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COMBINING SELF-DETERMINATION AND CHECK-IN/CHECK-OUT TO IMPROVE THE ON-TASK BEHAVIOR AMONG AFRICAN AMERICAN STUDENTS WITH CHALLENGING BEHAVIORS

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ACCEPTANCE

This dissertation, COMBINING SELF-DETERMINATION AND CHECK-IN/CHECK-OUT TO IMPROVE THE ON-TASK BEHAVIOR AMONG AFRICAN AMERICAN STUDENTS WITH CHALLENGING BEHAVIORS, by WEKE TREVARD ANDREWS, 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 and Human Development, Georgia State University.

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

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Andrews, W., Houchins, D., & Varjas, K. (2017). Student-directed check-in/check-out for students in alternative education settings. *Teaching Exceptional Children, 49(6),* 380-390.

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Kane, C., Houchins, D., Varjas, K., Schwab, J., & **Andrews, W.** (October, 2016). *Using dialogue journaling in alternative school classrooms with students with emotional and behavior disorders.* Paper presented at the annual conference of the Teacher Educators for Children with Behavioral Disorders (TECBD) of the Council for Exceptional Children (CEC), Tempe, AZ.

Pressley, M., Varjas, K., Houchins, D., & **Andrews, W.** (2015). *Trauma-informed interventions for students with disabilities: A systematic literature review*. Poster presented at The Annual Council for Exceptional Children (CEC) Convention and Expo, San Diego, CA.

Andrews, W. T., Kane, C. A., Pressley, M. D., Johnson, Z., Schwab, J., Ansley, B., Varjas, K., & Houchins, D. (March, 2014). *School climate in alternative school settings.* The Committee on Teaching About the United Nations Conference. Atlanta, GA.

Ansley, B., Schwab, J., Johnson, Z., Pressley, M., **Andrews, W**., Kane, C., Houchins, D., & Varjas, K. (March, 2014). *Effective instruction for youth at risk in alternative schools.*

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ABSTRACT

Students enrolled in alternative/therapeutic school settings generally have a history of academic failure and behavioral disruption that may impede their learning. These students tend to perform lower than their peers in academic areas and exhibit higher rates of disruptive, off-task behavior and course failure. One strategy that may address the challenging needs of these students is the Check-in/Check-out intervention embedded with self-determination instruction. Self-determination instruction and Check-in/Check-out combined, have the potential to enable students in alternative school settings to be more empowered in their own learning and increase the likelihood of academic and behavioral success. The purpose of this study was to examine the effects of implementing Student-Directed Check-in/Check-out (SD-CICO) on the behavior outcomes of African American middle schools students with emotional and behavior disorders. The study examined if SD-CICO positively impacted students' level of self-determination and ability to attain self-selected goals. The research questions presented in this study were addressed using a single case ABAB withdrawal design. Data was collected on students' level of on-task behavior during baseline (A) phases. During these phases, the students did not receive the SD-CICO intervention. During intervention (B) phases, students received SD-CICO instruction. On-task behavioral data was collected during each phase to gather level and trend data. Because the presence and removal of the intervention should directly impact the students' level of on-task behavior, visual analyses of the data allowed the researcher to determine the presence of replication of the students' behavior during baseline and treatment conditions. Visual analysis was also used to assess the presence of a functional relationship. Students' level of self-determination was measured using the AIR Self-Determination scale.

INDEX WORDS: Check-in/Check-out, Self-Determination, Urban Settings, Emotional and Behavior Disorders

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by

WEKE ANDREWS

A Dissertation

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in

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in

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DEDICATION

This manuscript is dedicated to all of the students whose greatness will at times be overshadowed and burdened by life's' innumerable lessons that will take you through the cycle of forgetting and remembering who you are. Never forget that your dream is where you will discover your purpose. It is the only truth that matters. You are meant to become your own Master

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Headed in the right direction, I can see the light of day. Now I have found my pearl of wisdom, there's no need for me to be afraid.
-   India Arie

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in order to get me here. More importantly, I appreciate the varying levels of support that you

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Statement of Problem

The disproportionate representation of African American students in special education is long-standing problem in U.S. schools. Disproportionality is defined as an overrepresentation or underrepresentation of a specific student group within a setting or outcome of interest, given that group's proportion in the total population (Dever, Raines, Dowdy, & Hostutler, 2016). Typically, African American students are over-represented in the mild intellectual disability and EBD special education categories (Ahram, Fergus, & Noguera, 2011; Dever et al., 2016; Skiba et al., 2005). African American students are overrepresented in special education (Bal, Sullivan, & Harper, 2014), including ID (Ahram et al., 2011), and EBD (Dever et al., 2016, Sullivan & Bal, 2013). In the U.S., African American students are overrepresented in the emotional behavior disabilities (EBD) special education category, meaning that they are more likely to be identified with and receive special education services for EBD than would be expected given their proportionate number in the student population (Bal et al., 2014; Skiba, Poloni-Staudinger, Gallini, Simmons, & Feggins-Azziz, 2006; U.S. Department of Education, 2010). African American students are also more likely than their White peers to be referred for discipline problems and to be suspended or expelled from school (Losen, Hodson, Keith, Morrison, & Belway, 2015; Skiba et al.). These conditions may lead to negative student outcomes like continued experiences with exclusionary discipline, inappropriate school placement, academic underperformance, school drop-out, and entanglement with the juvenile justice system (Girvan, Gion, McInstosh, Smolkowski, 2016; Nicholson-Crotty, Birchmeier, & Valentine, 2009). Among the many factors that likely contribute to the misrepresentation of African American

students among EBD eligibilities (Skiba et al.), is the lack effective and comprehensive approaches available to addressing their behavioral needs.

Emotional Behavior Disorders

Students with EBDs often experience many challenges within schools settings. A review conducted by Dunn and colleagues (2017) estimated that as of 2012, approximately 370,000 students with EBD received special education services. The authors further suggest that even though students with EBD represent less than one percent of the student population, they are estimated to represent 12% of all school aged children who have a disability (Forness, Kim, & Walker, 2012). Emotional and behavior disorders are often characterized than formally defined. Students are classified as having an EBD if they: (1) have difficulty building and maintaining personal relationships with peers or teachers, (2) have an inability to learn that cannot be explained by a learning disorder or health issue, (3) display inappropriate behaviors under typical circumstances, (4) are generally unhappy or depressed, and (5) develop physical symptoms or fears that are directly associated with personal or school problems (Gulchak & Lopes, 2007; Individuals With Disabilities Education Improvement Act, IDEA, 2004). Students who exhibit one or more of the following with increased duration, frequency, and intensity to a degree that is deemed intrusive to their educational performance, can be found eligible for special education services under the EBD category.

Students with EBD exhibit problematic behaviors and impaired social skills that interfere with their ability to experience academic productivity in school (Farley, Torres, Wailehua, & Cook, 2012). EBD can be classified as either externalizing or internalizing. Externalizing behaviors are behaviors directed outward towards others like bullying, fighting, and cursing, while internalizing behaviors are those that are focused inward on self, and include behaviors

like fearfulness, social withdrawal, and anxiety. The behavior of students with EBD is often characterized as being aggressive and disruptive, and is often associated with peer rejection and/or social status within the school or classroom (Farmer & Hollowell, 1994). These students are also more likely to participate in bullying or fighting behaviors (Wagner & Cameto, 2004). It has been resported that African American students are diagnosed with disabilities associated with externalizing behavior like aggression and hyperactivity at a rate of 2.28 times more than children in other ethnic/racial categories (Bean, 2013).

In comparison to their peers, particularly those with other disabilities, like Autism or Learning Disabilities, students with EBD experience higher rates of absenteeism, lower grade point averages, higher course failure, and higher school drop-out (Benitez, Lattimore, & Wehmeyer, 2005; Kelly & Shogren, 2014). Wagner and Cameto (2004) found that 40% of students with EBD will have attended five or more schools since kindergarten, and that 75% of these students have been suspended or expelled at least once. These high rates of exclusionary disciplinary practices often lead schools or families to locating settings that are presumed to be better equipped to addressing externalizing behaviors.

When examining self-determined behavior, students with EBD are more likely to experience difficulty with self-regulating their own actions. Stated differently, students with EBD are less likely to engage in metacognitive processes that allow him or her to control, manage, or regulate their own behaviors by thinking about those behaviors before they are expressed (Bruhn, McDaniel, Fernando, & Troughton, 2016). Carter and colleagues (2006) found that students with EBD have less knowledge of self-determination, and encounter fewer opportunities to experience and practice using skills related to self-determination, although it is estimated that 55% of these students have a behavior management plan or participate in a

program to help them to constructively manage their behaviors (Wagner & Cameto, 2004). Similarly, they are less likely to have gained the skills required to proactively plan positive actions and behaviors that can be exhibited when faced with challenges and obstacles. Herron and Martin (2015) suggest that by the time students with EBD reach middle grades, they have an overall decreased interest in school and tend to establish relationships with other students who exhibit similar attitudes. Consequently, the culmination of these various factors often contribute to negative school outcomes for students with EBD like disciplinary exclusion, placement in restrictive environments, delinquency, unemployment, and involvement in the criminal justice system (Dunn et al., 2017).

African American Students: Disproportionality in EBD and Disciplinary Practices

Although the approaches to calculating and reporting disproportionality differ at national, state, and local levels, empirical evidence suggests that African American students are misrepresented in special education, with more African American students receiving special education services than would be expected given their proportion of the US student population, ages 6-21 years old (Sullivan & Bal, 2013).

Nationally, disproportionality rates associated with EBD and disciplinary practices are examined by comparing the rates of participation of students in specific ethnic race groups in exclusionary discipline procedures like in-school suspension (ISS), out-of-school suspension (OSS), and expulsion (EXP). Empirical evidence from both national and local studies suggests that race predicts disciplinary referral, suspension, and expulsion rates (Bryan et al., 2012; National Center for Education Statistics [NCES], 2003). With regard to suspension and expulsion rates, no research has substantiated student misconduct as the sole force behind the

disciplinary practices of African American students, indicating that other factors related to high exclusionary disciplinary procedures may be at play.

Nonetheless, the discipline gap continues to grow and expose this group of students to harsh exclusionary practices (Losen et al., 2015; Finn & Servos, 2013, Skiba, Michael, Nardo, & Peterson, 2002; Skiba & Williams, 2014). For example, O'Conner, Porowski, and Passa (2014) found that African American students in Maryland had higher rates of OSS or EXP, the highest rate of school removal than any other race within the state, and that they were 2.8 times more likely to be suspended or expelled than their White peers. African American students have also been found to be twice as likely as their White peers to receive referrals (Skiba et al., 2002) and experience exclusionary practices (Skiba, Chung, Trachok, Baker, Sheya, & Hughes, 2014). African American students have also been found to be more likely to receive office referrals for teacher subjective offenses like disrespect, noise level, and loitering compared to their White peers who are more likely to obtain office referrals for more objective offenses like smoking, vandalism, or skipping classes (Bean, 2013; Byran et al., 2012; Skiba, 2002). For example, Gastic (2017) found that African American students in Massachusetts received more serious disciplinary actions than White students for similar offenses. Gagnon and colleagues (2017) found comparable results in Florida. Using 2010-2011 data from the Florida Department of Education, they found that African American students received exclusionary discipline (i.e., suspension, expulsion) at higher rates, particularly in cases where the student participated in free and reduced lunch programs.

Contributors to Disproportionality in EBD

Research points to a number of contributing factors that may be associated with the exclusionary discipline of African American students and the likelihood of their subsequent

referral for special education for EBD, including school characteristics, student characteristics, the referral and eligibility process, and teacher biases.

School characteristics. Research indicates that a number of school-level variables may contribute to disproportionality, including school type, grade level, student teacher ratio, and class type. For example, Gagnon and colleagues (2017) found that suburban schools were more likely to use expulsion than rural schools, middle and secondary schools more likely to use expulsion than elementary schools, and middle and high schools were more likely to change a students' placement. A change in students' placement often involves moving the student from the most inclusive environment (e.g., general education setting) to a more restrictive environment (e.g., self-contained classroom). In an examination of individual and school level predictors of office discipline referrals (ODR), Martinez, McMahon, & Treger (2016) found that schools with low student-teacher ratios had higher rates of ODRs for physical aggression than schools with higher student teacher ratios. Finally, Bryan et al. (2012) investigated the rate at which English and Math teachers refer students to school counselors for disruptive behaviors, given the high stakes importance of these courses for students. Results indicated that African American students were 71% more likely to be referred for disruptive behavior in English classes, but did not find significant results for math classes.

Student characteristics. Research also indicates that, in addition to ethnicity and race, student-level variables may contribute to disproportionality. Gagnon et al. (2017) found that middle and secondary students received significantly more suspensions than elementary students and students receiving free or reduced lunch were more likely to receive suspension and expulsion. Studies have also found African American students to be more likely to receive office discipline referrals for their behavior than Latino and White students, that these students'

previous at-risk behaviors or infractions were positive predictors of teacher referrals in both English and Math classes, and that higher teacher expectations (i.e., teachers who held the belief that their students could excel academically) reduced the odds of students being referred for discipline (Bryan et al., 2012; Martinez et al., 2016). Student exposure to repeated referrals for subjective reasons (i.e., disrespect) may also contribute to disproportionality, as these accumulating experiences create a cycle of continuous negative outcomes, including lost class time, student disengagement, academic failure, school dropout, and even incarceration (Bal et al., 2014; Harry & Klingner, 2006).

Referral and eligibility process for special education services. Disproportionality associated with EBD and disciplinary practices in schools seems to be rooted within the referral phase of reporting discipline infractions (Bryan, et al., 2012; Bal, Sullivan, & Harper, 2014; Gagnon, Linton, 2015; Martinez, McMahon, & Tregor, 2016; Smolkowski, Girvan, McIntosh, Nese, & Horner, 2016). Disproportionality begins at the classroom level, as teachers are often and most likely to be the referring agents of students to the office to receive office discipline referrals, since they are the primary individuals within the school building directly working with students. They are also responsible for making initial judgment calls on defining the behaviors encountered within the classroom as appropriate or inappropriate, to which they may respond by addressing the behavior at the classroom level, or by referring students to administration for consequential disciplinary practices. However, research has indicated that student referrals to the office may be associated with teacher level variables that can negatively and disproportionality impact the prevalence of referrals and suspensions of African American students. Two of these variables include cultural mismatch and teacher bias (Girvan et al., 2016)

Cultural mismatch. The over referral and identification of African American students may be due to implicit teacher biases (Girvan et al., 2016) which may stem from cultural mismatch. That is, White teachers may be more likely to refer African American children for evaluation for a disability because they do not understand or feel negatively towards African American culture (Linton, 2015; Skiba & Sprague, 2008). For example, Swain-Bradway and colleagues (2014) have discussed the impact that language (e.g., disrespect, unresponsive, defiant) can have during the referral process, noting that language is culturally situated and based on individual perspective rather than actual behavior. Neal and colleagues (2003) investigated how teachers internalize the externalizing behaviors (e.g., aggression, hyperactivity) of African American students. The researchers found that White teachers perceived African American culture-related movement styles (e.g., ways of walking) as styles that are associated with low achievement, high in aggression, and more likely in need of special education services. This implies that students may be referred for discipline or for special education because of cultural identification or by simply engaging in individually innate behaviors. Similarly, Linton (2015) found that teachers were more likely to rate the externalizing behaviors (e.g., hyperactivity) of African American children in special education higher than the children themselves or their mothers. The study indicated that teachers' subjective ratings of the behaviors exhibited by African American students may contribute to an overall disproportionate referral for and diagnosis of behavior related disorders in this student population.

Explicit and implicit bias. Girvan et al. (2016) and Smolkowski et al. (2016) examined explicit and implicit teacher biases as contributors to the over referral of African American students for discipline. The authors define explicit bias as consciously endorsed attitudes or beliefs about members of particular social groups like prejudice and racism. They further define

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implicit biases as subtle, automatic, and often unconscious stereotypic associations that

individuals may have of people that may not be overtly endorsed. Implicit biases can adversely

impact perceptions, judgments, decision-making, and behavior. The researchers in these studies

used the Vulnerable Decision Points model (McIntosh, Girvan, Horner, & Smolkowski, 2014) to

garner specific situations in which increased disproportionality is more likely to occur,

hypothesizing that referrals result mostly from implicit biases when teachers lack the motivation

(i.e., when tired, hungry, frustrated) or ability (i.e., instances of quick judgment, experiencing

unexpected behavior) to make careful decisions.

Girvan et al. (2016) found that student-level disproportionality was linked to subjective

office discipline referrals (ODRs) than objective ODRs and explained 1.5 to 3 times the variance

in referrals. Subjective ODRs result from behaviors that were not clearly defined, like defiance.

Conversely, objective ODRs result from behaviors that are clearly defined, like skipping class.

The authors suggest that teachers' discretionary decision making most likely contributed to

disproportionality rather than racial discrimination, and that many of the incongruent decisions

made by the teachers may have resulted from unclear and subjectively defined behaviors like

defiance and disrespect. In a similar study, Smolkowski et al. (2016) also found that African

American students were more likely to receive subjective ODRs than White students. However,

they also found that African American students were at greater risk for receiving subjective

ODRs within the classroom as compared to other settings, and were 1.34 times more likely to

receive major subjective ODRs that resulted in class removal. Finally, the researchers reported

that teachers were more prone to issue major ODRs during the first 90 mins of day. Together,

these results provide insight into the importance of understanding the role of subjective

discipline referrals and disproportionate exclusionary measures against African American

students and how these practices may exacerbate the issues, especially as it related to loss of instructional class time.

Substantial loss of class time proliferates the cyclical nature of the referral process as students miss the opportunity to receive academic and behavioral instruction to support the development of critical skills they may be lacking. Students who are not in class or in school cannot be given the opportunity to learn from teachers and other invested staff. Equally, they cannot be exposed to early intervening or tiered strategies and resources aimed to improve overall student outcomes. Donovan and Cross (2002) suggest that the identification process may actually be detrimental to the in-school and post-school success of some students because the process may inadvertently stigmatize students through segregation and exposure to low expectations and a weak curriculum.

Addressing Disproportionality with Evidence-Based Practices for African American Students with EBD

Given the wide array of factors that contribute to the disproportionate representation of African American students with EBD and who experience exclusionary discipline, it is likely that multiple approaches will be necessary to address and eliminate this problem. Research indicates that student behavior is malleable, and that, when provided with appropriate positive supports, challenging behaviors can be reduced significantly among students with EBD (Carter, Lane, Crnobori, Bruhn, & Oakes, 2011; Maggin, Zurheide, Pickett, & Baillie, 2015). In particular, for African American students who may be particularly susceptible to exclusionary discipline practices, it may be necessary to implement multiple evidence-based practices to address their needs effectively (Cook, Tankersley, & Harjusola-Webb, 2008). There are two strategies consistently identified in the literature as being effective for reducing challenging

behaviors: Check-in, Check-out (CICO; Maggin et al., Mitchell, Adamson, & McKenna, 2016) and self-determination strategies, like the Self-Determined Learning Model of Instruction (SDLMI; Carter et al., 2011; Eisenman, 2007; Kelly & Shogren, 2014; Wehmeyer et al., 2000).

Check In/Check Out. CICO is a moderately intensive intervention that was designed to decrease the prevalence of maladaptive behaviors within school settings. CICO utilizes scheduled student check-ins, school based mentors, daily progress reports, and positive teacher feedback as a means to address challenging student behavior (Hawken, Bundock, Barrett, Eber, Breen, & Phillips, 2015). Students begin the day by checking in with a CICO mentor, who is most often a school-based staff member with an established rapport with the targeted student. During check-ins, mentors spend up to 10 minutes reviewing behavioral goals with students and ensuring they are adequately prepared for class with materials and their Daily Progress Report (DPR). The DPR typically lists school wide behavior expectations and allows teachers to rate student progress towards behavioral goals after each class period. The DPR further allows teachers to provide positive feedback to students on their progress so that students may modify any challenging behaviors in preparation for the next class period. During check-outs, the CICO mentor and student reviews overall daily progress and calculates earned points. The student may receive positive reinforcement or a small reward for their progress. The CICO mentor provides the student with a copy of the DPR to take home for parent signature, and returns the signed form back to the CICO mentor the next school day.

