting in a completion rate of 61%.
Table 7

Typical Sample Survey Flyer Distribution by School

<table>
<thead>
<tr>
<th>School</th>
<th>Flyers/Cards Distributed</th>
<th>Distribution Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>50</td>
<td>Flyers in Media Center Survey link on school website</td>
</tr>
<tr>
<td>2</td>
<td>150</td>
<td>Flyers in Media Center Cards in Media Center</td>
</tr>
<tr>
<td>3</td>
<td>50</td>
<td>Flyers in Media Center</td>
</tr>
<tr>
<td>4</td>
<td>0*</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>0*</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>0</td>
<td>Flyers in Media Center Cards in cooperating classrooms</td>
</tr>
<tr>
<td>7</td>
<td>0*</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>50</td>
<td>Flyers to teachers</td>
</tr>
<tr>
<td>9</td>
<td>50</td>
<td>Flyers to teachers</td>
</tr>
<tr>
<td>10</td>
<td>50</td>
<td>Flyers to teachers</td>
</tr>
<tr>
<td>11</td>
<td>50</td>
<td>Flyers to teachers</td>
</tr>
<tr>
<td>12</td>
<td>50</td>
<td>Flyers to teachers</td>
</tr>
<tr>
<td>Total</td>
<td>500</td>
<td></td>
</tr>
</tbody>
</table>

* Permission from administrator to distribute flyers not granted

Analysis of Research Question 1

What is the current state of participation in extracurricular activities by students with EBD and how does participation differ from typical students? The first research question was divided into three sub-questions examining the intensity and breadth of participation in extracurricular activities by students with EBD, the kinds of activities in which they participate, and how possible participation rates differ between the students with EBD and the Typical population. All analysis and statistical procedures for this
question were conducted using the Statistical Package for the Social Sciences (SPSS) version 21.

*Do students with EBD participate in extracurricular activities?* The EBD sample (n=80) consisted of 48 (60%) students who indicated some level of extracurricular activity participation, and 32 (40%) who indicated no extra-curricular activity participation. The typical sample (n=41) consisted of 37 (90%) students who indicated some level of extracurricular activity participation and 4 (10%) who indicated no extra-curricular activities.

*Is there a difference between the breadth and intensity of participation of students with EBD and students who are not identified as EBD?* Rate of participation is calculated in terms of intensity and breadth. Intensity of participation was determined by multiplying the hours of participation per week by the total months of participation for each activity and summing the product of each activity the student participated in. For example, if a student participated in team sports for 3-4 months (scored 3) for 3-4 hours per week (scored 4) the breadth of participation score for that cluster will be 12 (see table 6 for scoring details). The mean intensity score for the EBD sample was 22.52 with a minimum of 1, maximum of 89, and standard deviation of 18.64. The mean intensity score for the typical sample was 32.60 with a minimum of 2, maximum of 72, and standard deviation of 17.13

Breadth of participation was determined by adding the total number of activities students reported participating in during the current school year. For the EBD group the mean breadth score was 1.83 with a standard deviation of 1.00 with a minimum of 1 and
a maximum of 5. For the typical group the mean breadth score was 2.70 with a standard deviation of 1.31 with a minimum of 1 and a maximum of 6.

_Do students with EBD participate in the same types of activities as students who are not identified as EBD?_ Type of participation was determined by totaling the number of yes responses to each question about participation in the Extracurricular Activity survey (EAS). Results indicated the typical sample participated in each type of extracurricular activity at a higher rate than the EBD sample but percentages of students from both samples paralleled each other between types (see table 8). Results are reported as percentages of students who reported participation in each type of activity. Students who indicated participation in more than one activity were included in totals and percentages for each type of activity.
<table>
<thead>
<tr>
<th></th>
<th>Individual Sport</th>
<th>Team Sport</th>
<th>Performance or Fine Art</th>
<th>Academic Club</th>
<th>Community Activity</th>
<th>Organized Service Activity</th>
<th>Faith Based Youth Group</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>EBD (n=48)</td>
<td>27% (n=13)</td>
<td>39.6% (n=19)</td>
<td>35.4% (n=17)</td>
<td>20.8% (n=10)</td>
<td>10.4% (n=5)</td>
<td>31.2% (n=15)</td>
<td>20.8% (n=10)</td>
<td>89</td>
</tr>
<tr>
<td>Typical (n=37)</td>
<td>35.1% (n=13)</td>
<td>40.5% (n=15)</td>
<td>48.6% (n=18)</td>
<td>48.6% (n=18)</td>
<td>32.4% (n=12)</td>
<td>70.2% (n=26)</td>
<td>62.2% (n=23)</td>
<td>125</td>
</tr>
<tr>
<td>Total</td>
<td>26</td>
<td>31</td>
<td>34</td>
<td>28</td>
<td>17</td>
<td>41</td>
<td>33</td>
<td>210</td>
</tr>
</tbody>
</table>
Analysis of Research Questions 2 and 3

Questions 2 and 3 examined the relationship between participation in extracurricular activities and the social skills and school connectedness of students with EBD. Descriptive statistics including mean and standard deviation for each measure by group were calculated and reported (see table 9). Independent Sample t-tests were employed to determine if differences existed between the mean scores of two groups on a single dependent variable (Field, 2009). Data were entered into spreadsheets and imported into SPSS for analysis. For the purposes of consistent analysis all scores for both the SSRS and the SCS were reported as raw scores. Further, a Bonferroni correction was conducted in order to reduce the likelihood of Type-I error by dividing the alpha level (.05) by the number of tests be run (9) for questions 2 and 3. The Bonferroni correction required a $p$-value of .005 or lower to be considered significant.

Students from six of the schools in the EBD group were participants in a larger study (CARS) implementing interventions addressing social skills and school engagement. Regression analysis was used to evaluate the relationship between student enrollment in a CARS intervention school on their scores on the SSRS and SCS. Results indicated that enrollment in CARS intervention school was not a significant predictor ($p > .05$) of scores on either measure.
Table 9

SSRS and SCS Score Descriptive Statistics by Participation for EBD Group

<table>
<thead>
<tr>
<th>Measure</th>
<th>Participation Status</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Standard Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSRS Total</td>
<td>Non-participant</td>
<td>32</td>
<td>40.906</td>
<td>12.744</td>
<td>2.2528</td>
</tr>
<tr>
<td></td>
<td>Participant</td>
<td>48</td>
<td>49.125</td>
<td>9.933</td>
<td>1.433</td>
</tr>
<tr>
<td>SSRS Cooperation</td>
<td>Non-participant</td>
<td>32</td>
<td>11.313</td>
<td>3.505</td>
<td>.619</td>
</tr>
<tr>
<td></td>
<td>Participant</td>
<td>48</td>
<td>12.375</td>
<td>2.523</td>
<td>.364</td>
</tr>
<tr>
<td>SSRS Assertion</td>
<td>Non-participant</td>
<td>32</td>
<td>9.344</td>
<td>3.890</td>
<td>.687</td>
</tr>
<tr>
<td></td>
<td>Participant</td>
<td>48</td>
<td>12.063</td>
<td>3.675</td>
<td>.530</td>
</tr>
<tr>
<td>SSRS Empathy</td>
<td>Non-participant</td>
<td>32</td>
<td>11.344</td>
<td>4.359</td>
<td>.770</td>
</tr>
<tr>
<td></td>
<td>Participant</td>
<td>48</td>
<td>14.479</td>
<td>3.555</td>
<td>.513</td>
</tr>
<tr>
<td>SSRS Self-control</td>
<td>Non-participant</td>
<td>32</td>
<td>8.906</td>
<td>3.522</td>
<td>.622</td>
</tr>
<tr>
<td></td>
<td>Participant</td>
<td>48</td>
<td>10.208</td>
<td>3.073</td>
<td>.443</td>
</tr>
<tr>
<td>SCS Total</td>
<td>Non-participant</td>
<td>32</td>
<td>168.969</td>
<td>25.413</td>
<td>4.492</td>
</tr>
<tr>
<td></td>
<td>Participant</td>
<td>48</td>
<td>186.542</td>
<td>30.907</td>
<td>4.461</td>
</tr>
<tr>
<td>SCS School</td>
<td>Non-participant</td>
<td>32</td>
<td>52.75</td>
<td>9.598</td>
<td>1.696</td>
</tr>
<tr>
<td></td>
<td>Participant</td>
<td>48</td>
<td>60.792</td>
<td>12.302</td>
<td>1.775</td>
</tr>
<tr>
<td>SCS Adult</td>
<td>Non-participant</td>
<td>32</td>
<td>60.031</td>
<td>10.477</td>
<td>1.852</td>
</tr>
<tr>
<td></td>
<td>Participant</td>
<td>48</td>
<td>64.458</td>
<td>11.8429</td>
<td>1.709</td>
</tr>
<tr>
<td>SCS Peer</td>
<td>Non-participant</td>
<td>32</td>
<td>56.375</td>
<td>10.496</td>
<td>1.855</td>
</tr>
<tr>
<td></td>
<td>Participant</td>
<td>48</td>
<td>61.292</td>
<td>11.304</td>
<td>1.631</td>
</tr>
</tbody>
</table>
Research Question 2 Is there a relationship between participation in extracurricular activities and the social skills of students with EBD? The dependent variable for research question two was student scores on the Social Skills Rating Scale (SSRS). The SSRS is a measure of student social skills and consists of four subscales measuring empathy, assertion, cooperation, and self-control. A total raw score is also reported as the sum of the four subscales (see table 10). The independent variable was participation in at least one extracurricular activity. Participation in at least one activity was chosen as the independent variable because it represents the least amount of possible participation that may make a difference in student outcomes. Hypothesis testing using an independent-samples $t$-test makes assumptions regarding the homogeneity of variance of the groups being compared, the normality of the data, the independence of the groups, and that the data in each group is at least interval data. Homogeneity of variance and normality were tested in SPSS using Levene’s test (Levene, 1960) and The Kolmogorov-Smirnov test respectively (Field, 2009). Both tests were not significant meaning assumptions for the independent-samples $t$-test were met. Results of the analysis are as follows. On average, students with EBD who participate in at least one extracurricular activity had higher SSRS total scores ($M = 49.12$, $SE = 1.43$) than students with EBD who do not participate in extracurricular activities ($M = 40.90$, $SE = 2.25$). This difference was significant $t(78) = -3.23$, $p < .005$ and represented a medium-sized effect $r = .34$. Statistically significant differences between students who reported participation in at least one extracurricular and students who reported no participation were found in the assertion and empathy subscales (see table 10). Overall, total and subscale scores on the SSRS were higher for students in the EBD group who participate than for non-
participants in the EBD group. Further, the mean total score for students indicating participation fell in the average score range for both males and females on the SSRS whereas the total mean score for students reporting no participation fell in the below average range for both males and females.

