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BEHAVIORAL AND ACADEMIC STRATEGIES FOR STUDENTS WITH EBD

A MASTER'S THESIS  
SUBMITTED TO THE FACULTY  
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BY  
NATALIE A. RENALLS

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BETHEL UNIVERSITY

BEHAVIORAL AND ACADEMIC STRATEGIES FOR STUDENTS WITH EBD

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### **Abstract**

This thesis discusses a variety of behavioral and academic strategies for special education and general education teachers to help support students with emotional and behavioral disorders (EBD). The literature review covers the behavioral and academic strategies themselves along with the peer-reviewed research studies on these strategies. Based on research, special education and general education teachers are able to use the behavioral and academic strategies successfully in their classroom. The different programs used to help behavioral skills for students EBD included Stop and Think, We Have Skills! (WHS), Second Step, and Fast Track. However, there are some limitations within the research, including not having a behavioral and academic strategy (self-regulated strategy development [SRSD]) replicated in the classrooms.

## CHAPTER I: INTRODUCTION

### History of Special Education in the U.S.

#### **Before Public Law 94-142 (Individuals with Disabilities Education Act)**

General education teachers did not always include students with disabilities in their classrooms. However, teachers began to be trained to teach students with disabilities when various laws were enacted, such as the Expansion of Teaching in the Education of Mentally Retarded Children Act of 1958 (Yell, Rogers, & Rogers, 1998). The law noted “[c]ongress appropriated funds for the training of teachers of children with mental retardation” (p. 223). During the early and middle twentieth century, children with disabilities were excluded and discriminated from receiving an education at school (Turnbull, Turnbull, Wehmeyer, & Shogren, 2013). Students with disabilities were discriminated against in two different ways: exclusion and misclassification (Turnbull, Stowe, & Huerta, 2007). For exclusion, students with disabilities were not allowed by school officials to be enrolled in school to get an education at all. Students with disabilities also were discriminated by misclassification. This type of discrimination was when the state and local educational authorities would misinterpret students by assigning them the wrong disability or having a disability that they did not have. Children with disabilities were discriminated against due to educators’ assumptions that students with disabilities cannot learn and did not have a right to be educated by state law (Turnbull et al., 2011). In fact, children with disabilities did not receive formal special education services (Stein, Kathleen F.; Connors, Elizabeth H.; Chambers, Kerri L.; Thomas, Charmaine L.; Stephan, Sharon H., 2016) until 1975 (Yell, Rogers, & Rogers, 1998).

The school officials were beginning to get sued by people who supported children with disabilities, including parents and lawyers, regarding the education of children with disabilities prior to 1975 (Turnbull et al., 2011). These lawsuits, in part, led to the passage of the Individuals with Disabilities Education Act (IDEA). The advocates for children with disabilities argued to the Supreme Court that the same as desegregation of race based on *Brown vs. Board of Education* (1954) in the beginning of the 1970s, they cannot discriminate against those who are disabled (Turnbull, Shogren, & Turnbull, 2011; Turnbull, Turnbull, Wehmeyer, & Shogren, 2013). Between 1973 and 1975, seven hearings on P.L. 94-142 were held across the country through the National Council on Disability (NCD) (Turnbull et al., 2011). NCD had parents “confront educators and policy makers about policy and the culture of Americans schools” through reports (p. 649). Topics covered in the hearings included the six principles of P.L. 94-142, which were zero reject, non-discriminatory, appropriate education, least restrictive environment, procedural due process, and parent participation. System-capacity development (personal preparation, research, and federal-state cost-sharing) were also covered at the hearings. At the hearings, witnesses that included governors, US senators, representatives of associations of governors, legislators, special education directors, researchers, and teachers had concerns based these seven topics. For zero reject, witnesses’ two separate complaints were that there was no information for parents and the difficulty of serving children. Witnesses also had concerns relating to discipline without proper due process evaluation that was discriminatory, minority students being over-represented, parent(s) participating in evaluation, and the creation of new disability categories, which included neurobiological disorders, emotional disorder, and mental

illness. In addition to discipline, appropriate education was another topic that witnesses had concerns in. The concerns were parent(s) participating in the IEP development and related services. For the least restrictive environment, there were concerns by witnesses on the successful integration characteristics, the integration barriers, and the continuum of services. In addition, witnesses had some concerns about procedural due process that were related to mediation and the attorneys' fees. The last topic on which witnesses had concerns was on parent participation, specifically on issues on training and information.

### **Protections Included in IDEA**

In 1975, the IDEA was enacted (originally named the Education of All Handicapped Students Act, Public Law [P.L.] 94-142) (Turnbull, Turnbull, Wehmeyer, & Shogren, 2013). Most children with disabilities did not receive appropriate education until 1975 (Yell et al., 1998). After IDEA was in place, children with disabilities were included in schools and were able to receive the appropriate education (Turnbull et al., 2013). Regarding inclusion, the reauthorization of IDEA 2004 stated, according to Turnbull et al. (2013) that:

Each state must establish procedures to assure that, to the *maximum extent appropriate, children with disabilities . . . are educated with children who are not disabled*, and special classes, separate schooling, or other removal of children with disabilities from the regular educational environment occurs only when the nature or severity of the disability of the child is such that education in regular education with the use of supplementary aids and services cannot be achieved satisfactory (p. 38).



IDEA helped students with various disabilities by providing necessary support, including special education at no cost to families (Turnbull et al., 2013).

### **Factors Leading Up to the Federal Definition of EBD**

Initially, emotional and behavioral disorders (EBD) was not recognized or identified as a disability (Newcomer, 2011). In fact, EBD was not a federally recognized disability category until the late 1980s. Before EBD became a federal disability, a variety of terms were used to describe people with abnormal behavior, such as mental illness, psychopathology, and emotional disturbance, which was a term that was originally developed by Eli Bower in the 1960s and was not approved federally by Congress until 1975. Today emotional disturbance is known as EBD. By the eighteenth century, people with these behaviors were sent to asylums and chained up to walls, but conditions improved during the nineteenth century (Newcomer, 2011; Spielman et al., 2014). Humanists worked on appropriate services for people with EBD (Newcomer, 2011). Dorothea Dix established the mental hygiene movement by supporting and funding mental hospitals. Doctors then examined more specific behaviors in people with abnormal behavior and psychiatric schools of treatment were formed. The Nancy School, a psychotherapy treatment school, was founded by French physician Ambroise-Auguste Liebault and his colleague Hippolyte Bernheim. The details on when the Nancy School was founded differ depending on the source, but it was sometime between 1850-1862 (Kappas, 2018; Bogousslavsky, Walusinski, & Veyrunes, 2009). The Nancy School focused on “the relationship between patients’ symptomology and their suggestibility, a premise that provided the foundation for the concept of functional illness” (Newcomer, 2011, p. 7). Furthermore on treatment schools, Jean-Martin Charcot ran the Salpêtrière

School, which was developed around the same time as the Nancy School (Kappas, 2018). The Salpêtrière School included physicians who “believed that disturbed symptoms were attributable to organic malfunctions or physical disease” (Newcomer, 2011, p. 7).

In addition to humanists coming up with appropriate services, Newcomer (2011) stated, “The twentieth century saw the study of emotionally disturbed conditions revolutionized by the impact of many diverse theoretical perspectives and social movements” (p. 8). After more study on people with EBD, new treatment approaches were being practiced. The term EBD was adopted by the National Mental Health and Special Education Coalition in 1988 (Newcomer, 2011). When EBD became a recognized disability category, special education and general education teachers were educated on the needs of students with EBD and were able to start implementing behavioral and academic strategies.

### **Definition and Characteristics of EBD**

In general, EBD is considered mental and cognitive disabilities and not physical (Revisor of Statutes, 2007). People with a behavioral disorder may be aggressive and verbally abusive towards others. They may also say inappropriate comments, such as swearing (Turnbull, Turnbull, Wehmeyer, & Shogren, 2013; Revisor of Statutes, 2007). Additionally, they may ignore others and not be social (Billig, Cohen, & Pickeral, 2010). This disability category can also include someone who is depressed and/or unhappy (Turnbull et al., 2013). There is a federal definition for emotional disturbance and a Minnesota (MN) state definition of emotional and behavioral disorders (Turnbull, Turnbull, Wehmeyer, & Shogen, 2013; Revisor of Statutes, 2007).

## **Definitions of Emotional Disturbance and Emotional and Behavioral Disorders**

**Federal definition.** Turnbull et al. (2013) cited a federal definition from IDEA of emotional disturbance as stated:

A condition exhibiting one or more of the following characteristics over a long period of time and to a marked degree that adversely affects a child's educational performance: A. An inability to learn that cannot be explained by intellectual, sensory or health factors; B. An inability to build or maintain satisfactory interpersonal relationships with peers and teachers; C. Inappropriate types of behavior or feelings under normal circumstances; D. A general pervasive mood of unhappiness or depression; or E. A tendency to develop physical symptoms or fears associated with personal or school problems (p. 152).

**Minnesota definition.** Emotional and behavioral disorders was a term that included a Minnesota (MN) state definition (Revisor of Statutes, 2007). The MN Office of the Revisor of Statutes (2007) defined emotional and behavioral disorders in this way:

An established pattern of one or more of the following emotional or behavioral responses: A. withdrawal or anxiety, depression, problems with mood, or feelings of self-worth; B. disordered thought processes with unusual behavior patterns and atypical communication styles; or C. aggression, hyperactivity, or impulsivity (para. 1).

## **Characteristics of the Disability**

**Four categories.** Within the definition of EBD, there were a variety of characteristics broken down into four categories (Turnbull et al., 2013). The first two

categories dealt with emotional and behavioral. The last two categories dealt with cognitive and academic.

***Emotional.*** The emotional category included an anxiety disorder that was defined as "excessive fear, worry, or uneasiness" (Turnbull et al., 2013, p. 152) that had ten sub-anxiety disorders: 1) Separation anxiety disorder, 2) generalized anxiety disorder, 3) phobia, 4) panic disorder, 5) obsessive-compulsive disorder (OCD), 6) post-traumatic stress disorder (PTSD), 7) mood disorder, 8) oppositional defiant disorder, 9) conduct disorder, and 10) schizophrenia. Separation anxiety disorder was the fear of being separated from a loved one, such as a family member or a friend. Generalized anxiety disorder was when someone is worrying significantly with no apparent reason. In addition to generalized anxiety disorder, phobia was a great deal of fear of an object or a certain situation, such as heights and snakes. With a panic disorder, there was an excessive panic attack involving physical symptoms, such as racing heartbeat and sweating. OCD occurred when the individual experienced extreme images and thoughts of compulsions such as death, violence, and showing repetitive behaviors including counting objects, and checking if the door is locked multiple times. In addition, PTSD included several flashbacks and/or dangerous event (mental and psychological), such as a hurricane or a fire.

Mood disorder was the type of disorder where someone's mood is either elevated up or down to the extreme that may lead to depression that was originally defined by Rudolph and Lambert (2007), along with Youngstrom (2007) (as cited in Turnbull et al., 2013). Mood disorder included emotional (feeling sad and worthless that may include crying a lot), lack of motivation (losing interest in activities, friends, and school),

physical well-being (not taking care of oneself, including ignoring hygiene, sleeping too much or not enough), negative thoughts including being ugly, not doing anything right, and feeling worthless, and bipolar disorder. Mood disorder also included oppositional defiant disorder that may include behaviors that are negativistic, hostile, disobedient, and defiant, lasts six months, including arguing, not cooperating with adults, and putting the blame on others due to mistakes along with conduct disorders (intense behaviors that interfere with school) and schizophrenia (having hallucinations and delusions) (American Psychiatric Association, 2000).