Multiple studies have demonstrated the efficacy of CICO for students with significant behavioral problems or with EBD (Ennis, Jolivette, Swoszowski, & Johnson, 2012; Swoszowski; 2012; Todd, Campbell, Meyer, & Horner, 2008). For example Ennis and colleagues examined the effects of CICO on the problem behaviors of six middle and high school students with EBD

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in residential settings. Students had difficulty with maintaining time on task and completing work. Using a concurrent multiple baseline across participants design, the researchers found the CICO intervention to be successful at reducing the occurrence of off-task behaviors. Similar results were also found by Swoszowski et al., who also intervened with CICO to decrease the disruptive behaviors of students in four elementary students in residential settings. Finally, Todd and colleagues also found a functional relation between the CICO and the reduction of problem behaviors exhibited by four elementary male students who had a number of previous office visits due to disruptive behaviors.

Self-Determined Learning Model of Instruction. Self-determination refers to an individual's internal needs and desires that contributes to behaviors or actions driven by intrinsic motivations (Deci & Ryan, 1985). The humanistic theory on self-determination suggests that humans are inherently active and internally motivated to engage in activities and tasks from which no external rewards are required. Rather, behaviors are performed because they are intrinsically motivating, as they are centered within individual's interests and values, and are innately and specifically gratifying to the person (Wehmeyer, 1997).

Self-determination has been widely examined as an educational outcome for students with disabilities, as advocates and persons with disabilities better understand and demand their rights to express autonomy and experience more control over their lives that reflect their morals, values, interests, and personal desires (Wehmeyer, 1997). As such, various self-determination models have been developed to explicitly teach self-determination skills to individuals with disabilities so they may acquire skills that will foster their rights and ability to live autonomously. One such model is the Self-Determined Learning Model of Instruction (SDLMI).

The SDLMI is an instructional model that uses direct instruction to teach students, both with and without disabilities skills related to self-determination. Multiple studies have demonstrated the efficacy of SDLMI for students with EBD (Kelly & Shogren, 2014; Mazzotti, Test, & Woods, 2013). For example Kelly & Shogren investigated the implementation of the SDLMI to reduce off-task behaviors of four students with EBD. Results from their multiple baseline, single case design indicated that the SDLMI intervention was functionally related to the reduction of off-task behaviors exhibited by these students. Similarly, Mazzotti et al. (2013), used the SDLMI to address the disruptive behavior of four students at-risk of EBD or with EBD. The researchers in this study also found a positive relationship between the self-determination strategy and the reduction of disruptive student behavior.

While empirical evidence suggests that CICO and SDLMI are effective strategies for addressing challenging behaviors in students diagnosed with EBD, it is unclear whether a combination of these strategies would be effective. However, it is plausible that a combined strategy would be particularly effective for African American students with EBD since both strategies have been found to be effective at increasing goal attainment for students, as well as decreasing challenging and often disruptive, off-task behaviors.

Purpose of Study and Study Design

The purpose of this study is to examine the effects of the simultaneous implementation of CICO and SDLMI (SD-CICO) on the on-task behavior and self-determination of African American students with EBD. The following research questions are posed:

1. What effect does SD-CICO have on the on-task behavior of students with EBD?

2. What effect does the self-monitoring component of SD-CICO have on the on-task behaviors of students with EBD?

3. What effect does SD-CICO have on student's self-determination as determined by the AIR Self-Determination Scale?

4. Can mentors trained in CICO implement the interventions with fidelity?

The research questions were addressed using a single case ABAC withdrawal design. Data were collected on student's level of on-task behavior during baseline (A) phases. During these phases, the students did not receive SD-CICO intervention. During intervention (B/C) phases, students receive SD-CICO instruction (B) and SD-CICO instruction plus self-monitoring (C) respectively. On-task behavior data were collected during each phase to gather level and trend data. Because the presence and removal of the intervention should directly impact the students' level of on-task behavior, visual analysis of the data were used to determine if the students' behavior was replicated during baseline and treatment conditions and if a functional relationship was observed. Students' level of self-determination was also measured using the American Institutes for Research (AIR) Self-Determination scale (see Appendix C; Wolman; Campeau, Dubois, Mithaug, & Stolarski, 1994). The scale was given pre- and post-intervention to determine if participation in SD-CICO was associated with improved capacity and opportunity for students to attain self-determination related skills.

Although single case designs limits the generalizability of these findings, the design was an appropriate and effective methodological approach for determining if this combined approach to using evidence-based strategies hold promise for improving behavioral outcomes for this student population. Moreover, as a low-cost, scalable intervention, results from this study may provide necessary support for implementing SDLMI-CICO in high-need school settings with larger student populations.

CHAPTER 2
REVIEW OF THE LITERATURE

The disproportionate representation of African American students in special education is has become an increasingly problematic issue within the United States. The overrepresentation of African American students with EBD eligibility has increased substantially in the last few years, where these students are often more than three times more likely to be referred for this category than their peers in other race and ethnic groups. (U.S. Department of Education, 2010). In addition, African American students are more likely to be referred for discipline problems and to be suspended or expelled from school than their White peers (Losen, Hodson, Keith, Morrison, & Belway, 2015; Skiba et al., 2006). The process of over-referring and suspending these students often leads to negative school experiences and outcomes, such as inappropriate school placement, academic underperformance, and school drop-out (Girvan, Gion, McInstosh, Smolkowski, 2016; Nicholson-Crotty, Birchmeier, & Valentine, 2009). There are likely many factors associated with the disproportionately negative disciplinary practices with African American students; therefore, it is important to identify effective comprehensive practices that can support student success.   This study focuses on the effectiveness of two evidence-based practices for supporting students who exhibit challenging behaviors: self-determination instruction (Lee, Wehmeyer, & Shogren, 2015) and check-in/check-out (Mitchell, Adamson, & McKenna, 2017).

Disruptive Off-Task Behaviors

Students with emotional behavior disorders (EBD) are often characterized as having very challenging and/or severe overt behaviors like off-task, hyperactive, and verbally and physically aggressive behaviors (Stoutjesdijk, Scholte, & Swaab, 2012). For students with EBD, disruptive or off-task challenging behaviors are often significant barriers to student success (Lehr, Tan, &

Ysseldyke, 2009). Students who display high rates of challenging behaviors tend to experience academic failure, poor interpersonal relationships, exclusionary disciplinary practices, and mandatory alternative school placement (Christle, Jolivette, & Nelson, 2007; Lehr & Lange, 2003; Dunn, Shelnut, Ryan, & Katsiyannis, 2017). *On- task* behaviors are those behaviors that are critical for independently completing tasks in an efficient manner, including actively attending to instruction or assigned work, eye contact, responding to questions and speaking when given permission (Amato-Zech, Hoff & Deopke, 2006; Crawley, Lynch & Vannest, 2006). Conversely, *off-task* behaviors include actions like looking around the classroom or at other students, touching or talking with other students, leaving a desk or table without permission, staring blankly, and verbal or physical aggression (Coyle & Cole, 2004). Ample research evidence indicates that a student's ability to remain on-task during instructional hours is associated with positive school outcomes (Amato-Zech et al., 2006; Coyle & Cole, 2004; Crawley et al., 2004). For example, Rock (2005) found that students who were high achievers were academically engaged 75% of the time, compared to low-achieving students who were only engaged for 51% of the time. This, it is not surprising that effective interventions for students with EBD often address challenging behaviors.

Evidence-Based Interventions to Address Behavior Needs of Students with EBD

Researchers continue to explore effective approaches to alleviating challenging student behavior. Because disproportionality appears to be associated with the type of infraction, student characteristics, and school characteristics (Skiba, Chung, Trachok, Baker, Sheya, & Hughes, 2014), addressing disproportionate exclusionary discipline may require comprehensive, school-wide Multi-tiered Systems of Support like School-wide Positive Behavioral Interventions and Supports (SW-PBIS; Benner, Kutash, Nelson, & Fisher, 2013). SW-PBIS is arguably the most

thoroughly researched comprehensive system that has been successful at providing students with challenging behaviors with effective interventions at various intensities (Hawken et al., 2015; Mitchell, Stormont, & Gage, 2011). Researchers have suggested that using the SW-PBIS framework to address exclusionary practices, like suspension and expulsion, may be an effective means of reducing disproportionality (Simmons-Reed & Cartledge, 2014; Swain-Bradway et al., 2014; Swain-Bradway, Tobin, & May 2011).

SW-PBIS is described by Sugai and Horner (2002) as a positive and proactive approach that consists of teaching, reinforcing, and consistently applying behavioral consequences and that is driven by data to drive school-wide decisions (Simmons-Reed & Cartledge, 2014). There are six key components of SW-PBIS: (1) a positively phrased statement of purpose that expresses the SW-PBIS objective, (2) operationally defined expectations and examples of target behaviors used by all staff and students, (3) procedures for teaching expectations and expected behaviors, (4) procedures for reinforcement of expected behaviors, (5) procedures for preventing problem behaviors, and (6) procedures for progress monitoring and decision making for all stakeholders (Sugai & Horner, 2002).

SW-PBIS is implemented through a three-tiered approached, in which the intensity and frequency of behavior interventions is increased for students who demonstrate more challenging behavior as they move from Tier 1 to Tier 3. Although there is limited research investigating the use of SW-PBIS to reduce the ethnic disparities of exclusionary practices, the framework may potentially allow educators to address variables contributing to disproportionality by systematically implementing evidenced based strategies and practices at each tiered level of support (Vincent & Tobin, 2011). This may be particularly true in cases where schools and systems implement culturally relevant school-wide practices that address teacher biases and

incorporate practices that are socially relevant to students at-risk (Simmons-Reed & Cartledge; Swain-Bradway et al., 2014). Systematically addressing challenging behavior through culturally relevant tiered systems, may interrupt the process of disproportionately suspending and referring African American students, especially when tiered interventions and supports are coupled with on-going progress monitoring to inform practices and decision-making. One research based intervention that has been used within a SW-PBIS framework to reduce challenging student behavior is Check-in/Check-out (CICO).

Check-In/Check-Out

CICO is often implemented as a Tier 2 intervention for students who are displaying early signs of behavioral difficulty or who are already exhibiting challenging behaviors in school (Crone, Horner, & Hawken, 2003). CICO was founded within Applied Behavior Analysis and Positive Behavior Supports (Horner, Sugai, & Anderson, 2010; Mitchell, Adamson, & McKenna, 2017) and incorporates components of these approaches to support behavior modification and address and reduce problem behaviors (i.e. expectations, rules, positive reinforcement, consistent feedback, progress monitoring).

CICO is typically implemented through a five-step process with a teacher or mentor to help students attain schoolwide or individual goals: (1) check-in, (2) receive feedback, (3) check-out, (4) home component, and (5) return to school (Maggin et al., 2015). The intervention promotes the use of daily progress reports (DPR) to aid in shaping positive student behaviors. Mentors are responsible for a number of tasks that to help students reach their behavioral goals, including (1) aiding students in class preparation, (2) connecting with and providing behavior feedback during the school day, (3) evaluating student performance, (4) providing students with

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positive reinforcement, and (5) making decisions on the direction of the intervention (Hawken et al., 2014).

A number of reviews have documented the effectiveness of CICO on reducing problem behaviors and increasing student engagement (Hawken et al., 2014; Maggin et al., 2015; Mitchell et al., 2017; Mitchell et al., 2011; Wolfe, Pyle, Charlton, Sabey, Lund, & Ross, 2016). For example, in a recent systematic review of the literature, Hawken and colleagues (2014) reviewed a total of 28 single case design, group design, and dissertation studies, performed between the years of 2000 and 2013. These studies included traditional and modified versions of CICO. Results indicated that CICO showed an overall intervention effectiveness of 49% for single subject designs and 75% effective for group designs for addressing problem behaviors, particularly for elementary students. Similarly, in another systematic review of the literature, Wolfe and colleagues (2016) reviewed a total of 16 studies. The researchers only included peer reviewed studies of traditional and function-based versions of CICO. Analysis of their findings indicated CICO to be an effective practice for reducing problem behavior for 67% of the analyzed single subject studies, particularly for behaviors maintained by the attention-seeking function. Finally, in another systematic review of the literature, Mitchell and colleagues (2017) analyzed the effectiveness of CICO against the 2014 Council for Exceptional Children quality indicators and standards used to establish the efficacy of evidence based practices in special education. The review included only traditional versions of the CICO program that utilized a single case or group design method. Results from the review suggested the CICO intervention to be an effective evidence based practice at reducing problematic behavior. The review specifically highlighted CICO being most effective for students: (a) in elementary settings, (b) who were living in rural, suburban, or urban areas, (c) who were students of color, (d) who were

at-risk of special education, and (e) who had high levels of disruptive problem behavior. These systematic reviews and analyses provide strong evidence that CICO can be a reliable intervention used to reduce the prevalence of exclusionary disciplinary procedures by proactively providing students with strategies shown to reduce problem behaviors.

Effectiveness of CICO with African American students in High-Need Schools

It may be especially important to investigate the usefulness of CICO in settings with diverse student populations and in high-needs schools. Not only are African American children disproportionately identified with EBD and exposed to more harsh disciplinary practices, but they are also more likely to attend high-needs schools faced with a number of additional challenges, including high poverty rates, lower achievement, limited resources, and teacher shortages (Miranda & Olivo, 2008). Rates of disruptive behavior in these settings tend to be high, thereby increasing the likelihood of exclusionary disciplinary practices like office referrals, suspension, and expulsion (Atkins et al., 2006). These conditions may also impede the effective implementation of CICO. Although systematic reviews on the literature have indicated CICO to be an effective intervention in a variety of school settings (Mitchell et al., 2017), only two studies have specifically investigated its effectiveness in high-need school settings (Simonsen, Myers, & Briere, 2011; Sobalvarro, Graves, & Hughes, 2015).

Sobalvarro and colleagues (2015) investigated the usefulness of CICO with two kindergarten students in an urban school. This particular school setting had seen an increase in office referrals and identified an overall need of training support centered on addressing problem behaviors within the classroom. Both participants were five years old, African American, and engaged in disruptive off-task behaviors like shouting out, talking back, physical aggression, classroom movement without permission, and playing with objects and materials at inappropriate

times. Using a multiple baseline across participants design, the researchers found that CICO was effective in reducing off-task behavior as indicated by direct observations of behaviors, particularly when modifying the intervention to include an additional midday check-in.

Simonsen and colleagues (2011) compared CICO with the school's standard practice of addressing behavior in an urban middle school setting with 42 students who exhibited frequent problem behaviors, as indicated by two or more office referrals within the last month. The study included both male and female Latino, African American and White students fifth through eighth grades. Researchers used a randomized pretest-posttest control group design that resulted in 27 students being randomly assigned to the treatment condition, and 15 students being assigned to the control condition. Results indicated that students who received CICO had statistically significant decreases in disruptive behavior compared to students in the control group.

Taken together, results from these studies indicate that CICO can be an effective strategy to reduce problem behaviors for students with significant disruptive behaviors that are in settings that may exacerbate the prevalence of those behaviors. Furthermore, the research conducted by Sobalvarro and colleagues (2015) suggests that modification of the CICO intervention may boost its effectiveness in some settings.

Modifying CICO

While traditional CICO has been shown to be effective at reducing challenging behaviors for students (Ennis, Jolivette, Swoszowski, & Johnson, 2012; Melius Wolfe, Pyle, Charlton, Sabey, Lund, & Ross, 2016; Swoszowski, & Siders, 2015; Swoszowski, McDaniel, Jolivette, & Melius, 2013), there is evidence to support adapting the traditional CICO program to further support students with specific needs. For example, Melius and colleagues modified CICO to include the use of peer mentors to address the needs of students in residential settings, and found

that the program improved mentee behavior. Two other studies (Collins, Gresham, & Dart, 2016; Furlow, Collins, Brewer, & Gresham, 2014) also modified CICO to include the use of peers as mentors instead of adults. These studies also found positive results for decreasing negative internalizing behaviors and increasing social skills for targeted students. Similarly, Ross, Christian, and Sabey (2015) modified CICO to include social skills training for students who demonstrated difficulty engaging with peers. Results indicated that the modified CICO intervention increased positive social engagement for four out of five participants. CICO has also been modified to include functional behavior assessments (Campbell & Anderson, 2008; Ennis, et al., 2012; Fairbanks et al., 2007; Kilgus, Fallon, & Feinberg, 2016) and the insertion of additional check-in components (Swoszowski et al., 2013).

Finally, a recent study conducted by Fallon & Feinberg (2017), investigated the impact of a modified CICO program on the challenging behaviors of three students attending school in an alternative therapeutic setting. One student was Hispanic and the other two students were multiracial. All of the participants were in high school and between the ages of 14 and 15. They were all diagnosed with mood disorders and received special education services under the EBD eligibility category. The researchers modified the traditional CICO program by adding goal setting to the intervention and allowing student choice of mentor interaction. The researchers also included the use of a brief semi-structured functional interview to determine the behavioral function of student participants. Results from the multiple baseline design indicated improvements in the targeted behaviors for all students, as indicated by the number of points earned on point sheets, as well as by a small decrease in the number of office discipline referrals. These studies together provide evidence that adapting CICO to meet the unique needs of specific student populations may enhance its effectiveness, and may be useful for students in high need

settings like alternative or therapeutic schools.

Self-determination

Self-determination can be defined as autonomous, personal, and purposeful actions that align with ones morals, values and goals, which allow individuals to act as the primary causal agent of their lives in order to maintain or improve one's quality of life (Wehmeyer, 2005, p. 117). Self-determination has been identified within the literature as a valuable skill set that may positively impact challenging student behaviors (Carter, Lane, Crnobori, Bruhn, & Oakes, 2011). Wehmeyer (2005) characterizes students who are self-determined as being autonomous, self-regulated, psychologically empowered, and acting in a self-realizing manner. Self-determination is comprised of a number of associated skills, including (a) choice-making; (b) decision-making; (c) problem-solving; (d) goal-setting and attainment; (e) self-advocacy and leadership; (f) self-awareness; (g) self-knowledge; (h) self-evaluation; and (i) self-management and regulation (Carter et al., 2011).

Although there are a number of self-determination skills like self-awareness, self-knowledge, and self-advocacy, the proposed model will focus directly on increasing goal-setting, problem-solving, self-monitoring, and self-evaluation behaviors, because there is relatively more research evidence available on these component skill and that research emphasizes their importance in aiding students in becoming more self-directed learners (Mooney et al., 2005; Palmer & Wehmeyer, 2003; Shogren, Palmer, Wehemeyer, Williams-Diehm, & Little, 2012)

Goal-Setting. Goal-setting is the process of identifying wants and needs and making a decision to attain those goals. Teaching students to set goals is also a crucial component of CICO. Importantly, traditional CICO often includes goals that are teacher-selected or school-based. However, encouraging students to self-select goals may allow students to transition their

learning from being more teacher-directed to student-directed (Kelly & Shogren, 2014; Kleinert,

Harrison, Mills, Dueppen, & Trailor, 2014; Shogren, et al., 2012).

Problem-Solving. Problem-solving is the process of identifying and creating plans to

address challenges. Students who become efficient problem-solvers are better able to recognize

inconsistencies between their current performance and the required behaviors needed to reach

goals (Lee et al., 2015). They also are able to identify and modify their current behaviors in order

to be successful and recognize areas of strengths and weaknesses that may affect their success

with meeting behavioral goals.