Table 10

<table>
<thead>
<tr>
<th>Measure</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
<th>Mean Difference</th>
<th>Std. Error Difference</th>
<th>r</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSRS Total</td>
<td>-3.234</td>
<td>78</td>
<td>.002*</td>
<td>-8.2188</td>
<td>2.5413</td>
<td>.34</td>
</tr>
<tr>
<td>SSRS Cooperation</td>
<td>-1.577</td>
<td>78</td>
<td>.119</td>
<td>-1.0625</td>
<td>.6739</td>
<td>.17</td>
</tr>
<tr>
<td>SSRS Assertion</td>
<td>-3.166</td>
<td>78</td>
<td>.002*</td>
<td>-2.7188</td>
<td>.8586</td>
<td>.33</td>
</tr>
<tr>
<td>SSRS Empathy</td>
<td>-3.527</td>
<td>78</td>
<td>.001*</td>
<td>-3.1354</td>
<td>.8889</td>
<td>.37</td>
</tr>
<tr>
<td>SSRS Self-control</td>
<td>-1.750</td>
<td>78</td>
<td>.084</td>
<td>-1.3021</td>
<td>.7438</td>
<td>.19</td>
</tr>
</tbody>
</table>

*p < .005

**Research Question 3** Is there a relationship between participation in extracurricular activities and the level of reported school engagement of students with EBD? The dependent variable for research question three was students’ score on the School Connectedness Scale (SCS). The SCS is a measure of student engagement in school and is made up of three subscales measuring connection to adults, peers, and the school as a whole. A total score is also reported as the sum of the three subscales. The independent variable was participation in at least one extracurricular activity.

Assumptions for the independent-samples t-test were examined in the same manner as described for question 2. Assumptions for the independent-samples t-test were met. On average, students with EBD who participate in at least one extracurricular activity had higher SCS total raw scores (M = 186.54, SE = 4.46) than students with EBD who do not
participate in extracurricular activities (M = 168.96, SE = 4.49). This difference was not significant $t(78) = -2.67, p > .005$ and represented a small-sized effect $r = .28$. Overall, total and subscale scores on the SCS were higher for students in the EBD group who participate than for non-participants. The differences between the two groups were statistically significant at $a = .005$ for the school connection subscale scores (see table 11).

Table 11

**t-Test Results for EBD Group SCS Scores**

<table>
<thead>
<tr>
<th>Measure</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
<th>Mean Difference</th>
<th>Std. Error Difference</th>
<th>r</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCS Total</td>
<td>-2.669</td>
<td>78</td>
<td>.009</td>
<td>-17.5729</td>
<td>6.5840</td>
<td>.28</td>
</tr>
<tr>
<td>SCS School</td>
<td>-3.117</td>
<td>78</td>
<td>.003*</td>
<td>-8.0417</td>
<td>2.5802</td>
<td>.33</td>
</tr>
<tr>
<td>SCS Adult</td>
<td>-1.714</td>
<td>78</td>
<td>.091</td>
<td>-4.4271</td>
<td>2.5834</td>
<td>.19</td>
</tr>
<tr>
<td>SCS Peer</td>
<td>-1.960</td>
<td>78</td>
<td>.054</td>
<td>-4.9167</td>
<td>2.5082</td>
<td>.21</td>
</tr>
</tbody>
</table>

* $p < .005$

**Analysis of Question 4**

Are breadth and intensity of extracurricular activity participation indicators of appropriate levels of social skills and school engagement in students with EBD?

Question 4 examined factors related to the relationship between the intensity of participation, and breadth of participation to scores on the SSRS and SCS. Bivariate correlations were employed to examine relationships between breadth and intensity of participation and scores on the SSRS and SCS.

The relationship between breadth and intensity of extracurricular activity participation and scores on the SSRS and SCS was examined using bivariate correlations. Pearson’s $r$ was calculated for each relationship (i.e. intensity and SSRS scores, intensity
and SCS scores, breadth and SSRS scores, and breadth and SCS scores). All relationships were directional and calculated using a one-tailed *t*-test. Correlations were calculated for both groups (e.g., EBD and Typical).

**Correlations for the EBD group.** For the EBD group, no strong correlations were found between breadth or intensity of participation and scores on the SSRS including all four subscales (see table 12). Moderate correlations were found between intensity of participation and the SCS total score, \( r = .31, p < .05 \); the school connection subscale, \( r = .40, p < .01 \); and the peer connection subscale, \( r = .30, p < .05 \). Weak correlations were found between breadth of participation and scores on the SCS (see table 13).

Table 12

**Correlation of SSRS to Depth and Intensity in EBD Group**

<table>
<thead>
<tr>
<th></th>
<th>Breadth</th>
<th>Intensity</th>
<th>Cooperation Subscale</th>
<th>Assertion Subscale</th>
<th>Empathy Subscale</th>
<th>Self-Control Total</th>
<th>SSRS Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breadth</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Intensity</td>
<td></td>
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<td>.02</td>
<td>.04</td>
<td>.03</td>
<td>.01</td>
<td>.03</td>
</tr>
<tr>
<td>Cooperation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subscale</td>
<td></td>
<td>1</td>
<td>.45**</td>
<td>.53**</td>
<td>.51**</td>
<td>.77**</td>
<td></td>
</tr>
<tr>
<td>Assertion</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subscale</td>
<td></td>
<td>1</td>
<td>.61**</td>
<td>.33*</td>
<td>.80**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Empathy</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Subscale</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>.36**</td>
<td>.83**</td>
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<tr>
<td>Self-Control</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Subscale</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.36**</td>
<td>.83**</td>
</tr>
<tr>
<td>SSRS Total</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*\( p < .05 \), **\( p < .01 \)
Correlation of SCS to Breadth and Intensity in EBD Group

<table>
<thead>
<tr>
<th></th>
<th>Breadth</th>
<th>Intensity</th>
<th>School Subscale</th>
<th>Adult Subscale</th>
<th>Peer Subscale</th>
<th>SCS Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breadth</td>
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<td>.23</td>
<td>.01</td>
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<td>.17</td>
</tr>
<tr>
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<td>.10</td>
<td>.30*</td>
<td>.31*</td>
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<tr>
<td>School Connection</td>
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<td>.71**</td>
<td>.90**</td>
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<tr>
<td>Adult Connection</td>
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<td>.58**</td>
<td>.85**</td>
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<tr>
<td>Peer Connection</td>
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<td>.87**</td>
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<td></td>
</tr>
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<td>SCS Total</td>
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<td></td>
<td></td>
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<td>1</td>
</tr>
</tbody>
</table>

*p < .05, **p < .01

Correlations for the Typical Group. For the typical group, breadth of participation was moderately correlated with assertion subscale score on the SSRS, $r = .37, p < .05$; and the total score on the SSRS, $r = .32, p < .05$. Intensity of participation was moderately correlated with the assertion subscale of the SSRS, $r = .32, p < .05$ (see table 14). On the SCS, breadth of participation was strongly correlated with the school connection subscale, $r = .54, p < .01$ and moderately correlated with the adult connection subscale, $r = .32, p < .05$; and the total score, $r = .36, p < .05$. Intensity of participation was strongly correlated with the school connection subscale $r = .45, p < .01$; and weakly correlated the total score, $r = .29, p < .05$. (see table 15).
Table 14