***Behavioral characteristics.*** In addition to emotional characteristics for EBD, there were behavioral characteristics (Turnbull et al., 2013). Externalizing behavior was one of the characteristics for EBD, which are behaviors that are aggressive and that are non-compliant, such as not following directions or not listening. Bullying may be included as an externalizing behavior when certain actions include aggressiveness, such as pushing or verbal abuse. Furthermore, internalizing behavior was another one of the behavioral characteristics for EBD that was defined simply as various internal behaviors, such as sadness, anxiety, depression, or withdrawal.

***Cognitive and academic.*** Cognitive and academic were each used as two related characteristics of EBD as well (Turnbull et al., 2013). Turnbull et al. (2013) mentioned some identifications of students with EBD based on cognitive and academic characteristics. Students with EBD may be gifted, have an intellectual disability, and/or have low IQs.

**Teachers' understanding of students with EBD.** It is important for special

education and general education teachers to understand the specific emotional and behavioral needs of all students, including students served under the category of EBD (Turnbull et al., 2013). Special education and general education teachers need to understand the background information of students with EBD and then examine each EBD characteristic in order to help them succeed in school and in life. The characteristics that special education and general education teachers need to know and understand are emotional, behavioral, cognitive, and academic. Students with EBD can be successful in many settings if provided the right support from adults, including educators and parents. However, it is not always easy to support and educate students with emotional and behavioral needs, especially when their needs are severe. It is important for special education and general education teachers to note the signs and symptoms of mental and physical issues for the student with EBD, including inappropriate issues, such as depression and aggressiveness (Revisor of Statutes, 2007).

### **Present-day EBD Issues**

Students with EBD today experience present-day issues in the community. Siperstein, Wiley, and Forness (2011), Turnbull, Turnbull, Wehmeyer, and Shogren (2013), Bierman et al. (2013), Munsell, Kilmer, Vishnevsky, Cooke, and Markley (2016), and Stein et al. (2016) mentioned general outcomes on the present-day issues with students with EBD. The general issues were unemployment, housing, and juvenile arrests.

### **General Outcomes**

One of the present-day issues dealt with unemployment (Siperstein, Wiley, and Forness, 2018). Rojewski, Lee, and Noel Gregg (2014) noted that there were a variety of

factors that may lead to poor work outcomes, which may cause unemployment. The factors included having low socioeconomic backgrounds, poor qualifications for the job expectations, disability status, and job difficulties, such as unavailability of jobs.

Housing is also a present-day issue for students with EBD. Housing was addressed in two ways: family factors and poor education status (Turnbull et al., 2013; Munsell et al., 2016). Family factors may include living with a single parent, a family member who is unemployed, an additional disabled family member, and poverty (Turnbull et al., 2013). Poor education may have an effect on housing for students with EBD along with their families (Munsell et al., 2016). Families may not have had the amount of education or finances needed for adequate housing.

Another issue with students with EBD is juvenile arrests, which may be due to bullying (Brown University Child & Adolescent Psychopharmacology, 2013). It is important to consider bullying behaviors because they fall within the criteria of EBD (Kauffman & Landrum, Characteristics of emotional and behavioral disorders of children and youth, 2008). For example, the criteria includes someone who has anxious and emotional that is not normal (Revisor of Statutes, 2008). Currently, bullying happens not only in schools, but also in the community and may result in the bully going to jail. When students with EBD get severely aggressive, they may end up being arrested, which can lead them to being involved with the criminal justice system (Stein et al., 2016). Some students with EBD may end up in juvenile justice facilities that help them with educational, mental health, medical, and social needs (Cavendish, 2013). As cited in Cavendish (2013), students with disabilities are four times more likely than students without disabilities to be sent to a juvenile facility.

## **School Outcomes**

According to Bierman et al (2013), Fredricks, Blumenfeld, and Paris (2004), and Umbach and Wawrzynki (2005), students with EBD tend to have low academic performance and progress. Academically, the outcome characteristics that students with EBD do not do well in may include grades/grade point averages (GPAs) and homework. Also, students with EBD tend to participate less in extracurricular activities and have more discipline problems than typical peers, such as off-task behaviors (Bierman et al., 2013; Fredricks et al., 2004; Umbach & Wawrzynki, 2005). In addition, students with EBD tend to drop out of school or are suspended or expelled (Fredricks et al., 2004; Umbach & Wawrzynki, 2005, Kauffman, 2008, Billig et al., 2010).

Often, special education and general education teachers try to help students with EBD but administer consequences without thinking about the reasons behind students' behavior (Hanover Research, 2013). Hanover Research (2013) showed an example that dealt with the zero tolerance policy, which has been unsuccessful for students. The policy stated that when students misbehave severely, special education and general education teachers removed troubled students from their academic setting with no questions asked. In other words, students were either expelled or suspended from school automatically, which was turning out to harm students with EBD. Furthermore, students were automatically removed from educational settings in an effort to provide a safer learning environment (Fabelo et al., 2011). The policy was written for all American schools, public, private, and parochial (Losinski, Katsiyannis, Ryan, & Baughan, 2014; Legal Information Institute, n.d.). It is for this and other reasons that special education



and general education teachers need to provide behavior and academic strategies to help students with EBD be able to stay in school.

### **Present-day Realities in the Classroom for Students with EBD**

Turnbull (2013), Bierman et al. (2013), Fredricks et al. (2004), and Umbach and Wawrzynki (2005) mentioned some present-day realities in the classroom for students with EBD. Today, students with EBD either tend to become bullies and/or exert negative behaviors instead of positive behaviors. These authors noted that students with EBD also have low academic performance and progress. Students with EBD may not do well on their homework, which causes their grades/GPAs to go down.

### **Definition of Terms**

#### **Accommodation**

Harrison, Bunford, Evans, and Owens (2013) defined accommodations as: Changes to practices in schools that hold a student to the same standard as students without disabilities (i.e., grade-level academic content standard) but provide a differential boost (i.e., more benefit to those with a disability than those without) to mediate the impact of the disability on access to the general education curriculum (i.e., level the playing field) (p. 556).

#### **Assistive Technology**

Assistive technology involves devices that aid and improve students' ability of doing a certain task by removing barriers (Turnbull et al., 2013). Computers, graphing calculators, and blocked-out headphones are examples of assistive technology.

#### **Classroom Management**

Classroom management is defined as “the process by which teachers and schools create and maintain appropriate behavior of students in classroom settings” (Kratochwill, DeRoos, & Blair, 2017).

### **Modification**

In contrast to an accommodation, a modification is a certain change relating to decreasing and reducing a certain task (Harrison, Bunford, Evans, & Owens, 2013). Modifications help students with disabilities, including EBD, to not be overwhelmed when performing certain tasks.

### **Prevention**

Prevention is a very important intervention relating to maintaining student behavior. Billig et al. (2010) stated that by focusing on specific antecedents, it “allows [general education] teachers the opportunity to shape the behavior before it occurs” (p. 13). Special education teachers can shape the behavior by using prevention as well. By having the prevention intervention in place, students with EBD will be able to be more successful in school.

### **Self-Determination**

Self-determination deals with choice and empowerment. Self-determination was defined by Wehmeyer (2005) as “volitional actions that enable one to act as the primary causal agent in one’s life and to maintain or improve one’s quality of life” (p. 17). People, including students with EBD, can benefit from having self-determination in order for them to confidently succeed in school and in life.

### **Self-Management**

Self-management deals with someone who handles his or her own behavior relating to any changes (Amato-Zech, Hoff, & Doepke, 2006). Managing one's behavior helps him or her control it.

### **Self-Monitoring**

Self-monitoring is when a change in behavior is being promoted to address that behavior (Amato-Zech et al., 2006). McDougall & Brady, 1998 and Shapiro & Cole (2006) stated that students “can learn to use self-monitoring to regulate their own behavior and enhance independent activity” (as cited in Amato-Zech et al., 2006).

### **Self-Regulation**

Researchers such as Rueda, Posner, and Rothbart (2005) mentioned that self-regulation is having control of one's thoughts, feelings, and behavior (as cited in Smith, Cumming, Merrill, Pitts, & Daunic, 2015). In other words, self-regulation was when one is aware of his or her own behaviors and can manage them.

### **Special Education**

Special education is a type of education that “meets a child's unique needs in school” (Turnbull et al., 2013, p. 5). The cost is free to the student's parents for special education, which includes supplementary aids and services that are needed for the student. IDEA identified 13 disability categories: autism, deaf-blindness, developmental delay (until age nine), emotional disturbance, hearing impairment, intellectual disability, multiple disabilities, orthopedic impairment, other health impairment, specific learning disabilities, speech or language impairment, traumatic brain injury, and visual impairment (IDEA Data Center, 2014).

## **Purpose**

Special education and general education teachers need to be aware of specific strategies for students with EBD in order to support them behaviorally and academically. Students with EBD had exhibited some issues that affected them behaviorally and academically, which concerned special education and general education teachers (Hanover Research, 2013). Students with EBD were either expelled or suspended from school automatically, which was turning out to harm students with EBD as mentioned by Fredricks et al., (2004) and Umbach and Wawrzynki (2005), and Kauffman (2008) (as cited in Billig et al., 2010). Students with EBD had lower grades, did not participate in extracurricular activities, had more discipline problems, dropped out of school, and were suspended or expelled (Bierman et al., 2013; Fredricks et al., 2004; Umbach & Wawrzynki, 2005, Kauffman, 2008, Billig et al., 2010). The behaviors were due to having negative emotions about learning, such as relating to students with EBD not engaging with each other. It is for these reasons special education and general education teachers need to provide behavior and academic strategies to help students with EBD to be able to successful in school. Today, there are still issues concerning special education and general education teachers providing strategies for students with EBD. This thesis outlines many of the current academic and behavioral strategies and provides the research behind these strategies to give general and special education teachers the tools they need to help students with EBD succeed in their classrooms. The purpose of this thesis is to educate teachers to examine their students' emotional and behavioral needs and select appropriate evidence-based strategies to support them.

### **Research Question**

Based on grade levels (high school, elementary, early childhood, and middle school), a variety of behavioral and academic strategies need to be explored for special education and general education teachers to limit negative behaviors within their classrooms in which this thesis covers. The research question for this paper is “What are some strategies for special and general education teachers to support students with EBD to improve positive behaviors and academic success?” It is important for special education and general education teachers to know different ways to decrease a variety of negative behaviors of students with EBD in order to provide a positive learning environment.

In addition to the research question, the main topics in this thesis are the behavioral and the academic strategies themselves, which are helpful when reducing various behavioral and academic issues to create a positive learning environment for students with EBD. The simplest way to present the strategies is to separate the academic and behavioral strategies so that special education and general education teachers know which ones to use at the appropriate times. In addition, special education and general education teachers need to use the behavioral and academic strategies that are appropriate for their students’ age levels, specifically high school, elementary, early childhood, and middle school, such as Amato-Zech et al. (2006) and Ennis (2016). Special education and general education teachers also need to implement the strategies within their classrooms, which is the last topic relating to the research question.

## **CHAPTER II: LITERATURE REVIEW**

### **Finding Sources**

For this literature review, a variety of studies including peer-reviewed articles were used. In addition, some background information sources were used to make terms more understandable to the reader. The 1991-2018 publication sources were found searching through Google Scholar and various educational resources from the Bethel University Digital Library, including Academic Search Premier, Elton B. Stephens Company (EBSCO), Education Resources Information Center (ERIC), and ProQuest. In summary, these sources focused mostly on research on academic and behavioral strategies including some background information. Throughout the search, some of the keywords used were “EBD strategies” and “Increasing engagement”. This chapter discusses information for general and special education teachers on how to support students with emotional and behavioral disorders (EBD) using various academic and behavioral strategies found in the professional literature.

