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EFFECTIVENESS OF A BLENDED LEARNING SOCIAL SKILLS INTERVENTION ON HIGH SCHOOL STUDENTS IDENTIFIED AS AT-RISK FOR EMOTIONAL AND BEHAVIORAL DISORDERS

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By

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DEDICATION

"True friends are always together in spirit." –L. M. Montgomery

I would not be where I am today without the unwavering support from my family and friends. While the past two years of my life have been intense, hectic, and full of uncertainty, I am so blessed to have a network of people that I can turn to in times of grief and joy.

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ABSTRACT

The purpose of this study was to evaluate the social, emotional, and behavioral impact of a nine-week blended learning social skills intervention for high school students identified as having, or at-risk for, Emotional and Behavioral Disorders. Exploring how social skills interventions improve students' social, emotional, and behavioral deficits can aid in the development of a curriculum that combines social and academic skills in new and innovative ways. This quantitative study utilized a pretest—posttest method. High school students identified as having, or at risk for, Emotional and Behavioral Disorders and their special educators were invited to complete the researcher-designed social skills intervention with a corresponding *Social Emotional Assets and Resilience Scales* (*SEARS*) pre- and post-test. There were no statistically significant differences between the pre- and post-test scores for the students or the special educator. The *SEARS'* social-emotional domains (self-regulation, empathy, responsibility, and social competence) were all found to be statistically significant predictors of the students' total composite score. Similarly, gender was found to be a robust, significant predictor of the student's total composite score. Implications of the study include strategies for developing and delivering social skills interventions at the high school level.

Key Words: social skills curriculum; high school intervention; social emotional learning; intervention strategies; behavior strategies; Emotional and Behavioral Disorders

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I. INTRODUCTION

Students identified as emotionally and behaviorally disturbed (EBD) often lack critical psychological and educational social skills needed to successfully participate in personal and professional situations (Lane, Barton-Arwood, Nelson, & Wehby, 2008; Morgan, 2012). Psychological social skills include three distinct categories: expressive skills (exhibiting appropriate verbal and nonverbal behaviors to meet specific objectives); sensitivity skills (comprehending one's ability to impact and be impacted by others); and controlling communicative skills (expressing appropriate verbal and nonverbal behaviors to convey a point to one's immediate environment) (Cumming et al., 2008; Goldstein & McGinnis, 1997; Morgan, 2012). Educational social skills include prosocial emotional and behavioral skills that students use to complete a variety of social tasks within specific environments (Morgan, 2012). Such skills include listening, joining classroom discussions, and appropriately dealing with stressful or negative situations (Goldstein & McGinnis, 1997). Researchers have cited the implementation of instructional intervention programs focusing on social, personal, and professional life skills as the most effective method to build social skills for students identified as EBD (Dobbins, Higgins, Pierce, Tandy, & Tincani, 2010; Rutherford, DuPaul, & Jitendra, 2008).

Background of the Study

The United States Department of Education (USDE, 2010) defined EBD as a condition in which students met at least one or more of the following criteria over an extended time period:

- an inability to build or maintain satisfactory interpersonal relationships with peers and teachers;
- inappropriate types of behavior or feelings under normal circumstances;
- a general pervasive mood of unhappiness or depression; or
- a tendency to develop physical symptoms or fears associated with personal or school problems. (p. 1)

Emotional and behavioral disorders include several social-emotional disabilities such as anxiety disorders, bipolar disorders, eating disorders, obsessive-compulsive disorders, conduct disorders, and psychotic disorders (IDEA, 2004). Moreover, emotional and behavioral disorders may affect one's physical, social, or cognitive skills through characteristics such as "hyperactivity, aggression or self-injurious behavior, withdrawal, immaturity, learning difficulties, distorted thinking, excessive anxiety, bizarre motor acts, and abnormal mood swings" (USDE, 2010, pp. 1-2).

Low self-perception, poor relationships, and behavioral challenges can create lasting effects on the post-school personal and professional experiences of students with emotional and behavioral disorders. Mihalas, Morse, Allsopp, and Alvarez (2009) reported that, compared to students without disabilities, students identified as EBD "fail more courses in school, are retained more frequently, have lower grade point averages, drop out of school more frequently, and are less likely to graduate high school" (p. 109). Feelings of inadequacy result in low academic motivation and engagement, as well as behavioral concerns, such as persistent failure,

negative social-emotional development, and aggression (Scott, 1996; Taylor, Davis-Kean, & Malanchuk, 2007). Aggression and poor self-perception may lead to negative academic distractions, such as fear of failure, learned helplessness, anxiety, or a focus on the projected outcome and consequences of a task, rather than the task itself (Brophy, 1983).

Becoming aware of students' self-perceptions can aid in the development of positive student-teacher relationships; however, teacher support is lacking (Rathel, Drasgow, & Christle, 2008; Scott, 1996; Shores & Wehby, 1999). Poor relationships between students identified as EBD and their teachers and peers often leads to undesirable classroom environments. Students with learning disabilities indicated that they felt their teachers did not fully understand the academic challenges they faced and simply resorted to assumptions that they were less capable or lazy (Levi, Einav, Raskind, Ziv, & Margalit, 2013). Negative interactions with teachers often carry over into negative interactions among students identified as EBD and their peers. Fletcher (2009, 2010) found that kindergarten and first-grade students identified as EBD had a negative impact on the achievement of their peers in reading and math courses, citing negative teacher interactions as a leading cause.

Despite the protections for students with disabilities under IDEA (2004), expulsion rates for students identified as socially and emotionally disabled have continuously risen from 13% in 1980 to 72.9% in 2003, and 94.8% in 2014 (Achilles, McLaughlin, & Croninger, 2007; USDE, 2014; Wagner, Newman, Cameto, Levine, & Marder, 2003). Achilles et al. (2007) attributed high suspension rates to low parental involvement, school and family problems, rigid school disciplinary policies, racially and academically biased school personnel, teacher perceptions of low student competence, and student misperceptions of teacher interest.

Bullis, Evans, Fredericks, & Davis (1993) reported that, in addition to dropping out of school, persons identified as EBD exhibited "the highest unemployment rate of any disability group served through special education" (p. 236). Students identified as learning disabled and emotionally or behaviorally disturbed account for the largest population of committed youths, as they are "up to 4 times more likely to be committed to a juvenile justice facility than their nondisabled peers" (Cavendish, 2013, p. 41). Holzer, Raphael, and Stoll (2003) reported that while employers of construction or manufacturing companies demonstrated a willingness to hire ex-offenders, employers of retail trades and service sectors were more reluctant to hire ex-offenders than any other disadvantaged group. Baltodano, Harris, and Rutherford (2005) reported that juveniles without disabilities faced a higher risk of returning to incarceration due to limited post-release support. Davis et al. (2014) noted that many juveniles leave custody with limited personal and professional skills needed to function in society.

Although the definition of social skills is continuously evolving, recent research has defined social skills as prosocial competencies that allow individuals to "solve problems, read social cues, and perform competently when interacting with others" (Cumming, 2010, p. 243). Students identified as EBD often lack the social skills necessary to negotiate demands, adapt to social expectations, and develop relationships with peers and authority figures both in and outside of the classroom (Cumming, 2010; Cumming et al., 2008).

Developing and delivering cohesive social skills interventions that combine social and academic skills in new and innovative ways may help reduce emotional outbursts and behavioral concerns in students identified as EBD (Cumming et al., 2008; Fenty, Miller, & Lampi, 2008; Fitzpatrick & Knowlton, 2009; Lo, Loe, & Cartledge, 2002; Morgan, 2012; Taylor et al., 2007). The high dropout and unemployment rates of students identified as EBD support the need for

instructionally based intervention programs that emphasize personal and professional social skills (Cumming et al., 2008; Fitzpatrick & Knowlton, 2009; Gresham, Elliott, Cook, Vance, & Kettler; Konold, Jamison, & Stanton-Chapman, 2010; Maag, 2005; Morgan, 2012; Rutherford et al., 2008). Social skills interventions have the potential to be highly effective as they "improve social development and reduce behavioral problems in students with or at-risk for EBD" (Lo et al., 2002, p. 372). However, most social skills programs focus solely on improving academics instead of combining the instruction with behavioral interventions (Lo et al., 2002). Instructional social skills interventions are needed at the high school level; however, there is limited evidence on the effectiveness of current school-based social skills interventions (Lake, Al Otaiba, & Guidry, 2010; Rimm-Kaufman & Chiu, 2007).

Developing meaningful lessons to meet the needs of individual learners shows students that teachers value their opinions and care about their successes after graduation. Cumming et al. (2008) investigated the improvement of social skills through multimedia coupled with teacher facilitation, and found that students identified as EBD between the ages 11-14 years old were genuinely involved and more motivated during interventions that combined traditional interventions (e.g., social skills instruction) with more modern and relevant components, such as multimedia. This result is not typically seen in social skills instruction, as students with emotional and behavioral disabilities are less motivated; however, when involved in their own learning, students identified as EBD appeared more engaged and willing to learn social skills (Cumming et al., 2008). Incorporating technology into the curriculum adds to the limited educational tools offered to students identified as EBD, and increases academic success, peer engagement, and social skills (Cumming et al., 2008; Mitchem, Knight, Fitzgerald, Koury, & Boonseng, 2007; Morgan, 2010; Morgan, 2012). Developing a technology-based curriculum for

students identified as EBD must balance appropriate teacher support with engaging learning sequences that foster student independence (Cuming et al., 2008; Morgan, 2012).

Blended learning is the seamless integration of traditional face-to-face education with online instruction (George-Walker & Keeffe, 2010; McGee & Reis, 2012). Typically practiced in the higher education sector, blended learning bridges learning curriculum with pedagogical design to rethink and redesign the relationship between teaching and learning (George-Walker & Keeffe, 2010; Garrison & Kanuka, 2004). Adopting a blended learning curriculum to teach social skills increases student engagement and decreases disruptive behaviors (Morgan, 2012).

Blended learning requires the integration of cognitive, affective, psychomotor, and conative skills, all of which play an integral part in the shaping of maladaptive behaviors (Bauer & Shea, 1998; Eagleton, 2016; IDEA, 2004). However, while numerous studies have demonstrated the usefulness of embedding technology into the curriculum, very little research has delved into the implementation of blended learning in the high school classroom (Morgan, 2012; Lane, Carter, Pierson, & Glaeser, 2006). Cullinan and Saborni (2004) noted, "Research and other professional attention has focused more on elementary than on middle or high school students with ED" (p 157). Lane et al. (2006) stated that "studies examining the social and behavioral skills of students with [emotional and learning disorders] have focused predominantly on younger children, with less attention given to adolescents" (p. 109). Failing to devote adequate research to adolescent students with emotional and learning difficulties may have serious repercussions regarding behavior, peer relationships, and post-school success (Lane et al., 2006).

Purpose Statement

Educators must implement additional social skills intervention strategies in conjunction with standard curriculum practices to effectively improve students' social, emotional, and behavioral deficits. While initial research shows the effectiveness of social skills interventions for elementary and middle school students, current high school level interventions fail to adequately address the academic, social, and emotional needs of students identified as emotionally and behaviorally disturbed (Bullis et al., 1993; Maag, 2006; Morgan, 2012). The purpose of this study was to evaluate the social, emotional, and behavioral impact of a nine-week blended learning social skills intervention for high school students identified as at-risk for EBD.

Significance

Though effective in initial intervention studies, current social skills programs focus solely on improving academics instead of combining instruction with behavioral interventions. Intervention strategies for students identified as EBD have suffered, as behavioral and academic success are not mutually exclusive (Bullis et al., 1993; Dobbins et al., 2010; Lo et al., 2002; Morgan, 2012; Vaughn, Levy, Coleman, & Bos, 2002). Developing and delivering cohesive social skills interventions that combine social and academic skills in new and innovative ways helped reduce emotional outbursts and behavioral concerns in students identified as EBD (Cumming et al., 2008; Fenty et al., 2008; Fitzpatrick & Knowlton, 2009; Lo et al., 2002; Morgan, 2012; Taylor et al., 2007). However, as most research explores the use of social skills instruction in elementary classrooms, there is no current research on using a blended learning platform to teach personal and professional social skills to high school students identified as EBD (Morgan, 2012). This study adds to the dearth of critical research needed in this area, as it

specifically analyzes high school students identified as or at risk for EBD, and allows educators to tailor a blended learning curriculum to meet the diverse needs of learners.

Overview of Methodology

This quantitative study is non-random, quasi-experimental research. A purposive sample population of 7 students and one teacher was drawn from a local high school in the Eastern Maryland area. The independent treatment variable was the researcher-designed blended learning social skills curriculum. The study's dependent variables were derived from the self-report surveys completed by both the students and the teachers. Specifically, the *Social Emotional Assets and Resilience Scales* (*SEARS;* Merrell, 2011a) measured four distinct social emotional domains (self-regulation, social competence, empathy, and responsibility). Demographic independent variables included student age and gender.

Assumptions

The target populations of this study were high school students legally identified as EBD and their special educators. Due to sample size limitations, the study population was comprised of (1) students who were identified as at-risk, and who exhibited EBD characteristics, and (2) their special educator. At-risk students were identified by their school psychologist, as they exhibited similar EBD characteristics as described by USDE (2010) and IDEA (2004). Such characteristics exhibited by the at-risk students included: social-emotional difficulties; aggression or self-injurious behavior; withdrawal; learning difficulties; and bizarre motor acts. Five participating students had at least one behavioral goal on their Individual Education Program (IEP).

Intervention

Educators tasked with serving students identified as or at-risk for EBD in the high school setting were invited to teach the nine-week blended social skills intervention. The researcher-created social skills intervention curriculum and online learning course represented the study's treatment variables. The intervention began on the third week of the first nine-week grading period and ended on the last day of the first grading period. To reduce researcher bias, the participating special education teacher implemented the study's intervention. As such, the participant high school special education teacher completed a half-day training session during the summer, led by the researcher, to become familiarized with the online course and intervention curriculum.

The *SEARS* instrument was utilized as the study's pre- and post-test survey. The *SEARS* survey measured four distinct social/emotional domains: self-regulation, social competence, empathy, and responsibility. Students were measured by how they assess their own social/emotional ability, while teachers were measured by how they assess their students' social/emotional ability. To provide ample time for classroom acclimation after the school's mandated add/drop period, the participant teachers and the students completed the *SEARS* pre-test survey on the first day of the second week of instruction, prior to the introduction of the study's prescribed intervention strategies. Participant teachers administered the *SEARS-Adolescent (SEARS-A)* survey to participant students during one instructional class period. Participant teachers self-administered the *SEARS-Teacher (SEARS-T)* survey during one planning period.