*Correlation of SSRS to Depth and Intensity in Typical Group*

<table>
<thead>
<tr>
<th></th>
<th>Breadth</th>
<th>Intensity</th>
<th>Cooperation Subscale</th>
<th>Assertion Subscale</th>
<th>Empathy Subscale</th>
<th>Self-Control Total</th>
<th>SSRS Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breadth</td>
<td>1</td>
<td>.76**</td>
<td>.24</td>
<td>.37*</td>
<td>.11</td>
<td>.23</td>
<td>.33*</td>
</tr>
<tr>
<td>Intensity</td>
<td>1</td>
<td>.17</td>
<td>.33*</td>
<td>.00</td>
<td>.19</td>
<td>.24</td>
<td></td>
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<tr>
<td>Cooperation Subscale</td>
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</tr>
<tr>
<td>Assertion Subscale</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Empathy Subscale</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-Control Subscale</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SSRS Total</td>
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<td></td>
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<td></td>
</tr>
</tbody>
</table>

*p < .05, **p < .01

Table 15

*Correlation of SCS to Depth and Intensity in Typical Group*

<table>
<thead>
<tr>
<th></th>
<th>Breadth</th>
<th>Intensity</th>
<th>School Subscale</th>
<th>Adult Subscale</th>
<th>Peer Subscale</th>
<th>SCS Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breadth</td>
<td>1</td>
<td>.76**</td>
<td>.55**</td>
<td>.33*</td>
<td>.11</td>
<td>.36*</td>
</tr>
<tr>
<td>Intensity</td>
<td>1</td>
<td>.46**</td>
<td>.27</td>
<td>.06</td>
<td>.29*</td>
<td></td>
</tr>
<tr>
<td>School Subscale</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adult Subscale</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peer Subscale</td>
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<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>SCS Total</td>
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</tbody>
</table>

*p < .05, **p < .01
Analysis of Question 5

Are there differences between students with EBD who participate in extracurricular activities and typical students who participate in extracurricular activities on measures of social skills, school engagement, breadth of participation in extracurricular activities and, intensity of participation in extracurricular activities?

Independent-samples t-tests were used to examine differences between students with EBD who report participation in at least 1 extracurricular activity and typical students who report participation in at least 1 extracurricular activity on measures of social skills and school engagement as well as depth and intensity of participation. Regarding assumptions associated with the independent-samples t-test, homogeneity of variance and normality were tested in SPSS using Levene’s test (Levene, 1960) and The Kolmogorov-Smirnov test respectively. Both tests were not significant for any of the variables with the exception of the empathy subscale of the SSRS $F(1, 83) = 10.32, p < .01$. A Bonferroni correction was applied to account for Type I error given the number of tests being run on the data set. This correction resulted in a $p < .004$ (.05 divided by 11) required for a test to be significant.

Social Skills Differences. On average, students in the typical group scored higher on the SSRS total ($M = 91.16, SE = 1.43$) than the EBD group ($M = 49.13, SE = 1.38$). This difference was significant $t(83) = 20.69, p < .004$ and represented a large-sized effect $r = .92$. Overall, students in the typical group scored higher on total SSRS scores and all sub-scales (see table 16). Differences between both groups of students were statistically significant on each of the sub-scales of the SSRS (see table 17).
### Table 16

**Descriptive Statistics for EBD and Typical Group Comparison on the SSRS**

<table>
<thead>
<tr>
<th>Measure</th>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Standard Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSRS Total</td>
<td>EBD</td>
<td>48</td>
<td>12.38</td>
<td>2.52</td>
<td>0.36</td>
</tr>
<tr>
<td></td>
<td>Typical</td>
<td>37</td>
<td>24.70</td>
<td>3.036</td>
<td>0.50</td>
</tr>
<tr>
<td>SSRS Cooperation</td>
<td>EBD</td>
<td>48</td>
<td>12.06</td>
<td>3.68</td>
<td>0.53</td>
</tr>
<tr>
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<td>Typical</td>
<td>37</td>
<td>21.54</td>
<td>3.25</td>
<td>0.53</td>
</tr>
<tr>
<td>SSRS Assertion</td>
<td>EBD</td>
<td>48</td>
<td>14.48</td>
<td>3.56</td>
<td>0.51</td>
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<td>37</td>
<td>24.97</td>
<td>2.43</td>
<td>0.40</td>
</tr>
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<td>SSRS Empathy</td>
<td>EBD</td>
<td>48</td>
<td>10.21</td>
<td>3.07</td>
<td>0.44</td>
</tr>
<tr>
<td></td>
<td>Typical</td>
<td>37</td>
<td>19.95</td>
<td>2.39</td>
<td>0.39</td>
</tr>
<tr>
<td>SSRS Self-control</td>
<td>EBD</td>
<td>48</td>
<td>49.13</td>
<td>9.93</td>
<td>1.43</td>
</tr>
<tr>
<td></td>
<td>Typical</td>
<td>37</td>
<td>91.16</td>
<td>8.37</td>
<td>1.38</td>
</tr>
</tbody>
</table>

### Table 17

**t-Test Results for EBD and Typical Group Comparison, SSRS**

<table>
<thead>
<tr>
<th>Measure</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
<th>Mean Difference</th>
<th>Std. Error Difference</th>
<th>r</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSRS Cooperation</td>
<td>20.44</td>
<td>83</td>
<td>.000*</td>
<td>12.33</td>
<td>.60</td>
<td>.91</td>
</tr>
<tr>
<td>SSRS Assertion</td>
<td>12.40</td>
<td>83</td>
<td>.000*</td>
<td>9.48</td>
<td>.76</td>
<td>.81</td>
</tr>
<tr>
<td>SSRS Empathy</td>
<td>15.38</td>
<td>83</td>
<td>.000*</td>
<td>10.49</td>
<td>.68</td>
<td>.86</td>
</tr>
<tr>
<td>SSRS Self-control</td>
<td>15.91</td>
<td>83</td>
<td>.000*</td>
<td>9.74</td>
<td>.61</td>
<td>.87</td>
</tr>
<tr>
<td>SSRS Total</td>
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<td>83</td>
<td>.000*</td>
<td>42.04</td>
<td>2.03</td>
<td>.92</td>
</tr>
</tbody>
</table>

*p < .004
School Connectedness Differences. On average, students in the typical group scored higher on the SCS total (M = 204.27, SE = 4.50) than the EBD group (M = 186.54, SE = 4.46). This difference was not significant \( t(83) = 2.86, p > .004 \); however, it did represent a medium-sized effect \( r = .30 \). Overall, students in the typical group scored higher on total SCS scores and all sub-scales (see table 18). Differences between groups of students were not statistically significant on any of the sub-scales of the SCS, however, there was a medium effect size on the difference between the two groups on the peer sub-scale (see table 19).

Table 18

Descriptive Statistics for EBD and Typical Group Comparison on the SCS

<table>
<thead>
<tr>
<th>Measure</th>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Standard Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCS Total</td>
<td>EBD</td>
<td>48</td>
<td>60.79</td>
<td>12.30</td>
<td>1.78</td>
</tr>
<tr>
<td></td>
<td>Typical</td>
<td>37</td>
<td>66.73</td>
<td>10.04</td>
<td>1.65</td>
</tr>
<tr>
<td>SCS School</td>
<td>EBD</td>
<td>48</td>
<td>64.46</td>
<td>11.84</td>
<td>1.71</td>
</tr>
<tr>
<td></td>
<td>Typical</td>
<td>37</td>
<td>69.10</td>
<td>11.97</td>
<td>1.97</td>
</tr>
<tr>
<td>SCS Adult</td>
<td>EBD</td>
<td>48</td>
<td>61.29</td>
<td>11.30</td>
<td>1.63</td>
</tr>
<tr>
<td></td>
<td>Typical</td>
<td>37</td>
<td>68.05</td>
<td>10.80</td>
<td>1.66</td>
</tr>
<tr>
<td>SCS Peer</td>
<td>EBD</td>
<td>48</td>
<td>186.54</td>
<td>30.91</td>
<td>4.46</td>
</tr>
<tr>
<td></td>
<td>Typical</td>
<td>37</td>
<td>204.27</td>
<td>27.34</td>
<td>4.50</td>
</tr>
</tbody>
</table>
Table 19

*t-Test Results for EBD and Typical Group Comparison, SCS*

<table>
<thead>
<tr>
<th>Measure</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
<th>Mean Difference</th>
<th>Std. Error Difference</th>
<th>r</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCS School</td>
<td>2.39</td>
<td>83</td>
<td>.019</td>
<td>5.94</td>
<td>2.49</td>
<td>.25</td>
</tr>
<tr>
<td>SCS Adult</td>
<td>1.79</td>
<td>83</td>
<td>.078</td>
<td>4.65</td>
<td>2.60</td>
<td>.19</td>
</tr>
<tr>
<td>SCS Peer</td>
<td>2.86</td>
<td>83</td>
<td>.005</td>
<td>6.76</td>
<td>2.36</td>
<td>.30</td>
</tr>
<tr>
<td>SCS Total</td>
<td>2.76</td>
<td>83</td>
<td>.007</td>
<td>17.73</td>
<td>6.43</td>
<td>.30</td>
</tr>
</tbody>
</table>

*p < .004

Intensity and Breadth. Regarding differences in intensity and breadth, on average, the typical group had higher intensity scores (M = 32.60, SE = 2.82) than the EBD group (M = 22.52, SE = 2.69). This difference was not significant \( t(83) = 2.55, p > .004 \) and represented a small-sized effect \( r = .27 \). On average, the typical group had higher breadth scores (M = 2.70, SE = 0.22) than the EBD group (M = 1.83, SE = 0.14). This difference was significant \( t(83) = 3.48, p < .004 \) and represented a medium-sized effect \( r = .36 \) (see table 20).