### **Behavioral and Academic Strategies to Help Students with EBD**

There are many behavior and academic strategies for special education and general education teachers to help students with EBD. Kelly and Shogren (2013), Tominey and McClelland (2011), McDaniel, Bruhn, and Troughton (2017), Marquez et al. (2014), Bierman et al. (2013), and Ennis (2016) researched the behavioral strategies and an academic strategy for students with EBD. The behavioral strategies were 1) self-determined learning model of instruction (SDLMI), 2) circle time games, 3) Stop and Think, 4) We Have Skills!, and 5) Fast Track along with an academic strategy, which was the self-regulated strategy development. The authors not only explained the

behavioral and academic strategies, but also reviewed the sources used in gathering information regarding the effectiveness of the strategies. Behavioral and academic strategies were explored to help students, including students with emotional disturbances, succeed behaviorally and academically.

### **Behavior strategies**

Kelly and Shogren (2013), Tominey and McClelland (2011), McDaniel, Bruhn, and Troughton (2017), Marquez et al. (2014), and Bierman et al. (2013) all researched five academic strategies for students with EBD. The behavioral strategies were 1) self-determined learning model of instruction (SDLMI), 2) circle time games, 3) stop and think, 4) We Have Skills!, and 5) Fast Track.

**Self-determination.** Self-determination includes self-management skills.

According to Wehmeyer (2005), self-determination is defined as “volitional actions that enable one to act as the primary causal agent in one’s life and to maintain or improve one’s quality of life” (p. 115). Kelly and Shogren (2013) studied the impact of the Self-Determined Learning Model of Instruction (SDLMI) intervention on the on and off-task behaviors of high school students with EBD. For the adolescents’ with EBD on- and off-task behavior and goal setting, Kelly and Shogren (2013) researched the effects on the SDLMI, which was the purpose of the study. The research questions Kelly and Shogren examined were as follows: 1) “Does teaching self-determination skills using the SDLMI have an impact on the on- and off-task behaviors of students with EBD[s]?” 2) “Can students with EBD learn and utilize the SDLMI to make progress toward attaining self-selected goals related to their on-task behavior in the general education classroom?” and 3) “Are behavioral changes maintained over time and do they generalize to other

classes?” (p. 28). The SDLMI intervention focused on a variety of skills based on self-determination, such as decision-making, goal setting, and self-management. The SDLMI was used previously by Wehmeyer, Palmer, Agran, Mithaug, and Martin (2000) on not only students with EBD but with a variety of students with intellectual and learning disabilities. There were three problem-solving instructional phases that included 12 questions (four per phrase): What is my goal, what is my plan, and what have I learned? The SDLMI was delivered to a group of four students a period per day, where the sessions (between 6 and 10 sessions) lasted between 60 and 90 minutes.

Kelly and Shogren’s (2013) study included four ninth through eleventh grade students with EBD along with two special education teachers. The study was conducted in a midsize school district in the suburban Southwest in a special education classroom, specifically designed for behavior support. The four students in the study were nominated by special education teachers based on (a) a diagnosis of EBD, (b) receiving instruction in a resource room, (c) receiving instruction in a least one academic area in a general education classroom and at least one additional general education classroom where behavior expectations were not fully met, (d) low minimum attendance, and (e) signed consent and assent forms.

The dependent variables of the study were on- and off-task behaviors and Goal Attainment Scaling (GAS) process (Kelly & Shogren, 2013). On-task behavior was defined individually for each student, including paying attention, remaining seated, and completing work assignments. On-task behavior was selected as the dependent variable because it was a common area of needed improvement for students with EBD and it was a positive behavior indicator in classroom settings. A general education teacher was



interviewed and direct observations were completed for observing on-task behaviors in the classrooms. The general education teacher was also interviewed along with direct observations of student off-task behaviors in the classroom. Similar to on-task behavior, off-task behavior also was defined individually for each student, such as not paying attention, incomplete work assignments, texting on cell phone. An interview with the general education teacher was conducted along with student off-task behavior observations. Therefore, not only did the direct observations help examine the on-task behaviors, but off-task behaviors as well.

In addition, the goal attainment scaling (GAS) was used as a dependent variable, which measured student progress towards the student's own goal setting. GAS included a goal along with outcomes and behaviors for achieving that goal. In the GAS process, the students evaluated their own goal progress using this process. The process included a goal along with outcomes and behaviors for achieving that goal using the SDLMI intervention. For the study, the students developed an on-task behavior goal. After that, the five outcomes of the goal were identified in order to successfully reach the goal. For the outcomes, they “served as a continuum for discerning and scoring a student’s progress from the least favorable to the most favorable outcome on a [5]-point scale” (p. 30). The scoring rubrics for GAS were completed by the special education teacher and the researcher (together) plus the student alone, which happened during each observation. For raw scoring, “[s]tandardized GAS scores range from 30 to 70; scores lower than 50 indicate the student did not achieve an acceptable outcome and scores of 60 and above indicate that the student’s progress exceeded expectations” where the raw scores were

converted to standardized T-scores (p. 31). Overall, the GAS process helped students examine their own behaviors.

Kelly and Shogren (2013) examined the results from the four students based on several observations in a multiple baseline design across participants design. Across the baseline, intervention, and maintenance conditions, targeted on- and off-task behaviors were observed during instructional practices. For all participants, the results showed that there was a relationship between the SDLMI and the on-and off-task behavior. Overall, the four students increased their on-task behaviors and decreased their off-task behaviors in a variety of classroom settings, such as English and Math during the intervention and the maintenance phases. At baseline, all four targeted students demonstrated on-task behaviors between 0 and 40% of the time. The on-task behaviors increased for each student during intervention to 63-100% of the time. During the maintenance probe, students' on-task percentages were stable or improved. Along with the improvement in the students' on-task behaviors, their off-task behaviors decreased. As for the four students' goal of getting through the GAS process, they improved on achieving their on-task behavior goals and decreasing their off-task behavior as noted below. The students' and general education teachers' responses were very similar. For the student goal attainment, the average rating of teacher's response was 59 and the average rating of student's response was 61. The goal of meeting or exceeding their behavior expectations was rated average 87% of the time for students' own behavior goals based on their ratings.

Kelly and Shogren (2013) mentioned several limitations about the SDLMI study. There was a small sample size and no diversity, which limited external validity.

Therefore, there needs to be more research on SDLMI's impact with students representing greater diversity, including gender. There also needs to be larger control group studies "to further explore the degree to which the changes in behavior result from SDLMI instruction" (p. 38). In addition, the researchers' visits may have affected student behavior and the observational data collected. Also, researchers were unable to access the students' attendance and achievement data by the school. "Attempts were made to collect weekly grade reports, but the student's grade reports proved an ineffective means of measuring academic progress largely because teachers did not update grades on a routine basis" (p. 38).

Overall, students' on-task behaviors increased during the SDLMI intervention phrase and at maintenance. Both general and special education teachers had positive responses when using the SDLMI intervention. Students had positive responses to the SDLMI as well. Based on results from this study, general and special education teachers could use the SDLMI as one behavioral strategy to help their students make progress by using on-task behaviors.

**Self-regulation.** Both self-determination and self-management can be combined into one important skill that general education teachers can utilize to help students with EBD develop: self-regulation. To be more specific, self-regulation is when students are able to control their own thoughts, feelings, and behavior, which is very important in academics and in social situations (Smith, Cumming, Merrill, Pitts, & Daunic, 2015). Students that effectively practice self-regulation will be able to further develop their neurocognitive processes and reach their social and behavioral goals. As cited in Smith

et al. (2015), teaching self-regulation skills has improved academic and social behaviors (Eisenberg, Smith, Sadovsky, & Spinrad, 2004; Matthews, Ponitz, & Morrison, 2009).

Tominey and McClelland (2011) studied the effectiveness of an intervention using circle time games for self-regulation with 65 preschoolers. Two research questions were investigated: 1) “Does participation in an intervention lead to greater gains in behavioral self-regulation in a sample of pre-kindergartners?” 2) “Does intervention treatment group participation relate to academic outcomes over the pre-kindergarten year?” (p. 496). The researchers randomly assigned half of the participants to an intervention in sixteen playgroups (thirty minutes long) during the wintertime over eight weeks (twice per week). There were five to eight preschoolers and two assistant teachers per playgroup. Tominey and McClelland (2011) led six different circle time games that were introduced and practiced with increasing complexity. These games required students to use their attention and memory skills. The parent demographic questionnaire provided basic information on each child, including age, gender, enrollment in Head Start or not, and parent education level. Half of the preschoolers were identified as low income families based on Head Start enrollment. The average age in the beginning of the study was 54.6 months, which was about 4.5 years.

Behavioral self-regulation was assessed during the fall and spring assessment period (pre and post intervention) (Tominey & McClelland, 2011). The behavioral self-regulation aspects were measured through the Head-Toes-Knees-Shoulders Task (HTKS), which measured children’s attention, working memory, and inhibitory control. The study focused on various aspects of self-regulation, specifically attention and working memory. The kappa interrater reliability for the HTKS was .92.

The study also investigated specific academic outcomes based on three subtests from the Woodcock-Johnson Psycho-Educational Battery-III Tests of Achievement (WJ-III) at pretest and posttest (Tominey & McClelland, 2011). This portion of the study will be further described in the academic section of this paper. The subtests included letter-word identification, picture vocabulary, and applied problems.

The results from Tominey and McClelland (2011) were examined as a whole and then for subgroups of students. For the initial behavioral self-regulation scores, the variability was high. The children scored 11 points on average for the HTKS at pretest. At Time 2, the average score for the HTKS was 22.3 points with a standard deviation (SD) of 13 and a range of 0-38. In preschool overall, students gained 11 points on the HTKS with an SD of 13 and a range of -10-35.

The first research question that Tominey and McClelland (2011) examined was, “Does participation in an intervention lead to greater gains in behavioral self-regulation in a sample of pre-kindergartners?” (p. 505). There was no significant interaction between the HTKS scores and the group assignment in the overall sample. The group assignment did not explain a significant amount of the difference between the student scores. Using a post hoc analysis, researchers found that head start enrollment and initial HTKA scores were the strongest predictors of gains in the HTKA scores. They found that “for children with low initial HTKS scores, treatment group participation significantly predicted the HTKS gains over the pre-kindergarten year” (Tominey & McClelland, 2011, p. 506). Specifically, the results showed that playgroup children with low initial HTKS scores demonstrated an increase in behavioral self-regulation. Students with low initial HTKS scores gained more in interventions than the control group (predicted to

gain 9.2 than their peers in the control group). Finally, the model “indicated that the number of playgroup sessions attended significantly predicted HTKS gains for children with low initial HTKS” (p. 507). The more sessions students with low initial HTKS attended significantly predicted gains in the HTKS scores at posttest. Results also showed that students enrolled in head start made greater gains in the intervention group than the control group.

For the second research question, Tominey and McClelland (2011) asked whether “intervention treatment group participation relate[d] to academic outcomes over the pre-kindergarten year,” (p. 508) multiple regression analysis was used for predicting the WJ-III results. For letter-word identification, there was a prediction in gains on the scores throughout the school year. Participants in the intervention group did significantly better than the students in the control group. The Head Start membership also predicted gains. There were no significant findings for picture vocabulary along with no significant relation between group assignment and applied problems in math.