After completing the pre-test survey, the classroom teachers implemented the study's prescribed intervention strategies. The instructional intervention strategies were taught during

one instructional period per day, on the school's "block scheduling" (2-3 days per week), for nine weeks. Upon the conclusion of the intervention, the participant teachers re-administered the *SEARS-A* survey to students as a post-test during one instructional period. Similarly, participant teachers repeated the self-administered *SEARS-T* survey during one planning period as their post-test measure. Data from participating student and teacher responses to the study's respective research instruments at the pre- and post-test conditions of the study were then compiled and recorded in *Excel* in preparation for analysis, interpretation, and reporting purposes.

Research Questions and Hypotheses

The following research questions and hypotheses were posed to address the stated research problem of the study:

1. Does a blended social skills intervention for high school students identified as at-risk for EBD increase self-reported scores of social/emotional development as measured by the *SEARS-A*?

H_0^1: There is no statistically significant difference between the *SEARS-A* pre- and post-composite *t*-test scores of high school students identified as at-risk for EBD after a nine-week blended social skills intervention.

H_A^1: There is a statistically significant difference between the *SEARS-A* pre- and post-composite *t*-test scores of high school students identified as at-risk for EBD after a nine-week blended social skills intervention.

2. Does a blended social skills intervention for high school students identified as at-risk for EBD increase high school teachers' perceptions of the EBD student's social/emotional development as measured by the *SEARS-T*?

H_0^2: There is no statistically significant difference between the *SEARS-T* pre- and post-

composite *t*-test scores of teacher ratings of high school students identified as at-risk for EBD after a nine-week blended social skills intervention.

H_A^2: There is a statistically significant difference between the *SEARS-T* pre- and post-composite *t*-test scores of teacher ratings of high school students identified as at-risk for EBD after a nine-week blended social skills intervention.

3. Which of the four domains (self-regulation, social competence, empathy, and responsibility) exhibited the greatest mean of perceptual change as measured by the *SEARS-A*?

H_0^3: None of the four domains exhibit a statistically significant mean change from the *SEARS-A* pre- to post-conditions.

H_A^3: Self-regulation exhibited the most statistically significant mean change from the *SEARS-A* pre- to post-conditions.

H_A^4: Social competence exhibited the most statistically significant mean change from the *SEARS-A* pre- to post-conditions.

H_A^5: Empathy exhibited the most statistically significant mean change from the *SEARS-A* pre- to post-conditions.

H_A^6: Responsibility exhibited the most statistically significant mean change from the *SEARS-A* pre- to post-conditions.

4. Which of the four domains (self-regulation, social competence, empathy, and responsibility) is the most robust predictor of a student's overall total composite *SEARS-A* score?

H_0^7: None of the four domains are statistically significant predictors of the *SEARS-A* total composite score.

H_A^7: Self-regulation is a statistically significant predictor of a student's overall total composite *SEARS-A* score.

H_A^8: Social competence is a statistically significant predictor of a student's overall total composite *SEARS-A* score.

H_A^9: Empathy is a statistically significant predictor of a student's overall total composite *SEARS-A* score.

H_A^{10}: Responsibility is a statistically significant predictor of a student's overall total composite *SEARS-A* score.

5. Which of the four domains (self-regulation, social competence, empathy, and responsibility) is the most robust predictor of the likelihood of student participants achieving average/high functioning status level?

H_0^{11}: None of the four domains are statistically significant predictors of the likelihood of student participants achieving average/high functioning status level.

H_A^{11}: Self-regulation is a statistically significant predictor of the likelihood of student participants achieving average/high functioning status level.

H_A^{12}: Social competence is a statistically significant predictor of the likelihood of student participants achieving average/high functioning status level.

H_A^{13}: Empathy is a statistically significant predictor of the likelihood of student participants achieving average/high functioning status level.

H_A^{14}: Responsibility is a statistically significant predictor of the likelihood of student participants achieving average/high functioning status level.

6. Considering student participant gender, were there statistically significant differences within the domain scores by participant gender on the *SEARS-A*?

H_0^{15}: There are no statistically significant differences in the *SEARS-A* total composite score for participant gender on any of the domain comparisons.

H_A^{15}: There are statistically significant differences in the *SEARS-A* total composite score for participant gender in the domain comparisons.

7. Was student participant gender a robust and statistically significant predictor of the *SEARS-A* total composite score?

H_0^{16}: Student participant gender was not a statistically significant predictor of the *SEARS-A* total composite score.

H_A^{16}: Student participant gender was a statistically significant predictor of the *SEARS-A* total composite score.

Analyses

Preliminary Analysis

The *SEARS-A* and *SEARS-T* raw scores were converted into percentile ranks and composite *T*-scores using the *SEARS* Raw Score to *T*-Score and Percentile Conversions table. The composite *T*-scores "were developed using a linear transformation of raw scores, based on a mean of 50 and a standard deviation of 10" (Merrell, 2011a, p. 33). Due to the positive wording of the *SEARS* tests, higher scores were deemed as good, while lower scores were indicative of social-emotional deficits (Merrell, 2011a).

Data Analysis by Research Question

The study's research questions were addressed through a combination of both descriptive and inferential statistical techniques.

Research question 1: Does a blended social skills intervention for high school students identified as at-risk for EBD increase self-reported scores of social/emotional

development as measured by the *SEARS-A*? To determine whether a statistically significant difference exists, a *t*-test of dependent means was conducted to compare the pre- and post-test composite scores of the *SEARS-A*. Cohen's *d* was used as the means of effect size interpretation. An alpha level of $p < .05$ was used as the threshold for evaluating the statistical significance of the first proposed research question.

Research question 2: Does a blended social skills intervention for high school students identified as at-risk for EBD increase high school teachers' perceptions of the EBD student's social/emotional development as measured by the *SEARS-T*? To determine whether a statistically significant difference exists, a *t*-test of dependent means was conducted to compare the pre- and post-test composite scores of the *SEARS-T*. Cohen's *d* was used as the means of effect size interpretation. An alpha level of $p < .05$ was used as the threshold for evaluating the statistical significance of the second proposed research question.

Research question 3: Which of the four domains (self-regulation, social competence, empathy, and responsibility) exhibited the greatest mean of perceptual change as measured by the *SEARS-A*? To determine whether a statistically significant difference exists, the researcher compared the dependent *t*-test mean scores of the *SEARS-A* pre- and post-test. Cohen's *d* was used as the means of interpreting the effect size. An alpha level of $p < .05$ was used as the threshold for evaluating the statistical significance of the third proposed research question.

Research question 4: Which of the four domains (self-regulation, social competence, empathy, and responsibility) is the most robust predictor of a student's overall total composite *SEARS-A* score? The researcher used a multiple linear regression to evaluate the predictive ability of a student's overall total composite score on the *SEARS-A*. The adjusted R^2

was utilized as the basis of effect size interpretation. The assumption of multicollinearity was assessed through the interpretation of tolerance values of respective predictor variables. The Independence of Error assumption was assessed through the interpretation of *Durbin-Watson* values. Predictive model fitness was evaluated using the model's ANOVA table. Predictive slopes for each of the independent predictor variables were interpreted through respective *t* values. An alpha level of $p < .05$ was used as the threshold for evaluating the statistical significance of prediction for the fourth research question.

Study analysis, interpretation, and reporting were conducted using IBM SPSS (Version 25).

Limitations

While this study provided additional research to the field of social skills interventions for high school students identified as EBD, there were limitations. The special educator did not understand the online assignments and did not accurately follow the intervention curriculum, leading to a question of instructional fidelity. Additionally, the high schools selected for participation in the study were purposive in nature and located in a primarily urban setting in Eastern Maryland. Therefore, the sample may not be a comprehensive representation of the nation's high school demographics. Furthermore, only one special educator out of five agreed to teach the intervention course, thus decreasing the student participant sample size from approximately 43 to seven. Finally, students were indifferent towards the pre- and post-test, completing it in less than half of the recommended time, thus affecting the results of the study.

Definition of Key Terms

Blended Learning

Blended learning is the seamless integration of traditional face-to-face education with online instruction (George-Walker & Keeffe, 2010; McGee & Reis, 2012). Typically practiced in the higher education sector, blended learning bridges learning curriculum with pedagogical design to rethink and redesign the relationship between teaching and learning (George-Walker & Keeffe, 2010; Garrison & Kanuka, 2004).

Emotional and Behavioral Disorders

The USDE (2010) federally defined EBD as a condition in which students met at least one or more of the following criteria over an extended time period:

- an inability to build or maintain satisfactory interpersonal relationships with peers and teachers;
- inappropriate types of behavior or feelings under normal circumstances;
- a general pervasive mood of unhappiness or depression; or
- a tendency to develop physical symptoms or fears associated with personal or school problems. (p. 1)

Emotional and behavioral disorders include several social-emotional disabilities such as anxiety disorders, bipolar disorders, eating disorders, obsessive-compulsive disorders, conduct disorders, and psychotic disorders (IDEA, 2004). The USDE (2010) noted that schizophrenia can be considered an emotional disturbance (ED), but does not apply to children who are socially maladjusted unless it is previously determined that they have an emotional disturbance.

Emotional and behavioral disorders may affect one's physical, social, or cognitive skills through characteristics such as "hyperactivity, aggression or self-injurious behavior, withdrawal,

immaturity, learning difficulties, distorted thinking, excessive anxiety, bizarre motor acts, and abnormal mood swings" (USDE, 2010, pp. 1-2).

Educational Social Skills

Educational social skills include prosocial emotional and behavioral skills that students use to complete a variety of social tasks within specific environments (Morgan, 2012). Such skills include listening, joining classroom discussions, and appropriately dealing with stressful or negative situations (Goldstein & McGinnis, 1997).

Empathy

Empathy is one's "ability to recognize and share the feelings of another person" (McDevitt & Ormrod, 2016, p. 429).

Entity Theorists

Entity theorists set performance goals that focus on positive judgements of student ability (Baird, Scott, Dearing, & Hamill, 2009; Dweck, 1999; Scott, 1996). In turn, students who are entity theorists are more likely to display maladaptive behaviors, such as avoiding challenges, experience higher setbacks, and demonstrating lower self-competency (Baird et al., 2009; Dweck, 1999).

Incremental Theory

Incremental theorists often set learning goals that focus on specific tasks designed to develop skills and increase cognitive competencies (Baird et al., 2009; Dweck, 1999; Scott, 1996). Students who are incremental theorists are more likely to exhibit higher adaptive response rates as they seek out challenges, continue to improve despite setbacks, believe in effort, have higher expectations for the future, and demonstrate higher self-competency (Baird et al., 2009; Dweck, 1999).

Negative Motivation

Negative motivation occurs when a student is more focused on the projected outcome and consequences of a task, rather than the task itself, causing distractions in the classroom, fear of failure, learned helplessness, or anxiety (Brophy, 1983). Classroom disruptions may result in feelings of inadequacy, persistent failure, negative social-emotional development, aggression, and behavioral concerns (Scott, 1996; Taylor et al., 2007).

Psychological Social Skills

Psychological social skills include three distinct categories: expressive skills (exhibiting appropriate verbal and nonverbal behaviors to meet specific objectives); sensitivity skills (comprehending one's ability to impact and be impacted by others); and controlling communicative skills (expressing appropriate verbal and nonverbal behaviors to convey a point to one's immediate environment) (Morgan, 2012).

Responsibility

Responsibility is one's ability to "behave conscientiously and think before acting" (Merrell, 2011b, slide 16).

Self-Concept

Self-concept focuses on a student's connection to identity, competency, and overall perception of the self as a learner (Conradi, Jang, & McKenna, 2013; Taylor et al., 2007).

Self-Efficacy

Self-efficacy, a concept based on social learning, is a student's judgement of his or her own ability to successfully participate in an activity, and the effect this self-perception has on participation in future activities (Bandura, 1984; Scott, 1996).

Self-Regulation

Self-regulation encompasses one's "self-awareness, metacognition, intrapersonal insight, self-management, and direction" (Merrell, 2011b, slide 16).

Social Competence

Social competence is one's ability to "maintain friendships with peers, engage in effective verbal communication and feel comfortable around groups of peers" (Merrell, 2011b, slide 16). Furthermore, social competence is a universal expression that refers to the sufficiency of one's social functioning and is "typically inferred when the targeted social skills result in increased ratings of acceptance from peers and positive judgements from important others (i.e., teachers, parents, community leaders) in a youth's life" (Maag, 2006, p. 5).

Social Skills

Initial research conducted in the late 1970s outlined social skills in relation to one's peer acceptance, behavior, and competence (Dobbins et al., 2010). In the late 1980s through the 1990s, social skills were defined as interpersonal or situation-specific behaviors that allowed individuals to successfully interact with others, enhance one's social functioning, and create personal and social satisfaction (Dobbins et al., 2010). Recent research has further defined social skills as prosocial competencies that allow individuals to "solve problems, read social cues, and perform competently when interacting with others" (Cumming, 2010, p. 243).

Social Skills Instruction

Social skills instruction is the "teaching of specific behaviors believed to contribute to the success of interpersonal interactions" (Cumming et al., 2008). Mastery of social skills is crucial to the development of one's social competence (Gresham et al., 2010; Morgan, 2010; Morgan,

2012). Therefore, social skills instruction should be considered an essential component of the curriculum (Dobbins et al., 2010; Gresham, Sugai, & Horner, 2001; Morgan, 2010).

Social Skills Interventions

Instructional training programs that aim to improve deficits in students' social skills. ProSocial communication and cooperation competencies often include:

- aggression reductions, such as situational perception, anger control, and moral reasoning;
- stress reductions, such as stress management and problem-solving; and
- prejudice reductions, such as empathy, cooperation, and understanding others (Goldstein, 1999; Goldstein & McGinnis, 1997; Maag, 2006).

Technological Social Skills

Technological social skills include exhibiting appropriate behavior, understanding the impact that social situations have on other people, and determining the appropriate communicative behaviors needed in specific online situations (Morgan, 2012).

II. REVIEW OF LITERATURE

The purpose of this study was to evaluate the social, emotional, and behavioral impact of a nine-week blended learning social skills intervention for high school students identified as emotionally and behaviorally disturbed (EBD). This review of relevant research covered emotional and behavioral disorders, social skills, and blended learning. The chapter began with an overview of the federal definition and characteristics of emotional and behavioral disorders. The analysis of school experiences and post-school outcomes for students identified as EBD highlighted the needs for curricular intervention. The literature then delved into the definition and domains of (a) personal social skills and (b) professional social skills, highlighting the importance of social skills interventions. The literature examined online learning, focusing on specific blended learning instructional practices. The chapter concluded with a summary of how the literature exhibited the school experiences of students identified as EBD at the high school level.

