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CHECK-IN/CHECK-OUT WITH HIGH SCHOOL STUDENTS

by

Ashley N. Murphy

A Dissertation  
Submitted to the Graduate School,  
the College of Education and Human Sciences  
and the School of Psychology  
at The University of Southern Mississippi  
in Partial Fulfillment of the Requirements  
for the Degree of Doctor of Philosophy

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August 2019

## ABSTRACT

Check-in/Check-out (CICO) has been shown effective in reducing problem behavior (PB) and increasing academically engaged behaviors (AEB) for elementary and middle school students (Mitchell, Adamson, & McKenna, 2017); however limited research has included high school students. The current study sought to evaluate the effectiveness and social validity of CICO for four high school students in a general education setting. During the initial intervention phase, two students refused to participate in the CICO process (i.e., did not attend check-ins or check-outs despite multiple efforts); therefore, CICO was ineffective for these students. For two other students, CICO was ineffective for improving behavioral performance. For all students, a modified CICO procedure was implemented. For two students, the modified procedures were ineffective. For the remaining two students, numerous absences and unusual delays with state testing prevented enough data collection to fully evaluate the effects of the modified CICO intervention. Not surprisingly, students rated CICO as not socially valid. Adult participants rated CICO's social validity variably. Results of this study are discussed in terms of contextual variables that may have prevented CICO from being effective with these students as well directions for future research.

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## CHAPTER I - Introduction

### Review of Literature

Problem behavior (PB) in the classroom has been a documented hindrance to both student and teacher performance. Classroom PB affects the learning of the student being disruptive as well as the learning of the other students in the classroom (Lannie & McCurdy, 2007). This could present problems in particular for high school students, when academic performance carries so much weight; high school academic performance affects class placement, athletic eligibility, college admission, and scholarship opportunities. Along with increased academic expectations at the secondary education level, high school students face the unique difficulties in school that come with the heightened behavior expectations (Bohanon-Edmonson, Flannery, Eber, & Sugai, 2004; Bohanon-Edmonson, Flannery, Eber, & Sugai, 2004), due to the perceived increase in personal responsibility and independence of the student. One challenge that arises with increasingly independent students is that for some students as young as 16 years, there is the option to drop out of school (Mikulecky, 2013). School behavior problems have been associated with higher rates of dropping out of school, (American Psychological Association, 2012). Adults who dropped out of school are at higher risk of unemployment, smaller salary if employed, and higher risk of incarceration than graduating peers (Christle, Jolivette, & Nelson, 2007; Greene & Winters, 2006).

Currently, it is estimated that an average of 68 -70% (Swonson, 2004) of high school students in the United States graduate. However, these graduation rates vary across gender and race. For example, Caucasian females have the highest reported graduation rate (79%) and African-American males have the lowest reported graduation

rate (48%) nationally. Furthermore, these rates vary according to the region and state in which the student attends high school (Swonson, 2004). The current study took place in Mississippi, a Southern state - a region that has generally lower graduation rates compared the Northeast, Midwest, and Western regions. Specifically, for Mississippi, an average of 59% of students graduate high school. In Mississippi, gender and race trends were identical to national averages, meaning that Caucasian females have the highest graduation rate (72%) and African-American males have the lowest reported graduation rate (50%) according to this estimate (Swonson, 2004). Clearly, high-school dropout, and its long-term effects, affects many students, some groups more than others (Greene & Winters, 2006). Researchers (Christle, Jolivette, & Nelson, 2007) found that school percentile scores on achievement tests, ethnic background breakdown of school, and school attendance rates were all negatively correlated with dropout rates.

In addition to factors specific to geographic region, factors specific to the transition from middle school to high school present risks and opportunities that may lead to dropping out of school. For example, the ninth grade presents with increased academic expectations that lead to disproportionate levels of grade retention compared to other grades. Relatedly and possibly as a result, poor grades in high school are associated with increased likelihood to drop out of high school. Although poor grades are not necessarily unique to high school students, high school students with poor grades are at risk of dropping out as a result of perceived or actual recommendations from school personnel, motivated by improving school success rates – colloquially referred to as ‘push-outs’ (American Psychological Association, 2012).

Alternatively to ‘push-outs’, ‘failure to succeed’ dropouts are described as those experiencing the previously described academic failure, or absenteeism, or a lack of engagement. Specifically, student engagement throughout schooling years is an indicator of high school dropout (Alexander, Entwisle, & Kabbani, 2001). The current study targets appropriately engaged behavior (AEB) as the primary dependent variable, which includes student engagement.

Many schools rely heavily on reactionary discipline-based procedures and do not use positive practices to promote AEB. So, many schools target PB using reactionary discipline procedures such as out-of-school suspension result in the loss of instruction time and removal of the student from the structured school environment rather than targeting AEB with positive practices. This is unfortunate in that removal from instruction does not teach alternative appropriate behaviors; also, the student often has less supervision and potentially more opportunity to engage in undesirable behaviors while suspended. Furthermore, school PB resulting in suspensions have been associated with higher likelihood of being retained, dropping out of school, and negative outcomes beyond the school years such as incarceration (American Psychological Association, 2012).

