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ACCEPTANCE

This dissertation, CHECK, CONNECT, AND EXPECT IN A SELF-CONTAINED SETTING FOR ELEMENTARY STUDENTS WITH EMOTIONAL AND BEHAVIORAL DISORDERS, by SARA C. MCDANIEL, was prepared under the direction of the candidate's Dissertation Advisory Committee. It is accepted by the committee members in partial fulfillment of the requirements for the degree Doctor of Philosophy in the College of Education, Georgia State University.

The Dissertation Advisory Committee and the student's Department Chair, as representatives of the faculty, certify that this dissertation has met all standards of excellence and scholarship as determined by the faculty. The Dean of the College of Education concurs.

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ABSTRACT

CHECK, CONNECT, AND EXPECT IN A SELF-CONTAINED SETTING FOR ELEMENTARY STUDENTS WITH EMOTIONAL AND BEHAVIORAL DISORDERS

by
Sara McDaniel

Check, Connect, Expect (CCE) is a secondary tier behavioral intervention for at-risk students who require targeted behavioral support in addition to school-wide positive behavioral interventions and supports. A full-time coach in the CCE intervention provided behavioral supports including daily check-in and check-out procedures, as well as targeted social skills instruction. This study extended CCE to a self-contained elementary school for students with emotional and behavioral disorders. Twenty-two students participated in the 17-week study that involved a four week baseline phase, followed by a 13-week intervention phase. The following research questions were addressed: (a) How did CCE affect student behavior?; (b) How did CCE affect student weekly academic engagement?; (c) How did CCE affect student weekly math calculation and oral reading fluency growth?; (d) How did severity of behavior predict student response to CCE?; (e) How did function maintaining the behavior predict student response to CCE?; (f) How did relationship strength with the coach predict student response to CCE?; and (g) How socially valid was CCE for teachers, paraprofessionals, and students? Two growth curve models were used to analyze the academic and behavioral data. Overall, students displayed significant behavioral growth during the intervention phase and positive growth in the areas of academic engagement and achievement. Severity of behavior, function, and relationship strength were not significant predictors of

student response to the CCE intervention. Future directions, limitations, and implications for practice are discussed.

CHECK, CONNECT, AND EXPECT IN A SELF-CONTAINED SETTING FOR
ELEMENTARY STUDENTS WITH EMOTIONAL AND
BEHAVIORAL DISORDERS

by
Sara C. McDaniel

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ABBREVIATIONS

BOSS	Behavioral Observation Scale for Schools
E/BD	emotional and behavioral disorders
CCE	Check, Connect, and Expect
C&C	Check and Connect
ODR	office discipline referral
ORF	oral reading fluency
MCF	math calculation fluency
PBIS	Positive Behavioral Interventions and Supports
SET	Schoolwide Evaluation Tool
SSBD	Systematic Screener for Behavior Disorders
SSRS	Social Skills Rating Scale
WJ-II	Woodcock Johnson-II

CHAPTER 1

STATEMENT OF THE PROBLEM

Students with emotional and behavioral disorders (E/BD) display significant social and behavioral deficits (Sabornie, Evans, & Cullinan, 2006). These deficits lead to negative outcomes in the school and post-school years (Crews, Bender, Cook, Gresham, Kern, & Vanderwood, 2007). Such outcomes include academic failure, placement in restrictive settings such as alternative school settings, and school dropout. To counteract these outcomes, students with E/BD require powerful and efficient targeted behavioral interventions (PBIS). Several targeted behavioral interventions within the positive behavioral interventions and supports framework exist (Scott, alter, Rosenberg, & Borgmeier, 2010). Unfortunately, research of these interventions is limited and requires expansion (McIntosh, Filter, Bennett, Ryan, & Sugai, 2010). Thus, the primary purpose of this review is to describe the literature base for secondary tier behavioral interventions and specifically focus on the *Check, Connect, and Expect* (CCE) intervention (Cheney, Stage, Hawken, Lynass, Mielenz, & Waugh, 2009). The limitations and future directions of CCE as a secondary tier behavioral intervention in alternative school settings are outlined. To establish the foundation for the CCE literature, a review of the characteristics of students with E/BD is provided. Then, a discussion on alternative settings for students with E/BD is described. Finally, the research related to PBIS with an emphasis on secondary tier behavior interventions is detailed.

Characteristics of Students with E/BD

Students with E/BD display varying social and behavioral deficits which may negatively affect their learning and the learning of others (Lane, Carter, Pierson, &

Glaeser, 2006; Gresham, Lane, MacMillan, & Bocian, 1999). Negative student outcomes result from stable antisocial behaviors for students with E/BD (Crews, Bender, Cook, Gresham, Kern, & Vanderwood, 2007). These outcomes include: (a) poor academic achievement, (b) movement to more restrictive settings, (c) high attendance and dropout rates, and (d) involvement with the juvenile justice system (Jolivette, Stichter, Peck, Nelson, Scott & Liaupsin, 2000; Wehby, Lane & Falk, 2003; Crews, Bender, Gresham, Kern, Vanderwood, & Cook; 2007; Quinn, Poirier, Faller, Gable & Tonelson, 2006). Specifically, the special education eligibility category of E/BD requires that students display pervasive and intensive deficits which are outside of the acceptable range as perceived by the student support team (Cullinan, Evans, Epstein, & Ryser). While the definition of E/BD includes varying student characteristics, research on E/BD (Walker & Severson, 1992; March & Horner, 2002) provides two primary tools for classifying students with E/BD including: (a) type of behavior, and (b) function of behavior. Identifying classifications of behavior is necessary to determine which interventions students with E/BD are likely to respond to (March & Horner, 2002).

Behavior displayed by students with E/BD are organized as internalizing and externalizing behaviors. Most students with E/BD eligibilities display chronic and intense externalizing behaviors (Cullinan & Epstein, 2001). Such behaviors include noncomplicance, disrespect, verbal and physical aggression (Lane, et al., 2009). Typical internalizing behavioral characteristics are less obvious and include depression and anxiety (Lane, et al.). According to Gresham, Lane, MacMillan and Bocian (1999), students with internalizing and externalizing behaviors display similar problem solving, academic achievement, and peer relationship deficits. Conversely, these groups differ

significantly with regard to disciplinary referrals, affect of social deficits and attendance problems. These results suggest that students with externalizing behaviors experience more intense and frequent negative school outcomes such as referral to more restrictive settings. Behavior types are typically assessed with behavioral rating scales such as the *Systematic Screening Tool for Behavior Disorders* (SSBD; Walker & Severson, 1992). In addition to behavioral screeners such as the SSBD, additional technically sufficient measures are needed for students with E/BD (Riley-Tillman, Chafouleas, Briesch, & Eckert, 2008).

One such assessment method is functional behavioral assessments (FBAs; March & Horner, 2002). Functional behavioral assessments are used to identify antecedents that predict behavior and the consequences which maintain behavior or the function (Gresham, Watson, & Skinner, 2001). The two primary functions of behavior for students with E/BD are seeking adult or peer attention and escaping academic or behavioral demands (Sugai, Lewis-Palmer, & Hagan-Burke, 1999). The completion of FBAs for students with E/BD is a research-based practice which informs behavioral interventions (Sugai, Lewis-Palmer, & Hagan-Burke) across settings including alternative schools.

Alternative Education

Students with E/BD primarily require placement in more restrictive settings such as alternative education schools when their behaviors compromise their safety and the safety of their peers. According to Raywid (1998), alternative schools were first established in the 1960's as alternatives to public schools which were perceived to be failing to meet the needs of students needing more intensive services. Most recently, alternative education schools have increasingly provided supports for students with

patterns of disruptive behavior and have focused on children as well as adolescents (Tobin & Sprague, 1999). This shift in focus is due to the recognition of negative behavioral trajectories which are difficult to rehabilitate (Walker & Bullis, 1995; Tobin & Sprague, 1999). Tobin and Sprague also pointed out that elementary-age children recently have become more capable of dangerous behavior. Overall, estimates of students served in alternative education programs has risen to one million (Lehr, Moreau, Lange, & Lanners, 2004; Gagnon, Rockwell & Scott, 2008). This increase is due in part to amendments made to the original Individuals with Disabilities Education Act (IDEA; Individuals with Disabilities Education Act Amendments, P.L. 94-142). This legislation recognized alternative education schools as an option for students who had historically been excluded from public education due to more restrictive policies involving expulsion, homebound, and residential services (Tobin & Sprague, 1999). Exclusionary alternative education schools for students with E/BD focus on restorative education because student needs cannot be served in traditional schools, requiring intensive support and close monitoring (Tobin & Sprague).

Alternative education schools have been defined as “public elementary/secondary school that addresses needs for students that typically cannot be met in a regular school, provides nontraditional education, serves as an adjunct to regular school, or falls outside the categories of regular, special education or vocational education (U.S. Department of Education, 2002, p.55; Quinn, Piorier, Faller, Gable & Tonelson, 2006). Yet, this definition, while helpful in narrowing the scope of alternative education schools, is broad and cumbersome. Alternative education school settings vary as much as the population of students they serve, including schools within schools (alternative education programs

which run out of part of a traditional school), separate public school buildings, and public or private residential or juvenile justice facilities. More precisely, three types of alternative education schools exist: (a) choice, (b) disciplinary action, and (c) restorative (Quinn et al.). Choice schools provide specialized programming for students whose interest drives them to choose the school and mainly serve students in separate public school buildings. Disciplinary action schools serve as an alternative to expulsion and involvement with the juvenile justice system. Restorative schools serve students who require behavioral support which is beyond the scope of traditional school setting supports.

Quinn, Poirier, Faller, Gable and Tonelson (2006) posit two basic philosophies held by alternative education experts and practitioners: (a) student centered and (b) system centered; holding responsible the corresponding entity for student behavioral deficits. Those who believe that the student is the cause of the problem naturally attempt to change the student through instructional curriculum and classroom strategies. It is not clear if this philosophy leads to significant student improvement yet this philosophy reportedly consists of punitive, reactionary policies which are not effective. Conversely, those who uphold the system centered philosophy attempt to improve larger structures such as school and educational systems (Quinn et al.). Policies that match this philosophy include modifying approaches and practices, providing a positive school environment and imploring advocates who intervene on the behalf of students for the provision of effective and appropriate supports.

Numerous authors have pointed to the lack of research regarding the incidence of students served in alternative education schools and evidence-based interventions for this

population (Gagnon & Leone, 2006; Lane, Barton-Arwood, Nelson, & Wehby, 2008; Quinn, Poirier, Faller, Gable, & Tonelson, 2006; Tobin & Sprague, 2000). In an examination of services provided in alternative settings, Wehby, Symons, and Shores (1995) found instructional priority given to behavior management rather than academic strategies. Further, the primary method of academic instruction found for students with E/BD is independent seat work rather than teacher led classroom. Wehby et al. described these environments as settings of “noninstruction” whereby coercive cycles of lack of effective instruction on the teacher’s part leads to student disengagement which perpetuates negative academic and behavioral outcomes over time (Hayling et al.; Lane, Barton-Arwood, & Nelson, 2008).

In a national study of 271 principals of alternative education schools, Gagnon and Leone (2005) examined characteristics of alternative programs for students with E/BD. The findings highlighted the importance of balancing academic and behavioral instruction in alternative education schools for students with E/BD. Results suggested focuses on issues such as combining academic instruction and behavior management; school day and year schedules and length; accountability of student achievement through data reporting; and school accreditation. The authors emphasized the need for maintaining adequate hours of academic instructional time while providing appropriate amounts of therapeutic services as well as providing effective academic instruction balanced with behavioral management strategies. Tobin and Sprague (2000) addressed the lack of evidence-based practices for students with E/BD in alternative education settings through a review of existing literature. Their search resulted in a list of eight positive practices in alternative education settings for students with E/BD

including: (a) small class sizes, (b) structured classrooms with integrated behavioral management, (c) positive philosophies, (d) positive adult mentors, (e) function based interventions, (f) social skills programming, (g) effective academic instruction, and (h) parental involvement.

Additionally, Gagnon, Rockwell, and Scott (2008) supported the use of explicit social problem solving instruction, evidence-based academic instruction in small groups, and high rates of opportunities to respond in alternative education schools and specifically highlighted the area of behavior management. Specifically, Gagnon et al. posit that students in alternative education schools benefit from behavior management systems that incorporate level systems with token economies, and function based interventions that use behavior intervention plans. Instructional strategies within an effective behavioral management system include contingent reinforcement, scaffolded support, and explicit instruction of high behavioral expectations. However, due to paucity of research in the area of alternative education programming, there is a lack of research that supports these strategies and interventions which have demonstrated effectiveness in traditional settings (Gagnon et al.).

Similar to Tobin and Sprague's effective practices for alternative settings, Jolivette and colleagues (2000) describe five effective interventions/services for students with E/BD aimed at improving student outcomes. These interventions/services include: (a) social skills instruction, (b) relationship building and problem solving supports, (c) vocational education, (d) transition planning, and (e) wrap-around services. Others suggest the use of specific daily classroom interventions and interactions that are effective for students with E/BD involving positive, therapeutic teacher/student

interactions (Wehby, Symons, Canale & Go, 1998; Sutherland, Lewis-Palmer, Stichter & Morgan, 2008). Sutherland and colleagues also highlighted the importance of effective assessment procedures in providing appropriate instruction which matches student needs in the complex classroom settings for students with E/BD.