Emotional and Behavioral Disorders

More than 410,000 children and adolescents received services for emotional disturbances in the 2013-2014 school year alone (USDE, 2016). The United States Department of Education (USDE; 2016) reported that approximately 6,464,000 students aged 3-21 (12.9% of the total school population) were classified as disabled and served under the Individuals with Disabilities Education Act (IDEA). As students are presented with increasingly complex materials and tasks

that overreach their current level of understanding, they often look for ways to escape, resulting in misbehavior (Maag & Katsiyannis, 2006). Incarceration and unemployment rates continuously rise for students with emotional and behavioral disabilities as they struggle with low self-perception, poor relationships with teachers, behavioral challenges, and dropout (Lane et al., 2009). The lack of adequate personal and professional social skills leads to low social competence, further limiting post-school success (Cavell, 1990). Students identified as EBD are not receiving the proper academic and social-emotional support in public education (Mihalas et al., 2009; Severson, Walker, Hope-Doolitle, Kratochwill, & Gresham, 2007). Developing adequate interventions that introduce and teach social behaviors prevalent to everyday personal and professional situations can better prepare students identified as EBD for life after high school (Bullis et al., 1993).

Federal Definition

The USDE (2010) federally defined EBD as a condition in which students met at least one or more of the following criteria over an extended time period:

- an inability to build or maintain satisfactory interpersonal relationships with peers and teachers;
- inappropriate types of behavior or feelings under normal circumstances;
- a general pervasive mood of unhappiness or depression; or
- a tendency to develop physical symptoms or fears associated with personal or school problems. (p. 1)

Emotional and behavioral disorders include several social-emotional disabilities such as anxiety disorders, bipolar disorders, eating disorders, obsessive-compulsive disorders, conduct disorders, and psychotic disorders (IDEA, 2004). The USDE (2010) noted that schizophrenia can be

considered an emotional disturbance (ED), but does not apply to children who are socially maladjusted unless the diagnosis is previously determined to be an emotional disturbance.

Emotional and behavioral disorders have no known cause, but are often linked to biological, neurological, and neuropsychological influences (Bauer & Shea, 1998; IDEA, 2004). Biological influences include genetic predispositions and executive function (Bauer & Shea, 1998; IDEA, 2004). Neurological influences include endocrine mechanisms (i.e., testosterone and its androgen and estrogen metabolites) and neurotransmitters (e.g., dopamine, norepinephrine, and serotonin) (Bauer & Shea, 1998). Neuropsychological influences include cognitive defects (e.g., left-hemisphere dysfunction) and psychophysiologic variables (e.g., lower skin conductance responses, slow EEG wave activity, and larger event-related brain potentials) (Bauer & Shea, 1998).

Characteristics

Emotional and behavioral disorders may affect one's physical, social, or cognitive skills through behavioral characteristics such as "hyperactivity, aggression or self-injurious behavior, withdrawal, immaturity, learning difficulties, distorted thinking, excessive anxiety, bizarre motor acts, and abnormal mood swings" (USDE, 2010, pp. 1-2). Cullinan and Saborni (2004) surveyed 1,210 students between 13 and 16 years of age to identify specific characteristics of emotional and behavioral disorders. Approximately 815 students were identified as emotionally disturbed, while 395 students presented no emotional disorders. The researchers noted that students identified as ED more frequently exhibited the following five behavioral characteristics: an inability to learn, relationship problems, inappropriate behavior, unhappiness or depression, and physical symptoms or fears. Additionally, students identified as ED more often exhibited

characteristics relating to social maladjustment and showed lower overall competence compared to students without ED.

Cullinan and Saborni's (2004) findings revealed that adolescents with emotional disorders were more likely to foster antisocial behaviors and demonstrate less self-control in situations that would reduce their aggressive tendencies. Results of Cullinan and Saborni's (2004) study have helped teachers identify warning signs of possible EBD characteristics in their students; however, a clinical diagnosis demands medical evaluation. The USDE (2010) warned that students who do not have and who are not at risk of having emotional disturbances might exhibit these behaviors at various points in their educational and cognitive development. Conversely, not all students that could be identified as EBD may demonstrate symptoms associated with the disorder (USDE, 2010).

Need for Intervention

There is a growing detachment between students identified as EBD and academic institutions, leading to poor academic performance and social behaviors. Rock, Fessler, and Church (1997) found that between 24% and 52% of children identified as learning disabled were clinically diagnosed with a specific social, emotional, and behavioral problems. Mihalas et al. (2009) noted that students identified as EBD often failed more courses in school, which led to higher retention rates, higher absences, and lower grade point averages. The researchers examined the specific causes attributed to high retention and dropout rates and found six contributing factors:

> (1) students identified as EBD do not receive sufficient support, (2) the instructional practices for students identified as EBD do not meet their needs, (3) general and special educators are unprepared to meet the needs of students identified as EBD, (4) services

offered to students identified as EBD lack collaboration, (5) the school climate is not conducive to addressing the ecological needs of students identified as EBD, and (6) schools focus on measures that keep students from school (suspensions, expulsions, etc.) rather than proactive measures designed to keep students in school (Mihalas et al., 2009).

These factors highlight the disconnect between the general education system and students identified as EBD. Consequently, students were not receiving the appropriate educational services needed to succeed in life. General school experiences and post-school outcomes further stressed the need for academic interventions at the high school level.

School experiences. Negative school experiences due to low self-perception, poor relationships with teachers and peers, and behavioral challenges have contributed to the poor post-school outcomes for students identified as EBD (Baird et al., 2009; Mihalas et al., 2009).

Low self-perception. Mihalas et al. (2009) reported that, compared to students without disabilities, students identified as EBD "fail more courses in school, are retained more frequently, have lower grade point averages, drop out of school more frequently, and are less likely to graduate high school" (p. 109). Students who accept their disabilities are more likely to experience academic success and social-emotional growth, whereas students who do not accept their disabilities often withdraw in academic and social environments (Rothman & Cosden, 1995). Educators should consider student self-perception when examining the reasons for low academic performance of students identified as EBD, as cognitive processes often correlate to maladaptive behaviors in the classroom (Baird et al., 2009).

Self-concept. Self-concept is defined as a student's comparative connection to identity, competency, and perception of the self as a learner (Conradi, et al., 2013; Klassen, 2008; Taylor et al., 2007). Students with high self-concept persist longer when faced with a task that is

difficult or challenging. Successfully completing difficult tasks increases self-concept, allowing students to feel more motivated and prepared to complete higher level assignments (Jacobs, Lanza, Osgood, Eccles, & Wigfield, 2002).

Students with low self-concept often feel worthless and ineffective when facing difficult work and present noticeable effects such as persistent failure and negative social-emotional development (Chapman, 1988). Taylor et al. (2007) noted that students with lower IQs appeared to have poor self-concepts regarding personal academic abilities, and increased aggressive tendencies. Conversely, students previously diagnosed as aggressive often experienced difficulties in learning and, as a result, developed poor self-concept regarding their academic abilities (Taylor et al., 2007).

Self-efficacy. Self-efficacy, a subset of self-concept based on social learning, is one's judgment of his or her own abilities to successfully participate in an activity and the effect this judgment has on participation in future activities (Alqurashi, 2016; Bandura, 1984; Madnani & Pradhan, 2013; Scott, 1996). Students with high self-efficacy are confident and self-motivated to work towards a learning goal, often approaching setbacks in a positive manner (Bandura, 1984). When highly efficacious students fail assignments, they attribute that failing grade to an inefficient effort and continuously try harder.

Conversely, students with low self-efficacy often lack a feeling of control and believe they do not have the capabilities for success (Bandura, 1984). When students with low self-efficacy receive low or failing grades on a completed assignments, they attribute their failures to insufficient ability and feel they have no control in becoming successful. Feelings of inadequacy result in low academic motivation and engagement, as well as behavioral concerns, such as

persistent failure, negative social-emotional development, and aggression (Baird et al., 2009; Scott, 1996; Taylor et al., 2007).

Mindset intelligence theories. Increasing self-efficacy is an important strategy for students identified as EBD, but one that cannot stand alone. Educators must enhance the cognitive skills and motivate struggling learners through a blended integration of academic and self-competence supports (Bandura, 1986; Schunk, 1985, 1990; Scott, 1996; Poulou, 2014). However, the implementation of these supports is widely debated among mindset intelligence theorists (Baird et al., 2009). Entity theorists believe that being smart is an inherent quality, while incremental theorists believe that intelligence is a quality one can acquire and develop through the trial and errors of effort and learning (Baird et al., 2009; Dweck, 1999). The differing views of academic success translate into vastly different approaches to academic and motivational supports (e.g., learning goals).

Entity theorists often set performance-approach goals that focus on positive judgements of student ability (Ames, 1992; Baird et al., 2009; Dweck, 1999; Ohtani, Okada, Ito, & Nakaya, 2013; Scott, 1996). Students have shown higher learned helplessness response rates due to negative performance feedback, as those who set performance-avoidance goals generally try to avoid situations in which they would appear less intelligent than their peers (Baird et al., 2009). In turn, students who are entity theorists are more likely to display maladaptive behaviors, such as avoiding challenges, experience higher setbacks, and demonstrating lower self-competency (Baird et al., 2009; Dweck, 1999).

Conversely, incremental theorists often set learning goals that focus on specific tasks designed to develop skills and increase cognitive competencies (Ames, 1992; Baird et al., 2009; Dweck, 1999; Ohtani et al., 2013; Scott, 1996). Students who are incremental theorists are more

likely to exhibit higher adaptive response rates as they seek out challenges, continue to improve despite setbacks, believe in the positive effects of effort, have higher expectations for the future, and demonstrate higher self-competency (Baird et al., 2009; Dweck, 1999).

Understanding student self-competence is vital to students with learning disabilities, as "youth with [learning disabilities] are almost always aware that they have been identified as learning disabled" (Baird et al., 2009, p. 887). It is important to include a comprehensive approach to academic self-competency about one's intelligence, goal preferences, and effort attributions when creating meaningful interventions (Baird et al., 2009). Students who are afraid of appearing less intelligent in front of their peers are typically drawn to entity theories of intelligence, which further hinder their chances for academic success. Altering students' fixed mindsets about their abilities allows them to increase their self-competency, resulting in higher levels of academic motivation, engagement, and success (Baird et al., 2009).

Negative motivation. Low self-perception can lead to negative motivation (Brophy, 1983; Cullinan & Saborni, 2004; Poulou, 2014; Taylor et al., 2007). Negative motivation occurs when a student is more focused on the projected outcome and consequences of a task, rather than the task itself, causing distractions in the classroom, fear of failure, learned helplessness, or anxiety (Brophy, 1983). Classroom disruptions may result in feelings of inadequacy, persistent failure, negative social-emotional development, aggression, and behavioral concerns (Scott, 1996; Taylor et al., 2007).

Anxieties caused by negative motivation decrease overall engagement, motivation to learn, and academic achievement (Brophy, 1983). Low performing students with negative motivation can feel highly anxious when put in uncomfortable situations such as forced participation in instructional games and/or competitions. Recognizing negative motivation in the

classroom is imperative when developing meaningful instruction, as adverse classroom environments hinder the social and emotional growth of students identified as EBD (Cullinan & Saborni, 2004; Poulou, 2014).

Poor relationships. Poor relationships between students identified as EBD and their teachers and peers often lead to undesirable classroom environments. Poulou (2014) noted that the emotional quality of a student-teacher relationship greatly impacted how students perceived themselves as learners. Creating a harmonious classroom culture is important when teaching students with disorders, as behavioral conflicts can create damaging learning environments and negative self-perceptions.

Poor student-teacher relationships. Becoming aware of students' self-perceptions can aid in the development of positive student-teacher relationships; however, teacher support in building self-efficacy is often lacking (Rathel et al., 2008; Scott, 1996; Shores & Wehby, 1999). Although Foote (1999) determined that positive feedback about students' ability increased students' self-efficacy while negative feedback (anger, reprimands, and sympathy) diminished students' self-worth, positive feedback was the least used in the classroom. Students with learning disabilities indicated that they felt their teachers did not fully understand the academic challenges they faced and resorted to assumptions that they were less capable or lazy (Levi et al., 2013). The students cited feedback as an indicator of how teachers perceived them as learners.

Sutherland and Wehby (2001) reported that the average ratio of reprimands to praise in EBD classrooms ranged from 2:1 to 4:1. Negative instructional dialogue can lead to an increase in noncompliant behavior, and a lack of positive interactions may put students identified as EBD at a higher risk for aggression (Rathel et al., 2008). Students who did not feel comfortable with their teachers, or who felt they were receiving less social and emotional support than needed,

noted that interactions with teachers at the beginning of an instructional period weighed heavily in the building of a positive or negative teacher-student relationship (Cothran, Kulinna, & Garragy, 2003; Mihalas et al., 2009).

Poor peer relationships. Negative interactions with teachers and other adults often carry over into negative interactions among students identified as EBD and their peers. Fletcher (2009, 2010) found that kindergarten and first-grade students identified as EBD had a negative impact on the achievement of their peers in reading and math courses, citing negative teacher interactions as a leading cause. Wheby, Symons, and Shores (1995) analyzed the behavior of 28 students identified as EBD across 14 self-contained classrooms and found consistently high rates of aggression between the students, their teachers, and their peers.

Gottfried and Harven (2015) identified two important behaviors exhibited by students identified as EBD as the foundation of negative peer interactions: externalizing behaviors (e.g., aggression, immaturity, hyperactivity, and self-harm) and internalizing behaviors (e.g., depression, anxiety, withdrawal). Such behaviors often led to repeated disruptions that affected all learners in the classroom, as teachers spent more time correcting behaviors than instructing students (Gottfried & Harven, 2015).

Behavioral challenges. Students identified as EBD often exhibit a wide range of behaviors "such as verbal and physical aggression, noncompliance, and delinquent acts" (Lane et al., 2009, p. 93). Students with behavioral disorders face higher risks of dropping out due to disciplinary action, often leading to unemployment, incarceration, and mental health issues (Lane et al., 2009).

Disciplinary action. In 1994, as many schools adopted zero-tolerance approaches to discipline, suspension and expulsion rates for students with disabilities increased to twice the

number of their nondisabled peers (Achilles et al., 2007; Fiore & Reynolds, 1996). Further examination of suspension rates revealed a substantial difference in the suspension and expulsion rates for students identified as EBD (Wagner et al., 2003). Students with emotional and behavioral disorders faced higher suspension and expulsion rates (72.9%) when compared to students with other disabilities (32.7%) and students in the general population (22%) (Wagner et al., 2003).

Despite the protections for students with disabilities under IDEA (2004), expulsion rates for socially and emotionally disabled students have continuously risen from 13% in 1980 to 72.9% in 2003, and 94.8% in 2014 (Achilles et al., 2007; USDE, 2014; Wagner et al., 2003). Achilles et al. (2007) attributed high suspension rates to low parental involvement, school and family problems, rigid school disciplinary policies, racially and academically biased school personnel, teacher perceptions of low student competence, and student misperceptions of teacher interest. Such factors further validate the poor relationships between teachers, peers, and students identified as EBD.

Drop out. Although dropout rates for students with disabilities vary in the literature, research has consistently found that students with learning disabilities and students identified as EBD have the highest dropout incidence among students with disabilities, rising from 51% in 2004 to 65.1% in 2006 (Cullinan & Saborni, 2010; Reschly & Christenson, 2006).