Table 20

*t-Test Results for EBD and Typical Group Comparison, Intensity and Breadth*

<table>
<thead>
<tr>
<th>Measure</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
<th>Mean Difference</th>
<th>Std. Error Difference</th>
<th>r</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breadth Score</td>
<td>3.48</td>
<td>83</td>
<td>.001*</td>
<td>.87</td>
<td>.25</td>
<td>.36</td>
</tr>
<tr>
<td>Intensity Score</td>
<td>2.56</td>
<td>83</td>
<td>.012</td>
<td>10.07</td>
<td>3.94</td>
<td>.27</td>
</tr>
</tbody>
</table>

*p < .004
The comparison between participants from both the EBD group and the typical group revealed that typical students scored higher on the SSRS and all its subscales. All of the differences in scores on the SSRS were statistically significant with large effect sizes. The differences between the two groups on the SCS showed higher total and subscale mean scores for the typical group than the EBD group, however, no significant differences on the SCS or any of its subscales between groups were found. Intensity and breadth of participation scores were higher for the typical group than the EBD group. Significant differences were found between the two groups on intensity scores.
CHAPTER IV

DISCUSSION

The purpose of this study was to examine the present state of extracurricular activity participation among students with EBD including the relationship between extracurricular activity participation, reported social skills, and reported student engagement. This chapter provides brief overviews of the major findings organized by research question and discusses these findings relative to existing research. Additionally, limitations are presented and implications for future research and practice are discussed.

This study provided initial evidence that students with EBD participate in extracurricular activities and that participation has a significant positive impact on their reported social skills and school engagement. These findings expand previous research by providing evidence of the benefits of extracurricular activity participation for students with EBD. In addition, research has shown that students who are engaged in school, both in the classroom and with the peers and the adults they encounter on a daily basis perform better academically and socially than their disengaged peers (Lohmeier & Lee, 2011). Extracurricular activity participation has been studied extensively and shown to have significant positive impacts on student social skills and school engagement. Unfortunately, this research has not extended to students with EBD despite the obvious need for more effective interventions in these areas. For this reason, the present study sought to extend the existing body of research by examining the relationship between participation in extracurricular activities and the social skills and school engagement of students with EBD.
What is the current state of participation in extracurricular activities by students with EBD and how does participation differ from typical students?

In the present study, 60% of students with EBD reported some sort of participation in extracurricular activities (ECA’s) with 55% of these students reporting participation in more than one activity. These rates of participation are comparable to those reported by Larson and Verma (1999) for the general population of students (between 50% and 70%) and aligned with data from the NLTS2 regarding rates of participation in organized group activities of students with EBD (57%) (Wagner, Cadwallader, Garza, & Cameto, 2004). More students with EBD reported participating in team sports than any other type of activity followed by performance or fine arts activities and organized service activities. The fewest students with EBD reported participating in community activities (i.e., Boy Scouts, Girl Scouts, and 4H).

These findings are somewhat surprising given the social and academic deficits experienced by students with EBD that potentially compromise their ability to participate in ECA’s. While high school students with EBD may be better equipped academically and socially to participate in ECA’s than students with EBD who are placed in more restrictive settings such as separate schools and juvenile justice facilities, the high rates of participation reported by these students is surprising. Typically, participation in ECA’s requires passing grades and an ability to interact with peers and adults. This study indicates that many students with EBD, who are characterized by high academic failure rates and social skills deficits, are able to meet minimum requisite skills to actively participate in ECA’s.
One possible explanation for students with EBD reporting high rates of participation in ECA’s is that ECA participation is socially reinforcing for students. Clear performance feedback is a basic tenet of ECA’s according to Mahoney and Stattin’s (2000) widely accepted definition. This means that participants are likely to receive both praise and corrective feedback from adult coaches or sponsors as well as participating peers. Students who are motivated by peer and/or adult attention are likely to be reinforced by these interactions. Further, students with EBD who possess human capital such as athletic ability that leads to successful participation in ECA’s are likely to increase their levels of social capital as a result of this success (Liu et al., 2004). Accumulating social capital through participation may make participation in ECA’s reinforcing enough to overpower negative academic and social behaviors that would make participation no longer an option. It is also possible that students with EBD with higher levels of human capital like athletic ability are granted more latitude regarding social behaviors and academic performance. This latitude may lead to higher rates of participation in spite of poor academic and social skills.

The rates of participation in ECA’s by students with EBD indicated in this study may be symptomatic of social skills performance deficits rather than acquisition deficits. In other words, these students may have the ability to interact appropriately with adults and peers but competing negative behaviors remain more effective in different environments. This supports Maag’s (2006) statement that social skills training programs lack opportunities for maintenance and generalization of social skills. ECA’s may be one way to address this issue.
While overall average participation rates between students with EBD and Typical students were fairly equal, students with EBD in this study reported participating in fewer extracurricular activities and at a lower rate than Typical students. These findings suggest that while students with EBD do not participate in activities at as high of a rate as typical students they participate in the same types of activities at relatively similar rates. ECA participation in high schools often requires a certain level of academic achievement (usually passing grades) and the absence of disciplinary problems (e.g., behavioral referrals, suspensions, expulsions etc.). Therefore, in order for a student to participate in ECA’s they need to maintain a certain level of academic engagement to ensure that they meet the requirements for participation. This means not only completing enough required work to maintain passing grades but also refraining from behaviors that may preclude ECA participation. If participation in the ECA’s is reinforcing enough it is possible that students will meet these expectations if they have the academic and social skills to do so. Unfortunately, many students with EBD do not consistently exhibit the academic or social skills commonly required for sustained participation in extracurricular activities (Cook et al., 2008; Walker, Ramsey, & Gresham, 2004). These lower rates of participation underscore the importance of academic and social interventions for students with EBD. Interventions such as OTR and social skills training have been shown to increase the academic performance and social competence of students with EBD (Cook et. al., 2008; Skinner, Pappas, & Davis, 2005). Working toward implementing these, and other, interventions aimed at increasing academic and social skills of students with EBD in more classrooms may increase the intensity and breadth of participation in ECA’s closer to that of typical students. Systems-based approaches such as School-wide Positive
Behavior Support (SW-PBS) (Flannery & Sugai, 2009) and Response to Intervention (RtI) (National High School Center, 2010) are one possible way to increase the presence and availability of evidence-based social and academic interventions for students with EBD in high schools.

Is there a relationship between participation in extracurricular activities and reported social skills of students with EBD?

Results of this study indicated that participation in at least one extracurricular activity by students with EBD is significantly related to increases in reported social competence. Further, this study indicated that reported social skills for students with EBD who participate in extracurricular activities fell in average ranges on the Social Skills Rating System (SSRS) while non-participating students with EBD reported below average social skills on the same measure. This is significant for three reasons.

First, extracurricular activities may provide important opportunities for maintenance and generalization of social skills. Social skills training programs have been developed and researched to address the poor social skills of students with EBD. These programs have shown positive results (Cook et al., 2008) but struggle with problems of maintenance and generalization (Maag, 2006). These issues are partly due to the restrictive settings many students with EBD are placed in that limit their opportunities for the authentic interactions with peers outside of the training setting.

Second, opportunities to practice skills are not built into existing school systems. One possible way to provide maintenance and generalization opportunities for students with EBD is to plug them into an existing system that is potentially highly reinforcing, structured, adult led, and rich with opportunities to practice social skills. ECA’s are an
established system in American high schools and offer a diverse assortment of opportunities for participation. Students can participate in activities ranging from football to Future Farmers of America meaning that participation is not limited to students with high levels of one kind of human capital such as athletic ability. This range of opportunities to participate may make it possible to incorporate ECA’s into maintenance and generalization programming plans for students with EBD in social skills training programs.

Third, the question of which came first, student social skills enabling participation in ECA’s, or participation that leads to improved social skills may not be important for students with EBD. Students with social skills performance deficits, those who can display and use appropriate social skills but use inappropriate social skills under specific conditions benefit from the opportunities for maintenance and generalization that ECA’s provide as well as the opportunity to become engaged with school. Students with acquisition deficits, those who don’t have the skills to interact appropriately, may still benefit from the defining elements of ECA’s including adult leadership, regular participation schedules, rule guided engagement, emphasis on progressive skill development, the requirement of sustained and active attention, and clear feedback (Mahoney & Stattin, 2000). Each of these elements are characteristics of good instruction and may promote the acquisition of social skills for students with EBD.

In addition to the overall effects of participation in ECA’s on social skills indicated by the total score on the SSRS by students with EBD, the subscale scores provide interesting insight into the relationship between participation and reported social skills of students with EBD. Student participants with EBD scored higher on all four
subscales of the SSRS (cooperation, assertion, empathy, and self-control) than non-participants. These differences were significant on the assertion and empathy subscales and resulted in medium effect sizes. This can be interpreted to mean that students with EBD who report participating in ECA’s showed noticeable improvement in each of these subscales, or due to their overall higher level of social competence made them better candidates for ECA.