Self-Monitoring. Self-monitoring is a process that enables students to observe and keep

track of their behavior and encourages them to make judgements about their progress to help

make decisions centered on the continuation or adjustment of their current plans and/or goals

(Mooney et al., 2005). Self-monitoring is a popular strategy used to produce positive school

outcomes (e.g., academic and behavioral) for students with and without disabilities (Bruhn,

McDaniel, Kreigh, 2015; Ganz, 2008). Self- monitoring is a component of self-regulation that

requires students to self-observe their behaviors and then self-record their observations of these

behaviors (Rafferty & Raimondi, 2009). A student's ability to self-regulate provides students

with opportunities to make learning more student-directed than teacher-directed (Bialas & Boon,

2010). Menzies, Lane and Lee (2009) suggest that requiring students to consistently reflect on

their behavior allows them to distinguish between the behaviors that do and do not produce

positive outcomes. The author further suggests that self-monitoring will encourage students to

engage in more positive responses in social situations, increase compliance and ultimately

increase student engagement.

Multiple self-monitoring techniques have been used to increase student on-task behaviors (Amato-Zech et al., 2006; Briere & Simonsen, 2011; Crawley et al., 2006; Szwed & Bouck, 2013). By learning to self-monitor, students are better able to self-manage and become more independent (Rafferty & Raimondi, 2009). Self-monitoring techniques span a variety of student populations that include students with disabilities (Ganz, 2008; Axelrod, Zhe, Haugen & Klein, 2009; Blood, Johnson, Ridenour, Simmons & Crouch, 2011) and also vary in intervention type that range from simple self-monitoring checklists to treatments that use technology, like tactile stimulators (Amato-Zech, Hoff, & Deopke, 2006).

Self-monitoring strategies that make use timers and tactile stimulators have been used to contribute to the self-monitoring processes of students. In a study done by Amato-Zech, et al., (2006), the researchers used a tactile stimulator called the MotivAider to aid in self-monitoring. The MotivAider is an electronic device that vibrates at specified intervals to prompt students to self-record on- or off-task behaviors. The on-task behaviors of the three participants with disabilities in this study increased from 55% to 90% after using the MotivAider. In a follow up study by Legge, DeBar & Alber-Morgan (2010), the researchers of this study also found a functional relationship between the tactile prompting strategy and the on-task behavior three students with disabilities. Harris and colleagues (2005) suggest that self-monitoring interventions are most effective when they meet student's individual needs and are easy to use.

Self-Evaluation. Self-evaluation is an example of a self-monitoring technique because it allows students to assess their progress towards meeting goals. Self-evaluation provides students with opportunities to identify facilitators and barriers to goal-attainment and learn to adjust or modify their action plans accordingly to align with their current performance. Self-evaluation is a crucial component of the SDLMI intervention because students are encouraged to review

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behavior and its impact on their progress towards achieving their self-selected goals.

Research evidence suggests that providing students with tools to become more self-determined can have a positive impact on academic performance, school engagement, postsecondary involvement, employment outcomes, and overall quality of life (Carter et al., 2011; Cobb, Lehmann, Newman-Gonchar, & Alwell, 2009; Eisenman, 2007; Konrad, Fowler, Walker, Test, & Wood, 2007). For example, Mooney, Ryan, Uhing, Reid, and Epstein (2005) conducted a systematic review of the literature to analyze the impact of self-management treatments on the academic interventions for students with EBD. The researchers included 22 studies performed between 1970 and 2002 that used self-determination strategies for students between the ages of 5 and 21 years old who had or were at-risk for diagnosis of EBD. Results from the study indicated that self-management interventions for students with EBD produced large and positive effects with a mean of 1.80 (range -0.46 to 3.00) on the academic outcomes for the students. In another systematic literature review, Test, Mazzotti, Mustian, Fowler, Kortering, and Kohler (2009) investigated in-school predictors that correlated to improved transition outcomes for students with disabilities. The researchers reviewed 22 studies between 1984 and 2009 that use correlational research methods. Results from the review identified 16 predictors related to self-determination, with 44% of the predictors centered on variables (i.e., career awareness, participation in occupational courses, self-advocacy/self-determination, vocational education) that promote the acquisition of self-determined behavior through direction instruction and experiences.

The Self-Determined Learning Model of Instruction

Skills related to self-determination are often explicitly taught to students through direct instruction. One evidence-based approach to teaching self-determination is the Self-Determined

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Learning Model of Instruction (SDLMI; Wehmeyer, Palmer, Agran, Mithaug, & Martin, 2000;

see Appendix A). SDLMI is a three-phase instructional model from which students respond to a

series of problem-solving questions that help them set self-select goals and create plans to attain

goals through planning (Wehmeyer, 2000). Because the student is the primary agent for making

choices, decisions and actions, they practice skills related to be more self-determined and also

make learning more student-directed. The model requires students to answer questions in a

problem solving sequence that moves them from their current state (actual performance) to a

goal state. The problem solving sequence helps students identify barriers and facilitators to

success and serve to prepare students to effectively navigate the process of attaining goals.

The three phases of SDLMI proceed as follows:

- *Phase1: What is my goal?* This phase centers on four questions related to setting goals:
  What do I want to learn? What do I know about it now? What must change for me to
  learn what I don't know and What can I do to make it happen?

- *Phase 2: What is my plan?* This phase encourages students to develop action plans to
  meet goals by answering four questions: Where do I start? What is in my way? How can I
  get these things out of my way? When do I Start? Students develop and use a self-
  monitoring strategies during this phase. The problem-solving plan outlines the necessary
  steps needed in order for students to meet their goals.

- *Phase 3: What have I learned?* In this phase, the students learn to evaluate their progress
  towards meeting self-selected goals. Students answer four problem solving questions
  related to this phase: What actions have I taken? What barriers to success have I
  removed? What has changed about what I don't know? Do I know what I want to know?
  These questions will also allow students to make adjustments to their plans if necessary.

Effectiveness of SDLMI on Behavior

The SDLMI and its' effectiveness on behavior has been researched widely within the literature. It has been identified as an evidence based practice used to teach students with disabilities to engage in student-directed learning to support the acquisition of self-determination skills and the attainment of academic and behavioral goals (Lee, Wehmeyer, & Shogren, 2015). In a recent meta-synthesis, Lee and colleagues found the SDLMI to be an effective intervention to address academic and transition related goals. The researchers assessed data by determining the percentage of non-overlapping data (PND). Results indicated that mean PND scores ($M =$ 87.0%) for transition goals (i.e., involvement in career planning, working on job-specific skills) was higher than that for academic-related ($M = 81.7\%$) outcomes (i.e., problem-solving, self-regulated learning strategies, reducing disruptive behavior). However, both scores indicated the SDLMI to be an effective intervention used to improve the overall outcomes for students with disabilities. Specifically, the meta-synthesis additionally indicated that the SDLMI was most used with students with intellectual disabilities, and least used with students on the Autism spectrum. However, PND indicated that the SDLMI was most effective for students with Autism, ($M = 100\%$), followed by intellectual disabilities ($M = 87.6\%$), learning disabilities ($M = 86.6\%$), EBD ($M = 84.3$), and other disabilities ($M = 60.6\%$). These results were particularly consistent for youth and adolescents in special schools ($M = 88.9\%$) and general education classrooms ($M =86.9\%$).

While the SDLMI addresses a number of component skills (i.e., goal-setting, problem-solving, self-monitoring, self-evaluation), researchers often highlight specific skills to explicitly teach students. These decisions are often determined by the intellectual level of the student participant. As previously noted, the SDLMI intervention has been primarily implemented with

students with intellectual disabilities. As such, researchers often focus on explicitly teaching one or two self-determination skills to effectively foster the acquisition of those skills by the student. For example, Cote and colleagues (2014) used a problem-solving strategy in conjunction with the SDLMI to address the behavioral needs of three elementary students with Autism. The problem solving strategy included the use of problem-solving flash cards which allowed students to address individual academic and behavioral challenges by answering problem-solving questions. Teachers in this study also used steps within the SDLMI concurrently to support self-determination efforts of the students. Results from the multiple-probe design indicated that students were able to effectively use the problem-solving strategy and the SDLMI to meet self-selected goals.

While the previous study used the SDLMI model to specifically address problem-solving, similar studies have used the SDLMI to actively promote goal-setting (Kleinert, Harrison, Mills, Dueppen, & Trailor, 2014; Shogren, Palmer, Wehmeyer, Williams-Diehm, & Little, 2012) as the primary outcome of assessing the acquisition of self-determined behavior. Kleinert and colleagues analyzed 288 self-determined goals developed by 205 students with developmental disabilities, ages 7-21 who took part in an advocacy project that used the SDLMI to teach students self-determination. Results indicated that 71.2% of the goals created by students who received the SDLMI were achieved. Shogren and colleagues found complimentary results through a two-year randomized control study that investigated that impact of the SDLMI on the academic and transition goal attainment of students with intellectual and learning disabilities. Participants included 312 high school with disabilities, from three states and 20 school districts. Data were assessed through Goal Attainment Scoring, and indicated that the SDLMI intervention had a significant effect of treatment, $F(1, 162) = 14.03$, p < .001, on the goal attainment of these

students.

In general, the SDLMI has been used in a number of studies to positively increase the overall level of self-determined behavior for students with disabilities (Agran, Cavin, Wehmeyer, & Palmer, 2006; Agran, Wehmeyer, Cavin, & Palmer, 2008; Lee, Wehmeyer, Palmer, Soukup, & Little, 2008; Wehmeyer, Palmer, Shogren, Williams-Diehm, & Soukup, 2013; Wehmeyer, Shogren, Palmer, Williams-Diehm, Little & Boulton, 2012). The researchers in these studies used the SDLMI as an instructional strategy to enhance the student-directed behaviors of students with various disabilities. The studies implemented the SDLMI to address active student participation (Agran et al., 2006; Agran et al., 2008), to provide access to general education curriculum (Lee et al., 2008), and to enhance global student self-determination (Wehmeyer et al., 2013; Wehmeyer et al., 2012). The studies used both single case and group design methods and indicated the SDLMI to be an effective intervention at increasing students' level of self-determined behavior, as well as increasing their ability to attain self-selected goals.

While the SDLMI has been shown to be effective for students with intellectual and learning disabilities, there is also a growing body of evidence that have indicated it's effectiveness at reducing challenging student behaviors, particularly for students with EBD (Lee et al., 2015). Students with EBD or who learn, acquire and regularly use skills associated with self-determination often have positive school outcomes and an increased use of self-determination skills in school settings (Kelly & Shogren, 2014). Specifically, a number of studies using the SDLMI (Kelly & Shogren, 2014; Mazzotti, Wood, Test, & Fowler; 2012; Mazzotti, Test, & Wood, 2012) to address challenging and disruptive off-task behaviors have indicated reductions in these behaviors resulting from directly and systematically teaching student's skills related to self-determination, like goal-setting, problem-solving, self-monitoring, and self-

evaluation. These studies found that implementing SDLMI significantly reduced problem behaviors as students attained skills associated with being a self-directed learner. Kelly and Shogren (2014) examined the effectiveness of the SDLMI on the behavioral outcomes of four students with EBD who exhibited high rates of off-task behavior. The study used a multiple baseline across participants design to investigate changes in off-task behavior. The study suggested that a positive relation between the SDLMI and off-task behavior. The study further indicated that students' level on self-determination increased as a result of being taught self-determination related skill. Mazzotti and colleagues found similar results in two studies that examined the impact of the SDMLI on disruptive behavior. In both studies, the researchers used a computer assisted version of the SDLMI, by which students learned the mdoel and the associated self-determination skills through on computer programs. Participants from the two studies included seven elementary students with EBD or who displayed significant challenging behavior, or who received consistent office discipline referrals. Results from the single case-studies indicated that students were able to attain self-selected goals and increase on-task behavior within the classroom.

Combining CICO and SDLMI to Support African American Students with EBD

Because no single educational practice will address all the needs of all students with challenging behavior, researchers have proposed combining evidence based practices to address and remediate behavior (Cook, Tankersley, & Harjusola-Webb, 2008). For that reason, Andrews, Houchins and Varjas (2017) suggest that the combination of SDLMI and CICO may be particularly effective in addressing challenging behaviors of students with EBD. Both CICO and self-determination strategies and interventions have been consistently documented to be useful methods to improve the behavior of students with various disabilities, across all educational

settings and grade levels, (Carter et al, 2011; Lee et al, 2015; Mitchell et al., 2017; Wolfe et al., 2016). It is plausible that students may be more likely to master a greater number of self-determination skills if CICO was designed so that it embedded these skills in a purposeful manner that allowed for both explicitly instruction and practicing. For example, as shown in Appendix B, CICO can be modified to include goal-setting, problem-solving, and self-evaluation questions from the SDLMI. Importantly, the model includes a self-monitoring component to allow students to monitor their progress towards meeting self-selected behavioral goals.

In addition to improving behavioral outcomes for students with EBD, a combination approach may be particularly effective for African American students in high needs schools for three reasons. First, as stated previously, research on CICO has indicated the intervention to be successful at reducing challenging behavior for African American students in high need schools, particularly in cases in which the behavioral function in attention. The mentoring and positive teacher feedback components of the intervention may be vitally important as they may foster positive student teacher relationships. The CICO intervention will enable students the consistently interact with adult participants from which they will opportunities to receive constructive feedback on their behaviors, as well as chances to problem-solve challenges that contribute to perceived negative behavior.

Second, there is strong evidence in the self-determination literature that the SDMLI is an effective strategy at increasing the acquisition, utilization, and level of self-determined related behaviors for students with display academic and behavioral needs. Explicitly teaching African American skills related to self-determination may increase their capacity to use skills like positive decision and choice-making when barriers to on-task behavior arise. Similarly, self-determination instruction may allow African American students to gain a better understanding of

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their strengths and weaknesses so that they may begin to make connections between their needs and the behaviors that are displayed within the classroom. Self-determination instruction may further allow these students to self-advocate for their needs in ways that are deemed socially constructive, in lieu of engaging in maladaptive behaviors that results from an inability to adequately communicated their wants, needs, and feelings.

Third, both the CICO and SDLMI interventions promote the use of goal-setting and problem-solving as vital methods to increasing the ability for students to attain goals. The combination of these approaches may perhaps provide African American students with a well-rounded instructional technique that directly facilitates their ability to effectively learn the processes related to successfully attaining goals, while also learning how to self-monitor and evaluate their own behaviors. Providing these students with an easy and useful strategy that is used on a daily basis, may perhaps provide these students with consistent opportunities to practice using self-determined behavior such that their capacity to engage in self-determined behavior increases as a result.

Purpose

The primary purpose of this study will be to determine the effectiveness of implementing the combination of the CICO and SDLMI strategies (hereafter referred to as SD-CICO) on the on-task behaviors of African American students in high-need schools who are EBD or at-risk for EBD, as evidenced by exhibiting high rates of exclusionary discipline practices. The following research questions will be addressed:

The purpose of this study is to examine the effects of the simultaneous implementation of CICO and SDLMI (SD-CICO) on the on-task behavior and self-determination of African American students with EBD. The following research questions are posed:

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1. What effect does SD-CICO have on the on-task behavior of students with EBD?

2. What effect does the self-monitoring component of SD-CICO have on the on-task behaviors of students with EBD?

3. What effect does SD-CICO have on student's self-determination as determined by the AIR Self-Determination Scale?

4. Can mentors trained in CICO implement the interventions with fidelity?

CHAPTER 3

METHODOLOGY

Setting

The setting for this study was an alternative/therapeutic school in the Atlanta, Georgia metro-area. The alternative school serves students between the ages 5-22, who have a diagnosis of EBD or other significant disability that contributes to challenging behavior. Students are placed in this setting as a result of significant behavioral needs that cannot be met in traditional school settings. Similarly, some students attending the alternative school experienced significant exclusionary disciplinary procedures prior to their placement in this more restrictive setting (Lehr & Lange, 2003).

Two self-contained classes took part in the study. SD-CICO instruction took place in a resource room within the school building. Observational data off on-task behavior was collected in the students' classroom during a block of time that teachers' indicated a high level of off-task behavior.

Participants

Students. The participants in this study were three middle school students, ages 13-14. The number of students recruited for this study was chosen based on the requirements indicated by the *What Works Clearinghouse* standards for single case ABAC design studies (Kratochwill et al., 2013). Kratochwill et al. indicate three iterations of an intervention across time are required to meet standards. Including a minimum of three students allowed researchers to demonstrate at least three iterations. The student participants were selected by the researcher according to the following criteria: the student (a) is African American as indicated by the student demographic survey; (b) demonstrated on-task behavior less than 60% of the time as measured by behavioral

observations or has received two or more referrals and/or exclusionary disciplinary consequences like ISS, OSS, or EXP, within the last month; (c) the students' AIR self-determination score was less than 80%; (d) attended school at least 4 out of 5 days a week; and (e) the teachers agreed that the student needed support with increasing on-task behavior and self-determination. Students provided demographic data by completing the demographic form (see Appendix F).

Middle school classrooms were identified for this study by a building administrator. Of these classrooms, two teachers provided consent to participate. From those two classrooms, Class A had a total of 5 students and Class B had a total of 4 students. From the potential nine students who could take part in the study, only one student was eliminated as he was not African American. The remaining students were provided with parent permission slips to obtain approval for study participation. The student participants who returned the parent permission form and signed the assent form were invited to participate in the study. Three students met all the required criteria and were included in the study. A total of two participants came from Class A, and 1 participant came from Class B. All of the students in each classroom were diagnosed with an emotional behavior disorder (EBD) by a school district psychologist. Interviews with the participants and their teachers, as well as direct observation within the classroom confirmed that all three students exhibited low levels of on-task behaviors that impeded academic learning for themselves and other students. Table 5 provides additional demographic information including age, race, sex, and grade level. Similarly, AIR self-determination scales indicated that students could benefit from self-determination instruction. Table 2 provides data from the AIR self-determination scale.

Participant Description

Rodney. Rodney was a 13-year-old African American male in seventh-grade, who received instruction in a self-contained, middle school classroom (Class A) for students with significant behavioral challenges. Rodney had an educational diagnosis of EBD that contributed to significant off-task behaviors and an inability to make educational progress in core subject areas (i.e., literacy, math, science, social studies). Rodney had difficulty remaining on-task and consistently disrupted teachers instruction and student learning by talking without permission, making random and spontaneous noises, engaging in horse play, leaving his seat without permission, and disrupting peers during instruction and independent classwork. Rodney rarely demonstrated on-task behaviors such as sitting quietly, raising his hand to speak or to ask questions, requesting permission to leave his seat, paying attention in class, and engaging in classwork and activities.

Walter. Walter was a 13-year-old African American male in sixth-grade, who also received instruction in a self-contained school for students with significant behavioral challenges. Walter received instruction in Class A along with Rodney. Walter also had an educational diagnosis of EBD that contributed to significant off-task behaviors and an inability to make educational progress in core subject areas (i.e., literacy, math, science, social studies). Walter was prescribed medication to alleviate behavioral symptoms related to his diagnosis. Walter experienced difficulty with managing his emotions and remaining on-task during instruction and classwork. He often disrupted instruction by talking without permission, engaging in horse play, leaving his seat without permission, and leaving the classroom without permission. Walter was also easily triggered and would display verbal and physical aggression toward adults and peers. Walter rarely demonstrated on-task behaviors such as sitting quietly, raising his hand to speak or to ask

questions, requesting permission to leave his seat, paying attention in class, and engaging in classwork and activities.

   Taurean. Taurean was a 14-year-old African American male in seventh-grade, who received instruction in a self-contained, middle school classroom (Class B) within the alternative school setting. Taurean had an educational diagnosis of EBD that contributed to significant off-task behaviors and an inability to make educational progress in core subject areas (i.e., literacy, math, science, social studies). Taurean had only been attending the alternative school setting for a little over a month prior to the start of the study. Taurean consistently disrupted instruction by talking without permission, engaging in horse play, and leaving his seat and the classroom without permission. He was displayed verbal and physical aggression to other students at times. Similarly, Taurean used inappropriate language when communicating with teachers, paraprofessionals, and students. He also teased and challenged other students within his classroom. Taurean rarely demonstrated on-task behaviors such as sitting quietly, raising his hand to speak or to ask questions, requesting permission to leave his seat, paying attention in class, and engaging in classwork and activities.