High drop out and incarceration rates can be linked to poor academic performance, as approximately 40%-75% of committed youth were (a) retained at least one academic year and (b) demonstrated low literacy and mathematic achievement levels at 1 to 5 years below grade level (Cavendish, 2013). However, low academic performance is not the only cause for student dropout (Reschly & Christenson, 2006). Domestic violence, poor peer and family relationships,

urbanization, systematic school failure, and socioeconomic status are general factors attributed to high dropout rates among students identified as EBD (Cullinan & Saborni, 2004; Mastropieri & Scruggs, 2010; Mihales et al., 2009; Reschly & Christenson, 2006; USDE, 2010).

Post school outcomes. Low self-perception, poor relationships, and behavioral challenges can create lasting effects on the personal and professional experiences of students with emotional and behavioral disorders.

Personal challenges. Without interventions, students identified as EBD are more likely to experience personal challenges such as incarceration and homelessness after leaving high school (Cumming et al., 2008).

Incarceration. Approximately 61,000 youth below the age of 21 faced incarceration (Davis et al., 2014). Students with learning disabilities and emotional or behavioral disorders account for the largest population of committed youths, as they are "up to 4 times more likely to be committed to a juvenile justice facility than their nondisabled peers" (Cavendish, 2013, p. 41). Between 20% to 90% of incarcerated youth exhibit emotional, learning, or behavioral disabilities, while 40% of committed youth meet the criteria for an emotional or psychiatric disorders (Cavendish, 2013; Ochoa, 2016). Additionally, youths with emotional or behavioral disorders held higher incarceration rates within disabled populations with an arrest rate of 34.8% versus the 13.1% arrest rate of all students with disabilities (Wagner et al., 2003).

Although juvenile justice exists "to rehabilitate the juvenile by returning him or her to the community as quickly as possible with the skills to grow into a successful adult" (Ochoa, 2016, p. 45), juveniles with disabilities faced a higher risk of recidivism due to limited post-release support (Baltodano et al., 2005). Davis et al. (2014) noted that many juveniles leave custody with limited personal and professional skills needed to function in society. Furthermore, post-

release support did not provide the same level of mental health, medical aid, and educational services that juveniles received while in correctional custody (Davis et al., 2014; Ochoa, 2016). Considering more than 700,000 incarcerated individuals leave federal and state prisons annually, with 40% committing new crimes or violating parole within three years of their release (Davis et al., 2014), it is imperative that schools implement effective interventions that focus on personal and professional social skills.

Homelessness. Youth homelessness is a growing concern in the United States, as there are approximately 1.6 to 2 million homeless youth living on the streets, in shelters, or in temporary accommodations on any given night (Edidin, Ganim, Hunter, & Karnik, 2011). While there is no single cause for homelessness, contributing factors for youth homelessness include poor family functioning, unstable home environments, socioeconomic disadvantage, and separation from parents or caregivers (Eddin et al., 2011). Gewirtz, Hart-Shegos, and Medhanie (2008) reported that 47% of formerly homeless children ranging in age from 5 to 11 presented at least one serious mental health concern due to externalizing problems such as aggression, immaturity, hyperactivity, and self-harm. Furthermore, homeless children aged 5-16 years were 4.1 times more likely to meet the criteria for behavioral disorders than children of the same age living in a permanent residence, while 43% of children living in supportive housing received special education services for an emotional or behavioral disorder (Haskett, Armstrong, & Tisdale, 2016).

Professional challenges. Without interventions, students identified as EBD are more likely to experience professional challenges such as low employment rates due to dropout and incarceration (Cumming et al., 2008).

Unemployment. Bullis et al. (1993) reported that, in addition to dropping out of school, persons identified as EBD exhibited "the highest unemployment rate of any disability group served through special education" (p. 236). The Labor Force Statistics Current Population Survey reported that in 2015, 10.7% of disabled persons were unemployed (USDL, 2015). While the United States Department of Labor did not provide the unemployment rates for specific disabilities, the Current Population Survey reported that 17.5% of the total unemployed disabled persons ages 16 and older responded "yes" when asked if a physical, mental, or emotional condition impacted their personal concentration, memory, and ability to make decisions (USDL, 2015).

Rock et al. (1997) noted that, when comparing students with disabilities, "individuals with EBD were found to have (a) significant difficulty with postschool [sic] employment, including underemployment and poor job stability, and (b) low rates of participation in postsecondary education" (p. 247). Further research correlates unemployment to dropout and incarceration—two main challenges students identified as EBD face after high school. The Current Population Survey (USDL, 2015) noted that 12.6% of the total unemployed disabled population did not graduate high school. Holzer and colleagues (2003) reported that while employers of construction or manufacturing companies demonstrated a willingness to hire ex-offenders, employers of retail trades and service sectors were more reluctant to hire ex-offenders than any other disadvantaged group.

Social Skills

Adolescent students who lack proper social skills and who demonstrate aggressive tendencies are more likely to exhibit social, emotional, and behavioral difficulties (Cumming et al., 2008; Fitzpatrick & Knowlton, 2009; Gresham et al., 2010; Maag & Katsiyannis, 2006;

Poulou, 2014). Morgan et al. (2016) noted that failure to use social skills in school led to numerous negative outcomes including peer rejection, low academic achievement, high rates of disciplinary action, and negative interaction with teachers.

Definition

The definition of social skills is continuously evolving. Initial research conducted in the late 1970s outlined social skills in relation to one's peer acceptance, behavior, and competence (Dobbins et al., 2010). In the late 1980s through the 1990s, social skills were defined as interpersonal or situation-specific behaviors that allowed individuals to successfully interact with others, enhance one's social functioning, and create personal and social satisfaction (Dobbins et al., 2010). Recent research has further defined social skills as prosocial competencies that allow individuals to "solve problems, read social cues, and perform competently when interacting with others" (Cumming, 2010, p. 243).

Domains

Social skills taught in classrooms are typically amalgamations of personal and professional skills found in psychological, educational, and technological domains (Cumming et al., 2008).

Psychological social skills include three distinct categories: expressive skills (exhibiting appropriate verbal and nonverbal behaviors to meet specific objectives); sensitivity skills (comprehending one's ability to impact and be impacted by others); and controlling communicative skills (expressing appropriate verbal and nonverbal behaviors to convey a point to one's immediate environment) (Morgan, 2012).

Educational social skills include prosocial emotional and behavioral skills that students use to complete a variety of social tasks within specific environments (Morgan, 2012). Such

skills include listening, joining classroom discussions, and appropriately dealing with stressful or negative situations (Goldstein & McGinnis, 1997).

Technological social skills include exhibiting appropriate behavior, understanding the impact that social situations have on other people, and determining the appropriate communicative behaviors needed in specific online situations (Morgan, 2012).

Personal Social Skills: Social Functioning

Students identified as EBD exhibit the highest unemployment rates of any disability group served through special education primarily due to social deficiencies (Bullis et al., 1993). Elksnin and Elksnin (2001) reported that approximately 90% of job loss for individuals with disabilities was due to limited social skills—a factor that impacted the ability to appropriately interact with coworkers and work supervisors (Bullis et al., 1993; Elksnin & Elksnin, 2001; Phillips, Kaseroff, Fleming, & Huck, 2014). Before students improve job-related social skills, they must first master what Cavell's (1990) classic studies identify as imperative products and requisite skills of social functioning.

Products of social functioning. The first product of social functioning is social attainments—valued goals deemed worthy of pursuit that well-adjusted adults use as a current life status inventory (Cavell, 1990). Social attainments are comprised of several statuses: physical domain status (well-adjusted adults are healthy); occupational domain status (well-adjusted adults are employed); legal domain status (well-adjusted adults are non-incarcerated); and financial domain status (well-adjusted adults are tax paying) (Cavell, 1990). Zigler and Trickett (1978) included functional goals such as adequate IQ, academic or occupational achievement, motivation, and absences of juvenile delinquency, child abuse, and truancy.

The second product of social functioning is global judgments of social competence—the extent to which individuals exhibit various social characteristics (e.g., leadership, aggression, and withdrawal) in specific environments (Cavell, 1990). Global judgements are not based on the performance of specific behaviors; instead, they pertain to the implicit and prototypical notion of which behaviors represent certain characteristics (Cavell, 1990). Self-reported judgements are important for students identified as EBD, as they include measures of self-esteem.

The final product of social functioning is peer acceptance—the extent to which individuals are preferred by their peers (Cavell, 1990). Peer-acceptance is the most widely used among researchers for four main reasons: (1) it aids in the prediction of adult adjustment measures obtained during childhood, (2) it is more convenient for research, (3) it holds higher rates of validity, and (4) it allows researchers to categorize per sociometric status (Cavell, 1990).

Requisite skills of social functioning. Requisite skills are considered essential to effective social functioning (Cavell, 1990; Morgan, 2012). Mastering these essential skills is critical for students identified as EBD to see improvement of post-school success rates. The first requisite skill of social functioning is encoding skills—the reception, perception, and interpretation of task-related stimuli (Cavell, 1990; McFall, 1982). Encoding skills include problem recognition and problem definition, identification of appropriate social goals, empathy, role taking, perspective coordination, attributions to the self and others, and intention-cue detection (Cavell, 1990).

The second requisite skill of social functioning includes decision skills—searching, testing, and selecting a possible response (Cavell, 1990; McFall, 1982). Decision skills include the following variables: generation of alternative responses and decision making; alternative, consequential, and means-end thinking; self-efficacy and outcome-expectancy evaluations; and

functional skills such as proposing and justifying an action and evaluating its impact on others' feelings (Cavell, 1990).

The final requisite skill of social functioning is enactment skills—the planned execution (generating proper behaviors) and monitoring of the execution attempt (making adjustments based on feedback) (Cavell, 1990). Enactment skills include representation of behavioral scripts, self-regulation, delay of gratification, behavioral planning, self-instruction, and execution of overt verbal and nonverbal behaviors (Cavell, 1990). Once students master these skills individually and then employ them in a variety of social situations, they are ready to achieve social competence.

Professional Social Skills: Social Competence

Mastering personal social skills (social functioning) allows students to grasp social competence, which is useful in professional situations (Cavell, 1990). Despite the surge in research concerning social skills and social functioning, there is no widely accepted understanding of what constitutes job-related social skills (Phillips et al., 2014). Previous definitions of job-related social skills include maintaining positive attitudes, working successfully with others in the workplace, and following the unwritten rules and existing social norms (Phillips et al., 2014).

Social competence has been defined as the overall ability to interact positively within a social environment while achieving and maintaining strong interpersonal relationships and terminating negative interpersonal relationships (Cavell, 1990; Gresham et al., 2010; Morgan, 2010; Morgan, 2012). Cavell (1990) suggested using a tri-component model of social competence, as this model most adequately measures the products and requisite skills of social

functioning. The tri-component recognizes and integrates social adjustment, social performance, and social skills into one hierarchical framework (Cavell, 1990).

Social adjustment, the extent to which individuals currently achieve socially determined and developmentally appropriate goals, sits at the top of the hierarchy. (Cavell, 1990; Zigler & Trickett, 1978). Social adjustment includes health status, legal status, academic or occupational status, and socioeconomic status (Cavell, 1990). Psychological statuses include social (peer status), emotional (self-concept), familial (degree of cohesion), and relational (quality of friendship) (Cavell, 1990). Social performance is the degree to which individual responses are relevant to given social situations (Cavell, 1990; McFall, 1982). Finally, comprehending social skills allows individuals to employ the requisite skills of social functioning (encoding, decision making, and response enactment), as well as social cognitive skills and emotion regulation skills (Cavell, 1990; McFall, 1982).

The tri-component model of social competence can be beneficial to the creation and implementation of interventions for students identified as EBD. The information provided through the triangle model allows educators to identify students in need of further intervention, to highlight problem behaviors, and to improve specific deficits in a student's social functioning (Cavell, 1990).

Instruction

Social skills instruction is the "teaching of specific behaviors believed to contribute to the success of interpersonal interactions" (Cumming et al., 2008). Mastery of social skills is crucial to the development of one's social competence (Gresham et al., 2010; Morgan, 2010; Morgan, 2012). Therefore, social skills instruction should be considered an essential component of the curriculum (Dobbins et al., 2010; Gresham et al., 2001; Morgan, 2010).

Social skills instruction for general education students. Dobbins et al. (2010) identified peer relations, self-management, academics, and compliance as the four main domains that create effective social skills instruction. These domains provide a typical social skills classification system, a profile of social skills strengths and weaknesses, a template on which to design social skills instruction, an outcome-based measurement system, and an assessment in terms of cause, prognosis, and responsiveness (Dobbins et al., 2010).

While the most effective social skills instruction occurs within a natural setting (where behaviors instinctively occur), other instructional strategies are often implemented (Morgan, 2010). Modeling and role-playing are techniques that challenge students to think through different scenarios and choose the best reaction for specific situations (Gresham, 2001; Morgan, 2010). Group activities such as class projects and games strengthen the development of appropriate social behaviors, while teacher-student interactions work to bridge social and academic skills (Morgan, 2012).

Social skills instruction for students identified as EBD. Students identified as EBD often lack the social skills necessary to negotiate demands, adapt to social expectations, and develop relationships with peers and authority figures both in and outside of the classroom (Cumming, 2010; Cumming et al., 2008). The National Longitudinal Transition Study (NTLS-2; 2006) reported that 48% of students with emotional disorders demonstrated social skills at or below the 16th percentile, further highlighting the need for social skills instruction.

The USDE (2010) noted that educational instruction for students identified as emotionally and behaviorally disturbed must include emotional, behavioral, and academic support, and must teach social skills such as self-awareness, self-control, and self-esteem. Currently social skills instruction taught to students identified as EBD includes five main

components: (1) discussion of the inappropriate social skill; (2) direct instruction of the new social skill; (3) modeling of the appropriate implementation of the targeted skill; (4) student role-plays of the skill with immediate feedback from the teacher and peers; and (5) assigned practice focused on the generalization of the social skill (Gresham et al., 2001; Goldstein & McGinnis, 1997; Lane et al., 2006; Morgan et al., 2016).

The most common approach to teaching appropriate social skills to students identified as EBD is through direct and explicit instruction of targeted skills (Maag, 2005; Morgan et al., 2016; Rutherford et al., 2008). Components of direct instruction models include skill acquisition, skill performance, removal of competing problem behaviors, and facilitation of generalization and maintenance (Dobbins et al., 2010).

Interventions

Developing and delivering cohesive social skills interventions that combine social and academic skills in new and innovative ways may help reduce emotional outbursts and behavioral concerns in students identified as EBD (Cumming et al., 2008; Fenty et al., 2008; Fitzpatrick & Knowlton, 2009; Lo et al., 2002; Morgan, 2012; Taylor et al., 2007). The high dropout and unemployment rates of students identified as EBD support the need for instructionally based intervention programs that emphasize personal and professional social skills (Cumming et al., 2008; Fitzpatrick & Knowlton, 2009; Gresham et al., 2010; Konold et al., 2010; Maag, 2005; Morgan, 2012; Rutherford et al., 2008).