The assertion subscale of the SSRS evaluates frequency of initiating behaviors such as asking other for information, introducing oneself, and responding to the actions of others, such as peer pressure or insults. These skills are important to ECA participation. Joining a club or a group requires students to possess a certain amount of assertiveness. Students must first seek information about the group such as meeting times and participation requirements. These tasks require the ability to ask others for information. The beginning phases of group involvement require participants to get to know each other in an effort to come together to obtain a common goal. Further, initial involvement in an unfamiliar activity may result in failure. The ability to cope with that failure and deal with the resulting peer pressure and insults is necessary for continued involvement.

The findings of this study indicate that assertion is noticeably increased in students with EBD reporting participation in ECA’s. Given the requirement of assertion skills in initial participation, it would appear that assertion skills are perhaps a necessary pre-requisite among participants with EBD to successfully participate. This finding has important implications for social skills training programs. Namely, student engagement, at least the initiation of student engagement, may hinge on a student’s ability to
appropriately assert themselves in new situations. This highlights the need to focus on these skills during social skills training sessions if increased engagement is the ultimate goal of the program. In addition, ECA participation may be a prime opportunity to promote the maintenance and generalization of these skills.

The empathy subscale of the SSRS evaluates behaviors that show concern and respect for others feelings and viewpoints. This skill is vital in activities where performance feedback and a progression of skill development are foundational tenets. ECA participants are regularly exposed to the opinions of coaches, sponsors, and fellow participants. The ability to respect these opinions is vital to successful participation. Further, an important element of belonging to a group is the ability to show concern for others. In much the same way as assertion skills, empathy training may be an important component of social skills training programs where the expected outcome is increased engagement. Students who come to the table with greater empathy skills may be more likely to participate in ECA’s, however, it is also possible that ECA’s lead to greater empathy related skills. Regardless, ECA participation may serve as an important component of maintenance and generalization of empathy skills in students with EBD.

Is there a relationship between participation in extracurricular activities and the level of reported school engagement of students with EBD?

Results of the current study indicated that students with EBD who report participation in at least one ECA scored higher on the School Connectedness Scale (SCS) than students with EBD who did not report participation. The difference between the two groups (participants and non-participants) on the total SCS scores was not statistically significant, however, they did represent a medium effect size. This is an indication that
the differences in school engagement may be noticeable in students with EBD who report participation. It should also be noted that the Bonferroni correction applied to the test is very conservative. While Bonferroni does a very good job of controlling for Type I errors, it is vulnerable to Type II errors (Field, 2009). The independent sample $t$-test employed to determine relationships for questions two and three required a $p$-value of less than .005. The reported $p$-value for the relationship between participation in ECA’s and the total score on the SCS was .009, very near statistically significant. These findings are significant for two main reasons. First, increasing school engagement has been the focus of interventions for students with EBD such as increasing opportunities to respond to classroom instruction (OTR) (Skinner, Pappas, & Davis, 2005) and Check and Connect (Sinclair, Christenson, Evelo, & Hurley, 1998). The results of this study indicate that ECA’s may serve as a value-add to these established interventions. ECA’s typically occur outside of the normal school day and have the potential to supplement interventions like OTR and Check and Connect by facilitating an additional level of engagement with school beyond academics. It is also possible that classroom based interventions like OTR’s and ECA’s may be mutually beneficial. In order for students to participate in ECA’s they need to perform at a certain academic level in the classroom as well as exhibit positive behaviors to avoid discipline referrals and suspensions. Classroom based interventions like OTR have been shown to increase the academic performance of students with EBD and decrease problem behaviors (Sutherland, Alder, Gunter, 2003) which may make participation in ECA’s possible for students with EBD. ECA’s have been shown to reduce rates of dropout and increase overall engagement in school (Mahoney & Cairns, 1997; McNeal, 1995). The first, and most obvious,
compliment to classroom-based interventions is that ECA’s may keep students in school so they can benefit from classroom interventions like OTR. Secondly, increased overall student engagement may make students with EBD more likely to respond to classroom interventions like OTR.

Second, school engagement is important to students with EBD because it has been shown to be a significant predictor of dropout (Finn, 1998). Data from the US Department of Education (2008) show that students with EBD have the highest dropout rates of any population of students with disabilities. Findings from this study support previous research indicating that participation in extracurricular activities is related to increased school engagement (Eccles, Barber, Stone, & Hunt, 2003; Fredricks & Eccles, 2006; Finn, 1989; Finn, 1998; Denault & Poulin, 2009; Eccles & Barber, 1999; Mahoney, 2000; Mahoney & Cairns, 1997; McNeal, 1995). This is especially significant for students with EBD given that increased school engagement is related to decreased rates of dropouts for students who exhibit antisocial behaviors (Mahoney & Cairns, 1997; McNeal, 1995).

The subscales of the SCS provide a deeper and more detailed look into the relationship between reported participation in ECA’s and school engagement. The SCS contains three subscales, connection to the school as a whole, connection to adults, and connection to peers (Lohmeier & Lee, 2011). Connection to the school as a whole includes the student’s connection to the aspects of the school unrelated to social relationships, including classes, activities, the importance of education, and sense of school spirit. Connection to adults includes the student’s relationships with teachers and other school adults such as coaches, counselors, or principals. Connection to peers
includes the student’s relationships with other students at his/her school, including but not limited to classmates and school friends.

The results of the present study indicated that students with EBD who report participation in at least one ECA scored higher on the school subscale of the SCS than students with EBD who did not report participation. This relationship was statistically significant and represented a medium sized effect. This finding supports existing ECA research showing that participation ECA’s is related to greater enjoyment of school (Eccles, Barber, Stone, & Hunt, 2003) and is expected since students reporting participation are likely to value the activities they participate in and have a sense of school spirit that often goes along with participation in ECA’s. Further, these students may value their classes more since engagement in academics is often required for participation.

Students indicating participation in at least one activity scored higher on both the peer and adult subscales of the SCS, however, neither were found to be statistically significant and represented smaller effect sizes. This is interesting given that successful peer and adult interactions are, in many ways, a gateway to participation in ECA’s. Further, ECA research has indicated that the benefits of participation in ECA’s may be the result of the social nature of participation and support from peers and adults that are a significant part of extracurricular activities (Fredricks & Eccles, 2005). One possible explanation is that students with EBD have a history of negative interactions with adults and peers (Walker, Ramsey, & Gresham, 2004) that may mediate these connections. It is possible that the positive interactions with adults and peers experienced during ECA participation may serve to increase reported connection over non-participants but may not
be enough to increase these connections to levels that are statistically significant or similar to those of typical students. Further, ongoing negative interactions with peers and adults by participants may also negatively influence reported connections.

**Are type, breadth, and intensity of extracurricular activity participation indicators of appropriate levels of social skills and school engagement in students with EBD?**

Results of the current study indicate that type, breadth and intensity are not associated with scores on the SSRS for students with EBD. Significant relationships were found between intensity of participation and the SCS total score, the school connection subscale, and the peer connection subscale. No significant relationships were found between type or breadth of participation and scores on the SCS. Previous research has examined different types of activities and their effects on student outcomes (Bartko & Eccles, 2003; Eccles, Barber, Stone, Hunt, 2003). Findings from the present study indicate that students participating in pro-social activities reported lower rates of drinking alcohol, getting drunk, using drugs, and skipping school. Even though student participation in team sports predicted greater involvement in risk behaviors (e.g., drinking), it was also associated with improved academic outcomes greater enjoyment of school and higher college attendance and graduation rates. Students participating in performing arts were less likely to exhibit risky behaviors than non-participating peers. Student involvement activities predicted enjoyment of school as well as higher GPAs in 12th grade and greater likelihood of college attendance and graduation. Students participating in academic clubs received higher GPAs, enjoyed school more, and were more likely to enroll in college. The present study attempted to extend this previous research by exploring the relationship between type of reported activity participation and
scores on the SSRS and SCS. In order to conduct the analysis, participants in the EBD group were divided up by type of participation (individual sports, team sports, performance and fine arts, academic club, community activities, organized service activities, faith based youth group, and multiple activities). The only activity type that was found to be significant was participation in multiple activities. It is important to note that the group sizes of each type were very small with no group outside of multiple activities (n=26) larger than 7 (performance and fine art activity) and the smallest group with only 1 (team sports). For this reason the results of this analysis should be considered with caution.

Previous research examining the relationship between breadth and intensity of ECA participation and outcomes for participants has indicated a relationship between participation in more activities (breadth) more often (intensity) and positive outcomes (Fredricks & Eccles, 2006). The present study did not indicate a relationship between intensity or breadth and the reported social skills of students with EBD. While this is an interesting finding not directly supported by previous research it is important to note that students with EBD reporting participation scored higher on the SSRS than non-participants. This finding indicates that any participation, even at relatively low levels, is associated with improved reported social skills.

Intensity of participation was found to be associated with improved school engagement. This finding is also supported by past research (Denault & Poulin, 2009; Fredricks & Eccles, 2006). Higher intensity of participation means that students spend more hours per week participating in ECA’s. Finn’s (1998) participation-identification model illustrates that as participation increases so does identification with school. The
findings of this study support this model. As students intensity of participation increased so did their reported engagement, connection to the school, and connection to their peers. Interestingly, increases in breadth of participation were not significantly related to reported school engagement. It is possible to assume that more intense participation in fewer activities is enough to improve school engagement for students with EBD.

Are there differences between students with EBD who participate in extracurricular activities and typical students who participate in extracurricular activities across all measures?