   Mentors. Paraprofessionals within the school setting served as mentors for the SD-CICO intervention. Both mentors (one female, one male) were African American, and had been employed at the school for at least one year. The male mentor worked within one of the middle school classrooms that participated in the study. The female mentor worked with elementary aged students within the building. Mentors' demographic information is provided in Table 4.

   Classroom Teachers. Two middle school classroom teachers participated in the study. Both teachers were African American females who had Master's degrees in education. Both teachers had worked in an educational setting for at least 11 years and were teaching students in grades 6th

through 8th during the school year when the study took place. Teachers demographic information is provided in Table 4.

Design

An ABAC withdrawal design was used to evaluate the effectiveness of implementing SD-CICO to improve challenging student behavior. This design was chosen to determine if the presence or withdrawal of the intervention would impact the participant's level of on-task behavior. The ABAC design allowed for two replications of students' behavior during both baseline and treatment conditions. The ABAC design was also used to determine if treatment variables (i.e., SD-CICO instruction, DPR) would have a direct impact on the on-task behaviors of student participants. Because SD-CICO instruction and the use of the DPR are critical to the effectiveness of both the CICO and SDLMI programs, we expected the presence and removal of these variables to directly impact the level and trend of observed on-task behaviors displayed by students. The ability to compare baseline data against treatment data allowed the researcher to ascertain the impact of the intervention, but also provided opportunities for the researcher to modify the intervention for the individual. For example, a student whose data indicated the treatment was having little to no impact, may have benefited from an additional check-in, as denoted in previous research (Ennis et al., 2012; Swoszowski, et al., 2013). This design also allowed for the detection of a functional relation.

The *What Works Clearinghouse's* single-case design standards were used for data collection and evaluation (Kratochwill et al., 2013). These standards included: (1) the researcher determined when and how the independent variable conditions change; (2) inter-observer agreement (IOA) data was collected at least once in each phase for at least 20% of sessions; (3) three attempts to demonstrate the intervention effect at three different points in time was made;

and (4) three to five data points were collected in each phase to meet standards. No more than

five data points were collected in each phase of this study due to time restraints of the study

setting.

Data Analysis

On-task behavior percentages were graphed and a visual analyses were conducted to

determine if a functional relation was established. WWC (2014) SCD handbook guidelines were

used to evaluate trend line data using four steps: (1) a documented, predictable baseline pattern

of behavior; (2) data assessed within each phase to demonstrate the existence of a predictable

pattern of behavior; (3) the use of visual analysis to compare phase data to determine if SD-

CICO had an effect on behavior; and (4) the use of all information gathered to determine the

existence of three effect demonstrations and a functional relation. AIR self-determination scores

administered prior to and after intervention were compared to examine changes in self-

determination scores. A blind data analyst was used in this study to help determine appropriate

phase change decisions throughout data collection by analyzing graphed data (Ferron & Jones,

2006). The blind analyst assisted in the evaluation of changes in level, trend, and stability.

To calculate the percent of non-overlapping data (PND), the researchers located the

highest point within the baseline phase, identified the number of points within the intervention

phase that fell above this points, and divided that number by the total numbers of data points in

the intervention phase. For single case design research, a PND greater than 90% indicates a large

effect size (Gast & Spriggs, 2010).

Data Collection

Data was collected in each student's core class. A momentary time sampling procedure

was used to collect data. Each observation lasted 10 minutes. Behaviors associated with being

on-task at the end of each 10-second interval was scored by marking +/- on the data collections

sheets. Data collection occurred up to five times a week. Observations occurred at the same

designated time throughout the study. Data was collected between 10:00 and 10:10 AM in class

A. Data was collected between 10:20 and 10:30 AM in class B.

<center>**Independent Measures**</center>

SD-CICO. The independent variable was Student-Directed Check-in/Check-out (SD-

CICO; Andrews et al., 2017). SD-CICO (see Appendix B) is a modified version of traditional

CICO which required students to respond to a series of goal-setting, problem solving, and

progress evaluation questions (see Appendix E) that served to help them set self-selected goals

and create a plan to attain those goals. Because the student was the primary agent for making

choices, decisions, and actions, they practiced skills to improve self-determination. The model

required students to answer questions in a problem solving sequence that moved them from their

current state (actual performance) to a goal state. The problem solving sequence helped students

to identify barriers and facilitators to success and served to prepare students to effectively

navigate the process of attaining goals. The mentors worked with the student on a daily basis to

answer questions related to goal-setting, problem-solving, and self-evaluation, using the

Problem-Solving and Goal-Setting Questions templates (see Appendix E). The student

responded to the questions verbally and in written form.

SD-CICO + Self-Monitoring. The second independent variable was SD-CICO with self-

monitoring. Self-monitoring was added to self-determination instruction to contribute to the

students' ability to monitor their on-task behavior during class instruction. The students used a

tactile monitoring device that provided them with a vibrational prompt every two minutes that

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reminded them to monitor their on-task behaviors. The students noted their on-task behavior via the DPR Monitoring sheet.

Dependent Measures

On-Task Behavior. The primary dependent variable was level of on-task behavior in a core academic classroom. Generally, *on-task* behaviors were defined as behaviors that were critical for independently completing tasks in an efficient manner, including actively attending to instruction or assigned work, eye contact, responding to questions and speaking when given permission (Amato-Zech et al., 2006; Crawley, Lynch & Vannest, 2006). Conversely, *off-task* behaviors included actions like looking around the classroom or at other students, touching or talking with other students, leaving a desk or table without permission, staring blankly, and engaging in verbal or physical aggression (Coyle & Cole, 2004). For this study, on-task behavior was defined as students sitting up-right in their seats with feet on the floor, attending to and tracking the teachers during lessons, using materials (e.g., books, writing utensils, technology) as indicated by the teacher to complete assigned tasks, speaking to and/or working with peers when directed, raising hand to ask or answer questions, and answering questions posed by the teacher (Amato-Zech, et al., 2006). The researcher reviewed with the teacher the list of behavior definitions that were expected of all classroom students with the teacher to ensure that those behaviors were needed for participants to be successful. The teachers agreed with the definitions of on-task behavior and did not add any additional definitions. The researcher and mentors met with each student participant to review the expected behaviors that were to be exhibited within the targeted classroom prior to intervention. The students indicated that they understood the requirements related to on-task behavior, and did not provide any additional definitions of on-task behavior.

Self-Determination. The second dependent variable measured the student's level of self-determination. The AIR Self-Determination Scale (see Appendices A and B; Wolman et al., 1994) was used to measure the students' capacity (e.g., knowledge, ability, perceptions) to become self-determined and the opportunities (e.g., chances to apply knowledge and ability) to engage in self-determined behavior. For this study, the AIR-Educator and AIR-Student forms were used. The AIR-Educator consists of 30 questions and consists of two subscales. The Capacity subscales consists of questions regarding students' knowledge, ability, and perception of self-determination behaviors and the Opportunity subscale consists of questions regarding the opportunities students have to engage in self-determined behavior at home and school. The AIR-Student form consists of 18 questions that assess capacity and opportunities for self-determination. The Capacity subscale consists of two domains: Things I Do (i.e. self-determined behavior) and How I feel, about performing the behaviors. The Opportunity subscale asks the students questions about their opportunities to engage in self-determined behavior at school and home. Questions on both forms were rated on scale from 1 (never) to 5 (always; Shogren, Wehmeyer, Palmer, Soukup, Little, Garner, & Lawrence, 2008).

Both the teacher and student rated the students' level of self-determination prior to and after the intervention. The AIR was analyzed by calculating the students' capacity and opportunity scores to yield a global self-determination score (0-120) and corresponding global self-determination percentage score (0-100%). The AIR has been normed with 450 students with and without disabilities and their teachers in approximately 70 schools and programs in California and New York. The AIR has an internal consistency correlation of .95, a test-retest correlation of .74 and a validity score of .74.

Demographics. Student demographics were collected using a demographic questionnaire (see Appendix F) that was completed by each student. The researcher read the questions and answer choices to each student in a private meeting outside the classroom. Teachers and mentors also completed a demographic questionnaire (see Appendix G).

Treatment Fidelity. Fidelity was measured to determine how well instruction and the intervention was implemented as designed. The researchers assessed fidelity of SD-CICO instruction, as well as fidelity of the SD-CICO intervention components (i.e., check-in, feedback, check-out, home component, return to school).

Fidelity of Instruction. The study included at least 6 instructional sessions per student, which comprised of three goal-setting, two problem solving, and one self-evaluation sessions. There was a total of 18 instructional sessions (six per student) led by the mentors. The mentor used an instructional protocol checklist (see Appendix H) to support instructional fidelity. The mentor checked off each instructional objective met during instruction. The fidelity of instruction checklist was binary. The mentor either did or did not perform the listed step. The researcher observed 83% (15 out of 18) of SD-CICO instructional sessions to assess instructional fidelity. The researcher used the same instructional fidelity checklist to determine adherence.

Fidelity of Intervention. The mentors followed a fidelity checklist (see Appendix I) that required them to indicate the individual steps that were completed throughout the day. The fidelity checklist provided mentors with a daily protocol that served as a guide to ensuring that each SD-CICO component was addressed. It also served as the primary instrument to assess adherence and to determine fidelity to the intervention. The fidelity of intervention checklist was also binary. Mentors only indicated whether or not the task was completed. Inter-observer

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agreement was not collected for fidelity on instruction or intervention. The researcher used the mentor checklist as sole means of assessing fidelity.

To determine the percent of intervention and instructional objectives completed, the researcher calculated the number of objectives completed divided by the number of objectives in the intervention/instructional protocol checklist and multiplied by 100. Inter-observer reliability was calculated by dividing the number of agreements by the number of agreements plus disagreements, and multiplying by 100.

Inter-observer Agreement. Inter-observer agreement (IOA) was collected by the researcher and at least one additional observer to address level of on-task behavior across settings, phases, and students. The second observer coded 20% of sessions to confirm that the presence of on-task behavior was accurately observed by the primary observer as described (WWC, 2014). Observation sessions were be distributed evenly across and within each phase. Inter-observer Agreement was calculated by dividing the number of agreements by the number of agreements plus disagreements and multiplying by100.

Social Validity. Social validity was assessed to determine if implementing SD-CICO was socially acceptable and feasible. At the conclusion of the study, teachers and students answered survey (Wehmeyer & Shogren, 2009) and interview questions to assess their perspectives of the intervention and its' impact on student behavior outcomes. The survey questions were created by Wehmeyer and Shogren in 2009. The student survey (see Appendix J) allowed students to provide feedback about the intervention, share the things they learned, and to determine their likelihood of using the intervention in the future. Students responded to questions on a 4-point Likert scale. They also respond to open-ended questions. The teacher survey (see Appendix K) allowed teachers to provide open-ended responses to whether or not they believed the

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intervention created positive behavioral and academic outcomes for the student participants.

They were also able to provide additional comments regarding the intervention.

Procedures

Approval to conduct research was obtained by the university and school's Institutional

Review Board. The researcher met with teachers and mentors to discuss all aspects of the study.

Teachers and mentors provided consent to participate by signing the consent form. Parent

permission forms were sent home by classroom teachers. Assent was obtained from students

whose parents signed the permission forms that indicated that their child could participate in the

study. Assent forms were read aloud to potential student participants in private, so that they

could individually decide whether to sign the assent form and participate in the study. Data was

only collected for students with signed permission and assent forms.

Participant Selection. The building administrator identified appropriate classrooms for the

study. Teachers who consented to be participants took part in the study. Teachers sent home

parent permission for student participation. Child assent followed the return of parent permission

forms. Finally, mentors were selected to participate by administration and teacher nomination.

Nominated mentors who signed consent forms participated in the study.

Teacher and mentors training. Mentoring is a crucial component to CICO programs.

Once mentors were selected, they were provided with training before and during the program.

The mentors were trained on SD-CICO prior to intervention implementation. Training occurred

over three sessions at times that were designated as most convenient for the mentors. This was

usually before school prior to student arrival. Training sessions lasted up to one hour each.

Training included instruction on the self-determination construct and its associated component

skills, discussions of on- and off-task behavior, and an overview of the SD-CICO model.

Mentors were provided with opportunities to practice implementing the model with the

researcher and with each other.

CICO and SD-CICO. The researchers reviewed traditional check-out procedures and

provided information regarding check-in, feedback, check-out, home component, and return to

school. The teachers and mentors were taught how and when to implement each step of the

intervention. The researcher and teacher/mentor participants determined the times at which the

check-ins and check-outs would occur each day. Teachers and mentors were taught how to

provide feedback to students. They practiced providing positive feedback with each other. The

teachers and mentors also practiced implementing the check-ins/outs with one another. The

researcher provided coaching during each step.

SDLMI and SD-CICO. The researcher provided teachers and mentors with information

on self-determination and the SDLMI intervention by using the SD-CICO table (see Appendix

B). Component skills (i.e., goal-setting, problem-solving, self-monitoring, self-evaluation) were

defined and reviewed. The researcher discussed the component skills that were embedded into

the intervention and the manner in which self-determination would be taught to students. The

researchers and teacher/mentor participants reviewed the SDLMI table (see Appendix A) and

self-determination questions (see Appendix E) to be taught to the students. Teachers and mentors

practiced using the goal-setting, problem-solving, and self-evaluation questions together. The

researchers provided modeling and clarification on providing self-determination instruction.

DPR and DPR Monitoring Sheet. The traditional DPR (see Appendix L) and SD-CICO

DPR Monitoring sheet (see Appendix M) were reviewed with the teachers and mentors. Teachers

and mentors were provided with training on how to use traditional DPRs. They were trained to

understand and use the DPR Monitoring sheet that would be carried each day by student

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participants. The researcher reviewed the goal-setting, self-monitoring, and evaluation sections of the DPR Monitoring sheet. Similarly, the teachers and mentors were trained on understanding and using the self-monitoring strategies to be used by the students. The researcher provided teachers and mentors with opportunities to practice completing the monitoring sheets, providing feedback, and using the various self-monitoring strategies.

Student Training. Prior to intervention, the mentor provided students with instruction on the SD-CICO intervention over six sessions. The students learned about the SD-CICO program (i.e., check-in, feedback, check-out, home component, and return to school), and learned about the self-determination component skills to be instructed (i.e., goal-setting, problem-solving, self-monitoring, self-evaluation). The mentor worked through the self-determination questions with the students and provided directions and feedback to the student for both the goal-setting and problem-solving questions. The students were provided with three sessions on goal-setting, two sessions on-problem-solving, and one session on self-evaluation. The sessions lasted up to 30 minutes each. During the first week, the student participated in goal-setting sessions on days one and two, and problem-solving sessions on days three and four. The mentor reviewed both goal-setting and problem-solving questions on day five. The mentor also clarified student questions and provided additional feedback in regards to SD-CICO instruction. At the end of week two, the student was provided with one session of self-evaluation instruction. During each session, the student responded to questions verbally and in written form using the Self-Determination worksheet (see Appendix E). The researchers assessed fidelity using the fidelity checklist, as well as through direct observations of the sessions.

Promote goal-setting. Goal-setting questions (see Appendix E) were addressed during the Check-in and Home components of SD-CICO. Students reflected on behavioral goals and

why those goals were personally important. This encouraged students to make connections to their current behavior and how their behavior could contribute or hinder goal attainment. For example, Rodney wanted to decrease his level of horseplay during instruction. He said that this goal was important to address so that he could meet his long term goal of becoming a firefighter, since firefighters have to be disciplined. Once mentors and students participated in at least two goal-setting sessions, the mentors moved students into the planning phase where they answered problem-solving questions that facilitated the process of the students learning to attain a self-selected goal.

Create a plan through problem-solving. During this phase, students answered the problem-solving questions (see Appendix E). Students reflected on barriers to attaining goals. This encouraged students to make proactively problem-solve potential challenges that could keep them from attaining their goals. For example, when answering the question *What is preventing me from achieving my goal*, Taurean answered that arguing with others had been a consistent challenge towards attaining his personal goals, and that teacher and mentor encouragement would help him stay on track. Once students were able to fully answer each question and develop a plan to attain their goals, they were given an opportunity to choose a self-monitoring strategy to aid in keeping them on track towards their goals. Students used the traditional Daily Progress Report (DPR; see Appendix L) during this phase. The traditional DPR included the students' self-directed goals and was carried to each class by the participating students to help them monitor their own progress.

Establish monitoring systems. Once students reached Question 10 of the problem-solving questions, they learned about self-monitoring and how to use the DPR monitoring sheet (see Appendix M). The traditional DPR included the students' self-directed goals and was

carried to each class by the participating students to help them monitor their own progress. Students used the self-monitoring strategy and monitoring sheet once they demonstrated their ability to monitor their own progress through demonstrated practice. The DPR also allowed teachers to rate student behavior at the end of class in order to provide the student with feedback that aimed to prepare them for their next class. Teachers rated students behavior on a scaled of zero to two. Zero indicated poor behavior, one indicated moderate behavior, and two indicated great behavior.

Implementing SD-CICO

      Check-In. The official first check-in occurred the following school day after students answered the problem-solving question(s). Subsequent check-ins occurred each day thereafter. Student check-ins took place in the student's classroom or resource room where they discussed the day's goals with their mentor. The student stated their goal and the mentor indicated on the checklist if the student was able to accurately state their goal. The student discussed with the mentor behavioral choices and possible obstacles that may be encountered throughout the day with the mentor. Together, the mentor and student brainstormed strategies to make the student successful in avoiding those obstacles. Finally, the students reviewed their DPR to fully understand which points were aligned with the behavioral expectations and reviewed the materials (e.g., paper, pencils, books) needed for academic participation in class.

      After checking in with their mentor, students proceeded to class to begin their day. They placed their DPRs faced up on their desks throughout the class period. They used the self-monitoring device and monitoring sheet to monitor their behavior.

      Receive feedback. At the end of each class, the student asked the teacher to rate them on their behavior during that class period. The teacher provided the student with a rating on being

respectful, responsible, and prepared. Each category was rated on a Likert scale of zero to two. The student and classroom teacher discussed any similarities and differences between behavioral ratings. The student made decisions about the behaviors he needed to maintain or change in preparation for the next class period. The teacher then provided the student with positive feedback in preparation for the next class. This was repeated after every class period.

Check-out. During check-out, the students evaluated their daily progress alongside the mentor by reviewing the behavioral ratings they received throughout the day. Check-outs lasted between five to ten minutes prior to the end of the day, and occurred between 2:00 and 2:30 PM each day. Together they discussed any similarities and differences between their behavioral rating and the behavioral rating provided by the classroom teacher. The students made decisions about the behaviors they needed to maintain or change in preparation for the next school day. The mentor used the progress evaluation questions (see Appendix E) on a weekly basis after the initial introduction of the intervention. The evaluation questions allowed students to answer questions that helped them assess whether or not the plan they had created was working. If the student felt that their plan to attain behavioral goals was working, the plan did not change. However, if the student felt that their plan was not working, they offered other solutions to attaining their goals. They could either adjust their plan or modify their approach to attaining their goals during this session.

Home component. The student completed the problem-solving question for homework if it was not fully completed at the end of the day in school. The home component allowed parents or guardians to be aware of and involved in student progress in school. The student shared the DPR and problem-solving question(s) at home.

Return to school. The student was made responsible for returning their DPR and

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problem-solving questions to their mentor the next school day. The mentor inquired about the

students check-in at home to determine if the DPR and questions were reviewed, as well as to

determine any additional problem-solving that may have been explored by the student and parent

or guardian. The mentor noted on the mentor checklist if the DPR was returned to school by the

student.

AIR Self-Determination Scale

Prior to the first baseline and then again at the end of the second treatment phase, the

researcher administered the AIR Self-Determination scale (see Appendix D). The student and

researcher went through each question together. The researcher read each question to the student.

The student indicated a response by marking the corresponding answer on the answer sheet.