In addition to poorer student outcomes, PB has also been associated with negative teacher outcomes such as teacher burnout resulting in absences and high job turnover rates (Aloe, Shisler, Norris, Nickerson, & Rinker, 2014; Shen, McCaughtry, Martin, Garn, Kulik, & Fahlman, 2015). One component that may contribute to this relationship is that lack of training and resources available to teachers to effectively manage such PB and promote AEB. So, despite the documented negative outcomes of removing students

exhibiting PB from the school setting, there are incentives for schoolteachers and administrators to continue to use such disciplinary actions such as avoiding implementing behavioral intervention, avoiding the PB, or avoiding the student exhibiting PB altogether (Fairbanks, Sugai, Guardino, & Lathrop, 2007). It is apparent that PB not only affects the students engaging in PB, but other students and teachers as well, which in turn affects the school climate on a larger scale. For this reason, there are intervention systems that not only target students engaging in PB, but also target the school culture as a whole.

### *School-Wide Positive Behavior Interventions and Supports*

An alternative model to address PB is that of System-Wide Positive Behavior Interventions and Supports (SW-PBIS). SW-PBIS is a multi-tiered system of support (MTSS) that focuses on teaching and acknowledging appropriate behaviors rather than focusing on punishing PB (Morrissey, Bohanon, & Fenning, 2010). SW-PBIS has been implemented and evaluated at all levels of education, including the high school level. SW-PBIS has been shown to decrease the number of Office Discipline Referrals (ODRs) and suspensions, which decreases students' loss of instruction time; relatedly, academic improvements have been observed when SW-PBIS is in place (Lassen, Steele, & Sailor, 2006).

SW-PBIS Tier 1 interventions are available to all students within a school and include, but are not limited to, defining and teaching behavioral expectations, implementing a rewards and privileges system for appropriate behaviors, identifying behaviors that require administrative involvement and consequences, universal screening for at-risk behavior, as well as collecting program evaluation data. This tier of

intervention is designed to address the needs of approximately 80-90% of students (Sugai & Horner, 2009).

Tier 2 supports target students at-risk for emotional and behavioral disorders. Tier 2 supports are designed to be low intensity, high efficiency programs that support the emotional and behavioral functioning of students presenting with emerging emotional and behavioral difficulties. Tier 2 supports include increasing structure, contingency management, and home-school communication. This tier of intervention is designed to address the needs of approximately 10-20% of students for whom Tier 1 programs were insufficient for supporting emotional and behavioral functioning (Sugai & Horner, 2009).

Tier 3 interventions are individualized interventions that require the most time and resources to implement; these interventions should be reserved for the 5-10% of the students most in need of behavioral intervention. Tier 3 interventions often include a team-based approach to supporting students presenting with substantial emotional and behavioral difficulties. Tier 3 interventions may include a functional behavior assessment followed by the development of an individualized behavior support plan. (Sugai & Horner, 2009).

SW-PBIS is not limited to elementary and middle schools, but there are several characteristics of high school that impede the implementation of SW-PBIS. When surveyed, high school SW-PBIS team members reported that their administration prioritized school-wide discipline above classroom management, group intervention, individual intervention and data collection systems for decision-making. Furthermore, there are challenges in gaining staff agreement with SW-PBIS, in that, teachers and administrators often identify rewarding expected behavior as developmentally

inappropriate for their student population (Flannery, Sugai, & Anderson, 2009). These challenges do not exclude high schools from benefitting if implementing SW-PBIS; however, it is possible that SW-PBIS would follow a different course of action and a slower course to change in high school settings (Bohanon-Edmonson, Flannery, Eber, & Sugai, 2004). One SW-PBIS procedure that has been tested far less in high school settings is Check-in/Check-out (CICO) (Horner, Sugai, & Anderson, 2010).

#### *Check-in/Check out*

CICO is one of the most commonly implemented SW-PBIS Tier 2 supports. SW-PBIS Tier 2 supports are intended to be low intensity, high efficiency programs designed to support students with emerging emotional and behavioral difficulties. CICO is an evidence-based practice for students with emerging emotional and behavioral difficulties (Mitchell, Adamson, & McKenna, 2017). CICO has been shown to be effective for treating students with internalizing (e.g., anxiety) concerns (Hunter, Chenier, & Gresham, 2014; Dart, Furlow, Collins, Brewer, Gresham, & Chenier, 2015) and externalizing (e.g., disruptive classroom behavior) concerns (Miller, Dufrene, Sterling, Olmi, & Bachmeyer, 2015).