Assessment tools also help student support teams determine the least restrictive environment (LRE) on the placement continuum. The IDEA (date) mandates placement for students with disabilities to be the LRE. The LRE continuum varies from general education classrooms, resource support, self-contained classrooms and self-contained separate schools with alternative education settings being the most restrictive environment (Hayling, Cook, Gresham, State & Kern, 2008). Researchers suggest students with high incidence disabilities such as learning disabilities and mild intellectual disabilities are commonly served in general, inclusive settings but students with E/BD are increasingly served in more restrictive environments including alternative education schools (Sabornie, Evans, & Cullinan, 2006).

While alternative education schools are appropriate placements for some students with E/BD, Lane, Wehby, Little, and Cooley (2005) indicate that poor instructional strategies such as independent seat work which led to minimal student progress academically or behaviorally are often used in these settings. Furthermore, Hayling, Cook, Gresham, State, and Kern (2008) emphasized the lack of research in alternative education programming and suggested future research should examine alternative education school structures, the incidence of attending students, factors which affect school climate, and progress monitoring as it relates to effective academic and behavioral

instruction. Currently, research which extends best practices from traditional school settings to alternative schools is warranted.

A research-based framework that incorporates alternative education best practices highlighted by Tobin and Sprague (2000) is PBIS. Of their recommended components, PBIS provides (a) small class sizes for targeted instruction; (b) structured settings with explicitly taught expectations; (c) a positive, proactive philosophy; (d) positive adult mentors; (e) intensive, individualized interventions; and (f) targeted social skills instruction. The implementation of PBIS in traditional school settings has demonstrated effectiveness, and should be extended to alternative education schools (Gagnon, Rockwell & Scott, 2008).

Positive Behavioral Interventions and Supports

Positive Behavioral Interventions and Supports is an evidence-based systems framework for students with and without problematic behaviors in traditional schools can and should be extended to alternative school settings (Nelson, Sprague, Jolivette, Smith, & Tobin, 2009; Scott, Nelson, Liaupsin, Jolivette, Christle, & Riney, 2002). Positive Behavioral interventions and Supports uses a three-tiered model of prevention to sustainably address student problematic behavior in school settings (Lewis & Sugai, 1999). The first tier is school-wide PBIS (SWPBIS) which prevents problematic behavior by outlining school-wide behavioral expectations and providing positive reinforcement for students who display the outlined expected behaviors. The secondary tier provides targeted support for students displaying problematic behavior based on office discipline data; therefore decreasing occurrences of problematic behavior. Tertiary tier supports and interventions are individualized and intensive and aim to decrease the intensity of

existing problem behaviors. Positive Behavioral Interventions and Supports arose out of applied behavior analysis (ABA; Dunlap, 2006). Applied behavior analysis surfaced as an alternative to punitive, aversive techniques commonly implemented for students with serious behaviors such as self-injury. In the 1980's, ABA was extended to large school settings and students with and at-risk for problematic behavior as a proactive strategy. The PBIS model is grounded in behaviorism (Skinner, 1953; Skinner, 1985).

Behaviorism is a learning theory which focuses on observable behavior, the antecedents which lead to the behavior, and consequences that follow. Behaviorism includes explicit instruction, corrective feedback, and reinforcement of positive behaviors.

As with ABA, the implementation of PBIS aims to provide data-based supports to improve problematic behaviors, ultimately improving students' quality of life (Dunlap, 2006). School-wide implementation of PBIS requires staff commitment, sustainable funding, and ongoing improvement and monitoring (Sugai & Horner, 2002). Positive Behavioral Interventions and Support schools are initially trained in the basic principles and procedures of the framework and are encouraged to create mission statements and action plans. Ongoing improvement of PBIS frameworks involves meaningful professional development opportunities for examining data, modifying PBIS procedures, and encouraging collaboration and communication.

The fidelity monitoring tool for PBIS is the school-wide evaluation tool (SET; Horner, Todd, Lewis-Plamer, Irvin, Sugai & Boland; 2004). Completion of the SET requires an outside observer to collect specific information regarding evidence of the school-wide expectations being posted, taught, and reinforced. The SET are then calculated by the observer and interpreted for the PBIS leadership team.

The first tier of PBIS is the primary tier. The purpose of this tier is to decrease new cases of problematic behavior (Scott, Nelson, Liaupsin, Jolivette, Christle, & Riney, 2002). The primary tier system involves 3-5 explicitly taught behavioral expectations. These expectations are specified for varied school settings and create a universal language regarding expected student behavior (Lewis & Sugai, 1999). Primary tier systems also include consistent procedures for reinforcing prosocial behaviors. Reinforcement varies from tokens, tickets, rewards and privileges. Data-based decision making begins at the primary tier with universal screening (Forness, Serna, Nielsen, Lambros, Hale, & Kavale, 2000). Systematic tools such as the *Systematic Screener for Behavior Disorders* (Gresham & Elliott, 1990) are used to distinguish students with appropriate prosocial behaviors and those who require additional supports to improve problematic behaviors. Another tool for determining level movement is Office Discipline Referral (ODR) frequencies with an organizational tool such as the School Wide Informational System (SWIS; May et al., 2000). Students who remain on the primary tier of PBIS earn 0-1 ODRs per year. An expected 80% of the student population responds to primary tier PBIS supports. School-wide, approximately 5% of students earn 85% of ODRs, requiring more intensive supports and interventions at the secondary or tertiary levels (Turnbull, Edmonson, Griggs, 2002).

The purpose of the secondary PBIS tier is to decrease the number of existing cases of problematic behavior (Scott et al., 2002). Students who are candidates for secondary tier PBIS supports earn 2-5 ODRs per year. Students can also be identified with systematic screening tools such as the SSBD (Walker & Severson, 1992). Approximately 15% of the student population will respond to secondary PBIS supports.

The secondary tier supports are differentiated from primary tier supports through targeted, small group or classroom interventions and supports. Examples of secondary tier interventions include social skills, problem solving and conflict resolution groups and adult mentors. Student progress at the secondary tier is monitored with the SWIS. For students who earn more than five ODRs per year tertiary tier supports are implemented.

Tertiary supports are implemented for 1% to 5% of the student population (Sugai & Horner, 2009). The purpose of tertiary supports is to decrease the intensity and duration of existing problem behaviors. The tertiary tier provides intense, individualized supports for students with serious problem behaviors resistant to tier 1 and 2 supports. Tertiary tier supports are provided during the school day in supportive settings. Examples of tertiary tier supports include function-based interventions developed from information gathered during function based assessments, behavior intervention plans, and wraparound supports which include family collaboration and mental health and counseling services.

Research focusing on PBIS for the past 30 years has primarily examined primary tier supports and assessments (Sugai, & Horner, 2006). Results from this research suggest improved student outcomes for student at low-risk of problematic behavior, reducing future behavior problems. Researchers have also demonstrated effectiveness of tertiary supports, reducing the intensity and duration of problematic behavior (Anderson & Scott, 2009). Extension of PBIS in alternative settings and secondary tier supports is scarce. Several authors have examined the extension of PBIS to alternative settings (Nelson, Sprague, Jolivette, Smith & Tobin, 2009; Gagnon, Rockwell & Scott, 2008) although a paucity of research of PBIS in alternative setting exists. Gagnon and Scott suggest PBIS as a catalyst that shifts punitive philosophies to decrease problematic

behavior to positive, supportive philosophies. These authors describe PBIS in alternative settings similarly to traditional PBIS implementation. Still, difficulties with severe problematic behavior and alternative setting characteristics make PBIS implementation in alternative settings complicated. Implementation issues include: lack of team support, negative school climate, and competing existing behavior management systems. Effective implementation strategies for PBIS in alternative settings include: collaboration, buy-in, and flexibility. The potential primary benefits of implementing PBIS in alternative settings are decreased ODRs including individuals with repeated ODRs, increased instructional time, and increased academic achievement (Gagnon and Scott).

Considering research is limited with regard to effective behavioral interventions in alternative school settings, it is important to understand behavioral intervention research from mainstream school settings for students at-risk for and with E/BD. Further, secondary tier behavioral intervention research in mainstream settings is scarce but what does exist serves as a foundation from which future research endeavors can be designed. Secondary tier behavioral interventions should be targeted to student needs and implemented in small groups or classroom wide. These interventions, by secondary tier definition should also be efficient and require minimal school resources (Sugai & Horner, 2009). Previously researched secondary tier interventions include behavior progress reports (Chafouleas, McDougal, Riley-Tillman, Panahon, & Hilt, 2005) and social skills instruction (Gresham, Sugai, & Horner, 2001). The recent evolution of secondary tier behavioral intervention research has focused around variations of school-based mentoring interventions. The following information describes how *Check, Connect, and Expect*

evolved from *Check-in/Check-out* and *Check and Connect* as a secondary tier behavioral intervention.

Check-in/Check-out

The Check-in/Check-out intervention (CICO) is a school-based mentoring secondary tier behavioral intervention and began as a component of the Behavior Education Program (BEP; Crone, Horner, & Hawken, 2004). Students are referred to this intervention by the classroom teacher or student support team after a review of behavioral data such as frequency and intensity of ODRs. The CICO intervention uses a facilitator who addresses social and behavioral deficit areas and academic performance through morning checks-ins and afternoon check-outs (Campbell & Anderson, 2008). During these interactions the facilitator and student set behavioral goals and discuss progress toward the goals. Additionally, daily progress is recorded and communicated with families.

Results from the CICO intervention demonstrated effectiveness with small numbers of students in decreasing problematic behavior and increasing academic engagement. The first evaluation of CICO came from March and Horner (2002). These authors evaluated the effectiveness of CICO in reducing the number of ODRs and lunch detentions with 24 middle school students. The results from this study suggest that students whose maintaining function of behavior was attention demonstrated decreased problematic behavior while the results for students whose maintaining function of behavior was escape were mixed. Hawken and Horner (2003) followed-up with a multiple baseline across participants design with four sixth grade male students. Problem behavior and academic engagement decreased with CICO implementation. In an

extension of CICO to elementary schools, Hawken and Horner implemented CICO with 12 elementary students for six weeks with a multiple baseline design. Results from this study suggest that CICO was effective in decreasing the number of ODRs earned. Filter, McKenna, Benedict, Horner, Todd, and Watson (2007) continued the extension of CICO to elementary schools in a quasi-experimental study with 17 students. Additionally, these authors examined the maintenance of behavioral outcomes. Students in this study displayed decreased numbers of ODRs during CICO implementation and at the follow-up point. McIntosh, Campbell, Carter, and Zumbo (2009) extended this line of research by measuring both ODRs and pre/post ratings on the Behavior Assessment Scale for Children (BASC-2; Reynolds & Kamphaus, 2004) which both decreased with eight weeks of CICO implementation. Fairbanks, Sugai, Guardino, and Lathrop (2007) continued direct observation measurements in CICO research from the initial March and Horner (2002) study and found mixed results with this measure. In general, results from these initial secondary tier behavioral intervention research studies suggests that CICO is an effective intervention in decreasing problematic behavior measured by ODRs after brief (6-8 weeks) implementation, primarily for elementary and middle school students whose maintaining function of behavior is attention. While results from CICO research are promising, limitations exist. Another secondary tier behavioral intervention involving school-based mentoring is the *Check and Connect* intervention (C&C; Christenson & Sinclair, 2004).

Check and Connect

Check and Connect is similar to CICO but utilizes a facilitator separate from the classroom teacher, targeted social skills instruction, and levels of support. Check and

Connect was designed as a dropout prevention intervention for adolescent students aimed to improve school engagement and decrease truancy. Lehr and colleagues (2004) implemented C&C with 147 adolescent students for two years. After two years students who received C&C displayed decreased numbers of absences and increased school engagement. In an extension of this study, Anderson and colleagues implemented C&C with 80 adolescents with and without special education eligibilities for two years. After receiving C&C students displayed improved behavior and relationship ratings from classroom teachers and significantly improved attendance records. Sinclair, Christenson, and Thurlow (2005), and Lehr, Sinclair, and Christenson (2004) continued this line of research and found significantly positive results on teacher rating measures and attendance. Overall, C&C improved school engagement and minimally improved incidence of dropout. In response, C&C was extended by Cheney and Lynass (2009) by the development of *Check, Connect, and Expect* (CCE; Cheney & Lynass, 2009).

CCE Research

Check, Connect, and Expect provides similar supports to the C&C intervention with an expanded level of supports focusing on transitioning to self-monitoring (Cheney, Flower, & Templeton, 2008). A detailed description of CCE follows this review.

Researchers began examining the effects of CCE on elementary-age students at risk for developing E/BD by conducting a 2-year longitudinal study (Cheney, Flower, & Templeton, 2008). Overall 127 students at-risk for E/BD participated in the CCE intervention for a minimum of 80 days. These students were compared to 127 students who were not involved with the CCE intervention. Students attended demographically matched elementary schools with regard to race, size, the number of students with

individualized education plans, and the number of students receiving free and reduced lunch services. Results suggested a significant response rate of improved behavior at 67% among students who received CCE. Additionally, of the 127 students identified as at-risk for E/BD, 91% of the students involved with CCE were not subsequently identified for special education services. Teacher ratings of student behavior decreased for approximately 50% of the students that received CCE.