The current study indicated significant differences on the SSRS between students with EBD who report participation in ECA’s and Typical students who reported participation in ECA’s. Results were not significant when comparing the two groups scores on the SCS. These results are important for several reasons. First, students with EBD are characterized by their significant social skills deficits when compared to typical peers (Cook et. al., 2008; Walker et al., 2004). For this reason, it is not surprising that students with EBD still lag behind their typical peers in reported social skills despite receiving specialized instruction during the school day and participation in ECA’s. The differences between the two groups were significant with very high effect sizes, however, it is important to recognize that the students with EBD involved in ECA’s in the present study still showed significant improvements in social skills over non-participating students with EBD. Further, the SSRS scores for students with EBD reporting participation fell in average ranges while scores for non-participants with EBD fell in the below average ranges. Therefore, while it is possible that students with EBD may continue to be lower than Typical participating peers in the area of reported social skills,
ECA participation may be a key variable that leads to improved outcomes to the point of bringing self-report scores into the “low-average” range.

This study found that scores on the SSRS were significantly different between students reporting participation in both the EBD and typical groups. This was not the case for school engagement. Students with EBD who reported participation in ECA’s scored lower on the SCS than students not identified as EBD, but these differences were not significant. This is a very exciting finding in light of the large differences in scores on the SSRS. Previous research shows that high rates of school engagement are related to positive outcomes for adolescents including decreased dropout rates, improved academic performance, and improved interactions with adults and peers (Fall & Roberts, 2012; Finn, 1989; Finn, 1993; Finn & Rock, 1997; Finn & Owings, 2006; Lohmeier & Lee, 2011). These findings are an indication that ECA participation by students with EBD may be an important factor in improving their school engagement to levels near their non-disabled peers.

**Limitations**

The present study includes some limitations that should be noted. First, the a-priori power analysis indicated a required sample for independent-sample t-tests and ANOVA of 64 per group to meet standards set forth by Gersten, et al. (2005). Correlations required a total sample of 82 and multiple regression required 55. Groups for the present study did not meet this requirement therefore results should be interpreted with caution. Further, while EBD was defined broadly to include students with emotional and/or behavioral disorders not served under the current IDEA definition of EBD,
disaggregating results among various behavioral concerns or subtypes (e.g., internalizing or externalizing behaviors, ADHD, etc.) was not possible due to the small sample size.

Second, the requirement that students in the typical sample remain anonymous made gathering a representative sample of typical students difficult for several reasons. First, administrator permission to distribute recruitment flyers in three of the twelve schools included in the study was not granted. This limited the number of schools where recruitment flyers could be distributed. Second, administrator permission was granted at school 6 but student access to the survey was blocked by the schools Internet firewall. Third, the initial recruitment flyer included a URL linking to the survey that was long and difficult to enter accurately into a browser. This was addressed by setting up a website with a simple URL that included a link the recruitment flyer. This change did result in increased participation but came after recruitment flyers had been distributed at 5 of the participating schools. Fourth, the length of the online survey may have limited participation. Fifth, because no identifying information was gathered from students completing the online survey it is not possible to know how participants were distributed across the nine schools where survey flyers were distributed. Sixth, the anonymity of participants in the typical group made it impossible to ensure that students from the EBD group did not also take the online survey. Each of these challenges compromised the ability to gather a representative sample of students, therefore comparisons made between typical students and students with EBD should be interpreted with extreme caution.

Third, students from six of the schools in the EBD group were participants in a larger study implementing interventions addressing social skills and school engagement. Analysis indicated that students enrollment in intervention schools was not a significant
covariate of reported social skills or school engagement. Despite these findings, results of
the present study regarding improvement in social skills and school engagement should
be interpreted with caution.

Fourth, all information gathered for this study was self-reported by students. For
this reason, data related to participation in ECA’s, social skills, and school connection
cannot be confirmed through other sources such as parents or school officials.

Finally, data from this study was limited to a single geographic region.
Opportunities for participation in ECA’s differ across schools and regions based on
several factors such as size of school, availability of adult coaches and sponsors, financial
limitations of schools and districts, community resources, and local culture. While the
schools in the present study ranged from large urban and suburban high schools to small
rural high schools the sample may not be nationally represented.

Implications for Future Research

While the present study has contributed to the extra-curricular knowledge base
with respect to students with disabilities, additional research into the relationship between
extracurricular activity participation and the social skills and school engagement of
students with EBD is clearly warranted. The results of this study suggest that students
with EBD do benefit from participation in ECA’s and that participation may add value to
existing interventions. Replications with larger sample sizes may provide more insight
into the relationships between participation in ECA’s and important outcome variables
like social skills and school engagement. Further, future ECA research should examine
the relationship between participation and other important variables such as internalizing
behaviors, academic performance, office discipline referrals, attendance, and dropout rates.

Second, findings from this study indicate that ECA participation is associated with increases in reported social skills in students with EBD. Given the importance of social skills to this population of students and the challenges of maintenance and generalization programming in social skills training programs, future research should examine this relationship more closely.

Third, a more detailed examination of the relationship between types of extracurricular activities and outcomes for students with EBD may help uncover information about which types of activities have the greatest impact on social skills and school engagement. This research could help guide schools in future efforts to increase participation in ECA’s by students with EBD.

Fourth, gathering information from adult coaches and sponsors about their practices and the characteristics of their activities may lead to a deeper understanding of why students with EBD benefit from participation. Further, this research may lead to suggestions for increasing participation of students with EBD and improving their time spent in ECA’s.

Fifth, the present study indicated that early participation was a strong predictor of a positive developmental trajectory, however, only included students in 10th and 11th grade. Future longitudinal studies examining ECA participation in students with EBD in earlier grades through high school can provide insight into the early participation patterns in this population of students and how participation evolves over time, similar to Denault
and Poulin (2009) who examined the intensity and breadth of participation in ECA’s from grades 7 though 11 and found key developmental milestones.

**Implications for Practice**

Several findings from this study have important implications for practitioners in high schools. First, including ECA participation as an element of social skills training programs may help address some of maintenance and generalization concerns raised in the literature (e.g., Maag, 2006). School personnel implementing social skills training programs for high school students with EBD should consider including some sort of ECA participation as a goal of the program. ECA participation may provide students with opportunities to practice social skills in a structured environment while receiving performance feedback from adults and peers. School-based ECA’s present the opportunity for the social skills trainer and ECA coach/sponsor to communicate about the needs of the student and the social goals of participation. This communication can help the coach/sponsor facilitate opportunities for the student to practice learned social skills and serve as a prompt to deliver appropriate performance feedback on the student’s social interactions. In addition, open lines of communication between the social skills trainer and coach/sponsor may lead to information about social deficits not addressed during social skills training. These deficits can be addressed during future social skills lessons and may ensure continued successful participation by the student.

Second, it may be valuable for social skills trainers to focus on assertion and empathy skills during training if ECA participation is a goal of the program. This may be accomplished by evaluating the student’s current level of skill in both areas and determining specific assertion and empathy skills required for participation in a desired
ECA. For example, a student with social skills acquisition deficits who wishes to participate in a sport may need to be taught skills related to asking for information, clarifying instructions, seeking performance feedback, expressing frustration, working with others, and being part of a team. Social skills trainers may benefit from observing practices or meetings and determining important skills required for successful participation. These specific skills may then become a focus during training.

Third, school personnel who encourage participation in ECA’s as a way to increase social competence and school engagement in students with EBD may want to consider the human capital (e.g., athletic ability, intelligence, coordination, singing ability, etc.) required for participation in a given activity. Students with little athletic ability may not realize the benefits of ECA’s through participation in sports. Exposing students to ECA’s that require a level of human capital the student does not possess may lead to failure that results in loss of precious social capital and further disengagement from school. Failed attempts at participation may also compromise future opportunities and desire to participate in ECA’s.

Finally, the circular relationship between academic performance, social behavior, and ECA participation should encourage schools to reevaluate policies that limit involvement in ECA’s based on grades and discipline referrals. Policies like “no pass-no play” are rooted in the idea that participation in ECA’s is reinforcing and removing or withholding this activity when students receive a discipline referral or fail a class will lead to reductions in problem behavior and/or poor academic performance. This system is likely very effective for students without academic or behavioral problems. However, for students with EBD who struggle academically and behaviorally these types of policies
may act as a barrier to participation in ECA’s that could play a key role in improving their academic and behavioral performance. Instead of “zero tolerance” policies that limit participation by students who may benefit the most from ECA’s, schools should investigate policies that encourage participation and use student behavioral and academic improvement as a factor in determining eligibility for participation. Applying a system of progress monitoring and data-based decision making to ECA participation may serve students with EBD better than the current system. One way to accomplish this is to consider ECA participation as an extension of social skills training and/or academic interventions. School personnel can monitor relevant indicators of a student academic and/or behavioral performance such as grades, classroom behavior, assignment completion, or office discipline referrals and compare student performance to a predetermined benchmark. Students who continue to meet performance criteria are allowed to continue participation in ECA’s. If a student’s performance on a given variable falls below the benchmark it triggers a data-decision rule and participation in the ECA is re-evaluated or steps are taken to address problem behaviors and/or academic performance. Treating ECA participation as an intervention and applying rules of progress monitoring and data-based decision making may ensure that participation in ECA’s is beneficial to students and may be a more appropriate way to connect participation to academics and behavior.