CICO typically includes morning check-ins with a mentor who reviews behavioral expectations with the student and sets a behavioral goal with the student. Throughout the day, the student receives feedback (either praise or corrective feedback) at predetermined times regarding their performance towards their behavioral goal. At the end of the day the student checks out with their mentor, who provides a reward to the student contingent on the student meeting their behavioral goal and also reports the student's performance to the home via a school-home note. The CICO intervention



includes antecedent strategies, reinforcement strategies, and frequent progress monitoring with feedback. The antecedent components of CICO include the check-in meeting, in which behavioral expectations and goals are reviewed *prior* to the student emitting PB. During this meeting, students have non-contingent access to the mentor's attention, which may serve to reduce the value of attention and decrease the motivation for the student to engage in PB as a means to access adult attention, acting as an abolishing operation (Cooper, Heron, & Heward, 2007). This non-contingent access is often described as non-contingent reinforcement in which preferred items or activities are presented based on time schedules, not based on the occurrence or non-occurrence of specific behaviors (Cooper, Heron, & Heward, 2007). Additionally, reviewing the behavioral expectations before PB occur serves as a pre-correction.

The reinforcement components of CICO include the check-out meeting in which there is the opportunity to access preferred items and activities or avoidance of non-preferred items and activities *contingent* on the student meeting their behavioral goal. During check-out meetings, the student has an opportunity to access rewards or privileges based on earning points for behaving appropriately throughout the day. Accessing preferred items and activities is considered positive reinforcement, whereas avoiding non-preferred events is negative reinforcement. Both are considered reinforcement, given that when the consequence is contingent on the behavior the likelihood of the target behavior occurring increases in the future (Cooper, Heron, & Heward, 2007).

In order to provide frequent feedback across teachers, CICO often employs an indirect measure of behavior, namely the Daily Behavior Report Card (DBRC). A DBRC is a tool that is considered an indirect measure of student behavior. (Chafouleas, Riley-

Tillman, & McDougal, 2002). A DBRC may act as an intervention, or as a progress-monitoring tool (Chafouleas, Riley-Tillman, & McDougal, 2002). A DBRC is a behavioral measurement tool in which teachers rate student behavior at predetermined times, then share their ratings with the student as part of performance feedback to the student (Chafouleas, Riley-Tillman, & McDougal, 2002). DBRC data are not only useful for performance feedback to the student, but also sensitive enough to serve as a dependent variable of behavior change for researchers and interventionists (Weakley, 2012). The use of DBRCs to monitor student progress is viewed as more desirable than monitoring students' response to intervention by tracking ODRs, which has been previously done in SW-PBIS and CICO studies (Miller, Dufrene, Olmi, Tingstrom, & Filce, 2015). ODRs act as indirect measurement of behavior in that they are measurements occurring outside of the actual time of occurrence of behavior, additionally, these ODRs may reflect teacher bias towards specific behaviors, specific students, or motivation to remove student from class rather than actually change or improve PB. Although there are data to suggest that DBRC data correspond to actual behavior change, as measured by direct observation (Chafouleas, McDougal, Riley-Tillman, Panahon, & Hilt, 2005), direct observation of behavior remains one of the most employed measurement methods in school psychology (Hintze, Volpe, & Shapiro, 2002). Currently, direct observation remains the gold standard for behavioral assessment based on their adherence to behavioral theoretical orientation which focuses on overt behaviors and the surrounding environmental context (Fisher, Piazza, & Roane, 2011).

CICO is often described as a Tier 2 support within SW-PBIS, and therefore may be most effective when implemented in the context of effective SW-PBIS (Everett, Sugai,

Fallon, Simonsen, & O'Keefe, 2011); however there have been no randomized control trials of CICO that indicate whether or not fully functioning SW-PBIS is necessary or sufficient for effective CICO. Once students are referred for CICO, students participate in CICO, the school PBIS team should be collecting and monitoring CICO success to make data-informed decisions as to whether CICO should continue, continue with modifications, or discontinue.

*Reviews and quantitative syntheses of CICO literature.* Although CICO is a relatively new intervention, there have already been reviews of the CICO literature, as well as a quantitative synthesis of the literature. Results from those reviews and the quantitative synthesis provide a summary of the CICO literature in terms of how CICO has been implemented, for whom and where CICO has been implemented, the experimental rigor of studies that have tested CICO, and the extent to which CICO is effective for improving students' behavioral performance.

The systematic reviews evaluate the literature in terms of the extent to which CICO meets evidence-based practice standards. When originally summarized, the CICO literature was evaluated for effect sizes. Authors (Hawken, Bundock, Kladis, O'Keefe, & Barrett, 2014) calculated effect sizes for group design studies as well as single subject research designs. Group design research presented small to large median effect sizes, whereas the single subject research design studies present with questionably effective effects size, based on percentage of non-overlapping data points (PND). Furthermore, results indicate that CICO may be “differentially effective for elementary and secondary students” (p. 650).