Tominey and McClelland (2011) mentioned three main limitations on the self-regulated intervention. The researchers mentioned a small sample size as a limitation. A small sample size was known as a limitation, which caused limited results and validity. In addition, there was only one measure of self-regulation. Teacher reports, child observations, and other outcome measures would be helpful in order to get more accurate and valid results. Also, the circle games implemented during playgroup sessions were limited in scope.

Overall, family income (head start enrollment) was the strongest predictor of behavioral self-regulation and academic performance (Tominey & McClelland, 2011).

Students reported that they had “internalized some of the strategies they learned” (p. 37). When general education teachers do circle time games with their preschool students as one of the behavioral strategies, it helps some preschool students boost their self-regulation skills.

**Stop and think.** In addition to general education teachers establishing routines and social engagement for students with EBD, general education and special education teachers may implement a social skills intervention. McDaniel et al. (2017) looked at a specific social skills program called Stop and Think, a scripted curriculum for Pre-K through 8 that included 12 sessions with five components (teach, model, roleplay, performance, and feedback) and a five-step process for the Stop and Think program (stop and think, identify good and bad choices, identify steps to performing the good choice, implement steps, and reflect on the good choice you made and used throughout each day). The program also included four skill groups: survival skills that included listening and following directions, interpersonal skills, problem-solving skills, and conflict resolution skills, including handling peer pressure (Knoff, 2005). The study explored the program’s effectiveness for five students with EBD by examining their negative social behaviors and general education teacher responses to the Strengths and Difficulties Questionnaire (SDQ). Five students in grades two through three participated in the study. For the five students, there was a comparison of results between two classrooms (three students in classroom one and two students in classroom two). For the general education teachers, a twelve-year veteran general education teacher participated along with a first-year general education teacher. The five students were nominated by a general education teacher due to a history of social problem behaviors over two years, which interfered with

instruction and remained unresponsive to previous intervention. The study setting was an alternative suburban school for students (kindergarten through twelfth grade) with challenging behaviors in the Southeast US.

Negative social behavior (NSB) and the SDQ were used as measurement tools for the Stop and Think program (McDaniel et al., 2017). NSB measured various types of negative behavior, including arguing, teasing, verbal aggression, interrupting, and not independently doing school work. Researchers documented NSBs using 20-second partial interval observations for 30 minutes. The data was collected on average three times per week. The percentage of NSBs was calculated by the following formula: Total number of yeses divided by total number of intervals multiplied by 100. The interobserver agreement ranged from 97-100%. Classroom teachers complete the SDQ at pretest and posttest.

McDaniel et al. (2017) examined the results of the Stop and Think program. There was a two-week follow-up on multiple-baseline model across classrooms. There was no social skills instruction during baseline conditions. NSB “was [the] variable for all students in the study, with some students demonstrating NSB in nearly 50 % of intervals” during baseline (p. 69). There were moderate effects “on improving social skills and behavior for students with EBD” (p. 69) during the Stop and Think intervention and at follow up. The moderate effects were from not only social skills instruction, but the Stop and Think intervention. Fortunately, NSB decreased during the Stop and Think intervention process, which showed behavior that was more positive from students with EBD. According to the ratings on the SDQ, there was a transition from abnormal to borderline risk for four students plus one student improved to normal risk levels in



general related to difficulties. At the two-week follow-up, students continued with low NSBs.

McDaniel et al. (2017) mentioned some limitations on the Stop and Think program study. Social skills were taught to the entire class, but the data only was collected from five students in only two classrooms. Therefore, more information on a larger sample would be helpful. Another limitation dealt with the non-generalization of the data. All of the data were collected during the academic instruction only. There was also a lack of data on academic improvement and focused only on social skills. Finally, more social validity information is needed to assess the feasibility of implementing Stop and Think.

Overall, the Stop and Think intervention showed moderate effects along with social skills. In addition, there was a decrease in negative social behaviors (NSB). The participant had positive responses when using the intervention. Stop and Think would be a helpful behavioral strategy to increase social skills in students with EBD.

**We have skills.** Marquez et al. (2014) studied a program called We Have Skills! (WHS) to examine WHS in classrooms that included a large sample. Researchers hypothesized that general education teachers implementing WHS would show greater self-efficacy for achieving student engagement, instructional practices, and classroom management and see greater improvements in students' behaviors in their classrooms.

The study was conducted on 1,616 students (K-3), where 822 students were in the intervention group and 644 students were in the comparison group (Marquez et al., 2014). The study was conducted in 17 different elementary schools in California, Oregon, and Washington State. There were a total of 70 general education teachers (67 females) and

1616 students. Randomly assigned, each school included classrooms that were in either condition: the intervention condition ( $n = 37$ ) or the control condition ( $n = 37$ ), which was randomly assigned where  $n$  was the small sample size (Marquez et al., 2014, Larson & Marx, 2012). General education teachers and students volunteered to participate in the study. Stated by Marquez et al. (2014):

WHS is a video-based social skills program that (a) address[ed] the needs of the large number of students who begin school with weak or limited social skills; (b) [met] the needs of their [general education] teachers who lack the time, training, and expertise to provide social skills instruction; and (c) [was] firmly rooted in the research on effective social skills instruction (p. 139).

This video-based program taught a variety of social skills to elementary age students, which included three modules. Module 1 consisted of instructional materials for students. Module 2 included an online assessment tool for helping students with their social behaviors based on how they respond to instruction. Module 3 included instruction delivery and forms of student support. The three components of WHS included instructional materials, general education teacher professional development, and the Elementary School Behavioral Assessment (ESBA) student assessment.

Three outcome measures were used for the WHS study (Marquez et al., 2014). The twelve-item online assessment tool Teacher Sense of Efficacy Scale (TSES) measured the general education or special education teachers' behavior ratings of self-efficacy, which was completed by general education teachers at pre- and posttest. The TSES included three factors of efficacy: efficacy for student engagement, efficacy for instructional practices, and efficacy for classroom management. Another outcome

measure that was used was the ESBA that was administered during pre- and posttest.

Marquez mentioned that the ESBA was an assessment tool that

allow[ed] teachers to screen [their] entire classrooms as well as progress-monitor individual students on the extent to which they 0universal screening and progress monitoring. The assessment tool also included general education teachers rating students based on seven social skills on behavioral items that has twelve items, which were in the WHS program” (p. 148).

The teacher rating was on the three-tiered student support models (Brown-Chidsey & Steege, 2005) using the three-point color code (green = mastery, yellow = needs improvement, and red = cause for concern) through Response to Intervention (RTI) (Brown-Chidsey & Steege, 2005, p. 149). For progress monitoring, general education teachers recorded the improvements in students’ skill acquisition. In addition to progress monitoring, general education teachers were asked to rate their experience with the WHS program using a one-six point rating scale from strongly disagree to strongly agree to determine the intervention’s social validity. There were also open-ended responses on general education teacher satisfaction on the WHS program at posttest.

Results from Marquez et al. (2014) were analyzed using multi-level regression. At posttest, an analysis of covariance (ANCOVA) was used to examine self-efficacy for general education teachers with pretest scores as the covariate. For general education teachers, self-efficacy and student behaviors were not significantly different at pretest based on years teaching, age, gender, grade taught, education level, race, or self-efficacy itself. At posttest for the TSES, there was significant improvement on general education teacher self-efficacy for the intervention group compared to the control group. The effect

of self-efficacy did not depend on general education teacher gender, grade taught, age of general education teacher, or years of experience.

For the student behavior ratings, a multi-level regression the Analysis of Covariance (ANCOVA) was used to examine condition effects for the ESBA scores at posttest (Marquez et al., 2014). The pretest scores were used as the covariate through a multilevel ANCOVA. The ESBA scores were included for looking at error correction (EI) at pretest for not only students, but for general education teachers as well. For the posttest, the ESBA scores were higher in the WHS intervention group (improved by 3.5 points on average points in the WHS group, improvement by 1.7 average points in the control group) than the control group.

General education teachers were satisfied with the program, rating WHS an average of 5.4 out of 6 on social validity measures (Marquez et al., 2014). Specifically, 100% of the general education teachers would recommend the program to other teachers (56% strongly recommend) and 100% were likely to use the program (59% highest likelihood). General education (and special education) teachers can use WHS to help students with their social skills.

Marquez et al. (2014) reported several limitations to the WHS study. To begin, they report that “the relatively small scope of [the] evaluation study resulted in small samples that limited generalizability of outcomes” (p. 154). The small scope was due to the small number of volunteers from a total of four districts. There were also uncontrollable school, general education teachers, and student factors because of the small sample study, limiting internal validity. In addition, the maintenance of skills was not assessed due to limited time of study. Also, the researchers used the ESBA to

measure behavior. For this reason, there was a lack of a standardized measure that limited outcomes. Unfortunately, for this study, the measures of treatment integrity were not included, which was another limitation.

Overall, students had higher posttest scores in the WHS group than the control group (Marquez et al., 2014). The general education teacher and their students had positive responses when using the intervention. Based on results from this study, the WHS would be another behavioral strategy for not only general education students, but with students with EBD to use to help them.

**Second step.** Cooke et al. (2007) examined a program called Second Step, which was used in the 2002-2003 school year in the 2002-2003 school year by the school staff including special education and general education teachers. The researchers Cooke et al. (2007) administered the evaluation of Second Step. The purpose of the study was to examine the risk and protective factors of the Second Step program by implementing it with third and fourth graders who displayed aggressive behaviors. Cooke et al. stated a hypothesis that a multi-component evaluation methodology “implementation approach would enhance the effectiveness of Second Step by broadening the scope of the program and addressing some of the potential reasons for lack of success in the past” (p. 95). For the study, there were four goals. The first goal dealt with high implementation fidelity. The last three dealt with support, which were strong general education teacher and administrator buy-in and support, high levels of community involvement and support, and the provision of intensive, ongoing training and technical support.

Cooke and colleagues conducted an evaluation study that examined the effectiveness of the Second Step program across an entire town. There were a total of

986 possible participants in eight elementary schools in Meriden, Connecticut; however, because of the evaluation eligibility, only five of those schools were able to participate. Furthermore, since seventeen of the schools did not finish the measures for the study, the sample size for the study was 741. This was a cross-site, city-wide, multicomponent evaluation-type study on Second Step. The study included 364 students in third grade and 377 students in fourth grade.

Second Step focused on a violence prevention approach that was citywide, which was done across a small city Meridian (Cooke et al., 2007). The program was a type of curricular activity that helped students decrease their problems related to being aggressive and violent when discussing certain situations. The teaching methods that were included within the Second Step program focused on a social-emotional curriculum within three areas of units: anger/emotional management, empathy, and impulse control. The anger/emotional management session taught students how to manage their anger and emotions during a particular situation, such as settling a disagreement. In addition, the sessions included lessons on empathy, since aggressive children may have difficulty with perception and reading other people's cues based on emotions. Impulse control lessons helped students manage their behaviors, especially in complex situations. The program set behavioral expectations for students who were coached and taught by adults, including special education teachers and general education teachers, parents, and other school staff. Adult and peer modeling, role-playing, and coaching along with cueing were the teaching methods that were included in the program. The Second Step training sessions were one hour in length per component for elementary general education teachers and staff. There were also parent-teacher organizations and other meetings.

Including general education teachers, the organizations and other meetings had discussions on general education teachers building support for Second Step and answering any questions and/or concerns along with assisting schools in developing implementation plans that are based on individual lesson schedules. Implementation also included an all-day training that had three training sessions, which were an hour per session, technical support, such as weekly school visits, and “a school and community partnership team formed to aid in the consistent application of Second Step language and principles throughout the school district and the community as a whole” (p.98).