Students with AIR scores below 80% indicated a need for increased self-determination

instruction (Herron & Martin, 2015). There was no associated time limit with the delivery of the

AIR Self-Determination scale.

Baseline

Baseline data was collected prior to implementing the SD-CICO intervention. The

researcher collected data of on-task behavior for five consecutive days using a 10-second

momentary time sampling method. Data was collected in 10 minute segments for all three

participants.

On-Task Behavior. All students entered baseline simultaneously. Students entered into

intervention after collecting at least five data points. Baseline data was considered stable when

the data pattern fell within 50% of the mean. Students whose data was highly variable, or whose

average on-task behavior fell below 50% were entered into intervention, regardless of stability,

as the low level and high variability of on-task behavior indicated a need for behavioral

intervention. Students were entered into the next phase after collection of five data points and if their data showed stability.

Chapter 4

Results

The primary purpose of this study was to determine the effectiveness of implementing the combination of the CICO and SDLMI strategies (SD-CICO) on the on-task behaviors of African American students with an EBD, in an alternative school setting.

Visual Analysis of On-Task Behavior

The researchers completed a visual analysis of six features of the data to determine the effectiveness of the SD-CICO and SD-CICO plus self-monitoring intervention on the on-task behaviors of the three participants. The six features visually analyzed were: (1) level, (2) trend, (3) variability, (4) immediacy of effect, (5) overlap, and (6) consistency of data patterns across similar phases (Kratchowill et al., 2013). Behavioral observations were individually completed by the researcher across all sessions. A second observer completed individual observations across four observational sessions.

Participant 1 Results

Level

Participant 1 results can be seen in Figure 1. Rodney demonstrated a mean level of 27.6% on-task behavior during the initial baseline. The mean level increased to 84.8% after the SD-CICO intervention was introduced. Upon the removal of the intervention, the mean level of on-task behavior decreased to 57.8%. When SD-CICO with self-monitoring (SD-CICO + SM) was introduced, the mean level increased to 90%. The mean level for baseline conditions was 42.7%, while the mean level for intervention conditions was 87.4%.

Trend

Rodney showed an increasing trend of on-task behavior during the initial baseline phase. The fourth data point spiked significantly in comparison to the other data points. The fifth data point showed a downward trend in behavior that fell within the range of the first three data points. During the initial intervention phase, the data indicated an increasing trend in on-task behavior. Conversely, the data indicated a consistent decreasing trend in on-task behavior with the removal of the intervention. Finally, upon reintroduction of the intervention, the data showed an upward trend of on-task behavior.

Variability

Variability is the fluctuation of the participants' performance within a phase. For this study low variability was defined as 80% of the data points within each phase falling within 20% of the median. Moderate variability was defined as 80% of the data points falling within 50% of the median, and high variability was defined as 80% of data points more than 50% from the median.

During the initial baseline phase, the data for Rodney was highly variable, as 40% of the data points fell above 50% of the median. Once the intervention was introduced, variability of data was low, as 100% of data points fell within 20% of the median. Similar to the first baseline, variability of data increased to a moderate level with 80% of data falling within 50% of the median. Finally, variability returned to very low levels once the intervention was reintroduced, with 100% of data points falling within 20% of the median.

Immediacy of Effect

The data for Rodney indicated that on-task behavior was immediately impacted by the intervention. Rodney's on-task behavior increased from 12% at the end of the initial baseline phase, to 78% at the beginning of the first intervention condition. Upon removal of the

intervention, on-task behavior decreased from 93% at the end of the first intervention condition to 58% at the beginning of the second baseline condition. After reintroducing the intervention, on-task behavior increased again from 33% at the end of baseline to 87% on-task at the beginning of the intervention.

Overlap

Rodney's data indicated 100% PND between the Baseline 1 and Intervention 1. The data indicated 80% PND between Intervention 1 and Baseline 2, and 60% PND from Baseline 2 to Intervention 2. This data indicates that the intervention had a moderate effect on Rodney's on-task behavior across phases.

Consistency of Data Patterns

Visual analysis of the data indicated that there was consistency of data patterns within similar phases. Data points during baseline phases were highly variable overall. During intervention phases, the data was low in variability and showed an increasing trend of on-task behavior. The data also indicated the intervention had an immediate effect and an increase in level during intervention phases.

<div align="center">Participant 2 Results</div>

Level

Participant 2 results can be seen in Figure 2. Walter demonstrated a mean level of 16% on-task behavior during the initial baseline phase. The mean level increased to 83% after the SD-CICO intervention was introduced. Upon the removal of the intervention, the mean level of on-task behavior decreased to 64.8%. When SD-CICO with self-monitoring (SD-CICO + SM) was

introduced, the mean level increased to 80.4%. The mean level for baseline conditions was 40.4%, while the mean level for intervention conditions was 81.7%.

Trend

Walter showed an increasing trend of on-task behavior during the initial baseline phase, although Walter demonstrated 0% on-task behavior for the first three data points. The remaining two data points indicated a mean of 40% on-task behavior. During the initial intervention phase, the data indicated a slight downward trend in on-task behavior. Similarly, the data indicated a downward trend in on-task behavior with the removal of the intervention. Finally, upon reintroduction of the intervention, the data showed an upward trend in on-task behavior.

Variability

During the initial baseline phase, the data for Walter was highly variable, as 100% of the data points fell over 50% of the median. Once the intervention was introduced, variability of data decreased, as 80% of data points fell within 20% of the median. Similar to the first baseline, variability of data increased to a moderate level with 100% of data falling within 50% of the median. Finally, variability returned to very low levels once the intervention was reintroduced, with 80% of data points falling within 20% of the median.

Immediacy of Effect

The data for Walter indicated that on-task behavior was immediately impacted by the intervention. Walter's on-task behavior increased from 33% at the end of baseline, to 87% at the beginning of the first intervention condition. Upon removal of the intervention, on-task behavior decreased from 85% at the end of the first intervention condition to 58% at the beginning of the second baseline condition. After reintroducing the intervention, on-task behavior decreased again from 47% at the end of the second baseline condition 17% on-task on the 16th at the beginning of

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the second intervention condition. However, on-task behavior increased significantly to 98% on-task behavior on the 17th data point.

Overlap

Walter's data indicated 100% PND between the Baseline 1 and Intervention 1. The data indicated 20% PND between Intervention 1 and Baseline 2, and 60% PND from Baseline 2 to Intervention 2. The data indicates that the intervention had an overall moderate effect on Walter's on-task behavior across phases.

Consistency of Data Patterns

Visual analysis of the data indicated that there was consistency of data patterns within similar phases. Data points during baseline phases were highly to moderately variable overall. During intervention phases, the data was low in variability and showed a more stable and increasing trend of on-task behavior.

<center>**Participant 3 Results**</center>

Level

Participant 3 results can be seen in Figure 3. Taurean demonstrated a mean level of 23.6% on-task behavior during the initial baseline. The mean level of on-task behavior increased to 84.2% after the SD-CICO intervention was introduced. Upon the removal of the intervention, the mean level of on-task behavior decreased to 31.4%. When SD-CICO with self-monitoring (SD-CICO + SM) was introduced, the mean level of on-task behavior increased to 92.4%. The combined mean level for baseline conditions was 27.5%, while the combined mean level for intervention conditions was 88.3%.

Trend

<center>58</center>

Taurean showed a slight increasing trend in on-task behavior during the initial baseline phase. During the initial intervention phase, the data indicated an upward trend in on-task behavior. Conversely, the data indicated a steep downward trend in on-task behavior with the removal of the intervention. Finally, upon reintroduction of the intervention, the data showed an increasing trend of in-task behavior.

Variability

During the initial baseline phase, the data for Taurean was highly variable, 60% of the data points fell over 50% of the median. Once the intervention was introduced, variability of data decreased significantly, as 100% of data points fell within 20% of the median. Similar to the first baseline, variability of data increased to a high level with 60% of data falling over 50% of the median. Finally, variability returned to very low levels once the intervention was reintroduced, with 100% of data points falling within 20% of the median.

Immediacy of Effect

The data for Taurean indicated that on-task behavior was immediately impacted by the intervention. Taurean's on-task behavior increased from 0% at the end of the initial baseline, to 88% at the beginning of the first intervention condition. Upon removal of the intervention, on-task behavior decreased from 82% at the end of the first intervention condition to 57% at the beginning of the second baseline condition. After reintroducing the intervention, on-task behavior increased from 18% at the end of the second baseline condition to 77% on-task at the beginning of the second intervention condition.

Overlap

The data indicated 100% PND across all conditions. This indicated that the intervention had a large effect on Taurean's on-task behavior.

Consistency of Data Patterns

Visual analysis of the data indicated that there was consistency of data patterns within similar phases. Data points during baseline phases were highly to moderately variable overall. During intervention phases, the data was low in variability and showed a more stable and increasing trend of on-task behavior. The data also indicated the intervention had an immediate effect and an increase in level during intervention phases.

SD-CICO + Self-Monitoring

Results from the study indicated that self-monitoring improved on-task behavior for two out of three students.

Table 1. *Percent On-Task Behavior by Intervention Type*

Student	SD-CICO	SD-CICO + SM
Rodney	85	90
Walter	83	80.3
Taurean	84.3	92.3

Self-Determination

The AIR scale was given to students prior to the first baseline and then again at the end of the second treatment phase. For this study, global AIR score ratings from both teacher and student that fell below 80% indicated a need for self-determination instruction. See Table 2 for detailed AIR Self-Determination results.

Rodney. Prior to intervention, the AIR self-determination Educator Form (i.e., teacher rating) indicated a Capacity rating of 67%, an Opportunity rating of 95%, and a global rating of 78% for level of self-determined behavior for Rodney. Post-intervention, the teacher rating of

self-determination increased to a Capacity rating of 91%, an Opportunity rating of 100%, and a global rating of 95% of self-determined behavior. This indicated an increased difference of 17% of the global rating of self-determination after SD-CICO implementation.

Analysis of the Student Form, from which Rodney rated his own self-determination, indicated an AIR self-determination Capacity rating of 68%, an Opportunity rating of 63%, and a global rating of 66% for level of self-determined behavior prior to intervention. Post-intervention, the self-determination score increased very slightly to Capacity rating of 70%, an Opportunity rating of 67%, and a global rating of 68% for level of self-determined behavior. This indicated a slight difference of 2% of the global rating score of self-determination after SD-CICO implementation.

Walter. Prior to intervention, the AIR self-determination Educator Form (i.e., teacher rating) indicated a Capacity rating of 64%, an Opportunity rating of 77%, and a global rating of 69% for level of self-determined behavior for Walter. Post-intervention, the teacher rating of self-determination increased to a Capacity rating of 83%, an Opportunity rating of 100%, and a global rating of 90% of self-determined behavior. This indicated a difference increase of 21% of the global self-determination rating after SD-CICO implementation.

Analysis of the Student Form, from which Walter rated his own self-determination, indicated an AIR self-determination Capacity rating of 43%, an Opportunity rating of 30%, and a global rating of 37% for level of self-determined behavior prior to intervention. Post-intervention, the self-determination score increased to a Capacity rating of 83%, an Opportunity rating of 100%, and a global rating of 90% for level of self-determined behavior. This indicated an increased difference of the self-determination global rating of 51% after SD-CICO implementation.

Taurean. Prior to intervention, the AIR self-determination Educator Form (i.e., teacher rating) indicated a Capacity rating of 66%, an Opportunity rating of 68%, and a global rating of 67% for level of self-determined behavior for Taurean. Post-intervention, the teacher rating of self-determination increased to a Capacity rating of 67%, an Opportunity rating of 70%, and a global rating of 68% of self-determined behavior. This indicated a small difference increase of 2% for the global self-determination global rating after SD-CICO implementation.

Analysis of the Student Form, from which Taurean rated his own self-determination, indicated an AIR self-determination Capacity rating of 73%, an Opportunity score of 75%, and a global rating of 74% for level of self-determined behavior prior to intervention. Post-intervention, the self-determination rating increased very slightly to Capacity rating of 85%, an Opportunity rating of 82%, and a global rating of 83% for level of self-determined behavior. This indicated an increased difference of 9% for the global self-determination rating after SD-CICO implementation. Additional AIR Self-Determination information can be found in Table 2.

Table 2. *Student and Teacher AIR Self-Determination Ratings*

Student	Time	Capacity Score	Opportunity Score	Global Score
Rodney	**Pre**	41	38	79
	Post	42	40	82
Walter	**Pre**	26	18	44
	Post	57	49	106
Taurean	**Pre**	44	45	89
	Post	51	49	100

Teacher Rating

Student	Time	Capacity Score	Opportunity Score	Global Score
Rodney	**Pre**	60	57	117
	Post	82	60	142
Walter	**Pre**	58	46	104
	Post	75	60	135
Taurean	**Pre**	59	41	100
	Post	60	42	102

Inter-observer agreement

Total percent agreement was calculated at 95.2% for all participants. Total percent agreement for Rodney was calculated at 94.3%, agreement for Walter was calculated at 94.6%, and agreement for Taurean was calculated at 95%.

Fidelity

Reliability of fidelity is defined as the agreement between mentor self-completed checklist and the observational checklist completed by the researcher. Observations were conducted across students, mentors, and time.

Fidelity of Instruction. Fidelity of instruction was calculated to be 91% for Mentor 1, who provided instruction to Rodney. Fidelity of instruction was calculated at 91% and 100% respectively, for Mentor 2 who provided instruction to Walter and Taurean.

Fidelity of intervention was calculation by totaling the self-completed checklists completed by the mentors. The number of items completed were divided by the total number of items available, and then multiplied by 100.

Fidelity of Intervention. Fidelity of intervention was calculated at 68% for Mentor 1 who provided instruction to Rodney. Fidelity of instruction was calculated at 97.3% and 96.4% respectively for Mentor 2 who provided instruction for Walter and Taurean.

Social Validity

Student Social Validity

The response rate was 100%. In general, student had positive perceptions of the SD-CICO intervention, and felt like that intervention was useful in helping them obtain self-selected goals. Specifically, student felt that their mentors delivered instruction very well, and that they were generally able to achieve their goal quickly. Finally, all of the students felt that it was easier

to achieve self-selected goals, as opposed to goals that were created by teachers or parents.

Additional information from student social validity can be found in Table 3.

Table 3. *Student Social Validity Results for All Students*

Question	Very Poorly 1	Poorly 2	Well 3	Very Well 4
How well did you meet your goal?	0	0	2	1
How well did setting goals help you in your classes?	0	0	2	1
How well did setting a goal help you focus academically?	0	0	2	1
How did you feel when you successfully completed the goal?	0	0	1	2
How would you rate the instructional pace of teaching you goal setting?	0	1	1	1
How well do you think your teacher delivered instruction?	0	0	0	3
How quickly did you achieve your goals with the goal setting sheets?	0	0	3	0
How likely are you to continue to use goal setting in your classes or at home to be more successful?	0	1	1	1
How likely are you to recommend goal setting to other students?	0	1	1	1
How much easier or harder do you feel the goals you set for yourself were than the goals your teachers or parents set for you?	0	0	3	0

Teacher Social Validity

The response rate was 75%. In general, participants had positive perceptions of the SD-CICO intervention, and felt like that intervention was useful in helping students to set goals and remain on-task during classroom instruction. The participants overall felt that they self-monitoring device and monitoring sheets helped students remain on task. One of the mentors commented that students' seemed to focus better with the self-monitoring device. Similarly, the teachers commented that the device helped them to think before they acted and the effectively attended to rating themselves on the monitoring sheets. The SD-CICO intervention was also noted to maintain overall on-task behavior for the student participants. Finally, the mentors and adults felt that the overall intervention was effective for helping students set and work towards meeting goals and were interested in learning more and/or using the intervention again in the future. Additional information from teacher social validity can be found in Table 4.

Table 4. *Teacher Social Validity*

Question	Respondent	Response
How did the process of using the SD-CICO intervention (goal setting using self-monitoring and timer) work for your students? Describe how students reacted to the use of the intervention. Did you see evidence of the intervention such as the timer and the self-monitoring?	Mentors	It worked really well. The students seemed to look forward to having someone check on them and reminding them of the things they did and didn't do throughout the day. Going over their progress was good for them. Both students were focusing better with the self-monitoring device on them.
	Teachers	***Teacher A*** – They were unable to use the intervention in everyday life. Self-monitoring helped them think before they acted. The students were more nonchalant. They went with the flow and were motivated by doing the intervention. ***Teacher B*** – The intervention was okay. I liked that someone was giving them extra intervention to get them to process and help them find other solution. I am unsure of how student reacted overall to the intervention, although they paid attention to rating themselves on the sheet.
Did you notice any changes in on-task behaviors? Did it seem like the intervention was connected to those changes?	Mentors	Yes. Their behavior dropped so much during the week we took off. His behavior regressed the week when I was not checking on him. Checking in on him definitely seemed connected. It was helpful because it allowed them to express themselves better whenever they were on or off track to their goals.
	Teachers	***Teacher A*** – I noticed that even when a student had little moment (tantrum), he was able to get back on task faster. Overall, the device helped them get back on task. They were able to pay attention to their behaviors. ***Teacher B*** – I did not notice any changes in the students' overall behavior. However, when using the device, they were on-task more.
Did the student show any changes in any other behaviors (better attendance, focus more on class work, completion of assignments, self-confidence, self-advocacy, interaction with peers) while he was participating in the intervention?	Mentors	The students were asking for more work when they were finished with assignments in order to keep themselves out of trouble. I think their confidence increased because they did not think they would be able to reach their goal. Seeing themselves surpass behavior goals was a boost to their confidence.
	Teachers	***Teacher A*** – The students were more focused and their interactions with peers were better. They had less talking. They were talking more about the assignment if they were talking. They were more responsible for their own work.

		Teacher B – There was not enough time with the intervention to really show changes in other behaviors. It takes a long time to get students to change, so extra intervention helps.
Were there any changes in the classroom as a result of the changes in the student's behavior? For example, did your perceptions of the student change? Did his/her peer's perceptions change?	Mentors	The intervention helped students stay more on-task in class, which affected the whole class. When the students were off-task, the time would keep reminding them to refocus back on their work.
	Teachers	Teacher A - It has been a lot calmer lately. My perceptions of the students improved because they were more focused. I did not have to redirect them as much. It built up their confidence and they interacted with discussion more. Teacher B - The device seemed to keep them more focused on their work. My perceptions did not change of the students. Because working with the students in the same setting, you understand who they are.
Did the goals the student was working on, to be on-task in class, fit with the goals you have as a teacher for student learning? Would you be interested in learning more about the use of this SD-CICO intervention (goal setting with self-monitoring) with students next year? Do you see any potential long-term benefits for students who learn these skills?	Mentors	Yes. It helped them complete their work, but being on-task aligns with their exit criteria. Long-term, I think the intervention will help them have more consistency and also help them understand the impact of their behavior on short-term goals.
	Teachers	Teacher A – The goals mirrored what they were doing in class. Long term, they will be able to use these skills wherever they go. Teacher B – The goals were in alignment with my goals for their learning. It did make them more aware of their behaviors. They were concerned with rating themselves on the DPR. The long term benefits would be that they will learn to internalize their behaviors so that they do not need someone redirecting them. I would be interested learning more about the intervention next year.