A subsequent review (Maggin, Zurheide, Pickett, & Baillie, 2015) used What Works Clearinghouse standards to evaluate the design quality of the studies evaluating CICO including: comprising of five separate research papers examining the same intervention, having been conducted by at least three independent research teams at three different geographical locations, and including at least 20 different participants. Results indicate that the research including single subject methodologies did demonstrate CICO to meet standards as an evidence-based practice; however, the conglomerate of information should be interpreted with caution due to the limited sample of studies that were analyzed. Despite the documented improvements in student behavior, it was further identified that CICO for students with behaviors maintained by adult attention is supported as an evidence-based practice, whereas CICO for students with behaviors maintained by other forms of reinforcement do not warrant the same label as an evidence-based practice (Wolfe, 2016).

The most recent review (Mitchell, Adamson, & McKenna, 2017) used the 2014 Council for Exceptional Children's quality standards to evaluate the basis for CICO as an evidence-based practice. Among the 13 studies evaluated, five met all standards for evidence-based practice – meaning that they were methodologically sound and effective. These results indicate that CICO does meet evidence-based practice standards, but only for a restricted population: elementary, suburban, non-Caucasian, male students who had repeated ODR, but did not meet special education criteria. Authors specifically state, “there was no evidence indicating CICO had a positive impact on reducing PB for high school-level students” (p. 360).

Of the aggregate data regarding CICO available, those evaluating the designs indicate that CICO qualifies as an evidence-based practice for the populations for which it has been studied. Reviews evaluating the effectiveness of CICO have shown effect sizes supporting the use of CICO to improve students' behavioral performance.

Additionally, researchers have collected meta-analysis data, analyzing data from 17 independent studies, totaling 107 participants to determine effect sizes across groups using DBRC as part of intervention, frequent feedback from teachers and parents, plus reinforcement for student behavior. Although authors report excluding interventions specifically referred to as CICO due to variations in home-school collaboration levels, they go on to describe including studies that are deemed 'low' in home-school collaboration – essentially referring to CICO. All of the participants were from elementary or middle school samples. Dependent variables most often included student on-task and disruptive behavior. The effect size from this meta-analysis fell in the moderate range, on average showing a 61% (range: 56-66%) improvement rate difference. Specifically related to low home-school collaboration, in which parents are not necessarily involved in planning intervention, managing reinforcement contingencies, or providing feedback in a systematic manner, effect sizes were lower on average (48%) and showed greater ranges of effects [15-96% (Vannest, Davis, Davis, Mason, & Burke, 2010)].

In sum, there have been several reviews and meta-analyses of the CICO literature and findings across those reviews and meta-analyses point to consistent themes. First, there are now an adequate number of CICO studies that meet single case-design standards to warrant identifying CICO as an evidence-based practice. However, across

multiple reviews and meta-analyses, researchers pointed out that CICO has not been sufficiently tested with high school students and therefore cannot be identified as an evidence-based practice for high school students. Finally, emerging evidence suggests that CICO may be differentially effective for students with PB reinforced by access to attention, but not students with PB reinforced by other forms of reinforcement (e.g., escape from task completion (Ennis, Jolivette, Swoszowski, & Johnson, 2012).

CICO has been shown to be effective across a variety of populations, target behaviors, and using varying goal setting strategies (Harpole, 2012). Yet, the majority of the published CICO research (Filter, McKenna, Benedict, Horner, Todd, & Watson, 2007; Hawken, MacLeod, & Rawlings, 2007; Todd, Campbell, Meyer, & Horner, 2008) focuses on decreasing PB exhibited by elementary-age students. Little is known about the effects of CICO with high school students in traditional high school settings.

#### *CICO with Secondary School Students*

Although the majority of CICO studies have included elementary and middle school students, some studies have included high school participants. Ennis and colleagues (2012) evaluated the effects of function-based CICO as an intervention for middle and high school students attending a specialized school as part of a residential facility for students with emotional and behavioral challenges. Using two multiple-baseline designs (one for students with positively reinforced behaviors and one for students with negatively reinforced behaviors), the authors demonstrated that CICO reduced several PB such as using inappropriate language, off-task talking, and other passive off-task behaviors, of the two participants at the high school level. For both high

school students, the implementation of CICO resulted in immediate decreasing trends of PB, demonstrating decreases in mean levels and decreased variability of PB.

In a similar study, Swoszowski and colleagues (2012) tested function-based CICO with middle and high school students attending a school at a residential facility. Again, using two multiple-baseline designs (one for students with positively reinforced PB and one for students with negatively reinforced behaviors), the authors demonstrated that CICO reduced non-compliance for the two high school students. Although the high school participants showed behavioral improvements, these participants demonstrated greater variability throughout treatment as compared to the middle school-aged students. In this setting, the school system had SW-PBIS in place for three years prior to the start of the study. Ennis et al. (2012) and Swoszowski et al. (2012) provide important demonstrations of effective use of CICO with high schools students. Both studies included multiple baseline designs, separated by function of problem behavior. Both studies also included direct observation of problem behavior as primary dependent variables, as opposed to indirect measures of behavior change. However, those studies were conducted in residential facilities with classrooms of no more than five students per teacher, in school programs with SW-PBIS. Therefore, results may not generalize to traditional high schools. Additionally, those studies did not include testing the effects of CICO for improving high schools students' AEB.