Cooke et al. (2007) administered student surveys, behavioral observations, and discipline referral outcome measures to examine behaviors, specifically aggressive-antisocial and pro-social behaviors. Assessments were done before the program as well as at follow-up. The specific measures included a 67-item student self-report questionnaire for third and fourth graders, as well as a student behavior observation checklist. Taken from four surveys, the student self-report questionnaire was given to a total of 639 students that was read out loud to students and included nine outcome measures that were from four surveys (La Greca et al., 1996; Wang, 2016; Bosworth et al., 1999; Weinberger & Schwartz, 1990). The questionnaire was completed at baseline and posttest (Cooke et al., 2007). In addition, behavioral observations were used at the beginning and the end of the school year, which included a student behavior checklist. The researchers observed students’ behaviors using the categories from the Social Interaction Observation System (SIOS), 4th edition, for child behavior and general education teacher behavior. For child behavior, the categories were neutral/positive, pro-social, borderline, negative, aggressive, and physical or verbal distress. Teacher behavior

categories were requests, commands, and questions. The settings for the observations were the classroom, the playground, and the cafeteria. In addition to behavioral observations, disciplinary referrals were reviewed as an outcome measure using a disciplinary referral checklist. There were three forms of minor delinquency that were of the category coding: non-violent behavior, such as rudeness or disrespectful behavior, minor violence, such as pushing or tripping, and destroying or throwing objects, such as breaking objects, and throwing pencils, along with threatening violence, such as taunting other students or bullying, and violent/physical assault, such as fighting, kicking or punching, as two forms of violence. For results, a frequency calculated score was based on the number of referrals for minor delinquency along with and for violence, which that occurred during the school year in the first three months of the school year (September–November) and in the final three months of the school year (March–May).

Cooke and colleagues completed a regression analysis (multi-level regression) of the Second Step study data. For each of the questionnaires, the Cronbach's Alpha was used for each variable relating to consistency at baseline and posttest. At the baseline and/or the post-test, Chronbach's Alpha for all of the Modified Aggression Scale and Weinberger Adjustment Inventory subscales were more than 0.63 and had a median of 0.79. The statistics were showing that the items were measures based of a characteristic. In the Kidcope questionnaire for example, the two subscales for internal consistency were only 0.47–0.60, which was a lower alpha than the Modified Aggression Scale and Weinberger Adjustment Inventory subscales. For the hypothesis on increasing prosocial behavior by preventing aggressive behavior through Second Step, correlations were the support system within the “positive changes in pro-social and negative survey measures”



(Cooke, et al., 2007, p. 109). Overall, there have been significant improvements in student behavior, including positive approach/coping and caring/cooperative behavior. Unexpectedly, responsibility did not change in contrast to impulse control that showed a significant decrease during the school year. There were also small, significant increases in angry and aggressive behaviors. Fighting did not change significantly. The behavior observations were done at baseline and posttest. There were 545 observations at baseline and 558 observations at posttest (five-minutes per observation). Violence and aggression were rarely observed. There was no significant change in observations related to frequency of students engaging in neutral behavior. Referring to frequencies, the observation of behaviors (positive, borderline, and negative) was significantly lower at posttest than at pretest. There was no statistically significant difference in observed prosocial behaviors from baseline to follow up. For prosocial behaviors, the observation “was accompanied by comparable or larger reductions in the percentages of borderline, negative, and aggressive behavior and a corresponding increase in neutral behavior” (Cooke et al., p. 104). However, there was an overall change from disruptive to neutral for on-task behavior based on observed behaviors. The referred students during the follow-up period had a continuation of anger, aggression, and impulse control difficulties and the positive survey variables showed significantly lower scores. General education teachers (n=171) completed a year-end survey. General education teachers reported moderate-to-high support for implementing Second Step. In addition, 71.7% of the general education teachers believed that Second Step helped their students.

Cooke et al. (2007) mentioned some limitations for the Second Step intervention. One limitation of the study was the lack of a control group. Unfortunately, the group was

not available because Second Step was implemented in every school within the district by the researcher. In addition, significant behavioral changes were not found based on independent behavior observations.

Overall, positive approach-coping, caring-cooperative behavior, suppression of aggression, and consideration of others all had significantly improved within students (Cooke et al., 2007). There was no significant change in aggressive antisocial behaviors based on the behavioral observations and disciplinary referrals. The general education teacher had positive responses when using the intervention. Second Step would be a helpful behavioral strategy to increase prosocial behaviors in students with EBD.

**Fast track.** Bierman et al. (2013) examined a prevention program that was used for aggressive disruptive students and at-risk students called Fast Track. Fast Track was examined based on its effects on the program itself and the behavioral, social, and academic outcomes of students with aggressive-disruptive behavior problems. The purpose of the Fast Track study was to look at the impact of the Fast Track intervention on various students' outcomes, including grades, special education placement, and high school graduation. There were three hypotheses for the Fast Track study that were predicted by the researchers. The first one was that children in early childhood who have low intelligence tend to have a hard time learning about how to control their aggression, which would result in an increase in aggression in early elementary school. Another hypothesis was that in elementary school years, the important unique predictors would be the four cognitive factors of school maladjustment that are grades, grade retention, and placement: low IQ, inattention, poor reading and readiness. The final hypotheses was that an important unique predictor would be how severe the aggressive disruptive

behavior was an important unique predictor in the secondary school years based on school maladjustment along with the contributions to the behavior disordered classification in the elementary school years. The main question of the study “was whether the significant intervention effects observed on dimensional measures in the early elementary years affected substantive school outcomes in later years, in ways that might have cost savings for schools and life course impact for the participants” (Bierman, et al., 2013, p. 117).

For the Fast Track study, schools were matched according to size, percentage of free or reduced lunch, and ethnic composition and randomly assigned to either intervention or control conditions (Cooke et al., 2007). The study included 891 kindergarten students who were behaviorally disruptive and had antisocial behavioral issues at four locations (Tennessee, North Carolina, Washington State, and Pennsylvania) in 54 schools. There was also a normative sample from the control groups in different schools (387 students) that was only used for study outcome references. Unfortunately, there were only findings on the complete academic data from 660 students out of the total of 891. The remaining 231 students who all had missing data had inconsistencies within their data.

The Fast Track program was researched by Bierman et al. (2013), and included multiple components. These components helped address aggressive behavior in children (behavioral, social, and academic) (Conduct Problems Prevention Research Group, 1992). The goals of the Fast Track program were “the promotion of parental support and effective behavior management skills, child social competence and positive peer relations, classroom teacher support and effective classroom management skills, and

child reading readiness and school engagement” (Bierman et al., 2013, p. 115). Fast Track consisted of eight procedures: 1) Promoting Alternative Thinking Strategies (PATHS) curriculum (social-emotional learning program), 3) Teacher consultation, 4) Individual Tutoring, 5) Peer pairing, 6) Middle school transition program, 7) Academic support in the secondary school years, 8) parent training and child social skill training groups, 9) Education Consultants (ECs), and 10) Intervention participation. In addition, there were four cognitive and behavioral school readiness (school difficulties predictors) measures: cognitive ability, reading readiness, inattention, and aggression-disruptive behavior. Cognitive ability included the Wechsler Intelligence Scales for Children - Revised (WISC-R) as a measure to describe the study participants. The two subtests that were used for measuring cognitive ability were the vocabulary and block design, which were administered at kindergarten. For reading readiness, the Letter-Word Identification subtest was used for the Woodcock - Johnson Psycho - Educational Battery - Revised was used (WJPEB). The Letter-Word Identification subtest was used to measure early reading ability. For inattention, the Attention Problems subscale of the Teacher’s Report Form of the Child Behavior Checklist (TRF) (Achenbach, 1991) was used for assessing attention. In addition to inattention, the Teacher Observation of Child Adjustment-Revised (TOCA-R) Authority Acceptance scale was used to assess aggressive disruptive behavior (Achenbach, 1991; Werthamer-Larsson, Kellam, & Wheeler, 1991; Bierman et al., 2013). School maladjustment area was also reviewed based on five measures: grade point average (GPA), retention, behavior disorder classification, self-contained placement (Bierman et al., 2013). Assessment procedures, the TRF and the TOCA-R were both used as assessment procedures to assess inattention

and aggressive behavior (Achenbach, 1991; Werthamer-Larsson, Kellam, & Wheeler, 1991).

Bierman et al. (2013) examined the effectiveness of Fast Track along with school readiness skills. Fast Track students reported a variety of results. The researchers used t-tests “to identify variables that significantly differentiated the high-risk youth (the intervention and control groups who exhibited elevated conduct problems at school entry) from the normative sample of youth attending the same schools as the children in the control sample” (p. 121). Kindergarten aggression and cognitive ability influenced elementary and high school measures to describe the study participants. At kindergarten, aggressive-disruptive behavior problems were shown in children with significantly lower levels of school readiness than the normative group. The levels for the kindergarten measures were lower on cognitive ability and reading readiness plus higher on teacher-rated inattention and aggression for aggressive-disruptive children than the normative group. This difference was significant. In addition, “the IQ estimate for youth in the normative sample drawn from these high-risk schools was 95.10 (SD = 18.39), whereas the IQ estimate for youth in the aggressive high-risk sample was 85.90 (SD = 16.65)” (p. 121). In addition, higher rates of school maladjustment rates occurred in the aggressive-disruptive children group than the normative sample at elementary and secondary school (lower grades, lower high school graduation rates). Between the two groups (aggressive-disruptive children and normative), retentions did not differentiate. For GPAs, aggressive-disruptive high risk children were in the B/C range in Grades 1–4 and the C/D range in Grades 7–10. There was also a doubled increase in the Behavior Disorder classification ratings (from 8.5% to 16.5%) plus a tripled increase in the

classroom placements ratings (from 11% to 28%) for the elementary and secondary school years. Furthermore, “by high school, the high-risk youth were five times more likely than normative comparison children to be classified as Behavior Disordered (16.5% vs. 4%) and three times more likely to be placed in a self-contained classroom (28% vs. 10%)” (p. 122). They were less likely to graduate from high school (55.5% vs. 66%) because of low GPAs (1.73 vs. 2.02). For school readiness levels, they were lower than the normative group from the same schools that were disadvantaged. In addition to school readiness, there were higher levels of school maladjustment, including lower grades, and lower rates of high school graduation.

Multi-level, hierarchical regression analysis was used for the Fast Track intervention results. The intervention did not have a significant effect on measures of poor outcomes in elementary or high school. According to Bierman et al. (2013) the prediction of GPA for elementary schools were each of the school readiness factors significantly. Results revealed that participants in the intervention group did not have statistically better results than those in the control condition. For Behavior Disorder, Self-Contained Placement, and High School Graduation, there were no significant effects for the outcomes on the intervention within the elementary and secondary years.

### **Academic Strategies**

Ennis (2016) mentioned a useful academic strategy for high school that can be used for students with EBD, which was used for writing in social studies. The writing intervention was called self-regulated strategy development (SRSD). The intervention was also used through TWA+PLANS.

**Self-regulated strategy development.** Ennis (2016) studied an intervention called the self-regulated strategy development (SRSD). The study purpose of SRSD was to examine the intervention relating to summary writing of informational text by using the TWA+PLANS method for high school students with and at-risk for EBD in social studies, which was in a therapeutic residential facility for students within that category. Ennis asked two questions for the study: 1) To what extent can TWA+PLANS be implemented with fidelity with students with EBD within a residential facility? and 2) To what extent does instruction of TWA+PLANS in social studies impact students' writing performance, as measured by summary elements, quality, and total written words (TWW)?