Importance of Interventions. Researchers have cited the implementation of instructional intervention programs focusing on social, personal, and professional life skills as the most effective way to build social skills for students identified as EBD (Dobbins et al., 2010; Rutherford et al., 2008). Gresham, Van, and Cook (2006) explored the impact of social skills

instruction for students with behavioral disorders and concluded that social skills instruction significantly reduced inappropriate behaviors. Lo et al. (2002) reported fewer periods of antisocial behavior after implementing social skills intervention programs and concluded that social skills instruction as a direct intervention aided in the improvement of self-monitoring behavioral strategies typically taught to EBD students. However, a lack of relevant interventions, a lack of teacher preparation, and a lack of student involvement has led to few interventions taking place for high school students identified as EBD (Dobbins et al., 2010; Hafen et al., 2011; Lo et al., 2002).

Lack of relevant interventions. Social skills interventions have the potential to be highly effective as they "improve social development and reduce behavioral problems in students with or at-risk for EBD" (Lo et al., 2002, p. 372). However, most social skills programs focus solely on improving academics instead of combining the instruction with behavioral interventions (Lo et al., 2002). Instructional social skills interventions are needed at the high school level; however, there is limited evidence on the effectiveness of current school-based social skills interventions (Lake et al., 2010; Rimm-Kaufman & Chiu, 2007). Low success rates of existing interventions reveal a continued failure to address the academic, social, and emotional needs of students identified as EBD (Bullis et al., 1993; Cullinan & Sabornie, 2004; Dobbins et al., 2010).

Although current forms of social skills instruction show positive results, educators still find that other intervention strategies must be used in conjunction with social skills instruction to effectively reduce behavioral outbursts (Kamps & And, 1995; Lewis, Sugai, & Colvin, 1998; Middleton & Cartledge, 1995; Rivera, Al-Otabia, & Koorland, 2006). Separating academics and job-related social skills hinders intervention strategies for students identified as EBD, since behavioral and academic success are not mutually exclusive (Vaugn et al., 2002). Cumming et

al. (2008) stressed the importance of social skills instruction, noting that students identified as EBD needed this instruction "in order to be successful with their peers and adults, both in school and in the community" (p. 32). Similarly, Poulou (2014) stated that adolescent students who lacked proper social skills and who demonstrated "inappropriate assertiveness" (p. 989) were more likely to develop emotional and behavioral difficulties. The implementation of social skills instruction is important, but it must be combined with lessons and strategies that students can use in real-world employment settings to be truly effective (Cumming et al., 2008).

Lack of teacher preparation. Shores and Wehby (1999) characterized classrooms for students identified as EBD as aversive, noting the use of escape/avoidance behaviors by teachers as well as students. Furthermore, Rock et al. (1997) noted that the demand for teachers of students identified as EBD far outweighed the supply due to high teacher attrition rates. Between 30% to 50% of teachers certified to teach students with emotional and/or behavioral disorders leave their positions within the first three years of teaching (Cheney & Barringer, 1995). Aversive classroom climates and high teacher attrition rates can be linked to a lack of teacher preparation (Rock et al., 1997). Dobbins and colleagues (2010) surveyed 87 general educators and 150 licensed special educators to examine in-service training programs for teachers of students identified as EBD. The researchers found that 42% of the general educators and 28% of the special educators received no training on social skills instruction strategies (Dobbins et al., 2010).

Providing teachers with training in a variety of instructional methods geared towards addressing the academic, social, and emotional demands of students identified as EBD helps teachers create more meaningful instruction, and may increase teachers' instructional self-

efficacy. As teachers felt more prepared to instruct students identified as emotionally and behaviorally disturbed, levels of engagement and achievement increased (Dobbins et al., 2010).

Lack of student involvement. Hafen et al. (2011) hypothesized that changes in engagement levels would be seen when student perception about autonomy is increased, as "adolescents are particularly prone to seek out and thrive in environments where they are afforded structured autonomy to apply their knowledge" (p. 247). Findings from their study on student engagement in the classroom revealed that disengagement could be avoided by creating environments in which the students feel comfortable taking ownership for their learning through "leadership, freedom of choice, and relevancy of the material" (Hafen et al., 2011, p. 251).

Developing meaningful lessons to meet the needs of individual learners shows students that teachers value their opinions and care about their successes after graduation. Cumming et al. (2008) investigated the improvement of social skills through multimedia coupled with teacher facilitation, and found that students identified as EBD between the ages 11-14 years old were genuinely involved and more motivated during interventions that combined traditional interventions (e.g., social skills instruction) with more modern and relevant components, such as multimedia. This result is not typically seen in social skills instruction, as students with emotional and behavioral disabilities are often less motivated; however, when involved in their own learning, students identified as EBD appeared more engaged and willing to learn social skills (Cumming et al., 2008).

Online Learning

The implementation of online learning derives from a need to create a learner-centric educational platform that increases student engagement and motivation (George-Walker & Keeffe, 2010; Tyler-Wood, Cereijo, & Pemberton, 2004; Morgan, 2012). Incorporating

technology into the curriculum adds to the limited educational tools offered to students identified as EBD and increases academic success, peer engagement, and social skills (Cumming et al., 2008; Mitchem et al., 2007; Morgan, 2010; Morgan, 2012).

Blankenship, Ayres, and Langone (2005) conducted a study to measure the impact of a cognitive mapping software tool. Three high school freshmen identified as struggling readers used the mapping software as a comprehension intervention tool and completed textbook chapter assessments as pre- and posttests. The results of the study demonstrated that the intervention successfully increased academic achievement, raising student test scores to 75% or higher from pre-test scores of 14-41% (Blakenship et al., 2005). The study additionally reported that students identified as EBD found the software to be a more engaging alternative to traditional reading instruction, demonstrating they could work independently and raise their reading scores (Blakenship et al., 2005).

Mitchem et al. (2007) found that an electronic performance system (*StrategyTools*) positively impacted the academics and behaviors of students with emotional and behavioral disorders. While profitable in developing overall student performance, the intervention required teacher support and decreased the desired level of student independence (Mitchem et al., 2007). Developing a technology-based curriculum for students identified as EBD must balance appropriate teacher support with engaging learning sequences that foster student independence (Cuming et al., 2008; Morgan, 2012).

Blended Learning

Blended learning is the seamless integration of traditional face-to-face education with online instruction (George-Walker & Keeffe, 2010; McGee & Reis, 2012). Typically practiced in the higher education sector, blended learning bridges learning curriculum with pedagogical

design to restructure the relationship between teaching and learning (George-Walker & Keeffe, 2010; Garrison & Kanuka, 2004). Adopting a blended learning curriculum to teach social skills instruction increases student engagement and decreases disruptive behaviors (Morgan, 2012).

Importance of Blended Learning. Blended curriculum proves successful as the instructors and learners work together to present pedagogically supported learning outcomes through a variety of formal and informal delivery presentations (McGee & Reis, 2012). Developing a blended learning intervention for students identified as EBD prepares students for employment in the 21st century through the development of cognitive, affective, psychomotor, and conative skills (Eagleton, 2016; Reeves, 2006).

Developing cognitive skills (i.e., logic and analysis) allows students to independently work on a number of tasks commonly encountered in the workplace (Anderson et al., 2001; Eagleton, 2016). Improving affective skills, such as emotions, values, motivations, and attitudes, prepares students to deal with workplace conflict in a professional manner (Anderson et al., 2001; Eagleton, 2016). Evolving psychomotor skills (e.g., imitation, manipulation, precision, articulation, and naturalization) equip students with the physical movement, coordination, and motor skills needed to work in any professional environment, (Eagleton, 2016). Cultivating conative skills (i.e., will, desire, drive, effort, mental energy, determination, etc.) permits students to "perform at the highest standard possible" (Eagleton, 2016, p. 204). Approaching education through a blended curriculum provides educators with an opportunity to create a diverse and engaging learning environment (Eagleton, 2016).

Blended learning requires the integration of cognitive, affective, psychomotor, and conative skills, all of which play an integral part in the shaping of maladaptive behaviors (Bauer & Shea, 1998; Eagleton, 2016; IDEA, 2004). However, while numerous studies have

demonstrated the usefulness of embedding technology into the curriculum, very little research has delved into implementation of blended learning in the high school classroom with students diagnosed as ABD (Morgan, 2012; Lane et al., 2006). Cullinan and Saborni (2004) noted, "Research and other professional attention has focused more on elementary than on middle or high school students with ED" (p 157). Lane et al. (2006) stated that "studies examining the social and behavioral skills of students with [emotional and learning disorders] have focused predominantly on younger children, with less attention given to adolescents" (p. 109). Failing to devote adequate research to adolescent students with emotional and learning difficulties may have serious repercussions regarding behavior, peer relationships, and post-school success (Lane et al., 2006).

Conclusion

Negative school experiences (e.g., low self-perception and poor-peer relationships) and behavioral challenges including disciplinary action and high drop-out rates support the need for interventions geared towards high school students with emotional and behavioral disorders. Educational programs designed for students identified as EBD should include specific emotional and behavioral supports, as well as strategies that aid in mastering academics and increasing one's self-perception (Daunic et al., 2013; USDE, 2010). Interventions that strengthen emotional and behavioral self-regulation aid in the promotion of social-emotional competencies and enhance social-emotional and academic learning, further increasing school success (Daunic et al., 2013).

Instructional interventions are important, but they must include strategies that aid in the development of personal and professional social skills and aid students in real-world employment settings to be truly effective (Cumming et al., 2008). Negative post-school

outcomes such as incarceration, homelessness, and unemployment support the need for social skills intervention programs (Bullis et al., 1993; Cumming et al., 2008; Dobbins et al., 2010; Gresham et al., 2001; Morgan, 2012; Morgan et al., 2016). Teaching personal and professional social skills through psychological, educational, and technological domains creates effective instruction (Cumming et al., 2008; Dobbins et al., 2010). Including additional personal social skills (the products and requisite skills of social functioning) and professional social skills (social adjustment, social performance, and social skills) enhances learning and prepares students for life after graduation.

Although current research is limited, past studies have revealed that creating and implementing blended learning interventions at the high school level increases student success (Cumming et al., 2008; George-Walker & Keeffe, 2010; Tyler-Wood et al., 2004; Mitchem et al., 2007; Morgan, 2010; Morgan, 2012). Blended learning prepares students for employment in the 21st century; therefore, when interventions combine personal and professional social skills with online instruction, students identified as EBD will be equipped to combat low self-perception, behavioral challenges, incarceration, homelessness, and unemployment.

III. METHODOLOGY

Chapter III contains a presentation of the methodology used in this quantitative, quasi-experimental study. The independent treatment variable was the researcher-designed blended learning social skills curriculum. The study's dependent variables were derived from the self-report surveys completed by both the students and the teachers. Specifically, the *Social Emotional Assets and Resilience Scales* (*SEARS*; Merrell, 2011a) measured four distinct social emotional domains: self-regulation, social competence, empathy, and responsibility. Demographic independent variables included student age and gender.

Sample Selection

The target populations of this study were high school students legally identified as EBD and their special educators. Due to sample size limitations, the study population was comprised of (1) students who were identified as at-risk, and who exhibited EBD characteristics, and (2) their special educator. At-risk students were identified by their school psychologist, as they exhibited similar EBD characteristics as described by USDE (2010) and IDEA (2004). Such characteristics exhibited by the at-risk students included: social-emotional difficulties; aggression or self-injurious behavior; withdrawal; learning difficulties; and bizarre motor acts. Five participating students had at least one behavioral goal on their Individual Education Program (IEP).

A purposive sample population of 7 students and one teacher was drawn from a local high school in the Eastern Maryland area. Recruitment for the study took place in four phases.

In the first phase, the researcher sent an email to the high school director of student services containing an invitation to participate in the study, along with a brief description of the study's background and significance. In the second phase, the researcher sent an email to the director of special education and three special education teachers inviting them to participate in the study. In the third phase, the researcher sent an email to the school administrator, detailing the permission to complete the study from the director of student services, director of special education, and special educator. In the fourth phase, the researcher visited the high school and met with the special educator to implement a training session on the intervention curriculum and data collection.

Instrumentation

Educators tasked with serving students identified as or at-risk for EBD in the high school setting were invited to teach the nine-week blended social skills intervention. The researcher-created social skills intervention curriculum and online learning course represented the study's treatment variables. The intervention began on the third week of the first nine-week grading period and ended on the last day of the first grading period. To reduce researcher bias, the participating special education teacher implemented the study's intervention. As such, the participant high school special education teacher completed a half-day training session during the summer, led by the researcher, to become familiarized with the online course and intervention curriculum.

The *SEARS* instrument was utilized as the study's pre- and post-test survey. The *SEARS* survey measured four distinct social/emotional domains: self-regulation, social competence, empathy, and responsibility. Students were measured by how they assess their own social/emotional ability, while teachers were measured by how they assess their students'

social/emotional ability. To provide ample time for classroom acclimation after the school's mandated "add/drop" period, the participant teachers and the students completed the *SEARS* pre-test survey on the first day of the second week of instruction, prior to the introduction of the study's prescribed intervention strategies. Participant teachers administered the *SEARS-A* survey to participant students during one instructional class period. Participant teachers self-administered the *SEARS-T* survey during one planning period.

After completing the pre-test survey, the classroom teachers implemented the study's prescribed intervention strategies. The instructional intervention strategies were taught during one instructional period per day, on the school's "block scheduling" (2-3 days per week), for nine weeks. Upon the conclusion of the intervention, the participant teachers re-administered the *SEARS-A* survey to students as a post-test during one instructional period. Similarly, participant teachers repeated the self-administered *SEARS-T* survey during one planning period as their post-test measure. Data from participating student and teacher responses to the study's respective research instruments at the pre- and post-test conditions of the study were then compiled and recorded in *Excel* in preparation for analysis, interpretation, and reporting purposes.

SEARS Validity

The *SEARS* instrument was developed using "a rational-theoretical approach to item development and a psychometrically driven factor analytic approach to scale construction" (Merrell, 2011a, p. 53). Kenneth Merrell (2011a) conducted numerous studies to establish the validity of the *SEARS*. The *SEARS-A* convergent validity was demonstrated by comparing the relationship between the *SEARS-A* and two strength-based rating scales: Huebner's (1991) *Student Life Satisfaction Scale* (*SLSS*), and Gresham and Elliot's (1990) *Social Skills Rating System* (*SSRS*).

Table 1 contains a summary of the *SEARS-A* validity coefficients associated with *SLSS* and *SSRS:*

Table 1

Convergent Construct Validity of the SEARS-A

Scale	Total
SLSS	.48
SSRS	.69

The strength of the correlations in Table 1 demonstrates the moderate but significant ($p < .0001$) convergent validity of the *SEARS-A* when measured against similar strength-based constructs.