Cheney, Stage, Hawken, Lynass, Mielenz and Waugh (2009) attempted to replicate the Cheney, Flower, and Templeton (2008) study with a follow-up 2-year longitudinal study with CCE for elementary-age students at-risk for E/BD. Cheney, et al. (2009) examined 121 students participating in CCE and 86 matched students in the comparison group using Hierarchical Linear Modeling (HLM; Singer & Willett, 2003). Study measurements included academic engaged time direct observations, *Woodcock-Johnson III Tests of Achievement (WJ-III)*, Woodcock, McGrew, & Mather, 2001), and the *Systematic Screening for Behavior Disorder (SSBD)*; Walker & Severson, 1992). Results indicated that 60% of participating students reached the graduation level, no longer requiring the CCE intervention, which was significantly improved from the control group. In addition to measuring student progress by level movement, these authors also measured progress with the SSBD. Students who did not receive CCE did not show significant behavioral progress with clinically at-risk ratings. Overall, SSBD ratings for students who did receive CCE fell from clinically at-risk ratings to the normal range of problematic behavior. *Systematic Screening for Behavior Disorder* (Walker & Severson, 1992) ratings of internalizing and externalizing behavior decreased for students who received CCE. Overall, no significant difference was found in *WJ-III* scores between

students who received CCE and those who did not. The authors indicated that future research should utilize more sensitive academic measures such as curriculum based measurements (CBM; Cheney, 2010 personal communication).

Next, Cheney Lynass, Flower, Waugh, and Iwaszuk (2010) performed a study using single-subject design with six elementary-age students. Participants were in second to fourth grade and were identified with displaying problematic behavior passing through the second-gate of the SSBD. In addition to replicating design components from previous research, this study implemented CCE for 12-13 weeks and measured maintenance of CCE effects. Results from this study suggest problematic behaviors were reduced to the normative range. Maintenance data suggested decreases in problematic decreased even further in the six weeks following CCE implementation. Overall, results from these studies have shown decreased problematic behavior from participating students measured by number of ODRs and teacher ratings on the SSBD. Finally, results from CCE implementation have shown significant decreases in referrals of students at-risk for E/BD to special education.

Check, Connect, and Expect (CCE) is an extension of the CICO procedures in BEP (Crone, Horner, & Hawken, 2004) and the *Check and Connect* intervention (Sinclair, Christenson, Evelo, & Hurley, 1998), both of which have been found to be efficacious. *Check, Connect, and Expect* is a targeted intervention within the PBIS framework intended to improve social behaviors. *Check, Connect, and Expect* is grounded in behaviorism (Skinner, 1953; Skinner, 1985) and ecological systems theories (Bronfenbrenner, 1979; Addison, 1992). Behaviorism is a learning theory which focuses on observable behavior, the antecedents which lead to the behavior, and consequences

that follow. Best practices aligned with behaviorism include explicit instruction, corrective feedback, and reinforcement of positive behaviors. Brofenbrenner's ecological systems theory (1979) is a developmental theory that points to the different systems students encounter. Specifically, the interaction in child development between the child and his/her environment including family, peer groups and the community is of importance. This theory also highlights the importance of understanding how changes and conflicts in one system such as the family impact development and progress in other systems. The CCE program combines all of the aforementioned components of behaviorism and ecological systems theory to provide students with structured, positive, and comprehensive support.

Students who demonstrate problematic behavior are screened with the SSBD measure at the primary tier to determine if CCE is appropriate based on previously established decision rules (Cheney, Flower, & Tempelton, 2008). Screening for movement to tier-2 interventions is conducted in the classroom with teacher ratings. In general, CCE provides students with a full-time coach who serves as a positive, caring adult who provides structured and unstructured interactions with targeted students and collaboration with stakeholders such as parents, social workers, counselors, teachers, and school administrator. The following describes each component of the research associated with CCE.

Check. Structured and unstructured interactions with students constitute the “check” component of the intervention. During structured interactions, CCE coaches meet with students in the morning to set a daily behavioral goal, gives students a blank daily progress report (DPR), assesses student preparedness for class, provides verbal

positive feedback, and provides reinforcement. Throughout the school day the coach provides unstructured interactions by conducting visits to the student in the classroom, playground, cafeteria or hallways to check on student progress. In the afternoon, the coach conducts the second structured meeting with the student to check-out, reviewing their behavior ratings, discussing progress toward the daily goal, and providing positive reinforcement and feedback. The purposes of the “check” component are progress monitoring and goal setting.

The first feature component of the “check” component is goal setting. Goal setting has been examined as a motivational technique for both academic task improvement (Kahle & Kelley, 1994; Schunk, 1990) and for behavioral deficits (Ruth, 1996; Ruth, 1994). The purpose of goal setting is to provide students opportunities to acquire and develop targeted skills (Ruth, 1996). Effective goal setting practices involve: (a) identifying goals specific to targeted task(s), (b) developing goals that maintain useful levels of difficulty, (c) obtaining goal acceptance from the student, and (d) providing performance feedback towards attainment of the goal (Locke, 1968 & Locke & Latham, 1984). In the CCE intervention, specific goal setting procedures are left to the implementers of the intervention to develop as these procedures should be uniquely designed based on students’ age, developmental level, and behavior deficits. In general, the CCE manual provides a four-step outline to this process: (a) coach prompts students to list existing personal strengths and prioritize preferences, (b) coach asks students’ to self-assess status of preferred skill to be learned and identify factors that serve as barriers and facilitators towards learning the skill, (c) coach allows students to focus on actions to

be taken towards learning the skill, and (d) coach supports students in deciding on a goal and mastery criteria (Cheney & Lynass, 2009).

Determining goal attainment includes formative monitoring targeted skill progress (Burke & Vannest, 2008). Progress monitoring is a process which measures student growth, and aids in determining formative information regarding factors outside the student which affect student growth such as: (a) environmental factors, (b) teacher factors, and (c) intervention appropriateness and effectiveness. Progress monitoring tools should be delivered frequently (i.e., weekly or biweekly), corresponding to severity of student deficits (Jenkins, Graff & Miligoretti, 2009).

Progress monitoring tools should be sensitive to incremental academic and behavioral growth. Progress monitoring originated in the academic domain with curriculum based measurements to determine academic change (Deno, 1985). Behavioral progress monitoring has been performed by monitoring frequencies of ODRs and using teacher behavior ratings on DPRs (Burke, Vannest, Davis & Parker, 2009; Burke & Vannest, 2008; McIntosh, Campbell, Carter & Zumbo, 2009; Ervin, Schaughency, Matthews, Godman & McGlinchey, 2007). Office discipline referral frequency counts are used to determine tier movement in PBIS models (Sugai & Horner, 2002). Office discipline referral data informs school staff of the reason for referral, a description of the antecedents and consequences and sometimes the perceived function of the behavior. Daily progress reports are criterion-referenced and involve prompted direct observations of student behavior (Burke & Vannest, 2008). Daily progress reports require teachers to rate targeted student behavior on a Likert scale which provides students with frequent behavioral feedback. Both ODRs and DPRs are valid and reliable for students with E/BD

(McIntosh et al.; Burke & Vannest) although McIntosh et al. suggest ODRs are not sensitive to internalizing behaviors. A benefit of using DPRs over ODRs for students with E/BD is that teacher ratings on DPRs are easily individualized helping measure IEP goals.

The CCE intervention involves the use of DPR data as a daily progress monitoring tool. This data can be specific to individual behavioral deficits or can be based on more general school-wide expectations (Cheney & Lyness, 2009). Daily progress report data can inform the proximity towards goal attainment through specific performance feedback to the student. This information can also be used by the coach and teachers to determine student growth towards behavioral goals, level movement, and can inform specific instructional changes which may be necessary for individual students (Cheney & Lyness). Office discipline referrals can also be used in the CCE intervention as a progress monitoring tool but provide less objective and student-specific information.

Connect. The “connect” component of CCE is comprised of: (a) relationship building (b) targeted problem solving instruction and (c) collaboration with stakeholders such as teachers, parents, school administrators and social workers. Relationship building is a crucial component of CCE. Hamre and Pianta (2010) suggest that a meaningful relationship between a non-parental adult and student serves as a protective factor, counteracting risks such as negative home environments and low academic achievement. Additionally, Laursen (2002) suggest meaningful relationships are a powerful factor in promoting resilience, specifically for at-risk students. *Check, Connect, and Expect* creates opportunities for building these meaningful relationships with a caring, positive non-parental adult. Students who have developed meaningful adult relationships have shown

improvement in social, emotional, and behavioral domains (Hamre & Pianta). Further, Laursen examined student beliefs regarding caring relationships with adults in an ethnographic study. The results of this study suggest the following components of effective relationships: (a) trust, (b) attention, (c) empathy, (d) availability, (e) affirmation, (f) respect, and (g) virtue. Findings from this study suggest adult habituation of attitudes and behaviors that result in these components preclude building meaningful relationships with students.

The second feature of the “connect” component involves targeted problem instruction. According to Siu and Shek (2010), social problem solving is the “cognitive-affective-behavioral process by which people attempt to resolve real-life problems in a social environment, and is of key importance in the management of emotions and well-being.” Siu and Shek examined student perceptions of barriers to social problem solving, and the extent to which social problem solving serves as a predictor of overall student well-being. Specific skill deficits common to students with low social problem solving skills include: (a) coping with members of the family, (b) conflict resolution, (c) empathy, and (d) appropriately expressing emotions. Social problem solving training strategies implore modeling, role playing and structured discussion (Cheney & Lynass, 2009). Effective problem solving training gives students the ability to use practiced skills in difficult situations to make positive, safe choices. Gresham, Cook, Crews and Kern (2004) provide three explanations for continued ineffective problem solving displays for students who do not reach mastery criteria: instructional, acquisition, and self-control deficits. Instructional deficits involve lack of consistent, adequate, and appropriate problem solving instruction. Acquisition deficits are a result of students’ developmental

level being too low to grasp effective problem solving skills. Self-control involves student reactionary behavior that interferes with a student's ability to stop and employ effective problem solving skills.

Knoff (2001) developed the *Stop & Think Social Skills Program* which teaches students to use a five step process in difficult situations. The steps are (a) pause and determine what the problem is, (b) decide what kind of choice is going to be made (good or bad), (c) establish the possible steps to solve the problem, (d) perform the decided upon steps, and (e) assess your problem solving actions. Problem solving instruction should be integrated with social skills instruction. Social skills are difficult to measure and remediate because social skills are not consistently observable and are dissimilar for individual students (Gresham, Bao Van, & Cook, 2006). Social skills instruction provides: explicit instruction of targeted skill deficits, consistent, ongoing feedback, and rehearsal in practice and natural settings (Landrum, Tankersley & Kauffman, 2003). Effective social skills instruction increases prosocial skill performance and promotes generalization and maintenance.

The CCE intervention includes targeted social skills and problem solving instruction from the coach for students on the Basic Plus level (Cheney & Lynass, 2009). The authors suggest using the *Stop and Think Social Skills Program* as the curriculum for this instruction as the social skills covered and embedded structure have demonstrated effectiveness for students with behavioral problems (Knoff, 2001). While the use of this specific curriculum is not mandatory in the CCE intervention, the authors emphasize the need for a structured social skills and problem solving curriculum. According to CCE, the coach should instruct students on the acquisition of social skills through explicit social

skills instruction prior to providing targeted problem solving instruction to students who have demonstrated an understanding of the skill and its' steps and who are in need of assistance applying that knowledge to difficult encounters throughout the school day (Cheney & Lynass).

The third feature of the “connect” component is collaboration. Collaboration between the community, families, and school providers promotes effective, systems-based services which significantly benefits the student (Kendziora, Bruns, Osher, Pacchiano & Mejia, 2001). Collaboration provides productive partnerships, increases family engagement with decision making processes involves monitoring progress and creating relevant IEP goals for students with disabilities (Muscott, Szczesiul, Berk, Staub, Hoover & Perry-Chisholm, 2008). Collaborative partnerships effectively make use of necessary resources and expertise. Collaborative processes should utilize effective communication processes and focus on individualization of strength-based supports. Home-school collaboration is a powerful component of productive partnerships in promoting improved student outcomes (Cox, 2005). According to Cox, home-school collaboration improves both behavioral and academic deficits. Common tools for two-way home-school exchanges are DPRs and home notes.

The CCE intervention embeds home school collaboration through the exchange of DPRs which include a section for home notes from the coach. In the CCE intervention the student brings home the DPR with the daily goal, ratings throughout the day, and notes from the coach on a daily basis (Cheney & Lynass, 2009). The parent or family member is expected to look over the DPR, discuss with DPR with the student and sign on the designated line, indicating that they have reviewed the DPR. The student is then

expected to return the signed DPR to the coach the next morning. The coach works with the classroom teacher if home-school collaboration through the DPR proves ineffective as it is not regularly returned signed by a family member.

Expect. The “expect” component of CCE incorporates data-based decision making and a level system. Data-based decision making refers to: setting reasonable goals, gathering valid and reliable data, and using decision rules to make a team-based decision regarding appropriate interventions and placements for students with challenging behavior (Stecker, Lembke & Foegen, 2008). Data-based decision making also considers factors that affect student progress such as instructional effectiveness, environmental characteristics, and instructional delivery. Effective data-based decision matches student needs to evidence based interventions and supports. The CCE intervention combines the use of progress monitoring data to inform data-based decision making regarding necessary supports and level movement.

Gagnon, Rockwell and Scott (2008) highlight the common use of level systems in structured behavior management. However, level systems can be used as punishments or types of response cost consequences for student misbehavior. Additionally, level systems should be designed to consider individual student needs. Effective level systems do not enter students on the lowest level and shape behavior including maintenance and generalization. CCE has four levels of support: (a) Basic Plus, (b) Basic, (c) Self-monitoring, and (d) Graduation (Cheney & Lynass handbook 2009). Students enter CCE on the basic level which provides CICO procedures and coach collaboration with stakeholders. Students on the basic level who achieve 75% or greater on their DPR for six consecutive weeks receive faded support and enter the self-monitoring level.