Conclusion

Extracurricular activities are prevalent in high schools and communities across America. The availability of extracurricular activities and the benefits associated with them make participation a potentially valuable addition to current interventions for
students with EBD. Extracurricular activity participation may provide an avenue for students with EBD to improve behaviors related to academic performance, generalize and maintain skills they learn through social skills training programs, and increase their engagement with school which as a key component in reducing dropout.

The purpose of this study was to explore the current state of participation in extracurricular activities by students with EBD and to examine the relationships between participation in ECA’s, social skills, and student engagement for these students. Results indicated that participation in ECA’s by students with EBD is related to improved levels of reported social skills and school engagement. These results are encouraging and open the door to future research into new ways to improve the outcomes for this population of students.
References


Lane, K. L., Carter, E. W., Pierson, M. R., & Glaeser, B. C. (2006). Academic, social, and behavioral characteristics of high school students with emotional disturbances or...


Sutherland, K. S., & Snyder, A. (2007). Effects of reciprocal peer tutoring and self-graphing on reading fluency and classroom behavior of middle school students with emotional or behavioral disorders. *Journal of Emotional and Behavioral Disorders, 15*(2), 103-118.

Sutherland, K. S., & Wehby, J. H. (2001). Exploring the relationship between increased opportunities to respond to academic requests and the academic and behavioral outcomes of students with EBD. *Remedial and Special Education, 22*(2), 113–121.


Sutherland, K. S., Wehby, J. H., & Yoder, P. J. (2002). Examination of the relationship between teacher praise and opportunities for students with EBD to respond to academic requests. *Journal of Emotional and Behavioral Disorders. 10*(1), 5-13.


Appendix A

Recruitment Flyer

Volunteers Needed for Extracurricular Activity Research Study

We need participants for a research study about extracurricular activities, social skills, and your connection to school.

Description of Project: We are researching how participation in extracurricular activities affects social skills and your connection to school.

To participate: You must be currently enrolled in high school full time. You do not need to participate in an extracurricular activity. Participants will need about 20-minutes to take three brief online surveys.

Participants will be entered to win a $50 iTunes gift card.

To learn more, contact the principle investigator of the study, Sean Wachsmuth, at 573-882-0234 or stwachsmuth@mizzou.edu. This research is conducted under the direction of Dr. Tim Lewis, Department of Special Education.

To complete the survey:

Log on to
sites.google.com/site/ecactivitysurvey/

or Email
seanrpdc@gmail.com with the message “Survey” for a link to the survey.
Appendix B

Consent Form for Typical Sample Under 18

The purpose of this research project is to examine the relationship among extracurricular activity participation, social skills, and connection to school. The three primary objectives of the proposed study are as follows:

1. Identify the level of participation in extracurricular activities of typical high school students as well as the type of activities these students participate in.

2. Examine the relationship between participation in extracurricular activities and the social skills of typical high school students.

3. Examine the relationship between participation in extracurricular activities and school connectedness of typical high school students.

This is a research project being conducted by Sean Wachsmuth at the University of Missouri. You are invited to participate in this research project because you are currently enrolled full time in high school. Your participation in this research study is voluntary. You may choose not to participate. If you decide to participate in this research survey, you may withdraw at any time. If you decide not to participate in this study or if you withdraw from participating at any time, you will not be penalized.

Participation in the study will involve minimal risk to participants. If survey information is made public participants could experience mild embarrassment with peers and adults. No immediate benefits will be experienced by the participants, however, participation will lead to a more complete understanding of the effects of participation in extracurricular activities on social skills and connection to school. This information may be used by researchers and educators to develop interventions related to social skills and connection to school using extracurricular activities.

The procedure involves filling an online survey that will take approximately 20 minutes. Your responses will be anonymous and we do not collect identifying information such as your name, email address or IP address. The survey questions will be about your participation in extracurricular activities, your social skills, and your connection to school. We will do our best to keep your information anonymous. All data is stored in a password protected electronic format. To help protect your anonymity, the surveys will not contain information that will personally identify you. The results of this study will be used for scholarly purposes only and may be shared with University of Missouri representatives.
Participants will be eligible to enter a drawing to win one (1) iTunes gift card valued at $50. The card is redeemable at the iTunes store (http://www.apple.com/itunes/). If you have any questions about the research study, please contact Sean Wachsmuth at stwachsmuth@mizzou.edu or 573-882-0762. You may also contact Tim Lewis at lewistj@missouri.edu or 573-882-0561.

You may contact the Campus Institutional Review Board if you have questions about your rights, concerns, complaints or comments as a research participant. You can contact the Campus Institutional Review Board directly by telephone or email to voice or solicit any concerns, questions, input or complaints about the research study.

483 McReynolds Hall
Columbia, MO 65211
573-882-9585
E-Mail: umcresearchcirb@missouri.edu
Website: http://www.research.missouri.edu/cirb/index.htm

ELECTRONIC CONSENT: Please select your choice below.
Clicking on the "agree" button below indicates that:
• you have read the above information
• you voluntarily agree to participate
• you are at least 18 years of age

If you do not wish to participate in the research study, please decline participation by clicking on the "disagree" button.
Appendix C

Extracurricular Activity Survey

Extracurricular Activity Survey - CARS Participants Only

Date_______________________

CARS ID___________________

The following survey asks you about your participation in extracurricular activities, your interactions with peers and adults, and your connection to school.

There are three sections to the survey:

- Section 1 asks about your participation in various types of extracurricular activities over the past school year.
- Section 2 asks about your interactions with peers and adults.
- Section 3 asks about your connection with school.

All of your answers will be combined with other participant responses and used for research purposes only.
The following questions ask about your participation in extracurricular activities over the past school year. Answer all questions to the best of your ability and be as accurate as possible.

1. This school year I have participated in an individual sport like martial arts, gymnastics, swimming, or wrestling. (If no, skip to 4)
   - Yes
   - No

2. How many months did you participate in the individual sport?
   - Less than 1 month
   - 1-2 months
   - 3-4 months
   - More than 4 months

3. How many hours per week did the individual sport meet?
   - Less than 1 hour per week
   - 1-2 hours per week
   - 2-3 hours per week
   - 3-4 hours per week
   - 4-5 hours per week
   - More than 5 hours per week

4. This school year I have participated in a team sport like basketball, football, volleyball, soccer, hockey, or baseball. (If no, skip to 7)
   - Yes
   - No

5. How many months did you participate in the team sport?
   - Less than 1 month
   - 1-2 months
   - 3-4 months
   - More than 4 months

6. How many hours per week did you participate in the team sport?
   - Less than 1 hour per week
   - 1-2 hours per week
   - 2-3 hours per week
   - 3-4 hours per week
   - 4-5 hours per week
   - More than 5 hours per week

7. This school year I have participated in a performance or fine arts activity like drama, dance, art, band, or choir? (If no, skip to 10)
   - Yes
   - No
8. How many months did you participate in the performance or fine arts activity?
   o Less than 1 month
   o 1-2 months
   o 3-4 months
   o More than 4 months
9. How many hours per week did you participate in the performance or fine arts activity?
   o Less than 1 hour per week
   o 1-2 hours per week
   o 2-3 hours per week
   o 3-4 hours per week
   o 4-5 hours per week
   o More than 5 hours per week
10. This school year I have participated in an academic club like math club, chess club, computer club, newspaper, radio, or student government? (If no, Skip to 13)
    o Yes
    o No
11. How many months did you participate in the academic club?
    o Less than 1 month
    o 1-2 months
    o 3-4 months
    o More than 4 months
12. How many hours per week did you participate in the academic club?
    o Less than 1 hour per week
    o 1-2 hours per week
    o 2-3 hours per week
    o 3-4 hours per week
    o 4-5 hours per week
    o More than 5 hours per week
13. This school year I have participated in a community oriented activity like Boy Scouts, Girl Scouts, or 4-H? (If no, skip to 16)
    o Yes
    o No
14. How many months did you participate in the community oriented activity?
    o Less than 1 month
    o 1-2 months
    o 3-4 months
    o More than 4 months
15. How many hours per week did you participate in the community oriented activity?
   o Less than 1 hour per week
   o 1-2 hours per week
   o 2-3 hours per week
   o 3-4 hours per week
   o 4-5 hours per week
   o More than 5 hours per week

16. This school year I have participated in an organized service activity (volunteer experience, teacher assistant, special Olympics coach/assistant?) (If no, skip to 19)
   o Yes
   o No

17. How many months did you participate in the organized service activity?
   o Less than 1 month
   o 1-2 months
   o 3-4 months
   o More than 4 months

18. How many hours per week did you participate in the organized service activity?
   o Less than 1 hour per week
   o 1-2 hours per week
   o 2-3 hours per week
   o 3-4 hours per week
   o 4-5 hours per week
   o More than 5 hours per week

19. This school year I have participated in a faith-based youth group? (If no, skip to next page)
   o Yes
   o No

20. How many months did you participate in the faith-based youth group?
   o Less than 1 month
   o 1-2 months
   o 3-4 months
   o More than 4 months

21. How many hours per week did you participate in the faith-based youth group?
   o Less than 1 hour per week
   o 1-2 hours per week
   o 2-3 hours per week
   o 3-4 hours per week
   o 4-5 hours per week
   o More than 5 hours per week

END OF SECTION 1
Section 2

The following questions ask about a lot of the things that students your age may do. 