Harpole (2010) conducted one of the few experiments evaluating the effects of CICO for increasing AEB (as measured by DBRC data) for high school students. Additionally, Harpole (2010) conducted the study in a traditional high school. The study included a multiple baseline design across three high school participants exhibiting low

or variable levels of AEB. For all three participants, the introduction of the CICO intervention resulted in immediate increases in the level of teacher rating of students' AEB. Unfortunately, Harpole (2010) did not include direct observation of student behavior as a dependent measure. Additionally, this study did not include a maintenance phase; so, the extent to which student gains were maintained following removal of CICO is unknown.

Harpole (2010), Ennis et al. (2012), and Swoszowski et al. (2012) provide preliminary evidence supporting the use of CICO for improving high school students' behavioral performance. However, it is important to note Harpole (2010) was the only study conducted in a traditional high school setting. Additionally, none of those studies included maintenance data and those studies included multiple threats to internal validity such as lack of direct observation data to support indirect data gathered (Harpole, 2010) and only one replication per multiple baseline (Ennis, Jolivet, Swoszowski, & Johnson, 2012; Swoszowski, 2012). Therefore, empirical support for CICO as an effective intervention for high school students is currently lacking, due to the limited number of studies, and the threats to the internal validity affect the amount behavior change can be attributed to CICO. As a result, additional CICO research is needed in traditional high schools and additional research is needed evaluating the maintenance of CICO effects when some components or the entire intervention package has been removed.

Although few CICO studies have included high school students, some authors have offered suggestions for implementing CICO in traditional high school settings. Myers and Briere (2010) outline 'top ten suggestions' including: maintain consistent



staff, prioritize the intervention in the school, assign responsibilities and follow through, organize data efficiently, plan for students who self-select, plan for students who do not respond, use resources wisely, intervene immediately after participant drift, and plan for students who hoard tokens to manipulate reward system (pg. 24).

First of these suggestions, using consistent staff is important not only to build a positive social relationship between the mentor and student, but also increases the consistency of the intervention implementation. Addressing the importance of keeping consistent staff, the primary researcher maintained consistent staff within the intervention. As described, SW-PBIS may not be a priority in high school settings; however, showing that the intervention is a priority by having regular SW-PBIS team meetings promotes the following key point for successful CICO implementation: assigning and following through with responsibilities. Addressing the importance of assigning responsibilities and following through, the researcher clearly delegated responsibilities and corresponded with school staff daily to provide accountability for follow-through. Another key point authors identify concerns data collection. Data collected need to be accurate and organized in order to make data-based decisions, but also, data need to be easy to record. Increasing the effort to collect and organize data increases opportunity for data to be missed. When discussing resources, monetary resources are not the only concern – personnel resources must be used wisely and monitored by the SW-PBIS team as part of following through with responsibilities. The authors also describe ‘self-selectors’, students who choose to participate in the study rather than those identified by screening tools. These students may benefit from the intervention, but may not be the most in need of the intervention. Therefore, the

consideration of resources should be considered when selecting students to participate. For students who do not self-select, and in fact do not respond to the intervention, authors highlight the importance of having other intervention options. For example, several students described as non-responders were reported to have made statements of dislike for CICO. Tier 3 or another Tier 2 intervention such as social skills groups may improve student outcomes of these ‘non-responders’. This is especially important at the very onset of participant drift, first by reminding students of components of intervention (i.e. “remember to get this signed”) which helps increase student success with intervention, but also with staff motivation to aid in the intervention. Authors warn against students hoarding tokens, or manipulating reward contingencies and offer recommendations to adjust for such circumstances. Similarly, a recommendation specifically states that interventionists and teams be flexible. Several unforeseen problems arose within their implementation of CICO, and if one has followed other recommendations, one should be able to make data supported decisions regarding next steps including but not limited to: modifying CICO, modifying reward economy, or changing interventions.

These suggestions specifically target barriers related to SW-PBIS in high school settings and guided the current study as unanticipated complications arose. Myers and Briere (2010) offer intriguing and intuitive recommendations for successfully implementing CICO in traditional high schools; unfortunately, they do not provide a direct experimental test of those strategies. Clearly, more research testing the effects of CICO in traditional high schools is needed.

## Purpose

There is a paucity of research that tests CICO with high school students in general education classrooms. Therefore, the purpose of this study was to test the effects of CICO in a traditional high school setting while having student and teacher participants rate the social validity of CICO procedures. The following research questions were targeted

## Research Questions

1. Does CICO result in increases in AEB for high school students referred for Tier 2 behavioral supports?
2. Does CICO result in decreases in PB for high school students referred for Tier 2 behavioral supports?
3. Do students and teachers rate this CICO package as socially valid?