At the self-monitoring level students continue to receive daily progress forms but are taught to self-rate rather than relying on teacher ratings. Students at this level are also taught to self-select daily goals and self-assess progress toward the goal. Student ratings are then compared with teacher ratings with assessment of agreement between the two. Students at the self-monitoring level who fail to reach goal criteria for five weeks are returned to the Basic Level.

When students reach rating agreement with the teacher 10 out of 15 days they move to the graduation level. The graduation level does not involve DPRs and all CCE support is faded over time. Additionally, students who reach the graduation level become members of the graduation club and serve as positive peer models for students involved in CCE.

The Basic Plus level provides the most intense supports including the CICO procedures, coach collaboration with stakeholders, and targeted problem solving instruction. Students move from the Basic level to the Basic Plus level by failing to meet 75% DPR criteria for two consecutive weeks. Students remain on the Basic Plus level until they achieve 75% DPR criteria for six consecutive weeks.

CCE Limitations and Future Directions

The review of secondary tier behavioral intervention research suggests several limitations to existing research and provides a basis for future directions involving: (a) alternative school settings, (b) function, (c) severity of behavior, (d) relationship strength, (e) academic achievement, (f) academic engaged time, (g) duration of implementation, and (h) social validity. The next logical extension of secondary tier behavioral research is to alternative school settings. As previously described, a paucity of research of effective

behavioral interventions exists in alternative school settings with students who demonstrate chronic and intense behavioral deficits (Gagnon, Rockwell, & Scott, 2008). Second, future secondary tier behavioral research should continue to examine how the maintaining function of behavior affects student response to intervention (Swoszowski, Jolivet, Fredrick, & Heflin, 2010). Future research of secondary tier behavioral interventions should also focus on how severity of behavior prior to the intervention affects student outcomes (Cheney, personal communication). This extension is of particular importance with regard to students in alternative school settings. Severity of behavior is measured by the SSBD and can be used to predict response to the intervention and determine level of intensity of intervention.

Cheney, Flower, and Templeton (2008) measured relationship strength from both the coach and participating students and this component of school-based mentoring should continue to be examined. In addition to continuing to measure relationship strength, relationship measures should be assessed for accuracy, particularly for students as student ratings of relationship strength can be difficult for students with social, emotional, and behavioral difficulties (Cheney, Flower, & Templeton, 2008). Future secondary tier behavioral intervention research should continue to measure academic engaged time through direct observation (Cheney, personal communication).

In summary, CCE is an effective secondary tier behavioral intervention for students with problematic behavior (Cheney, Flower, & Templeton, 2008). In general CCE reduces the number of ODRs and leads to improved behavioral ratings from teachers. The components of CCE are aligned with the suggested best practices for students with challenging behavior in alternative education schools provided by Tobin

and Sprague (1999). CCE includes six out of eight of the best practices described: (a) small group instruction, (b) structured classrooms with integrated behavioral management, (c) positive philosophies, (d) positive adult mentors, (e) social skills programming, and parental involvement. Future CCE research in alternative school settings should address limitations from previous secondary tier behavioral research by examining function, severity of behavior, relationship strength, academic achievement, engaged time, duration of implementation, and social validity.

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CHAPTER 2

CHECK, CONNECT, AND EXPECT IN A SELF-CONTAINED SETTING FOR ELEMENTARY STUDENTS WITH EMOTIONAL AND BEHAVIORAL DISORDERS

Students with emotional and behavioral disorders (E/BD) experience school failure in academic, behavioral, and social domains which often worsens over time (Hayling, Cook, Gresham, State & Kern, 2008). Negative pre- and post-school outcomes common for students with E/BD include weak social relationships, poor academic achievement, movement to more restrictive settings, school dropout, involvement with the juvenile justice system, and lack of gainful employment (Jolivette, Stichter, Peck & Nelson, 2000). Students with E/BD display considerable and persistent fundamental academic deficits (Lane, Barton-Arwood, Nelson, & Wehby, 2008; Nelson, Benner, Lane, & Smith, 2004; Rutherford, Quinn, & Mathur, 2004; & Wagner, Friend, Bursuck, Kutash, Duchnowski). According to Kauffman (2001), students with E/BD achieve academically one or more years below same-age students without disabilities, similar to students with learning disabilities (Levy & Chard, 2001). Disruptive behavior and distractions caused by necessary behavior management and social skills instruction contribute to decreased teacher-led academic instruction (Knitzer, Steinberg, & Fleisch, 1990). Landrum, Tankersley, and Kauffman (2003) suggest incorporating academic instruction and behavior progress monitoring by measuring academic engagement through on-task observations.

In the behavioral and social domains, students with E/BD demonstrate poorer social skills (Gresham, Lane, MacMilan, & Bocian, 1999), lack bonding to school, (Gresham, Kern, & Vanderwood, 2007) and demonstrate disruptive behaviors requiring unique supports beyond the scope of general education supports (Landrum, Tankersley,

& Kauffman, 2003). These academic and behavior deficits require intensive supports and interventions beyond what is provided in general education (Landrum et al.).

Researchers have suggested many components needed to effectively support students with E/BD within their classroom including: (a) the use of progress monitoring data and function maintaining inappropriate behavior (Anderson, & Scott, 2009); (b) an early identification and intervention focus (Forness & Serna, 2000); (c) the provision of differentiated and tiered supports with a variety of empirically-validated interventions (Kamps & Kravits, 1999); (d) the provision of structure, routines, and positive interactions between students and their teachers and peers; and (e) the provision of systematic and sequenced supports and interventions (Wehby, Symons, Canale & Go, 1998). However, despite these suggestions, researchers suggest that these components are often implemented ineffectively for students with E/BD (Hayling et al., 2008; Wehby et al., 1998). Instead, researchers suggest that instruction for students with E/BD is comprised primarily of (a) high rates of reprimands, (b) independent seat work (c) minimal dedicated, teacher-led instructional time, (d) minimal positive instructional interactions, (e) minimal opportunities to respond, and (f) minimal praise (Sprague & Walker, 2005).

When students with E/BD are provided with ineffective supports, their academic and social progress may stall or worsen, ultimately leading them to more restrictive environments such as alternative education settings (Quinn et al., 2006). Alternative education settings are charged with providing intensive and individualized supports and interventions that are aligned with the aforementioned components in small group classes with low teacher to student ratios (Lane, Wehby, Little, & Cooley, 2005). Quinn, Piorier,

Faller, Gable, and Tonelson (2006) suggest alternative schools for students with E/BD serve as restorative settings which serve students who are placed there due to behavioral issues (primarily E/BD and mental health) which are beyond the scope of traditional school setting supports. Students who do not respond receive intensive and innovative programming tailored to students' academic and behavioral needs.

Researchers suggest that ineffective instruction may be prevalent in alternative education schools for students with E/BD (Lane, Wehby, Little, & Cooley, 2005) and have been likened to environments of "noninstruction" (Wehby, Symons, & Shores, 1995). Additionally, severe problematic behavior influences teacher behaviors, creating corrosive relationships between teachers and students, bringing about further negative student outcomes (Wehby, Lane, & Falk, 2003).

Interventions aimed at improving social behaviors in alternative education settings for students with E/BD should balance academic and social skills instruction with behavior management (Gagnon & Leone, 2005). Specifically, Tobin and Sprague (2000) described effective supports and interventions for students with E/BD educated in alternative education schools including: (a) small class sizes; (b) structured, routine behavior management support; (c) positive philosophies; (d) positive school-based mentors; (e) function based interventions; (f) social skills instruction; (g) effective academic instruction; and (h) collaboration with parents. Because of the paucity of experimental research with behavioral and social interventions in alternative education settings, research extending evidence-based practices from traditional school settings to this setting is necessary.

Positive Behavioral Interventions and Supports

One evidence-based, system focused framework that improves academic achievement and disruptive and antisocial behavior in traditional schools is Positive Behavioral Interventions and Supports (PBIS; Lewis & Sugai, 1999). Positive Behavioral Interventions and Supports is a positive, proactive, multitiered framework which provides effective supports and interventions matched to student needs. This framework involves applied behavioral science, supports evidence-based interventions, promotes quality of life, and affects change through an integrated data-based systems approach (Dunlap, Sailor, Horner & Sugai, 2009).

Positive Behavioral Interventions and Supports is a three-tiered model of support. The primary tier involves explicit teaching of school-wide expectations combined with a consistently implemented positive reinforcement system. At the secondary tier, targeted supports and interventions are provided to students who are identified as at-risk by screening tools and office discipline referral (ODR) frequency. Secondary tier interventions involve social skills and problem solving groups as well as additional structure and support through check-in and check-out interventions (Scott, Nelson, Liaupsin, Jolivette, Christle, & Riney, 2002). Tertiary tier PBIS supports and interventions involve function based assessments leading to behavior intervention plans and function-based interventions (Lane, Rogers, Parks, Weisenback, Mau, Merwin & Bergman, 2007; March & Horner, 2002; Sugai, Lewis-Palmer & Hagan, 1998). Tertiary tier supports and interventions are the most intensive and individualized on the PBIS continuum of supports and interventions.

To date, few research studies have been conducted at the secondary tier (Hawken, Adolphson, MacIwod & Schumann, 2009). Research regarding secondary tier interventions supports increased structure and prompts skill instruction, behavioral rehearsal, and regular feedback (Todd, Campbell, Meyer, & Horner, 2008). One such secondary tier intervention, *Check, Connect, and Expect* (CCE; Cheney, Flower & Templeton, 2008; Cheney, Stage, Hawken, Lynass, Mielenz, & Waugh, 2009; Cheney, In Press), addresses those features.

Check, Connect, and Expect is a secondary tier intervention under the PBIS framework (Cheney, Flower & Templeton, 2008; Cheney, Stage, Hawken, Lynass, Mielenz, & Waugh, 2009; Cheney, In Press). *Check, Connect, and Expect* is grounded in more than 15 years of research beginning with the *Behavior Education Program* (BEP) and *Check-in/Check-out* (CICO; Filter, McKenna, Benedict, Horner, Todd, & Watson, 2007; Hawken, 2006). *Check, Connect, and Expect* focuses on building meaningful relationships with a full-time behavior coach as a means to address behavioral deficits. *Check, Connect, and Expect* is aligned with six of the eight effective components suggested by Tobin and Sprague (1999) for students with E/BD in an alternative education school including: (a) small group instruction, (b) structured behavioral management, (c) a positive perspective, (d) social skills programming with a problem solving focus, (e) school-based adult relationship building, and (f) parental involvement.

Numerous components comprise the CCE intervention. These components include: (a) goal setting, (b) progress monitoring and data-based decision making, (c) relationship building, (d) social skills and problem solving instruction, (e) home-school collaboration, and (f) tiered support. *Check, Connect, and Expect* involves three levels of

support: Basic, Basic Plus, and Self-monitoring (Cheney & Lynass, 2009). Students are assigned to a level based on daily progress monitoring data. The Basic level provides the most intensive supports including CICO procedures, weekly targeted social skills and problem solving skills instruction, and home-school collaboration. The Basic Plus level incorporates faded CICO procedures and home-school collaboration. The Self-Monitoring level requires students to monitor their own behavior on a faded schedule.

To date, few studies with CCE exist (Cheney, Flower, & Templeton, 2008; Cheney, Stage, Hawken, Lynass, Mielenz, & Waugh, 2009; Cheney, Lynass, Flower, Waugh, Iwaszuk, & Mielenz, In Press). Overall, results from these three studies have resulted in the following for the elementary students participating in CCE: (a) decreases in problematic behavior from participating students measured by number of ODRs, (b) decreases in referrals of students at-risk for E/BD to special education, (c) decreases in disruptive behavior measured by direct observation, and (d) increases in social skills ratings by classroom teachers (Cheney et al., 2008; Cheney et al., 2009; Cheney, in press; Cheney, Lynass, Flower, Waugh, Iwaszuk, & Mielenz, in press). Limitations and future directions from existing research suggest the need for: (a) replication with additional student samples to determine CCE efficiency and effectiveness; (b) identification of accurate behavioral growth measures sensitive to change in short periods of time for students with E/BD; (c) foci on person-level factors such as severity of behavior ratings in addition to classroom and family factors that affect response to CCE implementation; and (d) examination of the effects of CCE on academic achievement measured with sensitive tools.

The purpose of this study was to replicate the CCE intervention within alternative education school for students with E/BD. This study addressed the following research questions: (a) How did CCE affect student behavior?; (b) How did CCE affect student weekly academic engagement?; (c) How did CCE affect student weekly math calculation and oral reading fluency growth?; (d) How did severity of behavior predict how students respond to CCE?; (e) How did function of maintained behavior predict student response to CCE as measured by daily progress report data?; (f) How did relationship strength with the coach predict student response to CCE?; and (g) How socially valid was CCE for teachers, paraprofessionals and students?

Method

Setting

This study took place in a self-contained elementary school for students with primary eligibilities of E/BD who displayed serious behavior problems in the traditional school setting. The school was located in a suburban area in a Southeastern state that annually served approximately 45 students in kindergarten through fifth grade. The school received students from anywhere in the large suburban county it served and approximately 85% of the student population received free and reduced lunch services. Students placed in this restrictive setting originally attended their neighborhood school and received behavioral and social supports before the change of placement was deemed necessary.