The study setting was an urban therapeutic residential facility in the Southeast (SE), United States. Some students were placed in the facility by a state agency; some students came through the juvenile justice system; some students came by parents' response relating to a severe situation, such as suicide or substance abuse. In addition, the participants for the study were students with EBD in grades 1–12 who were all nominated by their history teacher who had SRSD experience.

SRSD was implemented by the researcher and is an evidence-based intervention that helps students improve their writing by identifying need areas, building writing self-efficacy, and increasing motivation to write (Harris & Graham, 1996). Ennis (2016) mentioned develop background knowledge, discuss the strategy, model the strategy, memorize the strategy, support the strategy, and independent practice as the six instructional SRSD stages. SRSD was initially developed for students with learning disabilities, but the intervention can be used for students with or without disabilities,

including students with EBD. In a separate classroom, students worked one-on-one with the researcher on SRSD instruction two–three days per week. The researcher implemented the SRSD stages while teaching students the TWA+PLANS strategy: Think before reading, think While reading, think After reading, Pick goals, List ways to meet goals, And make Notes, [and] Sequence notes (Harris, Graham, Mason, & Friedlander, 2007; Mason, Meadan, & Hedin, 2006). The mnemonic device guided students in the reading comprehension process (TWA) and helped them recall what they had read through writing (PLANS). The TWA+PLANS SRSD intervention consisted of six lessons.

The writing probes were used as the dependent measurement tool (Ennis, 2016). The participants wrote summaries with 250–300 words when they were given a passage on each probe. Furthermore, the participants' writing samples were scored based on summary, quality, and TWW.

Ennis used a multiple baseline, across groups (two-three students) design that included three participants at baseline and post-intervention. Before the intervention, social studies lessons were being taught to students as writing instruction, with discussion for writing, vocabulary lessons and comprehension questions included in the lessons. In addition, the writing probes were done at baseline and posttest; Ennis examined the writing probes' summary elements, the quality, and the TWW. Treatment fidelity related to SRSD lesson elements and effective teaching behaviors was assessed.

Ennis reported the results on the SRSD intervention. The researcher recorded over 97% treatment fidelity on all measures including lesson elements and effective teaching. In addition, the analysis of writing probes revealed that study participants had



stable trends during baseline and improvement on the summary elements, the quality, and the TWW at posttest overall.

Ennis mentioned some limitations for the SRSD study. One limitation that was mentioned was attrition: two students left before the study was complete. In addition, maintenance or generalization data were not collected because the study was at the end of school year. This would have helped researchers learn more about the SRSD intervention. Also, the researcher taught the SRSD intervention instead of the general education teacher and did not take place in a typical school limiting the researchers' ability to generalize the results to a typical school setting. It would be helpful to see how well the SRSD intervention was implemented by a classroom teacher in a school.

Overall, there were positive results on posttest scores following the researcher implementation of the SRSD intervention (Ennis, 2016). Based on previous research and this study, SRSD would be a useful academic strategy. The SRSD would be great for not only students with disabilities, but for students without disabilities to help them with their writing.

### **Accommodations and Modifications**

In order for students with EBD to experience increased success in inclusive settings, educators should provide necessary accommodations and modifications for students with EBD. The American Educational Research Association (2013) stated:

Accommodations are changes to practices in schools that hold a student to the same standard as students without disabilities (i.e., grade-level academic content standard) but provide a differential boost (i.e., more benefit to those with a

disability than those without) to mediate the impact of the disability on access to the general education curriculum (i.e., level the playing field) (p. 556).

Modifications occur when a change in a task happens in order to not only complete the task itself, but to meet the general education curriculum involving with reducing the tasks.

Besides studying accommodation and modification definitions individually, Harrison et al. (2013) examined the effectiveness of accommodations for students with EBD and attention deficit hyperactivity disorder (ADHD). Harrison and colleagues stated that knowing more details specific to accommodations and modifications will help special education teachers and general education teachers be aware of how to best meet their students' needs. Even though Harrison et al. discussed the definitions of both accommodation and modification, the study only focused on potential accommodations. Through a detailed selection process, the authors chose eighteen studies related to providing accommodations for students with EBD or ADHD; they included five studies on students with EBD, nine studies on students with ADHD, one study on students with hyperactivity, and three studies on students with EBD and ADHD.

Harrison et al. (2013) systematically reviewed eighteen studies to examine the effectiveness of accommodations that were usually separated into four categories: presentation (changes in how an instruction, assignment, or assessment are delivered); response (changes in how the student responds); timing/scheduling (changes in time of taking a test or doing a specific task); and setting (relocation). A number of the accommodations were used with students with EBD. The eighteen studies included five students with EBD, nine students with ADHD, one student with hyperactivity, and three

students with both EBD and ADHD. Harrison et al. (2013) investigated the accommodation strategies by analyzing a series of articles and discovered their effect sizes mathematically. The direction and size of the relationship was referring to the “relationship between a researcher-manipulated independent variable and a change in a dependent variable” (p. 562).

**Choice.** Choice making was a presentation accommodation that allowed students to choose between academic activities that they selected in which the special education teacher has accepted (Harrison et al., 2013). Harrison et al. (2013) found that students in the choice conditions (i.e. choice making), had higher task engagement, work productivity and accuracy improved compared to the non-choice condition. Furthermore, on problem completion, there was little effect. On accuracy, there was only moderate effect. Unfortunately, there was not enough adequate evidence to examine whether providing choice was an accommodation or not. However, researchers stated that choice was an academic strategy that was promising for students with EBD or ADHD in order to increase performance not only academically but behaviorally as well.

**Interest.** In addition to choice making, interest was examined as a potential accommodation (Harrison et al., 2013). This was a type of potential accommodation where the assigned tasks included students’ interests, such as Disney or Harry Potter elements in math worksheets/projects. Based on the interest accommodation results, the researchers reported that from the assignments without students’ interest to assignments with students’ interest that on average, the three students’ disruptive behavior decreased. In addition, researchers found a large effect size (ES) that showed an increase in desirable

behavior. Finally, there was also an increase in work productivity when elements of interest were added.

**Intratask stimulation.** Harrison and colleagues also examined intratask stimulation, adding a strategy to another task, such as highlighting while reading for comprehension (Harrison et al., 2013). For the intratask stimulation results, there was a decrease in activity levels in the high-structured condition activities levels (which included intratask stimulation strategies) for students with and without ADHD. In addition, there was not a difference within art groups on the task completion comparison (high- and low-structure conditions). Unfortunately, ES was not able to be calculated due to insufficient evidence.

**Fast-paced instruction.** The fourth potential accommodation was fast-paced instruction, which was when the student responded to a presented stimulus, such as flashcards, within a short amount of time (Harrison et al., 2013). Disruptive behaviors decreased during the fast-paced instruction; however, performance accuracy was lower in the fast rate than the slow rate. Therefore, “the benefit of decreasing disruptive behavior was offset by a decrease in accuracy in the fast condition” (Harrison, Bunford, Evans, & Owens, 2013, p. 573). There was not enough information in order to calculate ES.

**Shortened task length.** Shortened task length was another one of the potential accommodations in addition to fast-paced instruction (Harrison et al., 2013). A math assignment was shortened for three participants, which included a multiple baseline design study. There was no effect on students’ correct answers, but on-task behavior improvements were shown for all of the three participants. Overall, “the outcomes suggest requiring students to attend to undesirable tasks for less time may yield higher

percentages of time on task than requiring them to attend to undesirable tasks for more time without any benefit in accuracy” (p. 574).

**Adaptive furniture.** In addition to presentation, there were five potential accommodations related to setting that have been reviewed as studies (Harrison et al., 2013). Harrison and colleagues examined whether adaptive furniture (to accommodate impairment/disability) impacted students with ADHD. Students sat on therapy balls instead of chairs during word productivity instruction. Word productivity and in-seat behavior both increased when the participants sat on therapy balls. There was not enough information for calculating the ES.

**Teacher proximity.** Teacher Proximity was the second potential accommodation that was under settings (Harrison et al., 2013). The results of stimulant medication on two groups of students with ADHD were also examined, as well as the impact of special education teacher proximity on students who were not identified as ADHD. Because of the many conditions and groups of participants, researchers were not able to confirm a meaningful effect of special education teacher proximity.

**Extratask stimulation.** The third potential accommodation under setting was extratask stimulation, adding music or movement or video alongside the task (Harrison et al., 2013). Two studies were evaluated for the potential accommodation. The first study used video and music for distracting participants’ with and without ADHD behavior while monitoring productivity related to behavior itself and academics. There was a higher level of distraction from video stimulus which “led to more rule violations, more special education teacher prompts, and less seatwork completion between the groups ( $d = -1.03 - [1.41]$ ), and within the group with ADHD ( $d = -0.91 - 0.62$ )” (p. 577). For the

music stimulus condition as compared to the no-distractor condition participants had individual differences. The rate of work completion was not affected by the music in the control group for boys (none improved and one had bad performance). Background music caused an increase in-seatwork completion ( $d = -0.16$ ) for 29% of students with ADHD.

For the second study, task attention was decreased when music was added during an academic task while inappropriate behavior was increased in all of the three groups (medicated, nonmedicated, and without hyperactivity) (Harrison et al., 2013). For nonmedicated boys with ADHD, there was a decrease in task attention along with an increase in some inappropriate behaviors. With that, there were statistically significant differences in noise making between nonmedicated boys with hyperactivity and the comparison group. Nonmedicated boys with hyperactivity and the comparison group were able to constantly pay attention to their tasks within a quiet area. The nonmedicated boys with hyperactivity had more on-task behavior in quiet conditions than in the noisy condition. There were also higher levels related to energy for nonmedicated boys with hyperactivity when in the noisy condition (statistically significant for the within-group differences). Overall, “noisy periods resulted in more unexpected sudden activity than quiet periods to a greater degree for nonmedicated boys with hyperactivity than” (p. 577) medicated boys and boys with hyperactivity. Furthermore, there were more negative verbalizations in nonmedicated boys with hyperactivity in quiet periods than noisy periods. For this study, there was no sufficient information in order to calculate the ES.

**Small group instruction.** Another potential accommodation reviewed was small-group instruction (Harrison et al., 2013). Compared to being on task in a whole-group

discussion, working in a small group, and working independently, participants with ADHD were more on task during small-group instruction than whole-group instruction with the average differences of  $d = 0.68$  and more on task in independent work time ( $d = 0.49$ ). During testing however, there was less productivity in small-group than whole-group with participants with ADHD ( $d = -0.29$ ).

**Timing/scheduling.** Timing/scheduling was another potential accommodation studied by Harrison et al. (2013), specifically allowing extra time for testing. When the participants with and without ADHD received eighteen minutes of extended time on the test, they were able to answer more items ( $d = -0.06$ ) and answer more of those items correctly ( $d = -0.03$ ). Also, more items were answered correctly by the participants without ADHD than participants with ADHD “during the [12]-minute standard time condition (control  $M = 89.33$ , ADHD  $M = 64.52$ ) and the [18]-minute extended time condition (control  $M = 131.74$ , ADHD  $M = 97.52$ ) and attempted more items than the students with ADHD during standard time (control  $M = 93.22$ , ADHD  $M = 72.07$ ) and extended time (control  $M = 137.93$ , ADHD  $M = 108.04$ ),” where  $M$  is the mean (p. 579). For the percentage of items answered in the extended time (control  $M = 95\%$ , ADHD  $M = 89\%$ ) and standard time (control  $M = 95\%$ , ADHD  $M = 88\%$ ), the participants in the control group had a higher percentage of the test items answered correctly than the participants with ADHD. For math problems, students with ADHD answered more problems per minute in the standard time condition (30 minutes) than in the extended time condition (45 minutes,  $d = -0.65$ ). Relating to behavioral problems, the extended time did not decrease the behaviors of the participants with ADHD, which was similar to the standard condition ( $d = 0.08$ ).