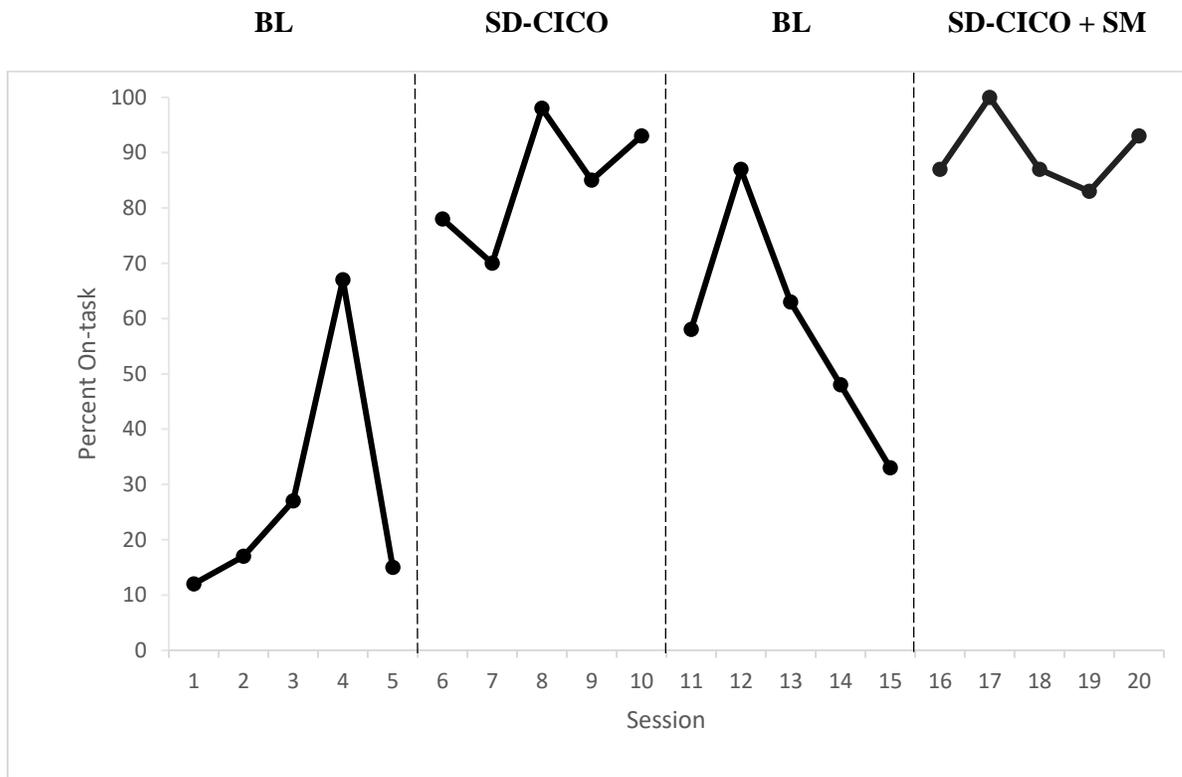Figure 1. *Graph of Rodneys' On-Task Behavior*

BL   SD-CICO   BL   SD-CICO + SM
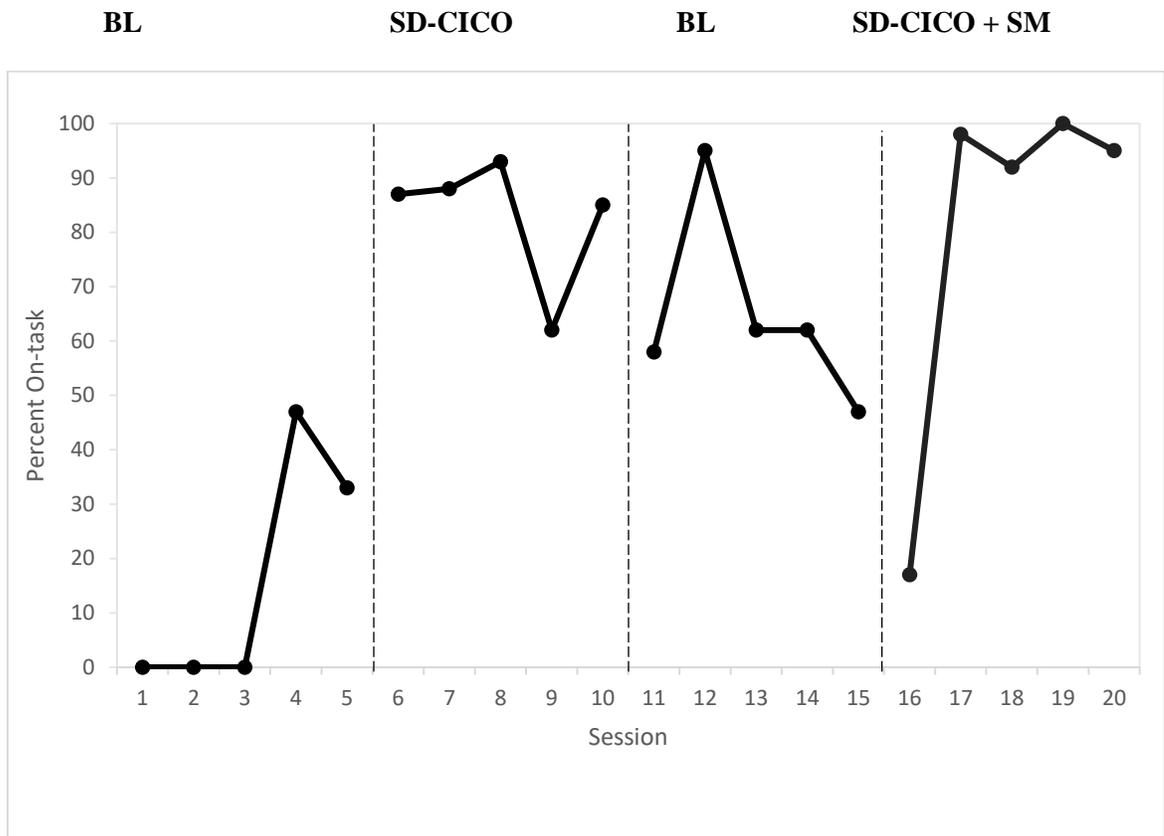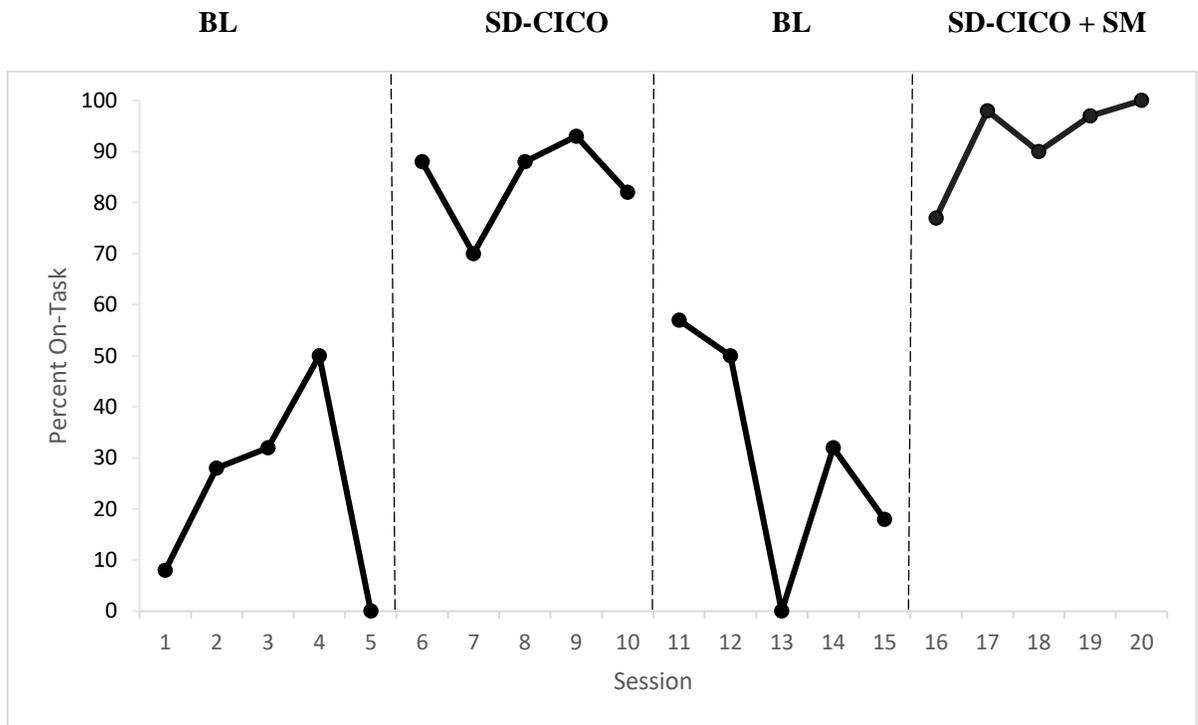
Figure 2. *Graph of Walters' On-Task Behavior*

Figure 3. *Graph of Taureans' On-Task Behavior*

Chapter 5

Discussion

The purpose of this study was to determine the impact of implementing the combination of the CICO and SDLMI strategies (i.e., Student-Directed Check-in/Check-out [SD-CICO]) on the on-task behaviors and global self-determination of African American students with an EBD, in an alternative school setting. The study also examined the impact of self-monitoring on the on-task behaviors of student participants. The researcher implemented the intervention with three middle school students between the ages of 13 and 14 who received instruction in an alternative therapeutic setting. The students rotated between two classrooms, in which they received English and Math in one class, and Science and Social Studies in the other. The students received SD-CICO instruction from school based mentors in a resource room located on the same hall as their primary classrooms. Six SD-CICO lessons were taught individually to each student over an 8 week period between March and May.

Overall visual analyses of results from this preliminary study indicated a functional relation between the SD-CICO intervention and the on-task behaviors of participants. Results indicated that SD-CICO (i.e., check-in, check-out with embedded self-determination instruction) was effective at increasing the on-task behaviors of the three students who displayed significant behavioral challenges. In addition, the results indicated that the addition of self-monitoring was effective for two out of the three students. The results further indicated that SD-CICO was useful in increasing the overall perceived level of self-determination as rated by teachers and students, and that both teachers and students believed the intervention was feasible and acceptable for the overall needs of stakeholders in alternative school settings. Results from the study also

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suggested that mentors were able to implement instructional and intervention components of SD-CICO with reasonable fidelity.

On-Task Behavior

Specifically, results from this study indicated that implementing the SD-CICO intervention was effective at increasing the on-task behaviors of all three students during intervention phases. Withdrawal of the intervention was marked with notable decreases in on-task behavior for all participants. The intervention had an immediate impact on the level and variability of the target behavior. Upon implementing the intervention after the initial baseline, the level of on-task behavior increased for all participants. The mean level of on task behavior was below 43% for all students during baseline conditions, and above 81% for all students during intervention conditions. The difference in the percentage of on-task behavior suggests that the intervention directly impacted the students' ability to remain engaged in academic tasks and instruction. The intervention also had a positive effect on the variability of on-task behavior for all students. Variability was consistently high during baseline conditions, which indicated that students exhibited a mix of very high and low rates of on-task behavior during observation sessions. There was little consistency, stability, and predictability in student behavior during baseline conditions. However, all of the students displayed increased stability and less variable data during intervention conditions. Stable on-task behavior suggests that the intervention was actively controlling the presence of engaged on-task behavior. In the same way, there was also an immediate effect of on-task behavior for all three student participants. The off-task behaviors (i.e., talking out, leaving seat without permission, verbal and physical aggression) decreased during intervention phases and were replaced by on-task behaviors (i.e., remaining silent during instruction, actively engaging in academic work and activities). These findings suggest that SD-

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CICO may have contributed to the students' ability to become more aware of their on-task behaviors during intervention phases. Similarly, higher levels of on-task behaviors may also be attributed to adult support from which students received positive attention and feedback, as well as on-going assistance with problem-solving obstacles to attaining their goals. Alternatively, the increased level of consistent adult attention may have mitigated the presence of challenging behaviors as students began to understand that they would receive on-going and personal attention from mentors and teachers throughout the school day.

Nonetheless, these results provide additional empirical evidence that combining CICO and self-determination instruction can be a useful strategy to improve challenging behavior of students with EBD and that students with EBD can be taught and learn to use positive on-task behaviors within classroom settings. This study also provides initial evidence that purposefully embedding self-determination instruction into the traditional CICO intervention may be a viable means of teaching students to take on active roles in their learning. The results support the self-determination literature which highlights the importance of providing students with disabilities with explicit instruction on self-determination skills to improve school outcomes (Carter et al, 2011; Wehmeyer, 1997). The results also supports the evidence from previous studies (Kilgus et al., 2016; Ross & Sabey, 2015) which found that modifying CICO is an effective practice to address the specific needs of unique student populations. Specifically, this study extends findings by Fallon and Feinberg (2017) who also modified CICO to include self-determination instruction (i.e., goal-setting and choice-making). The researcher also found a modified CICO intervention to be effective at improving behavioral outcomes for students with EBD in a therapeutic alternative setting. The present study also extends their findings by modifying CICO to include systematic self-determination instruction, as well as directly observing on-task behavior in the

classroom to ascertain behavioral changes. All in all, promoting self-determination skills in alternative schools seems to allow students to become more engaged and empowered in their own learning, as they are able to make decisions based on their needs and wants. Specifically, this study allowed students to self-select individual goals and take on leading roles in developing plans to meet those goals. Allowing students with opportunities to actively investigate their own needs, wants, and motivations, provides students with self-determination opportunities which allow them to link their personal goals to their educational involvement at school. As such, students in this study may have been more willing to work towards their goals because they were more invested in the outcomes.

SD-CICO + Self-Monitoring

While student behavior showed significant improvements during the initial intervention, on-task behavior was most apparent during the final intervention condition that included self-monitoring. Self-monitoring was added to the intervention to determine if the active use of a tactile self-monitoring device would produce differing, increased levels of on-task behavior than SD-CICO alone. Results indicated that self-monitoring resulted in an increase in on-task behavior for two out of three students. However, the results should be unpacked further for better interpretation. Walter, who did not show improvement during the self-monitoring condition, stopped using the tactile device during one observation session (Session 16) after receiving disappointing news from a classroom paraprofessional. He turned off the device and put his head on the table during the rest of the observation session, and was marked off-task accordingly. However, when using the self-monitoring device consistently and appropriately during the remaining observations, Walter's on-task behavior averaged over 96% for the remaining sessions. What was even more notable was Walter's choice of behavior upon receiving

disappointing news. Even though he made a decision to put his head down to his desk, this choice was remarkably different from his choice in behavior during the initial baseline phase where similar occurrences prompted him to tantrum and engage in off-task behaviors that included verbal and physical aggression. His response choice after receiving SD-CICO instruction was a more appropriate action and may have directly resulted from SD-CICO instruction which allowed him to proactively problem solve potential barriers to attaining his behavioral goals. Future studies need to involve querying students about their choices in these situations.

Overall, preliminary results indicated that self-monitoring may be a viable tool to incorporate within CICO interventions as means of promoting positive student outcomes. The results support findings by Miller and colleagues (2015), who used self-monitoring as a means of gradually fading the use of CICO components (i.e., check-ins, teacher feedback) as students learned to self-direct their own learning. The students in this study were able to effectively use the devices and monitoring sheets to appropriately monitor their behavior and showed more on-task behavior during that final intervention phase. These results suggest that using self-monitoring devices that provide vibrational cues may actively prompt students to focus on their engagement and on-task behaviors during classroom instruction. This subtle, tactile prompting and use of monitoring sheets may allow students with EBD to become more aware of their behaviors. Alternatively, the increase in on-task behavior may have been due to the novelty of using the tactile devices. The students in the study had never used similar interventions and seemed intrigued by the timed vibrations. It is possible that the high levels of on-task behavior supported by self-monitoring in this study would decrease over time, as students became more familiar with using the devices and the novelty fades.

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AIR Self-Determination

In order to assess global levels of student self-determination, this study used the AIR Self-Determination scale. The scale specifically measures two domains of self-determination: Capacity and Opportunity. Capacity scores assessed the students' knowledge, ability, and perceptions of self-determination, while Opportunity scores assessed the opportunities students have to engage and practice using self-determined behaviors at home and school (Shogren et al., 2008). Teacher and student participants provided ratings of self-determination prior to intervention, and then again after the conclusion of the study. Scores from the AIR self-determination scale indicated that SD-CICO positively impacted students and teachers ratings of global student self-determined behavior. This suggests that purposefully and explicitly teaching students self-determination related skills like goal-setting, problem-solving, self-monitoring, and self-evaluation, may have contributed to the way in which participants viewed students level of self-determination. These results also suggest that mentors and teachers can teach students with EBD how to operationalize and utilize self-determined behaviors that may produce positive student outcomes.

Results generally indicated that both teacher and student participants perceived student capacity of self-determination to be greater than their opportunities to engage in self-determined behavior. In this study, teachers had overall higher capacity and opportunity ratings than students. This conflicts with previous self-determination literature which suggests students with disabilities are more likely to have higher capacity ratings of self-determination than their special education teachers, and that teachers tended to have higher opportunities ratings than students (Mithaug, Campeau, & Woman, 2003). However, in the present study, teachers had higher student capacity ratings than opportunity ratings, which indicated an overall perception that

students were more capable of self-determined behavior, but less likely to experience or engage in opportunities to express such behavior within the home or at school.

While the results showed an increase in global self-determined behavior for all students, one teacher and one student showed minimal increases in self-determined behavior, although they were not the same student. This suggests that SD-CICO did not have a significant impact on one students' perception of his own self-determined behavior, and that one teacher did not perceive the intervention to significantly impact the self-determined behavior of a different student participant. Similarly, that particular classroom teacher had lower overall ratings of both capacity and opportunity scores than the other. This brings into question the impact of teacher perceptions of students with EBDs and how those perceptions may directly impact their ratings of self-determined behavior for these students. Mithaug and colleagues (2003) suggest that there are "complex differences" between teacher and student ratings of self-determination using the AIR scale. Teachers tend to provide objective ratings of their independent perceptions, while student ratings are largely influenced by the "strong relationship they see between their capacity and opportunity for self-determination." Shogren and colleagues (2008) further suggest that teacher report on the AIR may be of less value than the students ratings, as the opportunities teachers believe they are creating for their students to practice self-determined behavior, are not impacting students' level of self-determination. In other words, teachers may provide opportunity ratings based on their perceptions of opportunities they personally believe they have provided, as opposed to actual opportunities that students experience and allow them to specifically practice skills related to self-determination. Alternatively, it is possible that the intervention did not allow ample time for students to truly attain increased levels of self-determination. It is often the case that behavior changes for students with EBD occur slowly.

Nonetheless, the overall results indicate that providing students with self-determination instruction may have a positive effect on classroom on-task behavior of African American students with EBD in alternative school settings, and how these students begin to learn to monitor their externalizing behaviors.

Fidelity

Fidelity was measured to determine how well instruction and the intervention was implemented as designed. The researchers assessed fidelity of SD-CICO instruction, as well as fidelity of the SD-CICO intervention components (i.e., check-in, feedback, check-out, home component, return to school).

Fidelity of Instruction. The results of the study indicated that mentors were able to use fidelity checklist sheets in order to implement both instruction and intervention with adherence. Fidelity percentages were all above 90% adherence during instructional sessions. This suggests that mentors were able to effectively use the fidelity checklists to deliver critical components of SD-CICO instruction to students. Adherence to the instructional checklists may also indicate that protocols removed any guesswork from the tasks required during instruction to ensure that students received access to each self-determined related skill denoted by the intervention. However, the steps that required mentors to identify additional supports and to determine if the student's goal were SMART (i.e., specific, measureable, achievable, relevant, time-bound) goals, were less likely to be met with adherence. This may indicate that mentors were unable to help students brainstorm additional supports they were not already receiving and did not understand how to review goals to ensure they met the SMART criteria. The mentors may have needed additional training on these steps in order to feel more knowledgeable on providing students with instruction in these areas.

Fidelity of Intervention. Mentors followed a fidelity checklist that required them to indicate the individual steps that were completed throughout the day. The fidelity checklist provided mentors with a daily protocol that served as a guide to ensuring that each SD-CICO component was addressed. The results indicated moderate fidelity of intervention for both mentors. Fidelity of intervention was relatively high for Walter and Taurean's mentor, with adherence well over 96% for both students. However, adherence was low for Rodney's mentor, whose fidelity of intervention fell below 70%. Results for Rodney however, were significantly impacted by mentor absence during the second intervention phase. The mentor was out sick during the majority of the intervention sessions. As such, the student did not receive all steps of the intervention as required. The student was able to complete check-ins with the researcher and positive feedback from the teachers. However, there was inadequate adherence to the check-out, home component, and return to school steps during that time. Nonetheless, the student continued to show improved on-task behavior which suggests experimental control of the SD-CICO intervention. Continued student progress made by this student further suggests that self-determination instruction may be more important than specific components of traditional CICO.