Typical behaviors exhibited by students that require more intensive self-contained school setting placement include physical aggression, self-harm, fleeing school property, and severe disruption. Placement changes to this more restrictive setting were determined

during an Individualized Education Plan (IEP) meeting. This self-contained school was determined to be the least restrictive environment for students by the IEP team. During the IEP meeting individualized behavioral goals and objectives were constructed with targeted mastery dates and a behavioral plan that would describe the circumstances for which the student would transition back to the traditional school setting once student behavior improved.

The targeted self-contained school setting implemented school-wide Positive Behavioral Interventions and Supports (SW-PBIS) integrated with a comprehensive behavior management system including a token economy and level system. The broad school-wide behavioral expectations were: (a) stay quiet, (b) treat others nice, (c) accept directions, (d) respond appropriately, and (e) stay safe. A universal, school-wide student recognition system was in place to provide positive reinforcement for expected behaviors outside of the classroom. Students continued to receive points through their token economy in the therapeutic classrooms. These two systems were integrated and did not compete with one another.

As a part of the level system and token economy systems in the comprehensive behavior management plan, students were placed on one of three levels (foundations, progress, and transitions). These three levels corresponded to student placement. At the foundations level students attended the self-contained school. When student behavior improved to the appropriate level, students were moved to the progress level where they continued to attend the self-contained school but were preparing for transition to the self-contained classroom in the traditional school. At the transitions level, students attended the traditional school in the designated self-contained classroom with decreasing amounts

of support to encourage independence and full transition back to their neighborhood school.

Student Participants

All of the elementary students in grades one through five attending the targeted school were recruited for participation in this study. Thirty students throughout the 17-weeks of the study (4 baseline weeks and 13 intervention weeks) provided parental consent and student assent to participate in the study. All students participated. Student assent and parental consent were obtained for all student participants. Students were eligible to participate in the study regardless of what week they entered the school. However, only data from the 22 students who had at least one data point in the baseline phase were included. Once parental consent and student assent were obtained, students remained in the study unless he/she withdrew from school. All 22 student participants had primary special education eligibilities of E/BD. Student participants were in second through fifth grades since no kindergarten or first grade students attended the school at the time of the study.

Adult Participants

The CCE coach was a graduate student at a local university and was hired by the primary researcher based on references from faculty members and instructors and professional strengths. The coach was employed full-time for the 13 weeks of intervention. In addition to the coach who implemented the intervention, another graduate student served as a research assistant, collecting fidelity and interobserver agreement data.

In all there were five teachers and their five paraprofessionals who participated in rating the students' behavior daily. Three teachers and three paraprofessionals taught at the self-contained elementary school while two teachers and two paraprofessionals taught in a self-contained E/BD classroom at a nearby traditional elementary school for students in the transition process. All five participating teachers had a teaching certificate from the State and a minimum of one year of teaching experience at the self-contained school. The paraprofessionals were certified through the State as paraprofessionals after having passed the certification exam and have a minimum of one year of experience with the targeted alternative education school. All five teachers and paraprofessionals were recruited and consented to participate.

Consent

Student assent and adult consent were obtained. All of the consent procedures were completed during the set-up phase of the study as described later. The researcher provided consent and assent forms that were approved by the university's Internal Review Board (IRB) and the county's IRB. Student assent will be read aloud to recruited students by the researcher. Students were given the opportunity to agree or decline to participate.

Parental consent was sent to the recorded address by the targeted school through the mail. If the child had a guardian other than a parent, this person was able to provide consent. Parents received the consent form and have the opportunity to agree or decline to have their child participate in the study by signing the form and either sending it back in a postage paid, addressed envelope or by sending it back to school with the student. Parental consent procedures were completed during the set-up phase of the study. All

student participants had returned parental consent and signed student assent. The coach hired for the position gave adult participants the opportunity to consent to participate by signing the approved consent form during the set-up phase of the study.

Measurements

Daily Progress Reports. In addition to the point sheet given to each student daily as a part of the existing behavior management system, teachers transferred data on the number of corrections or reminders for each period to the DPR used for data collection in this study. The structure of the DPR form was the same for all students (see Appendix A). Each DPR included space for: (a) returned card indication, (b) check-in completion indication, (c) student recorded daily goal, (d) goal progress indication, (e) total daily score, (f) student's name, and (g) date. Additionally, each DPR had space for eight rating periods throughout the day, subtotals, and the teacher rating rubric. Students were rated a total of six times per day on a 6-point scale for a total of 30 possible points earned per day.

Daily progress reports may be reliable, accurate, and feasible instruments in measuring student behavior compared to direct observation data (Riley-Tillman, Chafouleas, Briesch, & Eckert, 2008), yet more research is necessary to validate this measure (Chafouleas, McDougal, Riley-Tillman, Panahon, & Hilt, 2005). The DPRs used as measures in this study were used to monitor daily behavioral data on five individualized expectations, resulting in a daily total score.

Academic Engagement. The Behavioral Observation of Students in Schools (BOSS; Appendix C, Shapiro, 2004) measured academic engagement through direct observation of the targeted student. The BOSS was conducted for each participating

student once a week on a schedule randomized by day and academic period. Observations were conducted only during times in which students were expected to be engaged in an academic task. If a different type of activity was taking place at the designated observation time, the coach or researcher would return at a different time or on a different day. If a student was absent or in a non-classroom setting the observer would return at a different time or on a different day within the same week. Each observation lasted 20 minutes and student behavior was recorded in 15-second intervals. During the observation academic engagement was coded as either engaged or off-task time. The total number of engaged recordings (with a possible of 60) were recorded as the weekly engagement data point for each student.

Academic Achievement. Math calculation fluency (MCF) and oral reading fluency (ORF) curriculum-based measures (CBMs; Deno, 1985) determined academic achievement growth over time in the areas of math and reading. Curriculum based measures are reliable and valid progress monitoring tools that evaluate individual performance on academic tasks (Shinn, Deno & Epsin, 2000). Curriculum based measures are highly sensitive to individual academic growth over short periods of time. Curriculum based measures are used to inform responsiveness to intervention through frequent, repeated measurements.

Weekly MCF and ORF CBMs assessed academic achievement growth. All students received the same grade level MCF and ORF assessments. The universal grade level was determined by the coach and primary researcher to be second grade for both MCF and ORF probes based on existing calculation and fluency abilities during the set-up phase of the study. Math calculation fluency assessments were delivered to each

student individually following their weekly ORF probe. The students were asked to answer as many calculation problems as possible in one minute. The primary researcher, research assistant, and coach determined the total number of correct digits correct in one minute as the weekly MCF data point for each student.

The primary researcher, research assistant, and coach conducted the weekly ORF assessments individually with each participating student. The primary researcher secured a quiet area outside of students' classrooms to complete weekly ORF and MCF assessments. Students received one second grade level AIMSweb fluency reading passage each week to read aloud. First the student was asked to read aloud for one minute. Then the student was asked to stop reading after one minute. If a student made an error reading aloud the assessor recorded the error and let the student continue to read. If the student got stuck on a word for more than three seconds, the assessor would provide the correct word, count that word as an error, and ask the student to continue to read. After assessing the 1-minute probe the assessor calculated the number of words read correctly by taking the number of words read and subtracting the number of errors. The assessor recorded this number as the weekly ORF data point.

Severity of Behavior. The Systematic Screener for Behavior Disorders (SSBD; Walker & Severson, 1992) was used to screen students for characteristics of at-risk E/BD behavior. The SSBD is viewed as the most efficient and effective behavioral screener (Lane, Little, Casey, Lambert, Wehby, Weisenbach & Phillips, 2009). Extensive research suggests the SSBD is both reliable and valid (Walker & Severson, 1992). Psychometric tests of reliability and validity result in Cronbach's alpha above .90 (Lane, Little, Casey, Lambert, Wehby, Weisenbach, & Phillips, 2009; Richardson, Caldarella, Young, Young,

& Young, 2009). The SSBD is designed to identify students at high and low risk levels for developing E/BD using teacher ratings in a three gate system. The SSBD assesses both externalizing and internalizing behaviors and categories at-risk status as high or low. The first two gates require teachers to nominate six students with severe behavior problems then rate their behaviors. The third-gate of the SSBD involves direct observation of the targeted behaviors in varied settings. The second gate includes the normed *Critical Events Index* and the *Combined Frequency Index*. These tools assess varied intensities and frequencies of targeted behaviors in adaptive and maladaptive areas. The *Critical Events Index* has 33 items. The teacher rates student behavior on a 3-point Likert scale according to presence and severity of the behavior corresponding to each item (e.g. “has tantrums”). The *Combined Frequency Index* requires 11 teacher ratings on a 5-point Likert scale (e.g. “child tests or challenges teacher-imposed limits, e.g., classroom rules). This assessment has been used in previous CCE literature as a tool for identifying students who meet inclusionary criteria for the CCE intervention.

The second-gate of the SSBD was completed by each student’s classroom teacher once during the baseline phase of the study (Appendix 4). Teachers rated intensity and frequency of problematic behaviors in adaptive and maladaptive areas, based on informal classroom observation that occurred during the first four weeks of the school year. The primary researcher compiled and categorized the results into two categories of severity of behavior (high and low).

Function of Behavior. The *Functional Assessment Checklist for Teachers and Staff* (FACTS; Appendix D & E, March & Horner, 2002) is brief measurement of maintaining function of behavior. The FACTS is a valid, reliable tool (McIntosh et al.,

2000). All FACTS measures were completed by the primary researcher, with input from the classroom teachers and paraprofessionals. The FACTS assessments were completed during the third and fourth weeks of the baseline phase of the study. First, the primary researcher collected and analyzed ODR data including perceived function of behavior from the SWIS system. Next, the researcher conducted interviews with the classroom teacher and paraprofessional with the most frequent contact with participating students on a regular basis determined during the first three weeks of the school year. Teachers and paraprofessionals were asked to identify and define the most problematic behaviors displayed by the targeted student. From these descriptions, the researcher developed operational definitions and hypothesized statements of behaviors (i.e. setting, antecedent, target behavior, consequence; Swosowski, Jolivet, Fredrick, & Heflin, 2010). Next, students were observed three times in the classroom and one nonclassroom setting (i.e., cafeteria or gym). During these observations the researcher determined if the defined behavior was displayed and if the observed antecedent, behavior and consequences matched the hypothesized statements.

If the hypothesis statement was supported by the antecedent, behavior, consequence (A-B-C) data, function was established. If the hypothesis statement was not supported by the A-B-C data or the behavior appeared to be maintained by multiple functions without a clear primary function of behavior identified, additional interviews with multiple staff and additional observations were conducted until the function was clear. The function of behavior identified was then recorded as escaped-based or attention-based and coded accordingly.

Relationship Strength. Scores on the *Student-Coach Relationship Scale* (SCRC; see Appendix F: Cheney & Stage, 2009) and the *Coach-Student Relationship Scale* (CSRC; see Appendix G: Cheney et al. (2009) adapted from the original tool (Pianta, 1992) were used to measure perceived relationship strength between the coach and each student and students and the coach. The SCRS is a 15 question, 5-point Likert scale tool. The CSRC is a six item questionnaire with a 4-point Likert scale. The coach-student relationship scales for each participating student were completed by the coach during the last week of the intervention phase. Similarly, the research assistant read aloud the statements and responses on the student-coach relationship scale to participating students during the last week of the intervention phase.

Coach and student responses were categorized as reflecting either high or low relationship strength based on favorable ratings on the Likert Scales. For the relationship scale completed by the coach, a high relationship strength score reflected a total score of 60-75 and a low relationship strength corresponded to a total score of 15-59. For the relationship scale completed by students, a high relationship strength score was between 6-12 and a low relationship strength score was between 24-13.

Social Validity. Student social validity was addressed with the *Student Evaluation Interview* (SEI; see Appendix H: Cheney et al., 2009) given by a research assistant the last week of the intervention. This tool was adapted from the *Children's Intervention Rating Profile* (Turco & Elliott, 1986). This nine question tool required students to evaluate nine questions and statements on a five-point Likert scale. High scores were 9-18, and low scores were 19-45. Teachers and paraprofessionals participating in the study completed the *Teacher Evaluation Inventory* (see Appendix I;

Cheney et al.) the last week of the intervention. This tool was adapted from Kelley, Heffer, Gresham, and Elliott's original version and is comprised of ten statements and comments that were rated on a five-point Likert scale. High scores were 40-50 and low scores were 10-49.

Procedures

General Procedures. The set-up phase of the study began two weeks prior to the baseline phase. First, the CCE coach was hired and completed training. Next, teacher and paraprofessional consent was obtained followed by teacher training. *Check, Connect, and Expect* coach training procedures were based on the CCE implementation guide (Cheney & Lynass, 2009). The coach was trained in two, five-hour sessions. During this time the researcher provided background information of the PBIS framework, followed by in-depth information about CCE.

The primary researcher explained the purpose of and primary components of CCE with an overview of daily coach duties. Next, the primary researcher described in detail the steps to completing all of the duties providing examples and non-examples. The primary researcher concentrated on check-in and check-out procedures emphasizing adherence and quality of student-coach interactions and procedural details. Then, the coach was instruction on how to teach the social skills lessons and described how to form and schedule targeted student groups for social skills instruction. Then, detailed instructions on home-school collaboration through DPRs and the classroom teacher were provided. Coach skills on check-in, check-out, social skills instruction development and lesson delivery, and collecting and scoring measures were assessed using developed

fidelity measures. The coach reached 95% mastery or above on all tasks prior to training completion.

The coach and research assistant were trained separately on the behavioral and academic measures due to scheduling conflicts. Each training session took approximately one hour. The primary researcher described the procedures for giving each measure (BOSS, MCF, ORF) and the corresponding fidelity and interobserver agreement measurements. Both the coach and research assistant were given examples of correct ways to use the measurements during the instruction portion followed by the coach and research assistant watching the primary researcher give the assessments, then the primary researcher and the coach or the research assistant would give the assessment together and comparing scores at least once on each measure to assess agreement.