## CHAPTER II - Methods

### Participants

Participants included four students from general education or inclusion high school classrooms. Inclusionary criteria included: (a) school administrator or teacher nomination due to at least 3 office discipline referrals (ODRs) for disruptive classroom behavior during the most recent 9 weeks grading period, (b) student engaged in appropriately engaged behavior (AEB) during less than 70% of the observed intervals during a screening observation, and (c) at least one of the student's referral concerns was hypothesized as being maintained by attention, or multiply maintained including attention function according to teacher rating. Previous research indicates that more than two ODRs for a student has been linked to increased risk of suspension and higher teacher ratings of externalizing behaviors which sustain until the next cut point of seven ODRs which relates to more severe negative outcomes (McIntosh, Campbell, Carter, & Zumbo, 2009). Exclusionary criteria included: (a) student received special education services under the disability category Emotional Disturbance (EMD), (b) student referred for engaging in severe aggression or self-injurious behaviors, (b) student already received a behavioral intervention at the time of recruitment, or (c) student diagnosed with a moderate or severe Intellectual Disability (ID).

The current study took place in a high school in Mississippi with 943 students, all of whom receive free/reduced fee lunch and are represented by the following ethnic background: 50% male, 50% female; 94% African American, 2% Hispanic, and 2% Caucasian. The school at the time was labeled as 'Identified for Targeted Support and Improvement', which is a designation for the state department of education for struggling

schools. Forty-two percent of the school population was considered chronically absent as presented by a state evaluation.

Seven students were referred for participation and their parents or guardians provided consent for their participation. Three students did not complete the study for various reasons. One participant was placed in an alternative school setting due to continued PB during CICO intervention. Another participant was not included in the study because he dropped out of school. Then, another initial participant left his family home and did not return to school, therefore, was not included in the study. Ultimately, four students participated in the study. Of the remaining participating students, Jamal (all students referred to by pseudonyms) was a 14-year old, African-American male, in 9<sup>th</sup> grade, with no special education classification. Jamal was observed primarily in his first period biology class. Omar was a 16-year old, African-American male, in 11<sup>th</sup> grade, with no special education classification. Omar was observed primarily in his first period English class. Zane was a 19-year old, African-American male, in 12<sup>th</sup> grade, with a special education classification under OHI-ADHD. Zane was observed primarily in his second period math class. Kenny was a 16-year old, African-American male, in 10<sup>th</sup> grade, with a special education classification under OHI-ADHD. Kenny was observed primarily in his first period English class. All students were identified as disruptive in class according to administrative referrals and administrative data including ODRs. All students were often absent (missing at least 31 days of school within three marking periods. Despite two students identified with possible behavioral diagnoses (ADHD), this special education classification does not necessarily indicate a verified ADHD medical diagnosis, nor were characteristics of ADHD evaluated by researchers. Furthermore, no

behavior plan was in place for these students, per referral inclusion criteria. Special education services included extended time limits during testing.

Adult participants included a CICO mentor and several teachers. Inclusionary criteria for CICO mentor included: (a) CICO mentor had to be a teacher, teaching assistant, administrator, or support staff member (e.g., secretary) from the high school, (b) mentor had to be regularly available for check-ins before the first class and check-outs at the end of the school day, and (c) mentor did not have any previous relationship with student participant. Participants also included first and last period teachers to act as CICO facilitators when student participants consistently did not meet with CICO mentor. Parents or legal guardians provided consent for their child's research participation (See Appendix A); mentors and teachers provided consent for their participation (See Appendix B); and students provided assent for their participation (See Appendix C). Approval from The University of Southern Mississippi Institutional Review Board (IRB; Appendix D) was received prior to the start of the study.

The school that served as setting for this study initially elected to have one single CICO mentor for all students. The mentor was Ms. Green, a newly hired administrative assistant in the main office of the high school. Although newly hired, and therefore having no history with any students, Ms. Green was an experienced administrative assistant in a school setting. Four first and four last period teachers also participated in check-in and check-out procedures, respectively. Teachers ranged from 1-10 years in experience and 24-40 years in age.

## Instruments

### *Functional Assessment Informant Record for Teachers (FAIRT II)*

The FAIR-T II (Miller, Dufrene, Olmi, Tingstrom, & Filce, 2015), see Appendix E, is a functional assessment rating scale that may be used to identify PB and antecedents and consequences that are associated with PB. The FAIR-T II has been used in previous CICO research (Miller, Dufrene, Sterling, Olmi, & Bachmeyer, 2015). The FAIR-T II is organized into four sections: Teacher and Child Demographics, Problem Behaviors, Antecedents, and Consequences. The first section collects basic information about the teacher, student, and how the teacher has dealt with the student's challenging behaviors in the past. This section also identifies the time of day or activity when the PB occurs most often. In the Problem Behavior section, teachers rank order three of the most severe PB exhibited by the student. Additionally, information including frequency of occurrence, manageability of PB, disruptiveness of the behavior to the class is collected about the three identified PB. The Antecedent and Consequent items are rated on a scale of 0-3 with 0 corresponding to *never* and 3 corresponding to *very often*. The information from the FAIR-T II was used to identify and operationally define problem and served as a screening tool to identify PB that was at least partially reinforced by attention, as indicated by an average rating of 2.00 or greater for at least one positive reinforcement attention item. The FAIR-T II has been used in previous CICO research to identify students with PB that may be reinforced by access to attention (Miller, Dufrene, Olmi, Tingstrom, & Filce, 2015).