The *SEARS-T* convergent validity was demonstrated by comparing the relationship between the *SEARS-T* and two strength-based rating scales: Gresham and Elliot's (1990) *Social Skills Rating System* (*SSRS)* and Merrell's (2002) *School Social Behavioral Scales, Second Edition* (*SSBS-2*).

Table 2 contains a summary of the *SEARS-T* validity coefficients associated with *SSRS* and *SSBS-2:*

Table 2

Convergent Construct Validity of the SEARS-T

Scale	Total
SSRS	.69
SSBS-2	.90

The strength of the correlations in Table 2 is statistically significant ($p < .01$), indicating a sound convergent validity of the *SEARS-T* when measured against similar strength-based constructs.

Overall, the *SEARS* scales demonstrate appropriateness for their intended uses, measure their intended constructs, and prove useful "for a variety of research, clinical, and educational purposes" (Merrell, 2011a, p. 77).

SEARS Reliability

Merrell (2011a) utilized two methods when testing the reliability of *SEARS*: internal consistency reliability, and test-retest reliability. The internal consistency coefficients for the four domains range from .92 to .98, while the scale score internal consistency coefficients ranged from .80 to .95, and the short form internal consistency coefficients ranged from .82 to .93 (Merrell, 2011a). Merrell (2011a) conducted temporal stability studies and found that "the results of the test-retest reliability studies at various intervals indicate that the *SEARS* assessment system has adequate to strong temporal stability over short periods of time" (Merrell, 2011a, p. 56).

Research Questions and Hypotheses

The following research questions and hypotheses were posed to address the stated research problem of the study:

The following research questions and hypotheses were posed to address the stated research problem of the study:

1. Does a blended social skills intervention for high school students identified as at-risk for EBD increase self-reported scores of social/emotional development as measured by the *SEARS-A*?

H_0^1: There is no statistically significant difference between the *SEARS-A* pre- and post-composite *t*-test scores of high school students identified as at-risk for EBD after a nine-week blended social skills intervention.

H_A^1: There is a statistically significant difference between the *SEARS-A* pre- and post-composite *t*-test scores of high school students identified as at-risk for EBD after a nine-week blended social skills intervention.

2. Does a blended social skills intervention for high school students identified as at-risk for EBD increase high school teachers' perceptions of the EBD student's social/emotional development as measured by the *SEARS-T*?

H_0^2: There is no statistically significant difference between the *SEARS-T* pre- and post-composite *t*-test scores of teacher ratings of high school students identified as at-risk for EBD after a nine-week blended social skills intervention.

H_A^2: There is a statistically significant difference between the *SEARS-T* pre- and post-composite *t*-test scores of teacher ratings of high school students identified as at-risk for EBD after a nine-week blended social skills intervention.

3. Which of the four domains (self-regulation, social competence, empathy, and responsibility) exhibited the greatest mean of perceptual change as measured by the *SEARS-A*?

H_0^3: None of the four domains exhibit a statistically significant mean change from the *SEARS-A* pre- to post-conditions.

H_A^3: Self-regulation exhibited the most statistically significant mean change from the *SEARS-A* pre- to post-conditions.

H_A^4: Social competence exhibited the most statistically significant mean change from the *SEARS-A* pre- to post-conditions.

H_A^5: Empathy exhibited the most statistically significant mean change from the *SEARS-A* pre- to post-conditions.

H_A^6: Responsibility exhibited the most statistically significant mean change from the *SEARS-A* pre- to post-conditions.

4. Which of the four domains (self-regulation, social competence, empathy, and responsibility) is the most robust predictor of a student's overall total composite *SEARS-A* score?

H_0^7: None of the four domains are statistically significant predictors of the *SEARS-A* total composite score.

H_A^7: Self-regulation is a statistically significant predictor of a student's overall total composite *SEARS-A* score.

H_A^8: Social competence is a statistically significant predictor of a student's overall total composite *SEARS-A* score.

H_A^9: Empathy is a statistically significant predictor of a student's overall total composite *SEARS-A* score.

H_A^{10}: Responsibility is a statistically significant predictor of a student's overall total composite *SEARS-A* score.

5. Which of the four domains (self-regulation, social competence, empathy, and responsibility) is the most robust predictor of the likelihood of student participants achieving average/high functioning status level?

H_0^{11}: None of the four domains are statistically significant predictors of the likelihood of student participants achieving average/high functioning status level.

H_A^{11}: Self-regulation is a statistically significant predictor of the likelihood of student participants achieving average/high functioning status level.

H_A^{12}: Social competence is a statistically significant predictor of the likelihood of student participants achieving average/high functioning status level.

H_A^{13}: Empathy is a statistically significant predictor of the likelihood of student participants achieving average/high functioning status level.

H_A^{14}: Responsibility is a statistically significant predictor of the likelihood of student participants achieving average/high functioning status level.

6. Considering student participant gender, were there statistically significant differences within the domain scores by participant gender on the *SEARS-A*?

H_0^{15}: There are no statistically significant differences in the *SEARS-A* total composite score for participant gender on any of the domain comparisons.

H_A^{15}: There are statistically significant differences in the *SEARS-A* total composite score for participant gender in the domain comparisons.

7. Was student participant gender a robust and statistically significant predictor of the *SEARS-A* total composite score?

H_0^{16}: Student participant gender was not a statistically significant predictor of the *SEARS-A* total composite score.

H_A^{16}: Student participant gender was a statistically significant predictor of the *SEARS-A* total composite score.

Analyses

Preliminary Analysis

The *SEARS-A* and *SEARS-T* raw scores were converted into percentile ranks and composite *T*-scores using the *SEARS* Raw Score to *T*-Score and Percentile Conversions table. The composite *T*-scores "were developed using a linear transformation of raw scores, based on a mean of 50 and a standard deviation of 10" (Merrell, 2011a, p. 33).

Considerations

Evaluation of the *T*-scores required two considerations. First, *SEARS'* items were positively worded; higher ratings indicated a higher level of the measured domains. Therefore, higher scores were deemed as good, while lower scores were indicative of social-emotional deficits (Merrell, 2011a). Second, the *SEARS* normative *T*-scores were distributed like that of a bell-shaped curve (normal distribution); however, the end-result did not follow this pattern. Merrell (2011a) states, "…most score distributions exhibit slight skewness, with a somewhat larger percentage of scores at the very high end of the frequency distribution and somewhat smaller percentage of scores at the lower end of the distribution" (p. 34). Therefore, "the standard deviation units based on a value of 10 may instead only be close approximations to 10 (e.g., 9.89)" (Merrell, 2011a, p. 34).

Missing Data

The study's data set was assessed for extent of missing data using descriptive statistical techniques. Specifically, frequency counts and percentages represented the primary descriptive statistical means of evaluating missing data. Little's MCAR test statistic was selected as the statistic to be used to evaluate the "randomness" of missing data, but not employed in light of the study's data set being completely intact.

Internal Consistency (Reliability) of Participant Response

Cronbach's Alpha (α) was utilized to assess the internal consistency (reliability) of participant response to the study's survey instrument at the pre-test, post-test, and combined pre/post-test conditions of the study. The statistical significance of internal reliability finding was achieved using the *F*-test statistics. The alpha level of $p < .05$ was used as the threshold for evaluating the statistical significance of finding.

Normality of Data

The assumption of "Normality of Data" required for the use of the parametric *t*-test of dependent means in research questions 1-3 was addressed using the *Shapiro-Wilk Test* statistic. *Shapiro-Wilk* values of $p > .05$ indicated that the study's data arrays inherent in analyses related to research questions 1-3 were "relatively normal."

Pre-Test Comparisons

In anticipation of subsequent post-test comparisons, pre-test comparative analyses of participant perceptions by study primary grouping variable on the *SEARS-A* total, and the four essential *SEARS* domains were conducted using the *t*-test of independent means test statistic. The probability level of $p < .05$ represented the threshold for statistical significance in all pre-test comparisons.

Data Analysis by Research Question

The research questions were addressed through a combination of both descriptive and inferential statistical techniques.

Research Question 1: Does a blended social skills intervention for high school students identified as at-risk for EBD increase self-reported scores of social/emotional development as measured by the *SEARS-A*? To determine whether a statistically significant difference exists, a *t*-test of dependent means was conducted to compare the pre- and post-test composite scores of the *SEARS-A*. Cohen's *d* was used as the means of effect size interpretation. A probability level of $p < .05$ was used as the threshold for evaluating the statistical significance of the first research question.

Research Question 2: Does a blended social skills intervention for high school students identified as at-risk for EBD increase high school teachers' perceptions of the

EBD student's social/emotional development as measured by the *SEARS-T*? To determine whether a statistically significant difference exists, a *t*-test of dependent means was conducted to compare the pre- and post-test composite scores of the *SEARS-T*. Cohen's *d* was used as the means of effect size interpretation. An alpha level of $p < .05$ was used as the threshold for evaluating the statistical significance of the second research question.

Research Question 3: Which of the four domains (self-regulation, social competence, empathy, and responsibility) exhibited the greatest mean of perceptual change as measured by the *SEARS-A*? To determine whether a statistically significant different exists, the researcher compared the dependent *t*-test mean scores of the *SEARS-A* pre- and post-test. Cohen's *d* was used as the means of interpreting the effect size. An alpha level of $p < .05$ was used as the threshold for evaluating the statistical significance of the third research question.

Research Question 4: Which of the four domains (self-regulation, social competence, empathy, and responsibility) is the most robust predictor of a student's overall total composite *SEARS-A* score? The researcher used multiple linear regression to simultaneously evaluate the predictive ability of a student's overall total composite score on the *SEARS-A*. The adjusted R^2 was utilized as the basis of effect size interpretation. The assumption of multicollinearity was assessed through the interpretation of tolerance values of respective predictor variables. A probability level of $p < .05$ was used as the threshold for evaluating the statistical significance of prediction for the fourth research question.

Research Question 5: Which of the four domains (self-regulation, social competence, empathy, and responsibility) is the most robust predictor of the likelihood of student participants achieving average/high functioning status level?

In light of the binary nature of the outcome or dependent variable in the predictive model, ROC curve analysis was selected for its ability to provide added sensitivity and specificity to the predictive process. A probability level of $p < .05$ was used as the threshold for statistical significance of variable predictive ability commensurate with respective independent predictor variable area under the curve (AUC) value for the fifth research question.

Research Question 6: Considering student participant gender, were there statistically significant differences within the domain scores by participant gender on the *SEARS-A*?

Both descriptive and inferential statistical techniques were employed to determine the impact of gender on *SEARS-A* domain scores. Mean scores and standard deviations represented the primary descriptive statistical techniques used to address the question. A *t*-test of independent means represented the inferential test statistic, and was used to assess the statistical significance of mean score comparisons inherent in the research question. The probability level of $p < .05$ represented the threshold for statistical significance for mean score comparisons for the sixth research question. Hedges *g* was used to assess the magnitude of difference (effect size) in mean scores in light of its utility with unequal sample size comparisons.

Research Question 7: Was student participant gender a robust and statistically significant predictor of the *SEARS-A* total composite score?

The researcher used a simple linear regression test statistic to assess the statistical significance of the independent variable of participant gender. The probability level of $p < .05$ represented the threshold for statistical significance of prediction of the seventh research question. The predictive model's R^2 value was used as a means of assessing the independent

variable's contribution to the explained variance in the dependent variable. The magnitude of predictive effect (effect size) was evaluated using the formula $R^2 / 1 - R^2$.

Study analysis, interpretation, and reporting were conducted using IBM SPSS (Version 25).

IV. RESULTS

As stated in chapter I, the purpose of the study was to evaluate the social, emotional, and behavioral impact of a nine-week blended learning social skills intervention for high school students identified as at-risk for EBD. Data were collected through the use of the *Social Emotional Assets and Resilience Scales* (*SEARS*) which measured four discrete social emotional domains: self-regulation, social competence, empathy, and responsibility.

Preliminary Analyses

Prior to addressing the formally stated research questions of the study, a variety of introductory analyses were conducted. Specifically, evaluations of missing data, internal reliability of participant response to the research instrument, and comparisons of participant perceptions by study primary "grouping" variable were performed.

Missing Data

The study's data set was found to be completely intact with no missing data noted. As such, multiple imputations of missing data and subsequent application of the Little's MCAR test statistic were not deemed necessary.

Internal Consistency of Participant Responses (Reliability)

The internal consistency (reliability) of participant response to research instrument items was evaluated using the Cronbach's Alpha (α) test statistic. The internal consistency of this study is considered to be high.

Table 3 contains a summary of findings with regard to study participant internal reliability of response to research instrument items by study condition and grouping variable:

Table 3

Internal Reliability by Study Condition and Grouping Variable

Grouping	Pre-Test	Post-Test	Total
Student	.87	.81	.92
Teacher	.85*	.96***	.94***

*$p < .05$ ***$p < .001$

Pre-Test Comparisons

In anticipation of subsequent post-test comparisons, pre-test comparative analyses of participant perceptions by study primary grouping variable on the *SEARS-A* total, and the four essential *SEARS* domains were conducted using the *t*-test of independent means test statistic. Although differences existed in the comparisons, none of the pre-test differences by study primary grouping variable were manifested at a statistically significant level.

Table 4 represents a summary of findings for the pre-test comparisons of *SEARS-A* total and domain mean scores by study primary grouping variables:

Table 4

Pre-Test Comparison by Primary Grouping Variable

Pre-Test Comparison	Mean	SD	*t*
SEARS Total (Student)	49.71	12.50	0.82[a]
SEARS Total (Teacher)	45.00	8.64	
Self-Regulation (Student)	44.57	8.90	0.12[a]
Self-Regulation (Student)	44.00	8.94	
Social Competence (Student)	53.00	10.20	0.56[a]
Social Competence (Teacher)	50.71	3.55	
Empathy (Student)	44.71	10.78	0.05[a]
Empathy (Teacher)	45.00	8.74	
Responsibility (Student)	49.43	12.61	1.20[a]
Responsibility (Teacher)	41.00	13.69	

[a] $p > .05$

Data Analyses by Research Question

In order to address the stated research problem, the following research questions and hypotheses were addressed as follows:

Research Question 1: **Does a blended social skills intervention for high school students identified as at-risk for EBD increase self-reported scores of social/emotional development as measured by the *SEARS-A*?**

The statistical significance of difference in mean scores was analyzed using the *t*-test of dependent means. Considering the total *SEARS-A* composite score, participating students did not

manifest increases in self-reported scores from the pre-test to post-test condition of the study. Furthermore, the data show a decline in the overall *SEARS-A* mean score (-3.85) between the pre- and post-test.

Table 5 contains a summary of findings for research question 1:

Table 5

Pre-Test/Post-Test Student Comparison of Perceptions on SEARS-A

Study Condition	Mean	SD	*t*
Pre-Test	49.71	12.50	-1.37[a]
Post-Test	45.86	11.35	

[a] $p = .22$

H_0^1: There is no statistically significant difference between the *SEARS-A* pre- and post-composite *t*-test scores of high school students identified as at-risk for EBD after a nine-week blended social skills intervention.