Teacher and paraprofessional training based on the CCE implementation guide (Cheney & Lynass, 2009) was conducted during this time. This training instructed teachers and paraprofessionals how to deliver positive feedback, record number of corrections and reminders on the DPR card, and complete the SSBD teacher ratings. Teacher and paraprofessional training was presented in a two-hour training session after school hours. Teachers and paraprofessionals discussed and practiced transferring student data to the DPR until 95% mastery or above on practice DPR ratings was reached.

The primary researcher trained the research assistant to collect direct observation, academic achievement, and interobserver agreement data. The primary researcher used the actual academic engagement, MCF, and ORF assessment materials, and all fidelity measures to train the researcher assistant. The primary researcher provided practice

scenarios to rehearse data collection and insure mastery at a minimum of 95% on all measures.

Baseline Phase. The purpose of the baseline phase was to gather data regarding students' behavioral and academic growth trends without CCE. During the four week baseline phase, the primary researcher collected and entered DPR data at the end of each day, on a daily basis. During this time the DPR ratings were recorded by the teacher or paraprofessional throughout the day at the end of each of the six class periods without giving feedback to students regarding the number of corrections or reminders for behavior problems. During the fourth week of the baseline phase, teachers completed the second gate behavior ratings for all participating students on the SSBD.

Intervention Phase. All six CCE components were put in place during the intervention phase. The coach began implementing the CCE program the fifth week of the study and continued for a total of 13 weeks. All students who attended the self-contained school entered CCE at the Basic Plus level which is comprised of check-in/check-out procedures, targeted social skills instruction, and a home-school collaboration component. The students attending the self-contained classroom in the traditional school entered CCE at the self-monitoring level which is comprised of comparing daily behavior ratings of students' self-ratings and teacher ratings on the DPR.

At the Basic Plus level the individual morning check-in procedures involved: (a) collecting parent signed DPRs from the day before, and giving students a new DPR, and (b) developing a daily goal and goal plan toward goal progress. The check-in procedures occurred within the first hour of the school day in the designated area for the coach. During the last hour of the school day the coach began the individual check-out

procedures in the coach's area. At this time the coach reviewed teacher ratings, determined progress towards the daily goal, discussed areas for improvement, and provided encouragement and positive feedback.

The second component of the Basic Plus level was targeted social skills instruction (Cheney & Lynass, 2009). The CCE coach provided problem targeted solving instruction for participants on the Basic Plus level two times per week for approximately 45 minutes in small group sessions beginning the first week of the intervention phase. The "Tools for Teaching Social Skills in School" (Hensley, Dillon, Pratt, Fort, & Burke, 2005) curriculum was adapted for social skills instruction for the current study. This curriculum was used as the foundation for social skills instruction because the participating school felt it closely resembled the social skills discussed in their comprehensive behavior management system. Targeted social skills were identified by the classroom teachers in the beginning of the intervention and were modified throughout based on collaboration between the coach and the classroom teachers. A total of twelve social skills were covered throughout the 13-week intervention. The coach and the primary researcher adapted the social skills curriculum to provide targeted support for the unique student population at the self-contained school. To adapt the curriculum the coach and primary researcher took the identified social skills and task-analyzed each one with the specific expectations in place at the self-contained school. Then the coach and primary researcher collaborated to develop supporting activities which were age and developmental level specific extend acquisition of social skills. The coach also provided role-play and practice activities for fluency of use of the targeted social skill.

The third component of the Basic Plus level is communication and collaboration with family members, teachers, administrators, school psychologists, and social workers. This team of adults who the coach interacted with informally throughout the day, helped the coach to determine what supports were necessary on an individual basis. The coach implemented these three components for 13 weeks for students at the Basic Plus level.

Students who met the 75% criteria of 22 out of 30 possible points per day for 6 weeks moved to the less intensive Basic level. The Basic level includes daily check-in/check-out procedures and home-school collaboration. During the check-in/check-out procedure the coach emphasized the importance of continued success and discussed the transition to the self-monitoring level and corresponding transition to the self-contained classroom in the traditional school. Once students were close to making this transition the coach supported them in learning to self-monitor. If the student was not successful at the Basic level for two consecutive weeks, he/she moved back to the Basic Plus level.

Students who met an average of 75% possible DPR points for six consecutive weeks at the Basic Plus level were moved to the self-monitoring level. At this level students were instructed on how to rate their own behavior on a daily basis by the coach with the same DPR. An additional DPR was used by the classroom teacher or paraprofessional in the self-contained classroom to assess accuracy of student self-ratings. In the beginning of this level students rated their behavior six times per day followed by daily ratings and weekly ratings depending on increased behavioral improvement at the self-monitoring level. When the student was on weekly monitoring in the self-monitoring level, the teacher agreement component was removed and the student was expected to self-rate accurately. At this time these students were also accessing

general education classes at the school in which the self-contained classroom was located as an added transition component. Agreement between student and teacher ratings was categorized as insufficient agreement, partial agreement and full agreement at the end of the day by the teacher. Insufficient agreement consisted of more than four points difference on the daily check-out DPR. Partial agreement consisted of four to 1-point differences on the daily check-out DPR. When students met partial or full agreement for four consecutive weeks the students moved to weekly self-rating. If a student did not average 75% DPR scores for six weeks or the student displayed dangerous or significantly disruptive behavior, the student was returned to the Basic Plus level and returned to the self-contained school as was a set procedure existing with the school prior to the intervention.

Treatment Fidelity. Fidelity for this study was aligned with fidelity procedures in existing CCE research. First, the *Teacher Adherence and Quality Form* (TAQF; see Appendix J: Cheney & Stage, 2005) assessed the degree of fidelity to which the teachers and paraprofessionals provided students with feedback regarding their behavior each time period (eight per day) and their adherence to the rating procedures and quality of feedback according to completed training. The researcher rated procedural fidelity on a provided 5-point Likert scale reflecting the extent to which the teacher or paraprofessional followed the protocol provided during training. The researcher collected fidelity data with each participating teacher and paraprofessional during one rating instance per week across the day. Overall collected teacher adherence and quality data over a total possible score was converted into a percentage. The researcher assessed

fidelity on 25.13% of the teacher/paraprofessional student ratings during or at the end of the class period. Fidelity for teacher adherence was 91.88%.

The researcher assessed check-in procedural fidelity through observing the coach on 23.33% of all check-in activities. This assessment occurred weekly during the morning check-in activities. The *Check-in Adherence and Quality Form* (CIAQF; see appendix K: Cheney & Stage, 2005) assessed both adherence to trained check-in procedures and quality of delivery of support. The researcher indicated the extent to which the coach performed the tasks based on a 4-point Likert scale. Overall collected check-in adherence and quality data over a total possible score were converted into a percentage of 91.93%. Check-out procedure fidelity was assessed with the *Check-out Adherence and Quality Form* (COAQF see Appendix L: Cheney & Stage, 2005) on 20% of all check-out activities. The procedures for this assessment were the same as the check-in fidelity measure with the same expected percentages of adherence and quality. Check-out adherence and quality were measured 21.67% of the total check-out activities and fidelity was found to be 95.85%.

The researcher also assessed social skills instruction with the social skills instruction training check-list provided by the CCE Program Manual (Cheney & Lynass, 2009). Social skills fidelity took place during small group social skills and problem solving instruction on a total of 20.5% of all social skills lessons and resulted in 98.45% fidelity with the check-list.

Interobserver Agreement. A trained research assistant completed interobserver agreement (IOA) to determine the extent to which the researcher is collecting accurate fidelity data on all four fidelity measures. The research assistant completed inter-observer

ratings on 20.04% of all teacher adherence fidelity ratings and IOA matched fidelity ratings at 97.75%. Check-in procedure IOA was completed on 21.43% of the check-in fidelity measures and agreement was reached on 100% of the check-in measures. Check-out IOA was completed on 23.08% of all check-out fidelity measures and agreement was reached 100% of those measures.

Social skills IOA was completed on 22.58% of all social skills lessons measured for fidelity and agreement was reached at 100%. Additionally, IOA was completed for the BOSS, MCF, and ORF weekly measures. The procedure for these IOA checks had two research team members (research assistant, coach, or primary researcher) complete the weekly measures together and score separately then compare. For the BOSS, IOA was completed on 20.64% of the weekly measures and agreement was reached at 96.88%. Math calculation fluency scores were checked for IOA 21.88% of all weekly measures and reached 100% agreement. Oral reading fluency IOA was completed on 21.88% of all ORF fidelity measures and reached agreement at 94.64%.

Experimental Design

This study involved a quasi-experimental design in which all 22 student participants experienced both baseline and intervention phases. The 4-week baseline phase data were collected to determine baseline behavioral and academic growth prior to the introduction of the intervention. Individual 13-week intervention phase data were used in combination with baseline data to develop growth models predicting behavioral and academic trajectories in both phases. For the research questions investigating function, severity of behavior, and relationship status as predictors of response to

intervention only intervention phase data were used to develop growth models of rates of behavioral response given the specific person-level variables considered.

Data Analyses

Growth Curve Modeling was used to analyze baseline and intervention phase data. The following model was used to address the first three research questions regarding behavioral, academic engagement, and academic achievement growth in response to both baseline and intervention phases:

$$\text{Level-1: } Y_{tij} = \pi_{0i} + \pi_{1i} (\text{TIME}_{ti}) + \pi_{2i} (\text{TIME2}) + e_{ti}$$

$$\text{Level-2: } \pi_{0i} = b_{00} + r_{0i}$$

$$\pi_{1i} = b_{10} + r_{1i}$$

$$\pi_{2i} = b_{20} + r_{2i}$$

$$\begin{aligned} \text{Combined: } Y_{ti} &= b_{00} + b_{10} (\text{TIME}_t) + b_{20} (\text{TIME2}) + r_{0i} + r_{1i}(\text{TIME}) \\ &+ r_{2i} (\text{TIME2}) + e_{ti} \end{aligned}$$

The fourth through sixth research questions examined possible moderating variables on DPR growth during treatment. This model determined the impact on DPR scores of one variable while controlling for the other two variables.

The unconditional model:

$$\text{Level-1: } \text{DPR} = \pi_{0i} + \pi_{1i} \text{TIME} + e_{ti}$$

$$\text{Level-2: } \pi_{0i} = b_{00} + r_{0i}$$

$$\pi_{1i} = b_{10} + r_{1i}$$

$$\text{Combined: } \text{DPR} = b_{00} + b_{10} (\text{TIME}_t) + r_{0i} + r_{1i}(\text{TIME}) + e_{ti}$$

The conditional model:

$$\text{Level-1: } \text{DPR} = \pi_{0i} + \pi_{1i} \text{TIME} + e_{ti}$$

$$\text{Level-2: } \pi_{0i} = b_{00} + r_{0i}$$

$$\pi_{1i} = b_{10} + b_{11}\text{FUNCTION} + b_{12}\text{SSBD} + b_{13}\text{RELATIONSHIP} + r_{1i}$$

$$\begin{aligned} \text{Combined: DPR} = & b_{00} + b_{10}\text{TIME} + b_{11}\text{FUNCTION}(\text{TIME}) + b_{12}\text{SSBD}(\text{TIME}) \\ & + b_{13}\text{RELATIONSHIP}(\text{TIME}) + r_{1i}(\text{TIME}) + r_{0i} + e_{ti} \end{aligned}$$

Threats to Validity

Threats to internal and external validity were considered. Potential internal threats to validity included test effects which could have occurred as a result of repeated test taking, maturation effects which exist when students become more cognitively and behaviorally able and experimental mortality. Test effects were countered by different forms of CBMs used each week. Maturation effects were countered by including the baseline phase in the growth curve models. Potential threats to external validity included generalizability due to personal coach factors which will not be consistent across study replications with different coaches.

Results

Models That Compare Slopes

Behavioral Growth. In this model, the average pre-treatment behavioral data value at the start of treatment was 27.376, $t(21) = 49.879, p < .001$. The baseline slope coefficient, average growth during the baseline phase, was statistically significant, $t(21) = -.343, p = .030$. For every unit increase in Time (day) during the baseline phase there was a DPR score decrease of .085. The variance of the slope during baseline was statistically significant, $\tau_{11} = .112, \chi^2(21) = 42.221, p < .05$; therefore changes in DPR scores across participants were inconsistent. The average difference in the slopes of DPR scores between baseline and intervention was statistically significant, $t(21) = -2.323, p = .030$ so

that a one unit increase in Time during intervention predicted an increase in DPR score of .209. The variance of the differences in slope between baseline and intervention phases was statistically significant, $\tau_{22} = .163$, $\chi^2(21) = 45.693$, $p < .05$.

Academic Engaged Time. At the start of treatment the average academic engaged time value was 42.709, $t(21) = 19.998$, $p = .000$. The baseline slope coefficient, average growth during the baseline phase, was statistically significant, $t(21) = 2.776$, $p = .000$. For every unit increase in Time (week) during the baseline phase, there was an average BOSS score increase of 2.776. The variance of the slope during baseline was statistically significant, $\tau_{11} = 2.779$, $\chi^2(21) = 60.098$, $p < .05$; therefore there were not uniform changes in BOSS scores across participants. The average difference the slopes of BOSS scores between baseline and intervention (-2.238) was statistically significant, $t(21) = -4.928$, $p = .000$ so that, a one unit increase in Time during intervention predicted an increase in BOSS score of .538. This growth, while positive is statistically smaller than the growth during the baseline phase. The variance of the differences in slope between baseline and intervention phases was statistically significant, $\tau_{22} = 2.108$, $\chi^2(21) = 41.473$, $p < .05$.