### *Daily Behavior Report Card*

At the end of each class period, teachers rated students' display of appropriate behavior on a Daily Behavior Report Card (DBRC; Appendix F) that included one to three behaviors identified by the teacher as replacements for students' PB. The researcher consulted with the teacher to identify and define appropriate behaviors that were included on the DBRC, including raising hand before talking, staying seated, and AEB. Ratings were organized into a Likert scale ranging from 0-5. Verbal descriptors and a range of percentages were assigned to each Likert scale rating. For instance, a score of 0= Never (0%), 1= Occasionally (1-20%), 2= some (21-40%), 3= Approximately half (41-60%), 4= Most (61-80%), 5= Majority (81-100%). The DBRC included in this study has been used in previous CICO research and has been found to significantly correlate with direct observations of student behavior (Miller, Dufrene, Sterling, Olmi, & Bachmeyer, 2015).

### *CICO Mentor Treatment Integrity Checklist*

Appendix G lists the components that the researcher assessed regarding CICO Mentor's Treatment Integrity including (a) meeting for the morning check in, (b) checking for parent initials on the DBRC, (c) meeting for the afternoon check-out, (d) accurately tallying points, and (e) allowing student to access to rewards when criterion is met. Permanent product data were used to complete the checklist regarding parent signature, check-in meeting, and tallying points at points at check-out. Self-report data were used to complete the checklist regarding if there was no check-in or no check-out meeting were used to complete the checklist. Self-report data were used to complete the checklist regarding if the student received the reward. Additionally, the DBRC was used



as permanent product on days without direct observation for goal setting and tallying points (written on DBRC).

If a CICO mentor's treatment integrity fell below 80% during any session, the researcher provided performance feedback following that session, and prior to the next check-in.

#### *Teacher Treatment Integrity Checklist*

Appendix H lists the components that the researcher assessed regarding teachers' Treatment Integrity including (a) prompting the student for the DBRC, if needed, (b) rating the student's behavior, and (c) returning the DBRC to the student. The researcher completed the checklist daily based on permanent products, using a copy of the DBRC and checking for completeness. If a teacher's treatment integrity fell below 60% in a week (missing two or more days of completing DBRC), the researcher met with the teacher and provided performance feedback. Performance feedback included providing a rationale for implementing the intervention accurately, corrective feedback for any steps that were not implemented correctly, and praise for steps that were implemented correctly.

#### *Procedural Integrity Checklist*

The researcher used checklists (Appendix I) to assess and ensure the procedural integrity of the initial training meetings with the CICO mentors, teachers, and students. The checklists included scripted steps for the researcher to review CICO components. During the training, the researcher used the checklist as a script, while an independent observer recorded on the form the steps were completed.

### *Usage Rating Profile –Intervention, Revised*

Teachers completed the User Rating Profile – Intervention, Revised (URP-IR; Appendix J) at the conclusion of the study to provide a rating of their perceived social validity of CICO. The URP-IR is a six factor instrument that measures teachers' perceptions of the acceptability, understanding, home-school collaboration, feasibility, system climate, and system support for an intervention procedure. The URP-IR uses a 6-point Likert scale to rate agreement of intervention procedures with a score of 1 indicating that the teachers strongly disagree and a score of 6 indicating that teachers strongly agree across 29 items. When assessing the reliability of the URP-IR, the URP-IR yielded a coefficient alpha of .835 across all factors, ranging from .72 to .95, which supports the internal consistency of the instrument (Briesch, Chafouleas, Neugebauer, & Riley-Tillman, 2013).

### *Children intervention rating profile*

At the conclusion of the study, students completed the Children's Intervention Rating Profile (CIRP), see Appendix K. The CIRP is a rating scale with seven items, with ratings ranging from 1 (indicating that the student agrees) to 6 (indicating that the student does not agree). The CIRP assesses children's' acceptability of interventions, a total score of 24.5 or greater indicates an acceptable rating. When assessing the reliability of the CIRP, the CIRP yielded a coefficient alpha of .89, which supports the internal consistency of the instrument (Witt & Elliott, 1985). For this study, the CIRP was modified to include language regarding behavioral intervention (i.e. "I found the Check-in/Check-out procedures to be an acceptable method to improve my behavior).

Dependent Measures and Data Collection Procedures. Direct observation of students' PB and AEB were the primary dependent variables for the current study. The researcher operationally defined PB and AEB based on results from the FAIR-T II and consultation with teachers. Students' behaviors were recorded during 20-min observations using 10-second momentary time sampling. Momentary time sampling entails observing for a brief period within an interval (in this case 3 seconds at the beginning of the interval) and recording behaviors as either occurring or not occurring during the observed portion of the interval. Momentary time sampling is recognized as the most accurate time sampling method especially when measuring duration of behaviors (Harrop & Daniels, 1986; Meany-Daboul, 2007; Radley, O'Handley, & Labrot, 2015). Observers conducted observations during the class period identified as the most problematic by the teacher. Additionally, for every phase of the study, observers conducted an observation in a randomly selected class period in order to evaluate the effects of CICO throughout the day.