*Please read the instructions at the top of the next page* and answer all the questions to the best of your ability.
This paper lists a lot of things students your age may do. Please read each sentence and think about yourself. Decide **how often** you do the behavior described.

If you **never** do this behavior, circle the 0
If you **sometimes** do the behavior, circle the 1
If you **very often** do this behavior, circle the 2

Then decide how important the behavior is to your relationship is with others.

If it is **not important** to you relationships, circle the 0
If it is **important** to your relationships, circle the 1
If it is **critical** to your relationships, circle the 2

Here are two examples:

<table>
<thead>
<tr>
<th>Behavior</th>
<th>How Often</th>
<th>How Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>I start conversations with classmates.</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>I keep my desk clean and neat.</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

This student **very often** starts conversations with classmates, and starting conversations with classmates is **important** to this student. This student **sometimes** keeps his or her desk clean and neat but a clean and neat desk is **not important** to this student.

**Social Skills**

<table>
<thead>
<tr>
<th>Behavior</th>
<th>How Often</th>
<th>How Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I make friends easily.</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2. I say nice things to others when they have done something well.</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3. I ask adults for help when other kids try to hit me or push me around.</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>4. I am confident on dates.</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5. I try to understand how my friends feel when they are angry, upset, or sad.</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>6. I listen to adults when they are talking with me.</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>7. I ignore other students when they tease me or call me names.</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>8. I ask friends for help with my problems.</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>9. I ask before using other people's things.</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>10. I disagree with adults without fighting or arguing.</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>11. I avoid doing things with others that may get me in trouble with adults.</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>12. I feel sorry for others when bad things happen to them.</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>13. I do my homework on time.</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>14. I keep my desk or locker clean and neat.</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>15. I do nice things for my parents like helping with household chores without being asked.</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Social Skills (cont.)</td>
<td>How Often?</td>
<td>How Important?</td>
</tr>
<tr>
<td>-----------------------</td>
<td>------------</td>
<td>----------------</td>
</tr>
<tr>
<td></td>
<td>Never</td>
<td>Sometimes</td>
</tr>
<tr>
<td>16. I am active in school activities such as sports or clubs.</td>
<td>0 1 2</td>
<td>0 1 2</td>
</tr>
<tr>
<td>17. I finish classroom work on time.</td>
<td>0 1 2</td>
<td>0 1 2</td>
</tr>
<tr>
<td>18. I compromise with parents or teachers when we have disagreements.</td>
<td>0 1 2</td>
<td>0 1 2</td>
</tr>
<tr>
<td>19. I ignore classmates who are clowning around in class.</td>
<td>0 1 2</td>
<td>0 1 2</td>
</tr>
<tr>
<td>20. I ask someone I like for a date.</td>
<td>0 1 2</td>
<td>0 1 2</td>
</tr>
<tr>
<td>21. I listen to my friends when they talk about problems they are having.</td>
<td>0 1 2</td>
<td>0 1 2</td>
</tr>
<tr>
<td>22. I end fights with my parents calmly.</td>
<td>0 1 2</td>
<td>0 1 2</td>
</tr>
<tr>
<td>23. I give compliments to members of the opposite sex.</td>
<td>0 1 2</td>
<td>0 1 2</td>
</tr>
<tr>
<td>24. I tell other people when they have done something well.</td>
<td>0 1 2</td>
<td>0 1 2</td>
</tr>
<tr>
<td>25. I smile, wave, or nod at others.</td>
<td>0 1 2</td>
<td>0 1 2</td>
</tr>
<tr>
<td>26. I start conversations with opposite-sex friends without feeling uneasy or nervous.</td>
<td>0 1 2</td>
<td>0 1 2</td>
</tr>
<tr>
<td>27. I accept punishment from adults without getting mad.</td>
<td>0 1 2</td>
<td>0 1 2</td>
</tr>
<tr>
<td>28. I let friends know I like them by telling or showing them.</td>
<td>0 1 2</td>
<td>0 1 2</td>
</tr>
<tr>
<td>29. I stand up for my friends when they have been unfairly criticized.</td>
<td>0 1 2</td>
<td>0 1 2</td>
</tr>
<tr>
<td>30. I invite others to join in social activities.</td>
<td>0 1 2</td>
<td>0 1 2</td>
</tr>
<tr>
<td>31. I use my free time in a good way.</td>
<td>0 1 2</td>
<td>0 1 2</td>
</tr>
<tr>
<td>32. I control my temper when people are angry with me.</td>
<td>0 1 2</td>
<td>0 1 2</td>
</tr>
<tr>
<td>33. I get the attention of members of the opposite sex without feeling embarrassed.</td>
<td>0 1 2</td>
<td>0 1 2</td>
</tr>
<tr>
<td>34. I take criticism from my parents without getting angry.</td>
<td>0 1 2</td>
<td>0 1 2</td>
</tr>
<tr>
<td>35. I follow the teacher's directions.</td>
<td>0 1 2</td>
<td>0 1 2</td>
</tr>
<tr>
<td>36. I use a nice tone of voice in classroom discussions.</td>
<td>0 1 2</td>
<td>0 1 2</td>
</tr>
<tr>
<td>37. I ask friends to do favors for me.</td>
<td>0 1 2</td>
<td>0 1 2</td>
</tr>
<tr>
<td>38. I start talks with classroom members.</td>
<td>0 1 2</td>
<td>0 1 2</td>
</tr>
<tr>
<td>39. I talk things over with classmates when there is a problem or an argument.</td>
<td>0 1 2</td>
<td>0 1 2</td>
</tr>
</tbody>
</table>
Section 3

The following questions ask about your experiences at school. *Please read the instructions at the top of the next page* and answer all the questions to the best of your ability.
Instructions: Listed below is a series of questions about you and your experiences at and opinions about school. All of your answers will be confidential. Your name is not included with your responses. Please answer each question by circling the appropriate response.

For each statement below, decide **HOW TRUE** the statement is for you and circle the number that reflects your opinion.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Not true at all</th>
<th>Completely True</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I help my friends at school with their problems.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>2. When I have a problem, there is at least one adult at school I can trust.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>3. I would feel upset if someone said bad things about my school.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>4. I care what my classmates think of me.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>5. I try to make my teachers happy.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>6. I think my school is a safe place to be.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>7. I think my classmates are stupid.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>8. My teachers only notice me when I do something wrong.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>9. I always try to do my best at school.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>10. I often talk with an adult at my school about things that are important to me.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>11. My teachers care about me.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>12. Adults at my school care more about punishing students than helping them.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>13. I think the things I learn at school are useless.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>14. I encourage other students to get involved in school activities.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>15. My classmates ignore me.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>16. Sometimes I skip class.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>17. Adults at my school are friendly to students.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>18. I do things that support my school.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>19. I can always find a friend to sit with at lunch.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>20. I talk to my friends at school about how I am feeling.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>21. I feel like this school is the right place for me.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>22. I think my teachers are stupid.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>23. I usually get along with the other students at my school.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>24. When I have a problem, I ask my friends at school for help.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>25. I think school is important.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>26. I usually feel bored in class.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>27. Students at my school help each other.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>28. I wish my classmates would leave me alone.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>29. I only go to school because I have to.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>30. I am very involved in activities at my school, like clubs or teams.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Not true at all</td>
<td>Completely True</td>
</tr>
<tr>
<td>---</td>
<td>----------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>31. Adults at my school ask students how they are doing.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>32. I feel stupid cheering for my school.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>33. I talk back to my teachers.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>34. People I care about say bad things about my school.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>35. My teachers give me extra help when I need it.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>36. I like to make my teachers happy.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>37. I think my classmates like me.</td>
<td>1 2 3 4 5</td>
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</tr>
<tr>
<td>38. I like spending time with my classmates.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>39. Students at my school bully each other.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>40. I argue a lot with my teachers.</td>
<td>1 2 3 4 5</td>
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</tr>
<tr>
<td>41. I feel lonely at school.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>42. I feel comfortable around the other students at my school.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>43. Teachers at my school care about their students.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>44. I fight with my classmates.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>45. I wish my teachers would leave me alone.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>46. I often daydream or goof off in class.</td>
<td>1 2 3 4 5</td>
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<tr>
<td>47. I would rather go to a different school.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>48. I feel like I fit in with the other students at my school.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>49. People I care about tell me that school is important.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>50. I would feel comfortable asking most of my classmates for help with a problem.</td>
<td>1 2 3 4 5</td>
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</tr>
<tr>
<td>51. I like going to school events, like sports events and dances.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>52. Adults at my school are interested in how students are doing.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>53. I care about my teachers' opinion of me.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>54. Teachers at my school are unfair to students.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>
Vita

Sean Wachsmuth received his Bachelor of Science degree in Special Education, EBD from St Cloud State University in Minnesota and his Masters of Education degree from Auburn University in Alabama. Sean worked as a special education teacher for five years in Wyoming where he taught students with EBD in both resource and self-contained settings. His current areas of interest include the use of extracurricular activities as an intervention for students with EBD as well as the implementation of evidence-based practices to improve academic and social outcomes for students with EBD in middle and high schools.