**Opportunities to respond.** Opportunities to respond (OTR) was another potential accommodation under setting (Harrison et al., 2013). OTR welcomed students to respond to academic requests. OTR had interesting results based on nine participants with EBD (correct responses, disruptive behavior, and on-task behavior). For correct responses per minute in the study, the mean rate increased from 1.24 (SD = 0.53) responses at baseline to 2.69 (SD = 0.70) responses during intervention. During the withdrawal phase of OTR however, correct responses decreased (M = 1.35, SD = 0.8) when OTR was reintroduced the mean rate of response was 2.60, (SD = 0.60). In addition, “[t]he percentage of correct responses increased from 71.8% (SD = 10.7) during baseline to 75.5% (SD = 10.6) during the use of increased OTR, decreased to 55.5% (SD = 4.9) during withdrawal, and increased to 73.8% (SD = 12.8) when OTR was reintroduced” (p. 580). Furthermore during withdrawal, the correct responses per minute decreased (71.8%-55.5%, SD = 4.9). Besides the correct responses per minute, Harrison et al. mentioned decreases in disruptive behaviors per minute on average from 2.64 (SD = 0.80) during baseline to 2.10 (SD = 0.25) while using OTR along with the reintroduction of OTR as a moderate effect. The results also showed an increase in disruptive behaviors per minute (2.64-3.05, SD = 0.18), which was during the withdrawal phase. Also, the timing/scheduling results showed increases in the percentage of on-task intervals during baseline (55% (baseline)-78.9% (increased OTR), SD = 9.4 (baseline) -SD = 10.0 (increased OTR)) with the OTR (SD = 10.0) and the reintroduced OTR (55%-82.6 %, SD = 7.6). Unfortunately, during the withdrawal phase, the percentage of on-task intervals decreased (55%-65.4%, SD = 5.7).

In summary, Harrison et al. found:



Although [the] teachers' providing high rates of OTR may be a change in typical school practices, we cannot determine whether it mediates the impact of the disability, whether the skills taught to the students in this study were academically equivalent to grade-level state standards, or whether it provided a differential boost, as the design of the study does not allow us to address these questions (p. 581).

**Multiple potential accommodations.** The final potential accommodation dealt with potential accommodations in a multiple packaged way (Harrison et al., 2013).

These accommodations were selected through using functional behavioral assessments for examining the problem behavior. For the first study, the percentage of intervals when disruptive behaviors were observed was highly variable during baseline. When strategies were implemented together, there was a decrease in disruptive behavior to 4% and 0% of the morning and afternoon intervals during the intervention phase. In addition, there was an increase in on-task behavior of morning and afternoon intervals that represented strong effects (89%-100%). Social behavior increased across morning (28%-33%) and afternoon periods (47%-49%), which showed moderate effects. There was also a decrease in inappropriate vocalizations in the morning (7%-8%) and afternoon intervals to 0.3%. For the second study, there was an increase in task engagement along with performance. There was a decrease in problem behavior when using multiple potential accommodations.

**Summary of potential accommodations.** After examining the results, Harrison et al. (2013) concluded that there was a lack of evidence of the potential accommodations' effectiveness. Researchers also mentioned "multiple accommodations

are being recommended without any evidence of effectiveness” (p. 587). By knowing more about the effectiveness, special education and general education teachers, along with students, would be able to use the accommodations successfully depending on whether the accommodation works well with them.

**Assistive Technology.** Having students with EBD use assistive technology (AT) in classrooms is important to help them fulfill the requirements of a certain task to reduce frustration (Parette, Crowley, & Wojcik, 2007). Parette et al. (2007) mentioned that a number of students with EBD focus more on trying to accommodate their own disability than on completing assigned tasks, which is where AT would help them to complete the tasks successfully. Furthermore, when classroom tasks frequently overlap each other, these students tend to express external behaviors, such as frustration, anger, and being off-task (Parette et al, 2007). However, AT aids students with EBD to decrease their own distractions, which helps them better focus on classroom tasks. AT combats the challenges that students with EBD face by helping them fulfill the general education requirements. Some examples of AT for students with EBD include text-to-speech software, palm devices, graphic organizers, and other computer-related electronic devices (Parette et al, 2007).

***iPod touch.*** Blood, Johnson, Ridenour, Simmons, and Crouch (2011) studied the use of a computer-related device, the iPod touch, "to determine if video modeling, delivered on an iPod Touch, used alone or in combination with self-monitoring, would result in increased appropriate behavior during small group instruction” (p. 302). The purpose was also to show how commonly used hand-held technology was implemented within the classroom, including self-monitoring and video modeling.

The study was done in a public elementary school in northern Illinois and the participant was a fifth grade, 10-year-old male student with EBD who demonstrated off-task and disruption behaviors during small group instruction for math in a special education setting (Blood et al., 2011). The participant was diagnosed with Fetal Alcohol Syndrome, Complex Post Traumatic Stress Disorder, and ADHD. Either the special education teacher or the paraprofessional implemented the iPod Touch intervention.

Blood et al. studied two dependent measures. On task and off task behavior were collected through direct observations during the instructional portion of math class. Two observers observed the participant in a special education classroom for on-task and disruptive behavior to establish interobserver agreement.

The iPod Touch intervention was delivered to a group of two to three students (fourth-sixth graders) in addition to the participant for one 60 to 90 minute session every day (Blood et al., 2011). Implemented by either the special education teacher or the paraprofessional, the device was used for video modeling and self-modeling. The video model included two peers who were recorded while they were working in small groups for math work. In the video clip, behavioral expectations were explained to the group, such as to look at the board when the special education teacher was showing something, and raise their hand and wait to be called on. Another video was made during the math group to identify the students' behaviors. The video was then edited "so that instances of on-task and off-task behavior appeared in a semi-random order with transitions between scenes" (p. 306). The last video recording clip included five examples of each of the two behaviors. After the video was completed, the video was loaded into the iPod Touch where the students could view the video itself as training. In addition, the iPod Touch

dealt with self-monitoring. Self-monitoring was defined as “a multi-step process of observing and recording one’s own behavior” (Mace, Belfiore, & Hutchinson, 2001, p. 300). Blood et al. mentioned two steps on self-monitoring: distinguishing whether the target behavior has occurred or not and recording their own target behavior.

Blood and colleagues used a single-subject changing conditions design (A-B-BC) to examine particular intervention effects. Specifically, there were three different phases: one baseline (A) and two interventions (B and BC). Baseline included small group listening to specific instructions in math (A). In the video modeling intervention (B), the participant watched a demonstration video of two peers showing appropriate group behavior during math group work. Video modeling plus self-monitoring (BC) included the participant watching a recorded video of him on the iPod Touch that showed his on and off-task behaviors during group work, which was recorded before the first math session that was not the same video as the video modeling condition (B). In addition, the iPod Touch was given to the participants was set up for two-minute intervals along with the self-monitoring sheet, where the participant recorded whether he was on task or not.

Blood et al. (2011) reported that at baseline (A), the average percentage of intervals of on-task behavior was 44% and the average percentage of intervals in disruptive behavior was 40% in baseline. During video modeling (B), Blood et al. reported a positive change with on-task behavior and disruptive behavior. However, the participant's performance was inconsistent. Statistically, the average percentage of on-task behavioral intervals was 81% and off-task behavioral intervals was 11% (range = 2 to 34). In addition, the researcher mentioned high rates of on-task behavior and low rates of disruptive behavior for the video modeling plus self-monitoring intervention design

(BC). The average percentage of intervals was 99% (range = 98 to 100) in on-task behavior and 0% (range = 0) in disruptive behavior. The researchers also used the percentage of nonoverlapping points (PND). Between baseline and the video modeling phase the PND was 100% for on-task behavior and 85.7% for disruptive behavior. Furthermore, the PND was 100% for on-task and disruptive behavior between the baseline and the video modeling plus self-monitoring phase. The researchers mentioned that a PND score of 90% is highly effective and 70-90% means moderately effective.

Blood et al. mentioned two limitations. To begin, the study was a single-subject study with only one student. More students would have been better to know more about the effectiveness of the iPod Touch intervention. Also, the video modeling and self-monitoring procedures were done at the same time during the BC phase. It is not known what the effects of self-monitoring alone would have been. A-B-BC was not a good choice for a single-subject changing conditions design because there was not a return to baseline phase. Therefore, this design “does not allow for demonstration of a functional relationship between the independent and dependent variables, and does not control for potential confounding variables, such as sequence effects or maturation effects, which could have affected the findings of this study” (p. 316).

Overall, the students' on-task behaviors increased during the iPod Touch intervention process (Blood et al., 2011). The findings on the iPod Touch and self-monitoring intervention showed a way of delivering interventions to students with EBD through hand-held devices. Based on results from this study, general and special education teachers could use the iPod Touch intervention as assisted technology

behavioral strategy to help their students make progress by using video modeling and self-monitoring.

## CHAPTER III: DISCUSSION AND CONCLUSION

### Summary

Before P.L. 94-142 (Education of All Handicapped Students Act, Public Law [P.L.] 94-142), also known as Individuals with Disabilities Education Act (IDEA) in 1975, children with disabilities were not formally educated in US public schools (Turnbull, Turnbull, Wehmeyer, & Shogren, 2013; Newcomer, 2011). Children with disabilities were discriminated against by exclusion and misclassification. When children were discriminated against in any way, people who supported children with disabilities were suing school officials.

IDEA was enacted in 1975, but emotional and behavioral disorders (EBD) were not categorized as a federal disability until the late 1980s (Turnbull, Turnbull, Wehmeyer, & Shogren, 2013; Newcomer, 2011). Until that time, children with abnormal behavior were being described as having a mental illness and/or emotional disturbance (Bower, 1982; Kauffman J. M., 2000). As of today, emotional disturbance is known as EBD. During the nineteenth century, children with abnormal behaviors were in asylums, but then got support through mental hospitals, and psychotherapy treatment schools. After EBD officially became a federal disability term, Turnbull et al. (2013) defined it as:

A condition exhibiting one or more of the following characteristics over a long period of time and to a marked degree that adversely affects a child's educational performance: A. An inability to learn that cannot be explained by intellectual, sensory or health factors; B. An inability to build or maintain satisfactory interpersonal relationships with peers and teachers; C. Inappropriate types of behavior or feelings under normal circumstances; D. A general pervasive mood of

unhappiness or depression; or E. A tendency to develop physical symptoms or fears associated with personal or school problems (p. 152).

Emotional, behavioral, and cognitive and academic were the three categories that were included under EBD.

For this thesis concerning behavioral and academic strategies for students with EBD, the research question was “What are some strategies for special and general education teachers to support students with EBD to improve positive behaviors and academic success?” Special education and general education teachers need to be aware of different behavioral and academic strategies for special education teachers and general education teachers to help students with EBD be more successful. When special and general education teachers assist more frequently on behavior and academics with students with EBD, students with EBD will be more prepared for their academics, less likely to be suspended from school, and less likely to be arrested (Bierman et al., 2013; Billig, Cohen, & Pickeral, 2010).