In light of no statistically significant finding for the increase of self-reported *SEARS-A* scores, the null hypothesis (H_0) for research question 1 is accepted.

Research Question 2: **Does a blended social skills intervention for high school students identified as at-risk for EBD increase high school teachers' perceptions of the EBD student's social/emotional development as measured by the *SEARS-T*?**

The statistical significance of difference in mean scores was analyzed using the *t*-test of dependent means. Considering the Total *SEARS-T* composite score, participating teachers did not observe manifest increases in scores from the pre-test to post-test condition of the study. Moreover, the data show a decline in the overall *SEARS-T* mean score (-1.57) between the pre- and post-test.

Table 6 contains a summary of findings for research question 2:

Table 6

Pre-Test/Post-Test Student Comparison of Perceptions on SEARS-T

Study Condition	Mean	SD	*t*
Pre Test	45.00	8.64	-0.84[a]
Post Test	43.43	7.83	

[a] $p = .43$

H_0^2: There is no statistically significant difference between the *SEARS-T* pre- and post-composite *t*-test scores of teacher ratings of high school students identified as at-risk for EBD after a nine-week blended social skills intervention.

In light of no statistically significant finding for the increase of teacher-reported *SEARS-T* scores, the null hypothesis (H_0) for research question 2 is accepted.

Research Question 3: **Which of the four domains (self-regulation, social competence, empathy, and responsibility) exhibited the greatest mean of perceptual change as measured by the *SEARS-A*?**

The domain area of self-regulation manifested the greatest standardized mean score increase (+ 0.14) as measured by student self-report on the *SEARS-A*; however, the mean score increase from the pre-test to post-test condition of the study was not manifested at a statistically significant level.

Considering student perceived status level (at-risk or average/high functioning) on the *SEARS-A* instrument, two specific areas were positively impacted. The domain of responsibility manifested an increase in student participant perception of achieving average/high functioning status (+ 28.6) from the pre-test to the post-test condition of the study. Moreover, student participants manifested a similar perceptual increase of 28.6% in their status as average/high

functioning from the pre-test to the post-test condition of the study on the *SEARS-A* total composite score.

Table 7 contains a summary of findings for research question 3:

Table 7

Pre-Test/Post-Test Student Comparison of Student Perceptions- Self-Regulation

Study Condition	Mean	SD	*t*
Pre-Test	44.57	8.90	0.06[a]
Post-Test	44.71	13.33	

[a] $p = .95$

H_0^3: None of the four domains exhibit a statistically significant mean change from the *SEARS-A* pre- to post-conditions.

In light of no statistically significant finding of a singular *SEARS-A* domain change, the null Hypotheses (H_0) for research question 3 is accepted.

Research Question 4: **Which of the four domains (self-regulation, social competence, empathy, and responsibility) is the most robust predictor of a student's overall total composite *SEARS-A* score?**

All four *SEARS-A* domains represented statistically significant predictors of the *SEARS-A* total composite score. A multiple linear regression test statistic was used to evaluate the predictive abilities of all four domains simultaneously. As such, the domain of empathy appears to be the most robust of the four statistically significant predictors of the total composite *SEARS-A* score in light of its superior contribution to the explained variance (R^2 = 19%) within the overall predictive model.

Table 8 contains a summary of findings with regard to research question 4:

Table 8

Predicting SEARS-A Total Composite by Domains

Model	*β*	SE	*Standardized* ***β***
Intercept	11.05	0.77	
Self-Regulation	0.34	0.02	.40**
Social Competence	0.33	0.02	.26**
Empathy	0.38	0.01	.43***
Responsibility	0.18	0.02	.17*

*p = .02 **p = .003 ***p < .001

H_0^7: None of the four domains are statistically significant predictors of the *SEARS-A* total composite score.

In light of the statistically significant findings of all four *SEARS-A* domains, the null hypotheses (H_0) for research question 4 is rejected.

Research Question 5: **Which of the four domains (self-regulation, social competence, empathy, and responsibility) is the most robust predictor of the likelihood of student participants achieving average/high functioning status level?**

Using the ROC curve test statistic for heightened sensitivity and specificity to the predictive process involving binary outcome measures, both social competence and responsibility were found to be predictive at statistically significant levels. Of the two, responsibility has a slight advantage in predicting the likelihood of student participants achieving average/high functioning status by virtue of its AUC value (.844) and probability level (p = .04).

Table 9 contains a summary of findings with respect to research question 5:

Table 9

ROC Curve Analysis of Domain Predictive Sensitivity/Specificity with SEARS-A Composite

Variables	AUC	SE	*p*
Self-Regulation	.678	0.15	.29
Social Competence	.833	0.12	.05
Empathy	.733	0.14	.16
Responsibility	.844	0.11	.04*

*$p < .05$

$H_0{}^{11}$: None of the four domains are statistically significant predictors of the likelihood of student participants achieving average/high functioning status level.

In light of the statistically significant finding for the domain of responsibility, the null hypothesis (H_0) for research question 5 is rejected.

Research Question 6: **Considering student participant gender, were there statistically significant differences within the domain scores by participant gender on the *SEARS-A*?**

Although gender did not significantly impact the four domains from pre- to post-test, there was a statistically significant finding at the post-test level. Considering the domain comparison of the *SEARS-A* by participant gender, the comparison within the domain of empathy was manifested at a statistically significant level favoring male participants (mean score difference = 21.00) using the *t*-test of independent means test statistic. Moreover, the magnitude of effect (effect size) is considered very large (Hedges $g = 2.24$).

Table 10 contains a summary of findings for research question 6:

Table 10

Comparison of Empathy Domain by Student Participant Gender

Gender	Mean	SD	*t*	*g*
Male (n = 5)	49.00	9.00	2.90*	2.24[c]
Female (n = 2)	28.00	7.07		

*p = .03 [c] Very Large Effect Size ($g \leq 1.30$)

H_0[15]: There are no statistically significant differences in the *SEARS-A* total composite score for participant gender on any of the domain comparisons.

In light of the statistically significant difference in *SEARS-A* scores between male and female participants on the domain of empathy, the null hypothesis (H_0) for research question 6 is rejected.

Research Question 7: **Was student participant gender a robust and statistically significant predictor of the *SEARS-A* total composite score?**

Using the simple linear regression test statistic, student participant gender may be considered a robust (R^2 = *.49)*, statistically significant predictor of *SEARS-A* total composite score, but at the more liberally interpreted value of $p < .10$. The magnitude of predictive effect for student participant gender (.96) in the predictive model is considered large (≤ .35).

Table 11 contains a summary of findings for research question 7:

Table 11

Predicting SEARS-A Total Composite Score by Student Participant Gender

Model	*β*	*SE*	*Standardized β*
Intercept	37.33	5.11	
Gender	14.92	6.76	.70[b]

[b] *p* .07 (< .10)

Interpreting the above table, it is noted that with one full unit of increase in student participant gender (from female to male), it is predicted that a concomitant increase of 14.92 will be manifested in the *SEARS-A* total composite score.

H_0^{16}: Student participant gender was not a statistically significant predictor of the *SEARS-A* total composite score.

In light of the statistically significant finding for the predictive ability of participant gender in research question 7, the null hypothesis (H_0) is rejected.

Summary

The study's data set was completely intact with no missing data points evident in the pre- and post-test responses. The internal consistency (reliability) of participant response to research instrument items was considered high. The total sample size of respondents to the study's intervention was eight, consisting of 7 students and 1 special education teacher. Of the total student participants in the study, two were female and five were male. The participating teacher was female. All participating students were identified as at-risk for EBD by their school psychologist. Five participating students had at least one behavioral goal on their Individual Education Program (IEP). All participating students were 15 years of age.

Internal reliability analyses were conducted for both the pre-test and post-test conditions of the study by the primary grouping variable. The internal consistency of this study is considered to be high (*SEARS-A*= .92 and *SEARS-T*= .94). Pre-test comparisons of *SEARS-A* domain mean scores were conducted, and while differences did exist between the domains, none were manifested as statistically significant levels.

A *t*-test of dependent means was used to determine the statistical significance of an increase in self-reported scores from the *SEARS-A* pre-test to post-test in research question 1. The result was not statistically significant, and the null hypothesis (H_0^1) was accepted. A *t*-test of dependent means was used to determine the statistical significance of an increase in teacher-reported scores from the *SEARS-T* pre-test to post-test in research question 2. The result was not statistically significant, and the null hypothesis (H_0^2) was accepted.

No singular domain exhibited a statistically significant mean of perceptual change as measured by the *SEARS-A* pre- and post-test in research question 3. In light of no statistically significant findings, the null hypothesis (H_0^3) was accepted. A multiple linear regression test was conducted to determine which of the four domains was the most robust predictor of a student's overall total composite *SEARS-A* score in research question 4. All four domains were found to be statistically significant predictors. Therefore, the following null hypothesis (H_0^7) was rejected.

A ROC curve test was used to determine which of the four domains was the most robust predictor of student participants achieving an average/high functioning status level on the *SEARS-A* in research question 5. No singular domain was a statistically significant predictor; therefore, the null hypothesis (H_0^{11}) was accepted.

A *t*-test of independent means was used to determine if gender had a statistically significant difference in domain scores on the *SEARS-A* in research question 6. The result was not statistically significant, and the null hypothesis (H_0^{15}) was accepted. A simple linear regression test was used to determine if gender was a statistically significant predictor of the *SEARS-A* total composite score in research question 7. The results showed that gender was a

robust, statistically significant predictor of *SEARS-A* total composite score, and the null hypothesis (H_0^{16}) was rejected.

A more detailed summary, including a discussion of the findings, is presented in the next chapter.

V. DISCUSSION

The focus of this study was on the social, emotional, and behavioral impact of a blended learning social skills intervention for high school students identified as at-risk for EBD. The intent of the study was to explore if and how a social skills curriculum improved students' social, emotional, and behavioral deficits. Specifically, the social-emotional domains of self-regulation, social competence, empathy, and responsibility were evaluated. Developing and delivering cohesive social skills interventions that combine social and academic skills in new and innovative ways can help to reduce emotional outbursts and behavioral concerns in students identified as EBD (Cumming et al., 2008; Fenty et al., 2008; Fitzpatrick & Knowlton, 2009; Lo et al., 2002; Morgan, 2012; Taylor et al., 2007).

Statement of the Problem

Though effective in initial intervention studies, current social skills programs focus solely on improving academics instead of combining instruction with behavioral interventions. Intervention strategies for students identified as EBD have suffered, as behavioral and academic success are not mutually exclusive (Bullis et al., 1993; Dobbins et al., 2010; Lo et al., 2002; Morgan, 2012; Vaughn et al., 2002). Current high school level interventions fail to adequately address the academic, social, and emotional needs of students identified as emotionally and behaviorally disturbed (Bullis et al., 1993; Maag, 2006; Morgan, 2012).

Therefore, the purpose of this study was to evaluate the social, emotional, and behavioral impact of a nine-week blended learning social skills intervention for high school students identified as EBD and at-risk for EBD.

Review of Methodology

The study was quantitative and quasi-experimental by design and methodology. A purposive participant sample was selected from a local high school in the Eastern Maryland area. The total sample size of respondents to the study's intervention was eight, consisting of seven students and one special education teacher. Of the total student participants in the study, two were female and five were male. The participating teacher was female. All participating students were identified as at-risk for EBD by the school's psychologist. Five participating students had at least one behavioral goal on their Individual Education Program (IEP). All participating students were 15 years of age. The independent treatment variable was the researcher-designed blended learning social skills curriculum. The study's dependent variables were derived from the self-report surveys completed by both the students and the teachers. Specifically, the *Social Emotional Assets and Resilience Scales* (SEARS, Merrell, 2011a) measured four discrete social emotional domains: self-regulation, social competence, empathy, and responsibility. Demographic independent variables included student age and gender.

Prior to addressing the formally stated research questions of the study, a variety of introductory analyses were conducted. Specifically, evaluations of missing data, internal reliability of participant response to the research instrument, and comparisons of participant perceptions by study primary "grouping" variable were performed. The study's data set was completely intact with no missing data points evident in the pre- and post-test responses. Internal reliability analyses were conducted for both the pre-test and post-test conditions of the

study by the primary grouping variable. The internal consistency of this study is considered to be high (*SEARS-A*= .92 and *SEARS-T*= .94). Pre-Test comparisons of *SEARS-A* domain mean scores were conducted, and while differences did exist between the domains, none were manifested at statistically significant levels.

Discussion by Research Question

The research questions were addressed through a combination of both descriptive and inferential statistical techniques. The following information represented how each research question was addressed analytically.

Research Question #1

The first research question focused upon an examination of the students' self-reported scores of social/emotional development throughout the intervention study. From the resultant data, a -3.85% decline in the overall mean score between the pre- and post-test of the *SEARS-A* was manifested.

When analyzing the decline in the students' self-reported scores, it is important to consider the role of student motivation. When students feel comfortable taking ownership of their learning through engagement strategies, their involvement in school increases (Hafen et al., 2011). However, when students feel inadequate and are more focused on the outcome of a task rather than the task itself, they may experience negative social-emotional development (Scott, 1996; Taylor et al., 2007). Feelings of inadequacy often result in low academic motivation and engagement, as well as behavioral concerns, such as persistent failure, negative social-emotional development, and aggression (Scott, 1996; Taylor et al., 2007). Aggression and poor self-perception may lead to negative academic distractions, such as fear of failure, learned

helplessness, anxiety, or a focus on the projected outcome and consequences of a task, rather than the task itself (Brophy, 1983).

During the intervention, students were tasked with blended learning activities (such as discussion forums, presentations, ePortfolios, etc.) that aimed to broaden their understanding of core social-emotional concepts. Several students consistently approached the online learning activities with apathy, choosing not to answer the discussion questions, or answering in one or two word responses. If students felt unable to complete the designated tasks, they may have experienced a form of negative motivation, ultimately leading to a decrease in self-reported scores.

Research Question #2

The second research question featured an examination of the special educator's perception of the students' social/emotional development throughout the intervention study. As a result, a 1.57% decline in the overall mean score was manifested between the pre- and post-test of the *SEARS-T*.

When examining the decline in the teacher's assessment of the students, it is important to reflect on the nature of student-teacher relationships, and how they progress throughout the semester. Sutherland and Wehby (2001) noted that negative instructional dialogue can increase noncompliant behavior. While there are no direct observations of the dialogues spoken during the lessons, negative feedback was provided to the researcher through the form of email correspondence with the special educator. Through one such communication, the special educator stated, "…these 9th graders are so very much immature and they take nothing serious. It is very hard to get thru [sic] a lesson with them" (personal communication, October 24, 2017). Follow up conversations appear to support this statement. When asked two weeks later how the

lessons were going, the special educator replied, “Things are going well. They are still very immature” (personal communication, November 6, 2017).