Limitations and Implications

The data from this study indicated that the SD-CICO intervention improved the on-task behavior of students with EBD in alternative school settings. However, there are a number of limitations that should be considered when interpreting these results.

First, only three students participated in this study. Given the small sample size, it is impossible to truly generalize these finding to other populations. However, this caution is somewhat diminished by the replication of the results across the two classrooms. Given that this is a preliminary study, more research is needed to determine the effectiveness of the SD-CICO

intervention on increasing on-task behaviors and perceived levels of self-determinations for students with EBD in alternative school settings.

Second, all of the participants were African American males with EBD eligibility in an alternative school setting. As such it is difficult to generalize these results to other student populations with diverse disabilities, ethnicities, and gender. Future research is needed to explore the impact of the intervention on students who are demographically diverse students and receive instruction in traditional and inclusive environments.

Third, all of the students had an overall increasing trend of on-task behavior during baseline. Nonetheless, the students were entered into intervention after the fifth data point. The researcher made the decision to enter students into baseline for two reasons: First – the fifth data point for all students showed a decrease in on-task behavior, and second – on-task behavior was highly variable and averaged below 28% for all students, which indicated a need for intervention. However, future research may want to consider extending baseline for data with increasing trends or establish firm rules for entering students with highly variable data into intervention.

Fourth, further research is needed to examine the validity of using of self-monitoring devices with students. While two out of three students showed improvements, it is impossible to determine if self-monitoring is an effective strategy for this specific demographic given the limitations of this study. Future research should also examine the impact of using SD-CICO plus self-monitoring class-wide and overtime.

Fifth, teacher ratings of student self-determination varied greatly. One teacher had overall higher scores than the other. Teachers also consistently rated the self-determination of students higher than the students themselves. This discrepancy may be related to teachers' understanding of what constitutes an opportunity to engage in self-determined behavior. Another limitation is

that mentors did not provide self-determination ratings for students. This limited the ability to assess the differences between teacher and mentor ratings, thereby limiting the researchers' ability to determine if self-determination ratings of students would vary by participant type (i.e., mentor vs. teacher) and other variables such as education level and role (i.e., teacher vs. paraprofessional). Future research should investigate the utility of using the AIR-Teacher Scale as a means of measuring the global self-determination of students in alternative school settings. Researchers may also want to examine the differences between classroom teacher and mentor ratings. Future research should also focus on the prevalence and availability of self-determination instructional opportunities available in alternative school settings, as well the impact of instructing teachers to create self-determination opportunities.

Finally, adherence to the SD-CICO intervention was moderate at best during this intervention. Not all students who participated in the intervention received every step of the SD-CICO components consistently. While fidelity of intervention was moderated by the absence of a mentor participant in this study, the mentors in this study had a number of duties that required their attention throughout the day, which made it challenging for them to check-in and/or out with students as needed overall. Future research should investigate effective check-in and check-out times for mentors and students in non-traditional settings.

<div align="center">**Implications for Practice and Conclusion**</div>

This study aimed to determine if African American students with an EBD in a middle school alternative setting could benefit from the combination of two evidence based practices, Check-in, Check-out (CICO) and the Self-Determined Learning Model of Instruction (SDLMI). The intervention embedded self-determination instruction from the SDLMI into the CICO program, which enabled the researcher to transform the traditional CICO intervention into

student-directed, rather than teacher-directed intervention. The SD-CICO intervention required students to take an active, leading role in self-selecting goals, creating plans to attain goals, using tactile devices to self-monitor behaviors, and implementing self-evaluation procedures to adjust behaviors to meet goals.

Through behavioral observations, the single subject ABAC withdrawal design demonstrated a functional relation between the SD-CICO intervention and the on-task behaviors of three African American students with EBD in alternative school settings. All three students significantly increased on-task behaviors throughout intervention. The study also indicated that SD-CICO plus self-monitoring, produced increased levels of on-task behaviors for students. SD-CICO was equally successful at increasing the global self-determination ratings by teachers and students.

Despite the limitations of this study, the findings suggests that SD-CICO may be a viable option for practitioners to use in alternative school settings. First, the mentoring and teacher feedback components of the intervention may be a crucial link to building positive student teacher relationships. Behavioral check-ins throughout the day provide students with consistent adult attention and constructive feedback on their behaviors. In the same way, check-ins afford mentors and teachers chances to proactively address challenging behaviors before the students' next class. This may be particularly important for African American students with EBD, as check-ins rich with positive, constructive feedback, may eliminate the likelihood of these students engaging in attention seeking behaviors that may potentially lead to exclusionary discipline procedures. Further, check-ins and SD-CICO instructional sessions provide mentors and teachers with opportunities to be more cognizant of students' strengths, weaknesses, and social and emotional needs throughout the day. Building positive student-teacher relationships

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may mitigate implicit and explicit teacher biases that result in exclusionary disciplinary practices, as teachers and mentors begin to better understand their students through systematic and individualized planning sessions.

Second, explicitly teaching African American students skills related to self-determination may increase their capacity to use these skills (i.e., positive decision-making, choice-making) when challenges arise. Similarly, instructing African American students on self-determination may remediate skill deficits students have been unable to acquire at school or in the home. Promoting skills like self-awareness through active self-determination instruction may teach students to draw connections between their behaviors and the positive or negative consequences that follow. As such, students may begin to self-advocate for their needs in more socially constructive ways, rather than engaging in behaviors that result from deficits in self-determination skills.

Finally, the combination of these approaches may provide African American students with a well-rounded instructional technique that incorporates a number of evidence based strategies to combat off-task behavior and consequently, exclusionary disciplinary practices. Because no single intervention alone can be successful at meeting the needs of all students, using a combined behavioral framework like SD-CICO, may provide educators with an effective and easy way to teach students valuable skills and increase positive behavior concurrently. The SD-CICO intervention may enable African American students with EBD or who are at risk of special education, with opportunities to effectively learn a systematic, yet malleable process to attain goals, problem-solve, self-monitor, and evaluate their own behaviors. At the same time, students are able to receive valuable mentoring support from school based staff who can likely address and advocate for the students social emotional needs. Even more, consistent and explicit SD-

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CICO instruction may provide these students in alternative and traditional settings, with regular opportunities to practice using self-determination skills that may eventually expand their capacity to engage in self-determined behavior that significantly impact both in-school and post-school outcomes.

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Table 5. *Student Demographics*

Participant	Gender	Age	Grade	Eligibility	Ethnicity
Rodney	M	13	7th	EBD	African American
Walter	M	13	6th	EBD	African American
Taurean	M	14	7th	EBD	African American

Note: EBD = Emotional behavior disorder.

Table 6. *Teacher Demographics*

	Mentor A	Mentor B	Teacher A	Teacher B
Sex	M	F	F	F
Racial/Ethnic Group	AA	AA	AA	AA
Grade Teaching	Para 6,7,8	Para 1, 4	6,7,8	6,7,8
Years Teaching (Range)	1-5	1-5	11-15	16-20
Years working in an education setting (Range)	1-5	1-5	11-15	16-20
Highest Level of Edu.	Bachelors	Associates	Masters	Masters

Appendices

Appendix A. The Self-Determined Learning Model of Instruction

Student Objectives

Phase 1: Set a Goal	Phase 2: Take Action	Phase 3: Adjust Goal or Plan
1. What do I want to learn? 2. What do I know about it now? 3. What must change for me to learn what I don't know? 4. What can I do to make this happen?	1. What can I do to learn what I don't know? 2. What could keep me from taking action? 3. What can I do to remove these barriers? 4. When will I take action?	1. What actions have I taken? 2. What barriers have been removed 3. What has changed about what I don't know? 4. Do I know what I want to know?

Teacher/Mentor Objectives

For Question 1 • Enable students to identify specific strengths and instructional needs. • Enable students to communicate preferences, interests, beliefs, and values. For Question 2 • Enable students to identify their current status in relation to the instructional need. • Assist students in gathering information about opportunities and barriers in their environment. For Question 3 • Enable students to decide whether action will be focused on capacity building, modifying their environment, or both. For Question 4 • Teach students to state a goal and identify criteria for achieving goal.	For Question 1 • Enable students to self-evaluate both current status and self-identified goal status. For Question 2 • Enable students to determine plan of action to bridge gap between self-evaluated current status and self-identified goal status. For Question 3 • Collaborate with student to identify most appropriate instructional strategies. • Teach student needed student-directed learning strategies. For Question 4 • Enable student to determine schedule for action plan. • Enable student to self-monitor progress.	For Question 1 • Enable student to self-evaluate progress toward goal achievement. For Question 2 • Collaborate with student to compare progress with desired outcomes. For Question 3 • Support student in reevaluating goal if progress is sufficient. • Assist student in deciding whether goal remains the same or changes. • Collaborate with student to determine whether action plan is adequate given revised or retained goal. For Question 4 • Enable student to decide whether progress is adequate, or if goal has been achieved.
Note: The Self-Determination Learning Model of Instruction (Wehmeyer, Palmer, Agran, Mithaug, & Martin, 2000).		

Appendix B. *Student-Directed Check-In/Check-Out*

CICO Components	Traditional CICO	Embedded SD Skill	SD-CICO
Check-In	Students meets with mentor to review school-related goals and strategies. The mentor ensures that the student has materials and the DPR.	Goal setting, choice making, decision making, self-efficacy, problem-solving self-management, self-regulation	Student discusses self-selected goals with mentor. Student shares problem solving strategies with mentor. Student uses positive self-talk in order to facilitate positive self-efficacy. Student uses a self-selected self-monitoring strategy to modify behavior throughout the day.
Receive Feedback	Teachers provide students with behavioral feedback at scheduled intervals using the DPR from which the teacher rates the student on a scale of 0 (expectations unmet) to 2 (expectations met).	Self-evaluation, self-monitoring, decision-making	Student evaluates performance after each class and compares that performance to the teacher's evaluation. The student makes decisions based on the evaluation to use for the next class.
Check-Out	The student's point card is reviewed by the mentor, receives positive reinforcement and/or discusses strategies that may contribute to goal-attainment on the next school day.	Self-evaluation, self-reinforcement, problem solving	The student is given a problem-solving question that reflects their current state of performance. The mentor answers any questions and clarifies the homework before the student goes home.
Home Component	The student carries their point card home to be signed by the PG. The PG provides the student with positive feedback in areas of success.	Problem solving, self-knowledge	The student shares the problem-solving question with par. The PG may probe the student to aid in fully solving the question.
Return to School	The student returns the signed DPR into the PG on the following school day. The five-step process is repeated.	Self-management	The student signs out with PG to ensure that the DPR is returned.

Note. CICO information and resources can be accessed at the PBIS World website at http://www.pbisworld.com/tier-2/check-in-check-out-cico/. Self-determination information and resources can be accessed on the National Center on Secondary Education and Transition website at http://www.ncset.org/default.asp. PG = Parent/Guardian.

AIR Self-Determination Scale

EDUCATOR FORM

Student's Name _____Date _____

Date of Birth (or age)_____ Grade_____   Female   Male

Educator's Name _____

School Name _____

HOW TO FILL OUT THIS FORM

Each page of this form lists characteristics and behaviors that indicate the degree to which your student demonstrates traits of self-determination and the degree to which the people influencing your student provides opportunities that foster self-determination. For each item, select the appropriate rating code based on what you have observed about your student. An example is provided to illustrate each characteristic. Feel free to write in a different example that supports your rating for your student.

Here is an example of how you should mark your answers.

EXAMPLE QUESTION:

Student checks for errors after completing a project.

EXAMPLE ANSWER:

Check the box of the rating code which tells what your student is most like:

(Check **ONLY ONE** box per question).

1 Never………………………student **never** checks for errors.

2 Almost Never………………student **almost never** checks for errors.

3 Sometimes…………………student **sometimes** checks for errors.

4 Almost Always……………..student **almost always** checks for errors.

5 Always…………………………student **always** checks for errors.

KNOWLEDGE of Self-Determination Behaviors

	Never	Almost Never	Sometimes	Almost Always	Always
1. Student knows own abilities and limitations. *Example:* James can identify his personal strengths and talents, such as his musical ability as well as areas in which he needs improvement, like his below average math problem-solving skills.	Never **1**	Almost Never **2**	Sometimes **3**	Almost Always **4**	Always **5**
2. Student knows how to set expectations and goals that satisfy own interests and needs. *Example:* Lee wants to attend college and knows that to get good grades, she needs to work hard on her assignments and complete them on time.	Never **1**	Almost Never **2**	Sometimes **3**	Almost Always **4**	Always **5**
Knowledge Total: Items 1+2					
3. Student knows how to make choices, decisions, and plans to meet own goals and expectations. *Example:* When making plans to meet her goals, Lynn knows how to identify various strategies, weigh the pros and cons, and follow through.	Never **1**	Almost Never **2**	Sometimes **3**	Almost Always **4**	Always **5**
4. Student knows how to take actions to complete own plans successfully. *Example:* Kenneth knows how to follow through on a scheduled plan to complete his work accurately and on time.	Never **1**	Almost Never **2**	Sometimes **3**	Almost Always **4**	Always **5**
Knowledge Total: Items 3+4					
5. Student knows how to evaluate results of actions to determine what was effective.	Never	Almost Never	Sometimes	Almost Always	Always

Example: Germaine knows what questions to ask to find out how well she is doing.	**1**	**2**	**3**	**4**	**5**
6. Student knows how to change actions or plans to meet goals and satisfy needs and wants. *Example:* Jose understands that to get an A in math, he may need to study one hour every night; if that doesn't work he may have to work two hours every night; and if that doesn't work he may have to learn to study more effectively.	Never **1**	Almost Never **2**	Sometimes **3**	Almost Always **4**	Always **5**
	Knowledge Total: Items 5+6				

Please go on to the next page

2   AIR Self Determination Scale, Educator Form

ABILITY to Perform Self-Determination Behaviors

1. Student expresses own interests, needs, and abilities. *Example:* Sarah communicates her athletic interest and talent in conversations, written journals, or participation in sports activities.	Never **1**	Almost Never **2**	Sometimes **3**	Almost Always **4**	Always **5**
2. Student sets expectations and goals that will satisfy own interests needs, and wants. *Example:* Loving to spend time drawing and doing art, Daniel sets the goal of finding art classes that he can take after school once a week.	Never **1**	Almost Never **2**	Sometimes **3**	Almost Always **4**	Always **5**
			Ability Total: Items 1+2		
3. Student knows how to make choices, decisions, and plans to meet own goals and expectations. *Example:* Anna weighed the pros and cons of doing three types of history projects, chose to write a research report, outlined the report, and made a schedule for completing the report on time.	Never **1**	Almost Never **2**	Sometimes **3**	Almost Always **4**	Always **5**
4. Student initiates actions on own choices and plans. *Example:* Ming begins work right away each time he gets an assignment or is asked by someone to help with a project.	Never **1**	Almost Never **2**	Sometimes **3**	Almost Always **4**	Always **5**
			Ability Total: Items 3+4		

		Almost		Almost	
5. Student gathers information on results of actions. *Example:* After completing her work, Theresa checks it for errors and asks others to look it over and make suggestions.	Never	Never	Sometimes	Always	Always
	1	**2**	**3**	**4**	**5**
6. Student changes own actions or plans to satisfy expectations and goals, if necessary. *Example:* Ricardo tries different approaches to solve problems and to complete tasks that are difficult for him.	Never	Almost Never	Sometimes	Almost Always	Always
	1	**2**	**3**	**4**	**5**
			Ability Total: Items 5+6		

Please go on to the next page

3   AIR Self Determination Scale, Educator Form

PERCEPTION of Knowledge and Ability to Perform Self-Determination Behaviors

		Almost		Almost	
1. Student feels free to express own needs, interests, and abilities, even when facing opposition from others. *Example:* Fran defends her needs and interests to anyone who questions them.	Never **1**	Never **2**	Sometimes **3**	Always **4**	Always **5**
2. Student feels free to set own goals and expectations, even if they are different from the expectations others have for the student. *Example:* Trevor does not feel constrained by others' opinions in setting goals and expectations for himself.	Never **1**	Almost Never **2**	Sometimes **3**	Almost Always **4**	Always **5**
				Perception Total: Items 1+2	
3. Student feels free to make own choices, decisions, and plans to meet own goals and expectations. *Example:* Corine often considers her parents' suggestions when making choices and plans, but the final plans taken to meet her goals are her own.	Never **1**	Almost Never **2**	Sometimes **3**	Almost Always **4**	Always **5**
4. Student feels confident about being able to successfully complete own plans. *Example:* When Nicholas schedules his own activities, he is confident he can complete them accurately and on time.	Never **1**	Almost Never **2**	Sometimes **3**	Almost Always **4**	Always **5**

	Never	Almost Never	Sometimes	Almost Always	Always
5. Student is confident about using feedback to evaluate results of own work. *Example:* Amanda is confident that she will be able to benefit from the feedback she receives from her parents, teachers, and peers.	Never **1**	**2**	Sometimes **3**	Almost Always **4**	Always **5**
6. Student changes plans again and again to meet a goal without getting discouraged. *Example:* Levar is motivated to work on a project as long as it takes, using whatever approaches are necessary, to get it right.	Never **1**	**2**	Sometimes **3**	Almost Always **4**	Always **5**

Perception Total: Items 5+6

Please go on to the next page

4   AIR Self Determination Scale, Educator Form

OPPORTUNITY To Perform Self-Determination Behaviors AT SCHOOL

1. Student has opportunities at school to explore, express, and feel good about own needs, interests, and abilities. *Example:* Christine's teachers encourage her to talk about her athletic interests and abilities and about what sports activities she wants to do.	Never **1**	Almost Never **2**	Sometimes **3**	Almost Always **4**	Always **5**
2. Student has opportunities at school to identify goals and expectations that will meet his or her needs, interests, and abilities; to set these goals; and to feel good about them. *Example:* Troy's teachers let him know that he is responsible for setting his own goals to get his needs and wants met.	Never **1**	Almost Never **2**	Sometimes **3**	Almost Always **4**	Always **5**
	Opportunity at School Total: Items 1+2				
3. Student has opportunities at school to learn about making choices and plans, to make them, and to feel good about them. *Example:* Shebra's teachers allow her to make her own choices and plans for school assignments, family chores, and leisure activities.	Never **1**	Almost Never **2**	Sometimes **3**	Almost Always **4**	Always **5**
4. Student has opportunities at school to initiate actions to meet expectations and goals. *Example:* Manuel's teachers tell him that he is responsible for scheduling study time and for handing in assignments on time.	Never **1**	Almost Never **2**	Sometimes **3**	Almost Always **4**	Always **5**
	Opportunity at School Total: Items 3+4				
5. Student has opportunities at school to get		Almost		Almost	

results of actions taken to meet own plans. *Example:* Michelle's teachers are available to give feedback on projects whenever she needs it.	Never **1**	Never **2**	Sometimes **3**	Always **4**	Always **5**
6. Student has opportunities at school to change actions and plans to satisfy own expectations. *Example:* Laurent's teacher encouraged him to take his time and to revise his work as often as necessary to satisfy his own expectations.	Never **1**	Almost Never **2**	Sometimes **3**	Almost Always **4**	Always **5**

Opportunity at School Total: Items 5+6

Please go on to the next page

5   AIR Self Determination Scale, Educator Form

OPPORTUNITY To Perform Self-Determination Behaviors AT HOME

	Never	Almost Never	Sometimes	Almost Always	Always
1. Student has opportunities at home to explore, express, and feel good about own needs, interests, and abilities. *Example:* Maria's parents encourage her to talk about her athletic interests and abilities and about what sports activities she wants to do.	1	2	3	4	5
2. Student has opportunities at home to identify goals and expectations that will meet his or her needs, interests, and abilities; to set these goals; and to feel good about them. *Example:* Roberto's parents let him know that he is responsible for setting his own goals to get his needs and wants met.	1	2	3	4	5
Opportunity at Home Total: Items 1+2					
3. Student has opportunities at home to learn about making choices and plans, to make them, and to feel good about them. *Example:* Kelly's parents allow her to make her own choices and plans for school assignments, family chores, and leisure activities.	1	2	3	4	5
4. Student has opportunities at home to initiate actions to meet expectations and goals. *Example:* Anthony's parents tell him that he is responsible for scheduling study time and for handing in assignments on time.	1	2	3	4	5
Opportunity at Home Total: Items 3+4					
5. Student has opportunities at home to get		Almost		Almost	

results of actions taken to meet own plans. Example: Thuy's parents are available to give feedback on projects whenever she needs it.	Never	Never	Sometimes	Always	Always
	1	2	3	4	5
6. Student has opportunities at home to change actions and plans to satisfy own expectations. Example: Stacy's parents encourage him to take his time and to revise his work as often as necessary to satisfy his own expectations.	Never	Almost Never	Sometimes	Almost Always	Always
	1	2	3	4	5

Opportunity at Home Total: Items 5+6	

Please go on to the next page

PLEASE WRITE YOUR ANSWERS TO THE FOLLOWING QUESTIONS IN THE SPACES BELOW.