Curriculum Based Measurement Growth. In the ORF model, the average reading score at the start of treatment was 41.764, $t(21) = 5.735$, $p = .000$. The baseline slope coefficient, average growth during the baseline phase, was statistically significant, $t(21) = 4.812$, $p = .000$. For every unit increase in Time (week) during the baseline phase, there was an average Reading score increase of 3.709 words read correct per minute. The variance of the slope during baseline was not statistically significant, $\tau_{11} = 6.407$, $\chi^2(21) = 26.008$, $p > .05$; therefore the changes in reading score during the baseline phase did not

vary significantly between participants. The average difference in the slopes of Reading scores between baseline and intervention (-2.647) was statistically significant, $t(21) = -3.179, p = .005$ so that, a one unit increase in Time during intervention predicted an increase in Reading score of 1.062. This growth, while positive is statistically smaller than the growth during the baseline phase. The variance of the differences in slope between baseline and intervention phases was not statistically significant, $\tau_{22} = 2.073, \chi^2(21) = 16.859, p < .05$.

The average math score at the start of treatment was 6.227, $t(21) = 5.657, p < .001$. The baseline slope coefficient, average growth during the baseline phase, was statistically significant, $t(21) = 3.712, p = .002$. For every unit increase in Time (week) during the baseline phase, there was an average Math score increase of .602 digits correct per minute. The variance of the slope during baseline was not statistically significant, $\tau_{11} = .182, \chi^2(21) = 29.527, p > .05$; therefore there were consistent changes in Math scores across participants. The average difference in the slopes of Math scores between baseline and intervention (-.547) was statistically significant, $t(21) = -2.456, p = .023$ so that, a one unit increase in Time during intervention predicted an increase in Math score of .055. This growth, while positive is statistically smaller than the growth during the baseline phase. The variance of the differences in slope between baseline and intervention phases was statistically significant, $\tau_{22} = .438, \chi^2(21) = 37.106, p < .05$.

Models That Predict Growth During Intervention

For the unconditional model, DPR growth during intervention was not statistically significant, .019, $t(15) = 1.015, p = .327$. The variance associated with this model was $\tau_{11} = .004, \chi^2(15) = 45.240, p < .001$

Model 1. The slope for behavioral growth (measured by DPR) with SSBD as a predictor was not statistically significant, $-.014$, $t(15) = -.490$, $p = .629$. The average slope for behavioral growth during intervention with FACTS as a predictor was not statistically significant, $-.031$, $t(19) = -1.068$, $p = .299$.

The associated variance coefficient for this model was statistically significant: $\tau_{11} = .003$, $\chi^2(19) = 69.435$, $p < .001$. Therefore, SSBD score at beginning of intervention and function maintaining the behavior were not a significant predictor of response to the intervention and did not explain the variance between participants.

Model 2. The average slope for behavioral growth during intervention with student relationship perception as a predictor was not statistically significant, $.058$, $t(13) = 1.935$, $p = .075$. The average slope for behavioral growth during intervention with coach relationship status as a predictor was not statistically significant, $.034$, $t(13) = 1.159$, $p = .268$. The associated variance coefficient for this model was statistically significant: $\tau_{11} = .063$, $\chi^2(13) = 43.346$, $p < .001$.

Social Validity

Results from the social validity scale completed by all three classroom teachers and paraprofessionals at the self-contained school suggested that CCE was a desirable intervention. Five out of six (83.33%) adults rated it as desirable. The teacher that did not rate the intervention in the desirable range reported that she did not understand how the intervention addressed behavior but believed the coach was consistent and helpful. All 22 students completed the student social validity measure and nine rated the intervention as positive (40.9%).

Discussion

Intervention Impact

Check, Connect, and Expect is a secondary tier PBIS intervention with the primary purpose of providing a positive adult who establishes relationships with students with social and behavioral deficits. This intervention was initially designed in a basic format as Check and Connect which aimed to improve students' engagement with school and was designed to be used in conjunction with schoolwide, additional secondary, and tertiary tier interventions and supports. The development of CCE included data-based levels of supports for students requiring varying types and amounts of support. The original extension from Check and Connect to CCE was aimed to improve prosocial behavior for elementary students with or at-risk for E/BD. The current study aimed to extend the CCE intervention to elementary students with E/BD in self-contained settings.

The purpose of this study was to compare the behavioral and academic outcomes during baseline and CCE intervention in order to determine effectiveness for elementary students with E/BD in a self-contained setting. Person-level variables predicting response to CCE were also investigated. Overall, students demonstrated significantly improved teacher rated behavior during intervention. The academic variables improved significantly in baseline and intervention but to a lesser degree during intervention. None of the person-level variables predicted DPR growth during intervention.

Specifically, results from the model comparing DPR growth during baseline and intervention indicated that during baseline, DPR scores had a negative slope suggesting student behavior deteriorated over the four baseline weeks. With the introduction of CCE the DPR scores improved significantly compared to baseline suggesting CCE may be effective in improving student behavior and decreasing the number of corrections and

reminders given per day. The CCE intervention provides social and behavioral supports through (a) daily goal setting, (b) targeted social skills instruction, (c) relationship building with a positive adult, (d) behavioral progress monitoring with data-driven level system, and (e) home-school collaboration so the positive results from DPR data is promising. This result shows particular promise for the extension of CCE to elementary students with E/BD in self-contained settings because the behavioral deficits students with E/BD in self-contained settings display are typically deeply embedded and resistant to improvement.

The results from the academic measures indicated that on-task behavior, reading fluency, and calculation fluency improved significantly during baseline and intervention but to a lesser degree during intervention. While growth during intervention was positive and significant, further investigation is needed to determine the cause of academic growth during intervention having a more stable slope than during baseline. The results from this investigation highlight the importance of (a) addressing academic growth with effective teaching practices and (b) developing social and behavioral interventions that improve academic achievement.

Considerations and Future Directions

Although the current study was designed to limit mediating, moderating variables and measurement concerns issues confounding data collection and interpretation arose. One consideration of the investigation was the type of behavioral measure used, the DPR, as limitations of this possibly subjective measure of teacher perception of student behavior exist (DPR citation). The design of the investigation utilized DPR data over ODR data to improve sensitivity to behavioral growth. Future research should consider

utilizing a brief behavior rating scale (BBRS; Gresham, Cook, Collins, Dart, Rasetshwane, Truelson, & Grant, 2010). The BBRS is being developed as a sensitive progress monitoring tool for determining response to intervention and includes 12 items from the *Social Skills Rating System- Teacher Form* (Gresham & Elliott, 1990). Additionally, measures that triangulate teacher ratings such as direct observation should be considered when measuring behavioral growth.

Several considerations for interpreting the results of academic engaged time measured with the modified BOSS arose. First, it is possible that students encountered the Ceiling Effect (McBee, 2010). In this case the average academic engaged time at the start of baseline was 42.709. The ceiling on the BOSS is 60 and since students displayed improved engaged time at a rate on average of 2.776 on-task observations per week for four weeks, limited growth was possible during the 13-week intervention phase. The second consideration while interpreting the results is the possibility that students encountered the Observer-Expectancy Effect (Cordaro & Ison, 1963). The systematic, 20-minute observations completed each week were conducted in the students' classrooms and students might have been aware that they were being observed and therefore modified their behavior to match the perceived expectations of the observers.

Readers should also consider the limited behavior specific coding during direct observations with the modified BOSS measure. In particular, student behavior was only coded as "on-task" or "off-task". The original BOSS measure includes coding "on-task" time as either "active" or "passive" and off-task time as "verbal", "motor", or "passive". These details could better inform growth in academic engaged time. Future research should also consider conducting 45-minute observations for students with E/BD to avoid

the possibility of encountering the Ceiling Effect. Future research should also consider triangulating direct observation data with reviews of student work products for task completion and accuracy (Rock, 2005).

The primary consideration for ORF and MCF data collection and result interpretation is that CCE provided social and behavioral support and did not account for integrity of effective teaching practices or match the CBM tools to grade or ability-level instruction occurring in the classrooms since all student participants received second grade ORF and MCF probes. The measures were designed in this way so academic growth could be compared between students. Ideally students would be assessed for academic growth specified to content presented in the classroom between measurement occurrences.

Additionally, readers should also consider the possibility that students encountered the Novelty Effect (Kinsbourne & George, 1974). The theory of Novelty Effects suggests that participants begin new tasks with increased levels of concentration and motivation and over time the same task becomes familiar and participants fail to continue to demonstrate improvement. This is possible with both ORF and MCF probes since the procedures, degree of difficulty, and tasks remained constant throughout the 17-week study. This possibly confounding issue should be consideration when conducting frequent CBMs. Given these possibly limiting issues with accuracy of data, CBMs were more sensitive to academic growth than diagnostic measures which do not accurately reflect academic growth over brief periods of time.

Finally, it is possible that due to the school program's existing level system with transition component that students started the school year at the self-contained school

(during the 4-week baseline phase) and received consistent academic instruction delivery but when behavior improved with the onset of CCE during the intervention phase, students began the transitioning process to a less restrictive environment, thus receiving less consistent academic instruction delivery. Future research should consider the effectiveness of such transition components that may disrupt continuity of academic instruction delivery while providing targeted transition support. Future research should also investigate program issues of alternative school settings that affect effective academic teaching practices, and implementation of schoolwide and secondary tier PBIS supports and interventions.

The SSBD was designed as a screener for severe behavior and applied to the current investigation was used to identify student participants as “high” or “low” in severity of behavior to examine the utility of SSBD score as a valid predictor of student behavior in response to CCE. A consideration for the way the SSBD was used in this study was the categorization of severity of behavior as “high” or “low” by the researchers since it was not aligned with the original design of the measure. In this investigation a median cut point of teacher ratings was used instead of the systematic procedure for determining severity of behavior. Future research should investigate the validity of extending data from behavioral screeners into dichotomous variables such as “high” and “low”. Future research should also consider using the SSBD and SSRS measures to evaluate responsiveness to interventions. Kalberg, Lane, and Menzies (2010) propose the SSBD may be valid for monitoring progress when completed three times each year suggesting it may be a suitable pre/post measure of behavioral growth as response to intervention in future research investigations.

Scott, Alter, and McQuillan (2010) purport the process of determining the function maintaining problematic behavior is not clearly defined and may be conducted using various direct and indirect measures. This issue leads to the limitation of using the FACTS during baseline to determine function maintaining behavior which failed to predict behavioral growth. Future research should consider using more comprehensive measures of function. Further, the researchers in the current investigation coded function as either “escape-based” or “attention-based” rather than examining specific escape and attention-based behaviors such as peer or adult attention. Future research should consider expanding this variable from a dichotomous variable to include more specific and useful information when predicting behavioral growth as a response to intervention.

Several relationship measure factors should be considered when interpreting the results of the existing investigation. First, the COST relationship scale focused primarily on identifying demonstrations of warmth from student to the coach rather than the coach’s perception of relationship development alone. Relationship strength between teacher and student is not the coach’s perception of relationship development alone. Relationship strength between teacher and student is typically measured in this way (Jerome, Hamre, & Pianta, 2008; Crosnoe, Morrison, Burchinal, Pianta, Keating, Friedman, & Clarke-Stewart, 2010). Consideration should also be made when interpreting the results from the STCO relationship scale due to emotional and developmental deficits inherent in elementary students with E/BD in self-contained settings. Student participants may not have accurately rated their relationship strength with the coach over the 13 week intervention and may not have fully understood the Likert score rating made available on the STCO. Future research should verify

modifications necessary to accurately reflect relationship strength between student and coach.

Jerome, Hamre, and Pianta (2008) highlighted the importance of considering past relationship histories with adults when investigating teacher-student relationships in the school setting since previous relationship experiences may affect students' ability to develop relationships with adults in the school setting. Jerome, et al. also suggest that students with behavioral deficits experience increased difficulty in developing relationships with adults in the school setting.

Similar to previously highlighted possible difficulties with accurate perspective taking experienced by elementary students with E/BD, the social validity measure completed by the student participants was possibly too complicated for student participants due to the requirements for students to understand the intervention and use a Likert scale to rate the approval of the intervention. Future research should identify modifications necessary to gain accurate evaluations of behavioral interventions from young students with emotional and behavioral deficits. Future research should triangulate social validity data with ratings and anecdotal data (Simpson, 2004).

In addition to these considerations and future directions specific to research questions addressed in this investigation future research should also consider measuring: (a) access to less restrictive environments, (b) decreased time processing office discipline referrals, and (c) attendance and tardy rates. Additionally, focus groups should be conducted with students and school staff members to further examine the social validity of CCE. Last, follow-up behavioral and academic maintenance data should be collected

to investigate the long-term effects of CCE for elementary students with E/BD in self-contained settings.

Conclusion

The current investigation provides details from the initial extension of CCE to students with E/BD in self-contained settings. Overall the results were positive but should be replicated with specific focus on improving measurement of behavioral and academic data. Results from the DPR data were promising, demonstrating change in direction of average behavioral growth slope from a negative trend during baseline to a significantly positive trend during intervention. While results from the academic variables measured did not demonstrate improved academic growth during intervention compared to baseline, growth in all domains remained positive.

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APPENDIXES

APPENDIX A

Today I brought back my signed card: YES NO

We did a "check in": YES NO

My goal for today is: _____

Daily Progress Report

Name: _____

Date: _____

Excellent! (5): Needed 0 reminders or corrections.