There were helpful behavioral strategies for special education teachers and general education teachers (Kelly & Shogren, 2013; Tominey & McClelland, 2011; McDaniel, Bruhn, & Troughton, 2017; Marquez et al., 2014; Bierman et al., 2013). The behavioral strategies dealt with self-determination, self-management, self-regulation, and classroom management. Each of these areas included at least one behavioral strategy. The Self-Determined Learning Model of Instruction Intervention (SDLMI) was a self-determination strategy that focused on self-regulation skills. The modules focused on self-determination (such as decision-making, goal setting, and self-management). This SDLMI study was completed on students with EBD, intellectual disabilities, and learning



disabilities by Kelly and Shogren (2013) using on-and off-task behaviors. According to the results, Kelly and Shogren reported that students' on-task behaviors increased during the SDMI intervention phase and the maintenance phase. In addition, after using the SDLMI intervention, general and special education teachers along with students had positive responses to the intervention. Therefore, the SDLMI intervention would be a helpful strategy to use by general and special education teachers to help their students make progress by using on-task behaviors.

In addition to self-management, it is important for general education and special education teachers to be aware of self-regulation. Tominey and McClelland (2011) mentioned that circle time games help students with their self-regulation skills. The Head-Toes-Knees-Shoulders Task (HTKS) was used to measure behavioral aspects (children's attention, working memory, and inhibitory control) for circle time games. For behavioral self-regulation and academic performance, the strongest predictor was family income. Students were able to use some of the strategies that they learned. Variability was high based on the initial behavioral scores for self-regulation. For the first research question by Tominey and McClelland (2011), "Does participation in an intervention lead to greater gains in behavioral self-regulation in a sample of pre-kindergartners?" (p. 505), there was no significant interaction between the HTKS scores and the group assignment or an explanation on the difference between the group assignment student scores. According to the post hoc analysis, for gains, head start enrollment, and initial HTKS scores were the strongest predictors in the HTKS scores. For head start students, they have made greater gains in the intervention group than the control group. In addition to the first research question, Tominey and McClelland (2011) asked the following as their

second research question, “Does intervention treatment group participation relate to academic outcomes over the prekindergarten year” (p. 508)? However, the researchers did not find any significant findings for picture vocabulary and nor any significant relation between group assignment and applied problems in math.

Prevention was an area that special education teachers should use as an intervention to stop negative behaviors before they occur that is part of classroom management to avoid any disruptive behavior during classroom time (Billig et al., 2010). Prevention will help students with EBD learn more about their positive behaviors, which will reduce their negative behaviors. A prevention program that was unsuccessful was called Fast Track (Bierman et al., 2013). Fast Track helped aggressive, disruptive, and at-risk students address their aggressive behaviors not only behaviorally, but socially and academically as well (Conduct Problems Prevention Research Group, 1992). The results said that for attack skills, aggression, and peer relations, there was no significant effect, but aggression decreased at later maladjustment. Therefore, the Fast Track invention did not work on students’ academics well nor would it be the right choice as a behavioral strategy for student aggression.

Behavioral strategies also included four programs: Stop and Think (McDaniel et al., 2017), We Have Skills (WHS) (Marquez et al., 2014), Second Step (Cooke et al., 2007), and Fast track (Bierman et al., 2013). The Stop and Think program dealt with a variety of social skills that included four groups, which were survival skills, such as listening and following directions, interpersonal skills, problem-solving skills, and conflict resolution skills, such as handling peer pressure (Knoff, 2005). The program connected with classroom management since the program itself dealt with social skills

that involved decreasing negative behaviors so that the behaviors do not get in the way during classroom time. WHS was another social skills program that proved to be a helpful behavioral strategy. This program is video-based and included three modules: instructional materials, an online tool regarding students responding to instruction in order to help them with their social behavior (Marquez et al., 2014), and professional development materials that included instructional delivery and forms of student support. Second Step and Fast Track were the two programs that dealt with students with aggressive behavior or who were at-risk for aggressive behavior. Both programs were connected with classroom management since they dealt with decreasing aggressive-disruptive behaviors so that the behaviors do not get in the way during classroom time and would cause disruption.

Not only were behavioral strategies for special education teachers and general education teachers addressed in this thesis, but an academic strategy was included as well, which was the self-regulated strategy development (SRSD) (Ennis et al., 2016). The SRSD was used to summarize texts in social studies. The intervention was used to help students gain their own writing skills using the TWA+PLANS mnemonic device, which stood for Think before reading, think While reading, think After reading, Pick goals, List ways to meet goals, And make Notes, and Sequence notes (Harris, Graham, Mason, & Friedlander, 2007; Mason, Meadan, & Hedin, 2006). The researchers reported positive results on posttest scores and the implementation on the SRSD intervention itself. Therefore, the SRSD would be a great academic strategy to use for students with and without disabilities.

### **Professional Application**

Based on the implication of these peer-reviewed research studies, it is clear that general education and special education teachers need to choose the appropriate behavioral and/or academic strategies wisely for students with EBD. In reality, special education teachers and general education teachers tend to administer negative consequences on students with EBD without helping them develop positive behaviors and prevent negative behaviors (Billig et al, 2010). If special education teachers and general education teachers administer negative consequences too quickly, students with EBD will likely increase their negative behavior (Billig et al., 2010).

Behavioral programs can be very useful for special education teachers and general education teachers to use with students with EBD within their classrooms. Conducted by special education teachers and general education teachers within classrooms, some programs that would help students with EBD include Stop and Think (McDaniel et al., 2017), We Have Skills! (WHS) (Marquez, 2014), Second Step (Cooke et al., 2007), and Fast Track (Bierman et al., 2013). The Stop and Think program is a social skills program that specifically has students work on their social skills through these specific topics: interpersonal skills, problem-solving skills, and conflict resolution skills (Knoff, 2005). Applying these social skills within the classrooms may help students with EBD develop positive relationships with others. In addition to the Stop and Think program, WHS is also a social skill program. On the other hand, the Second Step and Fast Track programs help students with EBD by preventing their aggressive behaviors, including violence.

There are important elements that I would like to share with my colleagues on the Stop and Think (McDaniel et al., 2017), the WHS (Marquez, 2014), the Second Step

(Cooke, 2007), and the Fast Track interventions (Bierman et al., 2013). The Stop and Think (McDaniel et al., 2017), the WHS (Marquez, 2014), and the Second Step received positive responses from general education teachers and students. For the Stop and Think intervention, one of the participants said that the intervention was easy to participate in, would recommend it to others, and would not change anything about the intervention. General education teachers said that the intervention was effective on improving social behaviors. In addition, the WHS was easy to use, effective for increasing social behaviors, and strongly recommended by general education teachers. However, the Fast Track did not work well with aggressive-disruptive students. Therefore, this is the only intervention I would not recommend to my colleagues.

I feel that the programs mentioned above are the most important for my colleagues to be aware of for behavioral reasons. Since special education and general education teachers may include students with EBD in their classrooms, special education teachers and general education teachers need to be aware of their students' needs in order to help their students succeed behaviorally and academically. Evidence-based behavioral and academic strategies can help students with EBD improve behaviorally and academically. The Second Step program helps students with EBD to prevent aggressive behavior. Special education and general education teachers need to incorporate this type of program into their teaching practices to avoid violent-related behaviors. If they do not, aggressive student behaviors could prevent them from effectively supporting students with significant behavioral needs to learn.

### **Limitations of the Research**

In this literature review, the research articles discussed various academic and behavioral strategies for students with EBD used by special education teachers and general education teachers. In exploring the articles, there were several areas I review relating to limiting my research. One dealt with disability categories. I only focused on students with EBD and excluded other disability categories within my search since I originally wanted to learn about how special education teachers support students with EBD on behavior in a nonjudgmental way. Therefore, I included “students with EBD” and “special education” as the few key words for my research. However, some of my studies included students with EBD with other students with and/or without disabilities, including the potential accommodations study (Harrison et al., 2013). Some of my studies also included students in general, including the WHS study (Marquez, 2014) and the Second Step study (Cooke et al., 2007). In addition to disability categories, since information only on the behavioral strategies was difficult to obtain, I had to expand my research to include academic strategies and general education teachers. I also did not search for behavioral and academic strategies globally, not only because it was not part of focus on my research question, but the specifics of global setting was not a high priority to me.

There were some areas that I expected to find in my research that were not there, which did not exist within my topic. First off, some of my research included a small sample. I expected to see a large sample in order to get the best results. Amato-Zech et al. (2006) studied the MotivAider that included only one participant. Because there was only one participant in the study, the study itself did not help me to see how the

intervention affected the rest of the students. Furthermore, as I was doing my research, I expected to see significant results in order to make appropriate inferences or conclusions based on the measures that were used plus terms that were used by the researchers. In an article where Tominey and McClelland (2011) discussed self-regulation in preschool, the results were not significant. The final area that I was expecting to find within my research dealt with the replication of a strategy in the classroom. The self-regulated strategy development (SRSD) study took place in a therapeutic facility. Since the study was not done in the classroom, SRSD does not fulfill the research requirement regarding my topic because of no results for within the classroom.

Furthermore, there was another research area that did not exist for my topic that dealt with how the research was broken down. Each study was not limited on various demographics, such as age and gender. In other words, the studies in general did not focus on specific demographics, such as boys/girls. However, the studies focused on specific grade levels. The grade levels in which some of the studies focused on only high school, elementary, and early childhood. Kelly and Shogren (2013) completed the SDLMI study on high school students compared to Tominey and McClelland (2011) who completed the circle time games study on preschoolers. Furthermore, some grade levels were part of multiple grade levels such as middle school, which was the SRSD study by Ennis (2016) on first through twelfth graders.

### **Implications for Future Research**

Special education teachers and general education teachers review and discover old and new behavioral and academic strategies either on the teaching job or outside of the teaching job. To begin with, I feel that their needs to be more studies involving students

with EBD only. I found that some of studies included either students that had students with and/or students without disabilities or students in general as participants. I originally wanted to focus on students with EBD only, but I expanded my research by including students with and/or students without disabilities and students in general as participants. Furthermore, since I originally wanted my research question to only address behavioral strategies, and I had a hard time finding them, I strongly feel there needs to be more research in general on the behavioral strategies only.

Also, I would like to see studies with a large sample size in order to increase the usefulness of the results. Furthermore, as mentioned earlier, there were studies where the authors used a variety of terms that led me to believe that the results were not significantly valid.

In addition, not all of the studies were done in a classroom setting. Therefore, I feel that the studies that were not in a classroom setting need to be replicated in a classroom setting in order for the results to be applicable to a classroom teacher. As an example, the SRSD study (Ennis, 2016) was completed in a therapeutic facility. I would like to know how the results of the same research would be affected in the classroom rather than a therapeutic facility.

The final implication for future research that I would like to see more of is the breakdown of demographics that are relevant. It would be intriguing for me to see how one specific demographic category compares to another. For example, I would like to see how EBD behavior affects boys and girls separately through comparison. I would also like to see other relevant demographics besides boys and girls, such as age, SES, and cognitive level. There were some studies where the researchers described the results



differentially based on student demographics, such the MotivAider study by Amato-Zech, Hoff, and Doepke (2006).

### **Conclusion**

This thesis explains in detail a response to the following research question: “What are some strategies for special education teachers and general education teachers to support students with EBD to improve positive behaviors and academic success?”

Special education teachers and general education teachers should be aware of a variety of strategies and programs to help students with EBD decrease their negative behaviors in order to gain more positive behaviors and increase school success. Special education teachers and general education teachers need to know how to choose and implement these behavioral and academic strategies within their classrooms. The behavioral and academic strategies described in this thesis provide good alternatives to what teachers may currently be using. It is always helpful for teachers to have a variety of strategies to try in their classrooms; I hope to keep on learning more about not only behavioral strategies for students with EBD, but academic strategies. I have enjoyed learning about different approaches, not only about behavioral strategies but academic strategies as well. I am looking forward to learning new strategies and programs in the near future.

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