Give an example of a goal the student is working on.

What is the student doing to reach this goal?

How is the student doing in reaching this goal?

Thank you.

AIR Self-Determination Scale

STUDENT FORM

Student's Name _____ Date_____

School Name_____ Your Grade_____

Your Date of Birth_____
Month   Day   Year

HOW TO FILL OUT THIS FORM

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

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

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

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

HOW TO MARK YOUR ANSWERS

EXAMPLE QUESTION:
        I check for errors after completing a project.

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

    1   **Never…………………………**student **never** checks for errors.

    2   **Almost Never………………**student **almost never** checks for errors.

    3   **Sometimes………………….**student **sometimes** checks for errors.

    4   **Almost Always……………..**student **almost always** checks for errors.

    5   **Always………………………**student **always** checks for errors.

REMEMBER

There are NO right or wrong answers.	This will not affect your grade. So please think about each question carefully before you circle your answer.

THINGS I DO

1. I know what I need, what I like, and what I'm good at.	Never	Almost Never	Sometimes	Almost Always	Always
	1	**2**	**3**	**4**	**5**
2. I set goals to get what I want or need. I think about what I am good at when I do this.	Never	Almost Never	Sometimes	Almost Always	Always
	1	**2**	**3**	**4**	**5**
Things I Do – Total Items 1 + 2					
3. I figure out how to meet my goals. I make plans and decide what I should do.	Never	Almost Never	Sometimes	Almost Always	Always
	1	**2**	**3**	**4**	**5**
4. I begin working on my plans to meet my goals as soon as possible.	Never	Almost Never	Sometimes	Almost Always	Always
	1	**2**	**3**	**4**	**5**
Things I Do – Total Items 3 + 4					
5. I check how I'm doing when I'm working on my plan. If I need to, I ask others what they think of how I'm doing.	Never	Almost Never	Sometimes	Almost Always	Always
	1	**2**	**3**	**4**	**5**

6. If my plan doesn't work, I try another one to meet my goals.	Never	Almost Never	Sometimes	Almost Always	Always
	1	2	3	4	5

Things I Do – Total Items 5 + 6

Please go on to the next page

HOW I FEEL

	Never	Almost Never	Sometimes	Almost Always	Always
1. I feel good about what I like, what I want, and what I need to do.	Never 1	Almost Never 2	Sometimes 3	Almost Always 4	Always 5
2. I believe that I can set goals to get what I want.	Never 1	Almost Never 2	Sometimes 3	Almost Always 4	Always 5
How I Feel – Total Items 1 + 2					
3. I like to make plans to meet my goals.	Never 1	Almost Never 2	Sometimes 3	Almost Always 4	Always 5
4. I like to begin working on my plans right away.	Never 1	Almost Never 2	Sometimes 3	Almost Always 4	Always 5
How I Feel – Total Items 3 + 4					
5. I like to check on how well I'm doing in meeting my goals.	Never 1	Almost Never 2	Sometimes 3	Almost Always 4	Always 5

6. I am willing to try another way if it helps me to meet my goals.	Never	Almost Never	Sometimes	Almost Always	Always
	1	2	3	4	5

How I Feel – Total Items 5 + 6

WHAT HAPPENS AT SCHOOL

1. People at school listen to me when I talk about what I want, what I need, or what I'm good at.	Never	Almost Never	Sometimes	Almost Always	Always
	1	2	3	4	5
2. People at school let me know that I can set my own goals to get what I want or need.	Never	Almost Never	Sometimes	Almost Always	Always
	1	2	3	4	5

What Happens at School – Total Items 1 + 2

3. At school, I have learned how to make plans to meet my goals and to feel good about them.	Never	Almost Never	Sometimes	Almost Always	Always
	1	2	3	4	5
4. People at school encourage me to start working on my plans right away.	Never	Almost Never	Sometimes	Almost Always	Always
	1	2	3	4	5

What Happens at School – Total Items 3 + 4

5. I have someone at school who can tell me if I am meeting my goals.	Never	Almost Never	Sometimes	Almost Always	Always
	1	**2**	**3**	**4**	**5**

6. People at school understand when I have to change my plan to meet my goals. They offer advice and encourage me when I'm doing this.	Never	Almost Never	Sometimes	Almost Always	Always
	1	**2**	**3**	**4**	**5**

What Happens at School – Total Items 5 + 6

WHAT HAPPENS AT HOME

1. People at home listen to me when I talk about what I want, what I need, or what I'm good at.	Never	Almost Never	Sometimes	Almost Always	Always
	1	**2**	**3**	**4**	**5**

2. People at home let me know that I can set my own goals to get what I want or need.	Never	Almost Never	Sometimes	Almost Always	Always
	1	**2**	**3**	**4**	**5**

What Happens at Home – Total Items 1 + 2

3. At home, I have learned how to make plans to meet my goals and to feel good about them.	Never	Almost Never	Sometimes	Almost Always	Always
	1	**2**	**3**	**4**	**5**

4. People at home encourage me to start working on my plans right away.	Never	Almost Never	Sometimes	Almost Always	Always
	1	2	3	4	5

What Happens at Home – Total Items 3 + 4 [ ]

5. I have someone at home who can tell me if I am meeting my goals.	Never	Almost Never	Sometimes	Almost Always	Always
	1	2	3	4	5
6. People at home understand when I have to change my plan to meet my goals. They offer advice and encourage me when I'm doing this.	Never	Almost Never	Sometimes	Almost Always	Always
	1	2	3	4	5

What Happens at Home – Total Items 5 + 6 [ ]

PLEASE WRITE YOUR ANWERS TO THE FOLLOWING QUESTIONS…

Give an example of a goal you are working on.

_____

_____

_____

_____

_____

What are you doing to reach this goal?

_____

_____

_____

_____

_____

How well are you doing in reaching this goal?

_____

_____

_____

_____

_____

THANK YOU!

Appendix E

<p style="text-align: center;">**Self-Determination Worksheet**</p>

Goal-Setting Questions

Student: _____Class: _____ Mentor_____

1. My goal is:

_____

_____

2. I may need the following support(s):

❏ Verbal reminders   ❏ Visual reminders   ❏ Encouragement   ❏ _____

3. I will measure and monitor my progress toward this goal by _____

_____

4. This goal will help me _____

_____

_____

5. Time-bound

I will begin working on my goal on (day)   _____   (date) _____

I expect to reach my goal by day   _____   (date) _____

6. Check your work. Is your goal SMART?

S	Specific	Is the goal clearly written with no ambivalence? Is it clear who needs to accomplish the goal and any support they might expect?	❑
M	Measurable	Does the goal answer the questions of how many, how much, and/or how often?	❑
A	Achievable	Can you get the support needed to achieve the goal by the target date? Do you have all the resources needed to achieve the goal? Are the results expected realistic?	❑
R	Relevant	Does the goal make a difference in your academic success? Is it going to make an improvement in your personal life?	❑
T	Time-bound	Does the goal state a clear and specific completion date?	❑

Problem Solving Questions

Student: _____ Class: _____ Mentor_____

1. What did I do today to help me achieve my goal?

_____

_____

2. What is preventing me from achieving my goal today?

_____

_____

3. To help me achieve my goal tomorrow, I will

_____

_____

4. To help me achieve my goal, I would benefit from support.

a.) What support(s) would help me? _____

b.) What could my teacher do to help me achieve my goal? _____

_____

c.) What could my mentor do to help me achieve my goal? _____

_____

d.) What actions must I take at school to help me achieve my goal?_____

_____

e.) What actions must I take at home to help me achieve my goal? _____

_____

5. How am I doing at accurately monitoring my progress toward my goal?

Progress Evaluation Questions

1. What have I done to reach my goal?

_____

_____

2. What have I done differently at <u>school</u> to help me reach my goal?

_____

_____

3. What have I done differently at <u>home</u> to help me reach my goal?

_____

_____

4. Is my current plan helping me reach my goal?

_____

_____

5. What part of my plan do I need to keep, change, or remove?

_____

_____

6. How awesome am I?

Appendix F

Student Demographics

Directions: Please CIRCLE ALL answers directly on this form.

1. What is your sex? Circle only <u>ONE</u> answer.

    A. Female   B. Male

2. What is your age in years? Circle only <u>ONE</u> answer.

    A. 6   B. 7   C. 8   D. 9   E. 10   F. 11

    G. 12   H. 13   I. 14   J. 15   K. 16   L. 17

3. What is your racial/ethnic group? Circle only <u>ONE</u> answer.

    A. American Indian   B. Black/African American   C. Hispanic

    D. Asian   E. White/Caucasian   F. Multiracial/ethnic

4. What grade are you currently in? Circle only <u>ONE</u> answer.

    A. K   B. 1st C. 2nd D. 3rd E. 4th F. 5th

    G. 6th H. 7th I. 8th

Appendix G

Teacher Demographics

Directions: Please CIRCLE ALL answers directly on this form.

1. What is your sex? Circle only <u>ONE</u> answer.

     A. Female   B. Male

2. What is your racial/ethnic group? Circle only <u>ONE</u> answer.

     A. American Indian   B. Black/African American   C. Hispanic

     E. Asian   E. White/Caucasian   F. Multi-racial/

3. What grade are you currently teaching? Circle all that apply.

     A. K   B. 1st C. 2nd D. 3rd E. 4th F. 5th

     G. 6th H. 7th I. 8th

4. How many years have you been teaching? Circle only <u>ONE</u> answer.

     A. 1 - 5   B. 6 - 10   C. 11 - 15   D. 16 -20   E. 21 - 25

     F. 26 – 30   G. 31 or more

5. How many years have you been teaching in an urban setting? Circle only <u>ONE</u> answer.

     A. 1 - 5   B. 6 - 10   C. 11 - 15   D. 16 -20   E. 21 - 25

     F. 26 – 30   G. 31 or more

6. How many years have you worked in an educational setting? Circle only <u>ONE</u> answer.

     A. 1 - 5   B. 6 - 10   C. 11 - 15   D. 16 -20   E. 21 - 25

     F. 26 – 30   G. 31 or more

7. What is your level of education? Circle only <u>ONE</u> answer.

          A. Bachelors   B. Masters   C. Specialist   D. Doctoral

Appendix H

SD-CICO Instructional Fidelity Checklists

Date:		Session Number:	
Goal-Setting Questions			
Student Objectives		**Mentor Objectives**	
	Discussed their goal		Discussed strengths and instructional needs
	Discussed why goal is important		Discussed preferences, interests, beliefs, values
	Discussed how goal will help them personally		Discussed strengths and personal needs
	Brainstormed potential supports		Enabled student to decide whether action will be focused on capacity building, modifying their environment, or both.
	Determined time-limits of the goal		Enable student to determine schedule for action plan.
	Ensured that the goal is a SMART goal		Teach students to state a goal and identify criteria for achieving goal.
Total : ____ / ____		**Total: ____ / ____**	

Date:		Session Number:	
Problem Solving Questions			
Student Objectives		**Mentor Objectives**	
	Discussed current plan to reach goal		Enable students to self-evaluate both current status and self-identified goal status.
	Discussed barriers to goal attainment		Assist students in gathering information about opportunities and barriers in their environment.
	Brainstormed and created plans to meet goal		Taught student student-directed learning strategies.
	Identified instructional supports		Collaborated with student to identify most appropriate instructional strategies.
	Identified supports from: - Teacher - Mentor - School - Home		Enabled students to people and strategies to support goals.
	Determined how goal will be monitored		Enabled student to determine plan to self-monitor progress.
Total : ____ / ____		**Total: ____ / ____**	

Date:		Session Number:	
Evaluation Questions			
Student Objectives		**Mentor Objectives**	
	Discussed current progress towards goal		Enabled student to self-evaluate progress toward goal achievement.
	Discussed what could be done differently at school		Assisted student in gathering information about opportunities and barriers at school
	Discussed what could be done differently at home		Assisted student in gathering information about opportunities and barriers at home
	Discussed if current plan is helping		Collaborated with student to determine whether progress is sufficient and action plan is adequate given revised or retained goal.
	Discussed how plan should be adjusted		Enabled student to decide whether progress is adequate, or if goal has been achieved
Total : ____ / ____		**Total: ____ / ____**	

Appendix I

SD-CICO Intervention Fidelity Checklist

	Date:	Date:	Date:
Component	**Mentor Objectives**		
Check-In	❑ Discussed goal-setting questions ❑ Discussed problem solving questions ❑ Discussed self-monitoring strategy	❑ Discussed goal-setting questions ❑ Discussed problem solving questions ❑ Discussed self-monitoring strategy	❑ Discussed goal-setting questions ❑ Discussed problem solving questions ❑ Discussed self-monitoring strategy
Receive Feedback	❑ Discussed teacher feedback ❑Compared student/teacher ratings ❑ Problem-solved for improvement	❑ Discussed teacher feedback ❑Compared student/teacher ratings ❑ Problem-solved for improvement	❑ Discuss teacher feedback ❑Compared student/teacher ratings ❑ Problem-solved for improvement
Check-Out	❑ Discussed self-evaluation questions Discussed self-determination questions	❑ Discussed self-evaluation questions Discussed self-determination questions	❑ Discussed self-evaluation questions Discussed self-determination questions
Home Component	❑ Discussed DPR sheet ❑ Prompted student to discuss home interaction ❑ Reminded student to return DPR when applicable	❑ Discussed DPR sheet ❑ Prompted student to discuss home interaction ❑ Reminded student to return DPR when applicable	❑ Discussed DPR sheet ❑ Prompted student to discuss home interaction ❑ Reminded student to return DPR when applicable
Return to School	❑ Prompted student to return	❑ Prompted student to return	❑ Prompted student to return
Total	____ / ____	____ / ____	____ / ____

Appendix J

Social Validity Questions for Students

(Wehmeyer & Shogren, 2007)

Directions: Read the following questions and circle the number that best describes your feelings.

1) How well did you meet your goal?

Very Poorly	Poorly	Well	Very Well
1	2	3	4

2) How well did setting goals help you in your classes?

Very Poorly	Poorly	Well	Very Well
1	2	3	4

3) How well did setting a goal help you focus academically?

Very Poorly	Poorly	Well	Very Well
1	2	3	4

4) How did you feel when you successfully completed the goal?

Very Poorly	Poorly	Well	Very Well
1	2	3	4

5) How would you rate the instructional pace (fast, slow) of teaching you goal setting?

Very Poor	Poor	Well	Very Well
1	2	3	4

6) How well do you think your teacher delivered instruction?

Very Poorly	Poorly	Well	Very Well
1	2	3	4

7) How quickly did you achieve your goals with the goal setting sheets?

Very Slowly	Slowly	Quickly	Very Quickly
1	2	3	4

8) How likely are you to continue to use goal setting in your classes or at home to be more successful?

Very Unlikely	Unlikely	Likely	Very Likely
1	2	3	4

9) How likely are you to recommend goal setting to other students?

Very Unlikely	Unlikely	Likely	Very Likely
1	2	3	4

10) How much easier or harder do you feel the goals you set yourself were than the goals your teachers or parents set for you?

Very Hard	Harder	Easier	Very Easy
1	2	3	4

Why or why not?

11) What did you learn about setting goals?

12) What goals will you set next?

Appendix K

Social Validity Questions for Teachers

(Wehmeyer & Shogren, 2007)

1) How did the process of using the SD-CICO intervention (goal setting using self-monitoring and timer) work for your students? Describe how students reacted to the use of the intervention. Did you see evidence of the intervention such as the timer and the self-monitoring?

2) Remember last semester when I interviewed you concerning the behaviors of the student and we discussed behaviors you would like the student to exhibit in the classroom. Did you notice any changes in these behaviors? Did it seem like the intervention was connected to those changes?

3) Did the student show any changes in any other behaviors (better attendance, focus more on class work, completion of assignments, self-confidence, self-advocacy, interaction with peers) while he was participating in the intervention?

4) Were there any changes in the classroom as a result of the changes in the student's behavior? For example, did your perceptions of the student change? Did his/her peer's perceptions change?

5) Did the goals the student was working on, to be on-task in class, fit with the goals you have as a teacher for student learning? Would you be interested in learning more about the use of this SD-CICO intervention (goal setting with self-monitoring) with students next year? Do you see any potential long-term benefits for students who learn these skills?

Appendix L

Traditional CICO Daily Progress Report (DPR)

Student: _____   **Check-in/Out** with: _____

Student: My **GOAL** is to earn _____ points today.

Teacher: Please indicate the student's progress today by circling a score using the following criteria.

2 Points = Excellent   **1 Point** = Needs Improvement   **0 Points** = Poor

	Be Respectful	Be Responsible	Be Prepared	Period Total	Initials
1st Period	0 1 2	0 1 2	0 1 2		
2nd Period	0 1 2	0 1 2	0 1 2		
3rd Period	0 1 2	0 1 2	0 1 2		
4th Period	0 1 2	0 1 2	0 1 2		
5th Period	0 1 2	0 1 2	0 1 2		
6th Period	0 1 2	0 1 2	0 1 2		
7th Period	0 1 2	0 1 2	0 1 2		
			Total daily points=		

Residential Supervisor Signature: _____   **Date:** _____

Appendix M

	SD-CICO DPR Monitoring Sheet			
	Name:	Teacher:		
	Class:	Date:		
	Before Class			
1	Did I arrive on time?		Yes	No
2	Do I have my materials and/or homework?		Yes	No
My goal is:				
	During class **Monitor on-task behavior every ____ minute(s).**			
3	Am I on-task?		Yes	No
4	Am I on-task?		Yes	No
5	Am I on-task?		Yes	No
6	Am I on-task?		Yes	No
7	Am I on-task?		Yes	No
8	Am I on-task?		Yes	No
9	Am I on-task?		Yes	No
10	Am I on-task?		Yes	No
11	Am I on-task?		Yes	No
12	Am I on-task?		Yes	No
	After class			
13	Did I follow directions?		Yes	No
14	Did I finish my assignment?		Yes	No
15	Do I have my materials and/or homework?		Yes	No
Total number of Yes and No =			= /_____	= /_____
Tomorrow, I plan to earn _____ yes marks			= /_____	
Progress toward my goal today was		2 Excellent	1 Needs improvement	0 Poor
Teacher – progress toward student's goal today was		2 Excellent	1 Needs improvement	0 Poor

Appendix N

Interval Recording Sheet

Student: Date:

Behaviors: ON-Task   OFF-Task

Time Start: Time End:

Observer: Setting:

Session #	10'	20'	30'	40'	50'	60'
ON						
OFF						
ON						
OFF						
ON						
OFF						
ON						
OFF						
ON						
OFF						
ON						
OFF						
ON						
OFF						
ON						
OFF						
ON						
OFF						