Way to Go! (4): Needed 1 reminder or correction.

Good (3): Needed 2-3 reminders or corrections.

OK (2): Needed 4-5 reminders or corrections.

Tough Time (1): Needed 6 or more reminders or corrections

	1	2	3	4
Number of reminders or corrections				

	5	6	7	8
Number of reminders or corrections				
My score	5- 4- 3- 2- 1	5- 4- 3- 2- 1	5- 4- 3- 2- 1	5- 4- 3- 2- 1
My score	5- 4- 3- 2- 1	5- 4- 3- 2- 1	5- 4- 3- 2- 1	5- 4- 3- 2- 1

Morning Total : ____

Afternoon Total : ____

My total score for today: ____

I reached my goal today: YES NO

NOTES: Something I did great today was _____

Something I need to work on tomorrow is _____

Parent/Guardian Signature _____

Excellent! (5): Needed 0 reminders or corrections.

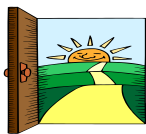
Way to Go! (4): Needed 1 reminder or correction.

Good (3): Needed 2-3 reminders or corrections.

OK (2): Needed 4-5 reminders or corrections.

Tough Time (1): Needed 6 or more reminders or corrections

APPENDIX B

**Goal Setting Activity**

Name: _____

My goal for today is: _____

This goal is important to me because: _____

To reach my goal I will do these 2 things:

1. _____

2. _____

When I reach my goal these good things will happen: _____

APPENDIX C

Behavior Observation of Students in School (BOSS)

15 minute observation during instruction, record at 15-second intervals

Student Name: _____

Date: _____

Time: _____

Setting: a. Teacher-led, small group b. Teacher-led, large group

c. Teacher-led, individual d. Small group seatwork

e. Large group seatwork

Moment	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Subtotal
ET																
OFT																
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
ET																
OFT																
	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	
ET																
OFT																
	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	
ET																
OFT																
TOTAL ET																
TOTAL OFT																

Notes:

APPENDIX D

FUNCTIONAL ASSESSMENT CHECKLIST FOR TEACHERS AND STAFF

Part A

Step 1 Student/ Grade: _____ Date: _____
Interviewer: _____ Respondent(s): _____

Step 2 **Student Profile:** Please identify at least three strengths or contributions the student brings to school.

Problem Behavior(s): Identify problem behaviors

Step 3

<input type="checkbox"/> Tardy	<input type="checkbox"/> Fight/physical Aggression	<input type="checkbox"/> Disruptive	<input type="checkbox"/> Theft
<input type="checkbox"/> Unresponsive	<input type="checkbox"/> Inappropriate Language	<input type="checkbox"/> Insubordination	<input type="checkbox"/> Vandalism
<input type="checkbox"/> Withdrawn	<input type="checkbox"/> Verbal Harassment	<input type="checkbox"/> Work not done	<input type="checkbox"/> Other _____
	<input type="checkbox"/> Verbally Inappropriate	<input type="checkbox"/> Self-injury	

Describe problem behavior: _____

Step 4

Identifying Routines: Where, When and With Whom Problem Behaviors are Most Likely.

Schedule (Times)	Activity	Likelihood of Problem Behavior						Specific Problem Behavior
	Before School	Low					High	
		1	2	3	4	5	6	
	Math	1	2	3	4	5	6	
	Transition	1	2	3	4	5	6	
	Language Arts	1	2	3	4	5	6	
	Recess	1	2	3	4	5	6	
	Reading	1	2	3	4	5	6	
	Lunch	1	2	3	4	5	6	
	Science	1	2	3	4	5	6	
	Transition	1	2	3	4	5	6	
	Block Studies	1	2	3	4	5	6	
	Art	1	2	3	4	5	6	

Step 5

Select 1-3 Routines for further assessment: Select routines based on (a) similarity of activities (conditions) with ratings of 4, 5 or 6 and (b) similarity of problem behavior(s). Complete the FACTS-Part B for each routine identified.

Part B

Step 1 Student/ Grade: _____ Date: _____
Interviewer: _____ Respondent(s): _____

Step 2 **Routine/Activities/Context:** Which routine (only one) from the FACTS-Part A is assessed?

Routine/Activities/Context	Problem Behavior(s)

Step 3 **Provide more detail about the problem behavior(s):**

What does the problem behavior(s) look like?
How often does the problem behavior(s) occur?
How long does the problem behavior(s) last when it does occur?
What is the intensity/level of danger of the problem behavior(s)?

Step 4 **What are the events that predict when the problem behavior(s) will occur? (Predictors)**

Related Issues (setting events)	Environmental Features
<input type="checkbox"/> illness Other: _____ <input type="checkbox"/> drug use _____ <input type="checkbox"/> negative social _____ <input type="checkbox"/> conflict at home _____ <input type="checkbox"/> academic failure _____	<input type="checkbox"/> reprimand/correction <input type="checkbox"/> structured activity <input type="checkbox"/> physical demands <input type="checkbox"/> unstructured time <input type="checkbox"/> socially isolated <input type="checkbox"/> tasks too boring <input type="checkbox"/> with peers <input type="checkbox"/> activity too long <input type="checkbox"/> Other <input type="checkbox"/> tasks too difficult

Step 5 **What consequences appear most likely to maintain the problem behavior(s)?**

Things that are Obtained	Things Avoided or Escaped From
<input type="checkbox"/> adult attention Other: _____ <input type="checkbox"/> peer attention _____ <input type="checkbox"/> preferred activity _____ <input type="checkbox"/> money/things _____	<input type="checkbox"/> hard tasks Other: _____ <input type="checkbox"/> reprimands _____ <input type="checkbox"/> peer negatives _____ <input type="checkbox"/> physical effort _____ <input type="checkbox"/> adult attention _____

SUMMARY OF BEHAVIOR

Identify the summary that will be used to build a plan of behavior support.

Setting Events & Predictors	Problem Behavior(s)	Maintaining Consequence(s)

Step 7 **How confident are you that the Summary of Behavior is accurate?**

Not very confident	1	2	3	4	5	Very Confident
--------------------	---	---	---	---	---	----------------

Step 8 **What current efforts have been used to control the problem behavior?**

Strategies for preventing problem behavior	Strategies for responding to problem behavior
<input type="checkbox"/> schedule change Other: <input type="checkbox"/> None <input type="checkbox"/> seating change _____ <input type="checkbox"/> curriculum change _____	<input type="checkbox"/> reprimand Other: <input type="checkbox"/> None <input type="checkbox"/> office referral _____ <input type="checkbox"/> detention _____

APPENDIX E

ABC Analysis Data Sheet

Student: _____

Description of behavior(s) of interest: _____

Date	Time	Antecedent	Behavior	Consequence	Function/Comments

APPENDIX F

Student Interview
Coach-Student Relationship

Coach ID: _____

Student ID: _____

Please read the following questions to the student and carefully explain the rating options. Circle the number and rating the student selects after each question.

1. I look forward to meeting with my Coach (insert name).	1. All the time 2. Most of the time 3. A little 4. Never
2. It is easy to talk to my Coach (insert name).	1. All the time 2. Most of the time 3. A little 4. Never
3. I talk with my Coach about school and my life.	1. All the time 2. Most of the time 3. A little 4. Never
4. I can ask my Coach for help when I have a problem.	1. All the time 2. Most of the time 3. A little 4. Never
5. I know that my Coach is really on my side.	1. All the time 2. Most of the time 3. A little 4. Never
6. I know that my Coach will help me no matter what I do.	1. All the time 2. Most of the time 3. A little 4. Never

APPENDIX G

**Student Coach Relationship Scale:
Short Form**

Please reflect on the degree to which each of the following statements currently applies to your relationship with this student. Using the scale below, circle the appropriate answer for each item.

Coach ID: _____ **Student ID :** _____

1. I share an affectionate, warm relationship with this child.	Definitely Does Not Apply	Not Really	Neutral, Not Sure	Applies sometimes	Definitely Applies
2. This child and I always seem to be struggling with each other.	Definitely Does Not Apply	Not Really	Neutral, Not Sure	Applies sometimes	Definitely Applies
3. If upset, this child will seek comfort from me.	Definitely Does Not Apply	Not Really	Neutral, Not Sure	Applies sometimes	Definitely Applies
4. This child is uncomfortable with physical affection or touch from me.	Definitely Does Not Apply	Not Really	Neutral, Not Sure	Applies sometimes	Definitely Applies
5. This child values his/her relationship with me.	Definitely Does Not Apply	Not Really	Neutral, Not Sure	Applies sometimes	Definitely Applies
6. When I praise this child, he/she beams with pride.	Definitely Does Not Apply	Not Really	Neutral, Not Sure	Applies sometimes	Definitely Applies
7. This child spontaneously shares information about himself/herself.	Definitely Does Not Apply	Not Really	Neutral, Not Sure	Applies sometimes	Definitely Applies
8. This child easily becomes angry at me.	Definitely Does Not Apply	Not Really	Neutral, Not Sure	Applies sometimes	Definitely Applies

**Student Coach Relationship Scale:
Short Form**

9. It is easy to be in tune with what this child is feeling.	Definitely Does Not Apply	Not Really	Neutral, Not Sure	Applies sometimes	Definitely Applies
10. This child remains angry or is resistant after being disciplined.	Definitely Does Not Apply	Not Really	Neutral, Not Sure	Applies sometimes	Definitely Applies
11. Dealing with this child drains my energy.	Definitely Does Not Apply	Not Really	Neutral, Not Sure	Applies sometimes	Definitely Applies
12. When this child wakes up in a bad mood, I know we're in for a long and difficult day.	Definitely Does Not Apply	Not Really	Neutral, Not Sure	Applies sometimes	Definitely Applies
13. This child's feelings towards me can be unpredictable or can change suddenly.	Definitely Does Not Apply	Not Really	Neutral, Not Sure	Applies sometimes	Definitely Applies
14. This child is sneaky or manipulative with me.	Definitely Does Not Apply	Not Really	Neutral, Not Sure	Applies sometimes	Definitely Applies
15. This child openly shares his/her feelings and experiences with me.	Definitely Does Not Apply	Not Really	Neutral, Not Sure	Applies sometimes	Definitely Applies

APPENDIX H

**Teacher Evaluation Inventory
CCE Intervention Feedback**

Teacher ID: _____

Student ID: _____

Please reflect on the CCE interventions this student has received this year and circle the number and rating that corresponds to your response to each question.

1. I found the overall Check, Connect and Expect Intervention effectively dealt with the student's problem behavior.	1. Strongly Disagree 2. Disagree 3. Neutral 4. Agree 5. Strongly Agree
2. I found the Check-in procedure to be acceptable in this program.	1. Strongly Disagree 2. Disagree 3. Neutral 4. Agree 5. Strongly Agree
3. I found the Check Out procedure to be acceptable in this program.	1. Strongly Disagree 2. Disagree 3. Neutral 4. Agree 5. Strongly Agree
4. The Social Skills instruction was effective for students to meet daily expectations	1. Strongly Disagree 2. Disagree 3. Neutral 4. Agree 5. Strongly Agree
5. The Problem Solving Approach was effective for students to solve their interpersonal problems with teachers and students.	1. Strongly Disagree 2. Disagree 3. Neutral 4. Agree 5. Strongly Agree
6. The academic tutoring was effective for student's academic task completion.	1. Strongly Disagree 2. Disagree 3. Neutral 4. Agree 5. Strongly Agree
7. Discussions with the student's coach was effective in supporting student progress.	1. Strongly Disagree 2. Disagree 3. Neutral 4. Agree 5. Strongly Agree
8. Students willingly used the Daily Progress Report in the classroom.	1. Strongly Disagree 2. Disagree 3. Neutral 4. Agree 5. Strongly Agree
9. I would recommend the CC&E intervention to other classroom teachers.	1. Strongly Disagree 2. Disagree 3. Neutral 4. Agree 5. Strongly Agree
10. Overall, I have a positive reaction to the CC&E intervention program.	1. Strongly Disagree 2. Disagree 3. Neutral 4. Agree 5. Strongly Agree

APPENDIX I

Student Evaluation Interview
Social Validity Measure For UWBRC

Teacher ID: _____

Student ID: _____

Please read the following questions to the student and carefully explain the rating options. Circle the number and rating the student selects after each question.

1. What do you think of the overall CC&E program ?	5. Great 6. Good 7. Not sure 8. Not a good plan 9. Bad plan
2. Was it hard for you to earn your points in the program?	1. Very hard 2. Hard 3. Not sure 4. Not very hard 5. Not hard at all
3. Did other kids in class tease you about your program?	1. A lot 2. Sometimes 3. Not sure 4. A little 5. Never
4. Do you think that there is a better way to help you to do a better job in school?	1. A much better way 2. A better way 3. Not sure 4. There maybe a better way 5. There is not a better way to help
5. Would this plan help other students in the classroom?	1. Great plan for other students 2. Good plan for other students 3. Not sure 4. Not a good plan for other students 5. Bad plan for other students
6. I liked meeting with the coach before and after school.	1. A lot 2. Sometimes 3. Not sure 4. A little 5. Never
7. I liked the social skills class Not Applicable	1. A lot 2. Sometimes 3. Not sure 4. A little 5. Never
8. I liked using the problem solving steps. Not Applicable	1. A lot 2. Sometimes 3. Not sure 4. A little 5. Never
9. I liked getting help with my work. Not Applicable	1. A lot 2. Sometimes 3. Not sure 4. A little 5. Never