The professional literature on the topic is replete in support of the notion that negative perceptions of students identified as EBD can lead to negative student-teacher relationships (Cothran et al., 2003; Foote, 1999; Levi et al., 2013; Mihalas et al., 2009; Rathel et al., 2008; Scott, 1996; Shores & Wehby, 1999). When analyzing the cause of the decline in overall *SEARS-T* scores, one must consider any preconceived notions the special educator had prior to, and during, the implementation of the intervention.

Research Question #3

The third research question focused on which of the four domains had the greatest mean of perceptual change as measured by the students’ self-reported scores. While no singular domain exhibited a statistically significant mean of perceptual change as measured by the *SEARS-A* pre- and post-test, self-regulation showed the greatest standardized mean score increase of +0.14%.

When measuring for self-regulation, students were asked to rate themselves on statements concerning self-awareness, metacognition, self-management, and direction (Merrell, 2011b). Sample statements from the *SEARS-A* included: “I stay calm when there is a problem or argument”; “Even when things don’t go well for me, I’m okay”; “I stay in control when I get angry”; and “I think about my problems in ways that help” (Merrell, 2011a, p.16). During the intervention, students were asked to watch a short video discussing personal behavior, and write a brief summary of behaviors they would like to change in themselves. Responses such as “When im [sic] mad take control of the problem and try to find a solution [to] anger”, and “One

thing I think I can change about my self [sic] is how I react to things" demonstrate that students understand the need for self-management and direction.

Focusing on such areas of personal understanding is important, as students with low self-concept often experience negative social-emotional development when faced with difficult tasks (Chapman, 1988; Taylor et al., 2007). While the overall results were not statistically significant, an increase in self-regulation shows that students may be learning to improve their overall perceptions of self-worth.

Research Question #4

The fourth research question presented an examination on which of the four domains best predicted the students' overall composite score. All four domains were found to be statistically significant predictors of a student's overall composite *SEARS-A* score, with empathy demonstrating the most robust predictor.

Understanding how specific social-emotional domains contribute to a student's overall performance is imperative to understanding the type and level of intervention needed for each student. Educational programs designed for students identified as EBD should include specific emotional and behavioral supports, as well as strategies that aid in mastering academics and increasing one's self-perception (Daunic et al., 2013; USDE, 2010). Interventions that strengthen emotional and behavioral self-regulation aid in the promotion of social-emotional competencies and enhance social-emotional and academic learning, further increasing school success (Daunic et al., 2013). All four domains of the *SEARS-A* test were significant predictors of one's overall composite score. Lessons throughout the online instruction included activities that strengthened student understanding of cooperation, engagement, responsibility, aggression reduction, stress reduction, and prejudice reduction. Thus, activities focusing on self-regulation,

social competence, empathy, and responsibility are essential for teaching and developing social skills.

Research Question #5

The fifth research question featured an examination of which domain was the best predictor of students achieving an average/high functioning status level from pre- and post-test. Testing in the average/high functioning status level is important, as students in this tier are "likely to have adequate to excellent relationships with peers, teachers, and others, to have appropriate self-regulation skills, to demonstrate age-appropriate levels of personal responsibility, and to show appropriate empathy towards others" (Merrell, 2011a, p. 34). While social competence and responsibility were found to be statistically significant predictors of student participants achieving an average/high functioning status level on the *SEARS-A,* responsibility was found to be the most robust predictor.

Social competence and responsibility are two important social-emotional domains for students identified as EBD, as adolescents with emotional disorders are more likely to foster antisocial behaviors and demonstrate less self-control in situations that would otherwise reduce their aggressive tendencies (Cullinan & Saborni, 2004). Social competence measures "the adolescent's assessment of his or her ability to maintain friendships with peers, engage in effective verbal communication, and feel comfortable around groups of peers" while responsibility measures "the adolescent's assessment of his or her ability to accept responsibility, behave conscientiously, and ability to think before acting" (Merrell, 2011a, p. 4). Sample *SEARS-A* questions relating to social competence include: "I am comfortable talking to other people"; "I make friends easily"; "Other people see me as a leader"; and "Other kids respect me" (Merrell, 2011a, p.16). Sample *SEARS-A* questions relating to responsibility include: "I am good

at making decisions"; "I think before I act"; "I am someone you can rely on"; and "I make good decisions" (Merrell, 2011a, p.16).

Negative school experiences such as low self-perception, poor relationships with teachers and peers, and behavioral challenges as a result of low social competency and/or responsibility can contribute to poor post-school outcomes for students identified as EBD (Baird et al., 2009; Mihalas et al., 2009).

Research Question #6

The sixth research question focused on the differences in domain scores among student participant gender. There were no significant findings in domain scores from pre- and post-test between the genders; however, empathy manifested at a statistically significant level among male participants.

The finding related to Research Question #6 is unremarkable, given that the study consisted of five male participants and only two female participants. Furthermore, most research concerning gender in studies of emotional and behavioral disorders leads to similar conclusions. Male students outnumber female students served under IDEA for behavioral disorders, approximately 3.5 to 1, with males representing 93% of students with learning disabilities and students identified as EBD (Cavendish, 2013; Mastropieri & Scruggs, 2007).

The results of this research question align with the online empathy unit, as the two female participants were the only students who did not complete the unit activities. When asked how empathy can be found in everyday life, male participant answers varied. One participant noted that "the most empathy could be in reading a book because then you can look up and talk to someone who you have empathy for." Another student noted that he used empathy to relate to a classmate whose family member died, because he too has suffered loss in his own family. When

asked what role empathy plays in society, one male participant said, "there is no empathy anywhere in our society", while another commented, "it is missing in the real world." Further responses noted the lack of empathy in today's society, as "people [are] bullying each other, fighting others, [and] hitting another person."

Research Question #7

The seventh research question featured an examination of the impact of gender as a predictor of the students' total composite score. The data revealed that gender was a robust, statistically significant predictor of *SEARS-A* total composite score.

As stated in the discussion of research question #6, the results of gender predicting one's final score is expected, as male students have higher rates of learning, emotional, and behavioral disorders. Cavendish (2013) noted that, of the 4,066 students released from a Florida juvenile justice commitment program in 2001, males were overrepresented at 86% of the total sample while females represented 13% of the population. Due to a small sample size and large predictive effect size (.49), male participants are expected to perform at higher rates than female participants.

Study Limitations

While this study provided additional research to the field of social skills interventions for high school students identified as at-risk for EBD, there were three notable limitations.

Fidelity of Instruction

Before the implementation of the study, the researcher met with the special educator to review the course materials and intervention curriculum. Every course assignment, handout, and instructional material was compiled in a course curriculum binder and presented to the special educator. Each assignment and its rationale was explained in detail both on paper and in person.

However, during the training session, the special educator often appeared distracted, and seemed more concerned with setting up their classroom and gradebook for the incoming students.

The lack of understanding at the beginning of the semester led to moments of confusion during the intervention. At several points during the nine-week course, the special educator reached out to clarify the purpose of specific assignments. One such email asked about the culminating course project, stating, "I am not understanding the eportfolio [sic]…what are they supposed to be doing with this…" (personal communication, October 24, 2017). Follow up emails demonstrated a lack of technological understanding needed for teaching specific lessons.

Furthermore, several activities in the online course were left incomplete. Students did not follow instructions, assignments were not uploaded properly, and several discussion forums were not answered. Implementing a blended learning intervention taught by an instructor that did not fully understand the types of assignments, or did not accurately follow the intervention curriculum may have negatively impacted the level of instruction needed for the intervention, thus leading to a decrease in post-test scores.

Sample Population and Size

The high schools selected for participation in the study were purposive in nature and located in primarily urban settings in Eastern Maryland. Therefore, the sample may not be a comprehensive representation of the nation's high school demographics. Additionally, only one special educator out of five agreed to teach the intervention course, thus decreasing the student participant sample size from approximately 43 to seven.

Participant Indifference

Another limitation warranting consideration is the possible intervening effects of student indifference. Per the *SEARS* user manual, students are expected to complete the *SEARS-A* test in

approximately 20 minutes (Merrell, 2011a). However, the longest test time in the study's intervention was 8 minutes, and the shortest test time was 1 minute.

Table 12 details the time duration for each student to complete the pre- and post-test.

Table 12

Pre-Test/Post-Test Student Comparison of Test Completion in Minutes

Student	Pre-Test	Post-Test
Student 1	5:00	7:00
Student 2	3:00	4:00
Student 3	3:00	8:00
Student 4	3:00	6:00
Student 5	5:00	4:00
Student 6	2:00	2:00
Student 7	2:00	1:00

While some students ultimately increased their time from pre- to post-test, no student spent more than eight minutes on the *SEARS-A* test. Considerations must be given to student apathy and time of year, as the post-test was completed the week prior to Christmas break.

Implications for Professional Practice

This study focused on the effect of a blended learning social skills intervention on high school students identified as at-risk for EBD. Given the dearth of research available concerning high school students identified as EBD, as well as the scarcity of research concerning blended learning interventions, the study contributed to the existing research concerning social skills interventions. While additional research is needed, there are implications for practice that can be drawn from this study.

Social Skills Domains

Cumming et al. (2008) stressed the importance of social skills instruction, noting that students identified as EBD needed this instruction "in order to be successful with their peers and adults, both in school and in the community" (p. 32). Self-regulation was incorporated through

lessons on self-control and units covering stress reduction techniques. Social competence was incorporated through lessons on communication, assertion, cooperation, and engagement. Empathy was incorporated through units covering prejudice reduction techniques. Finally, responsibility was incorporated through units covering aggression reduction techniques. The four social/emotional domains featured in the *SEARS* test demonstrated a significant impact on the students' overall pre- and post-test performance; therefore, all four domains should be considered essential components of effective social skills interventions.

Teacher Perceptions

Recognizing and understanding teacher perceptions of students identified as EBD is an important first step in developing an effective intervention. The overall feedback from the special educator of this study was negative, in that the teacher often felt the students were too immature to complete the various discussions and assignments. Given that emotional and behavioral disorders may affect one's physical, social, or cognitive skills through behavioral characteristics such as "hyperactivity, aggression or self-injurious behavior, withdrawal, immaturity, learning difficulties, distorted thinking, excessive anxiety, bizarre motor acts, and abnormal mood swings" (USDE, 2010, pp. 1-2), the teacher seemed unprepared to effectively teach the student population.

Implementing social skills interventions should be tasked to educators that are willing to work with hyperactive, aggressive, and/or immature students, as negative interactions with teachers and other adults often carry over into negative interactions among students identified as EBD and their peers, often resulting in disciplinary issues.

Recommendations for Future Research

Researchers have cited the implementation of instructional intervention programs focusing on social, personal, and professional life skills as the most effective way to build social skills for students identified as EBD; however, these instructional interventions are lacking (Dobbins et al., 2010; Morgan, 2012; Rutherford et al., 2008). Therefore, there is still much to be learned about the merging of blended learning and social skills strategies into cohesive, meaningful lessons.

Increase Sample Size and Population

Future research in this area should include a broader, more stratified student population from which to sample. Researchers should implement this study across the United States, to gain a comprehensive representation of the nation's high school demographics. Furthermore, student and special educator participant numbers should be higher, and aim to include a stronger balance of male and female students.

Conduct Mixed Method Studies

While this study employed a quantitative, quasi-experimental study, future studies should consider qualitative or mixed methods approaches for richness and thickness of data. Hearing directly from the students in an interview or journaling experience allows the researcher to understand further population of students identified as EBD. Employing a phenomenological or ethnographic study would delve further into understanding the meaning behind the behaviors, language, interactions, and experiences of students identified as EBD. Once researchers have adequate information on such areas, they can begin to build more cohesive interventions that not only target the significant social-emotional domains, but also focus on shortcomings expressed by the students.

Furthermore, phenomenological or ethnographic studies could also be conducted to understand how general and special education teachers approach students identified as EBD. Hearing directly from the teachers allows researchers the opportunity to build teacher preparation programs for universities and professional development seminars. Using the qualitative feedback from student research in conjunction with that from the teachers allows researchers to strengthen and develop such teacher preparation programs to ensure that all educators are prepared to deliver instruction to students identified as EBD.

Increase Instructor Fidelity

Future studies should develop a more rigorous training program for educators leading a blended learning intervention. Offering a series of online training videos on the curriculum, the blended learning materials, and the student population allows educators the opportunity to refresh their understanding of the intervention, and answer questions they may not feel comfortable asking. Face-to-face training programs should include demonstrations how to teach the online portions of the intervention, such as walking students through setting up their ePortfolio page and template. Further assurance of fidelity could include biweekly check-ins between the instructor and researcher to assess how the intervention is going, and discuss student participation and engagement.

Increase Participant Engagement

Future studies should aim to increase both student and instructor participation.

Student participant engagement. While participant apathy is very common amongst students identified as EBD, treating the intervention as an actual course may increase student engagement. For the purposes of this study, the school board would not allow the intervention to count as a graded course; therefore, students were not motivated to complete assignments, as

there was no penalty in the gradebook. By grading all activities, students may be more inclined to complete given assignments.

Researchers may also consider widening the scope of activities to increase student engagement. While the online portion of the intervention allowed students numerous opportunities to view video segments and participate in discussion boards, answer analysis questions, create infographics, complete personal reflections, and develop ePortfolios, increasing the types of activities offered in the face-to-face portion of the intervention may increase academic motivation. Because students identified as EBD often focus on the outcome of the task, rather than the task itself, researchers may want to consider more open-ended activities (Scott, 1996; Taylor et al., 2007). Such activities could include: having students create short films that demonstrate ways to improve negative social skills; having students artistically render their struggle with negative-motivation (through various artistic mediums); or having students role-play or write short stories about overcoming obstacles through the use of positive social-emotional domains.

Incorporating these open-ended activities aids in the development of social competence and responsibility—the two most significant domains in predicating the status level of student participant responses on the *SEARS-A* survey—as they: strengthen the relationships between students identified as EBD and their teachers and peers; force students to self-regulate their progress; provide opportunities for students to develop and show empathy; and allow students to improve personal and group responsibility to ensure the project is completed. Allowing students to choose (from three or four options) how they wish to complete an assignment puts ownership in the hands of the learner, and when students feel comfortable taking ownership of their learning through engaging strategies, their involvement in school increases (Hafen et al., 2011).

Instructor participant engagement. Offering teachers incentives for teaching the intervention could increase the number of instructors willing to teach the intervention. One incentive could include allowing the intervention to count towards a credit in the certification renewal process. Should county and state legislators not approve this option, administrators could count the teaching of the intervention as a professional development credit in the end-of-year evaluation.

Conclusion

Completing a nine-week social skills intervention yielded varying results for students identified as at-risk for emotional and behavioral disorders. On the whole, the four social/emotional domains (self-regulation, social competence, empathy, and responsibility) were significantly effective predictors of the students' overall performance on the *Social Emotional Assets and Resilience Scales* pre- and post-test survey, thus noting the importance of blending strategies that aid in the development of personal and professional social skills with those that support students in real-world settings.

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