During observations, observers positioned themselves in a location that minimized disruption to the class. Observers used an audio device that provides prompts to record students' behavior at the beginning of each interval. Observers included graduate students who had been previously trained to a 90% agreement criterion for PB and AEB. Additionally, the researcher provided observers with operational definitions of PB and AEB for each student. Finally, observers were unaware of the experimental condition in place, unless that observer aided in training students or CICO mentors, one of five observers aided in training students or CICO mentors.

## Experimental Design and Data Analysis

This study utilized an A/B/B' design. The A phase included baseline, the B phase included CICO, The B' included modified CICO. Data were visually analyzed for level, trend, variability, rapidity of change, magnitude of change, and consistency of effects within and across students (Horner, Carr, Halle, Odom, & Wolery, 2005).

Students' AEB was the primary DV for making phase change decisions. The decision to move from baseline to intervention conditions required at least five data points with either stable responding or responding trending in the unintended direction – in this case, a decreasing trend, which meets design standards set forth by Kratochwill et al. (2013). Additionally, the B phase for each student included a minimum of five data points prior to making decisions about intervention effectiveness.

### *Dependent variables*

Following consultation with teachers, researchers operationally defined AEB and PB. AEB was defined as a student looking towards assigned materials, answering questions with permission, and manipulating assigned materials to complete instructed tasks. PB included inappropriate vocalizations, out of seat, non-compliance, and off-task behaviors. Inappropriate vocalizations were defined as talking out of turn or at volume above conversational tone. Out of seat was defined as student standing one-foot or more away from the assigned seat, unless teacher directed student to complete a task that required the student to be out of their seat. Non-Compliance was defined as not initiating an individual or group command from teacher within 5-seconds or not completing compliance for a teacher command. Off task behaviors were defined as looking away

from assigned materials or away from teacher during instruction; examples included looking at cell phones or non-instructed materials on computers.

### *Effect sizes*

In addition to visual analysis of the data, Tau-U was calculated using a Tau-U calculator (<http://www.singlecaseresearch.org>), to determine the likelihood that any data point from one treatment condition overlapped with a data point from the other treatment condition, Tau-U also accounts for trends of the data paths (Parker, Vannest, Davis, & Sauber, 2011). Tau-U is a non-parametric effect size calculation of non-overlap, well suited for single subject research design. When interpreting Tau-U, effects sizes between 0 and 0.20 are considered small effects, 0.21 and 0.60 are moderate effects, 0.61 and 0.80 are large effects, and above 0.80 are very large effects (Vannest & Ninci, Evaluating intervention effects in single-case research designs, 2015). For Tau-U, observation data per behavior, per participant was contrasted between the first baseline condition and first intervention condition, as well as the second baseline phase and second intervention phase.

### *Correlation of teacher ratings of behavior and direct observations*

Spearman's rank correlations were calculated for teachers' ratings on the DBRC and direct observation data for AEB during the class period for which the teachers rated the students' display of appropriate behavior on the DBRC. A Spearman's rank correlation functions similarly to a Pearson's correlation, but for ordinal variables that do not follow the normal distribution (Zar, 1972). Spearman's  $r$  equals a number between -1.00 and 1.00; the absolute value of the score is used to determine strength of the relationship. A positive score indicates a positive correlation, whereas a negative score

indicates an inverse relationship. Spearman's  $r$  scores less than 0.3 indicate no relationship or a very weak relationship. Spearman's  $r$  scores greater than 0.3 and less than 0.5 indicate a weak relationship. Spearman's  $r$  scores greater than 0.5 and less than 0.7 indicate a moderate relationship. Spearman's  $r$  scores greater than 0.7 indicate a strong relationship.

## Procedures

### *Fair T II*

Upon referral of a student from consultation with administration regarding inclusion criterion, consent forms were sent home to all qualifying students. Once consent and assent for participation was obtained, the researcher requested each of the referring teachers of those students to complete the FAIR-T II. Teachers completed the FAIR-T II independently and the researcher retrieved the completed FAIR-T II forms, scored the FAIR-T II, and conducted a brief consult with teachers to operationally define PBs identified on the FAIR-T II then identified and operationally defined replacement behaviors for the DBRC and direct observations.

Teacher consultation revealed Omar's FAIR-T II scores indicated that his three most concerning PB were inappropriate vocalizations, off-task, and non-compliance. Omar's PB were rated on the FAIR-T II as being hypothesized to be maintained most by access to attention, followed by escape from demands. Jamal's three most concerning PB were inappropriate vocalizations, out of seat, and non-compliance. Jamal's PB were rated on the FAIR-T II as being hypothesized to be maintained most by escape from demands, followed by access to attention. Teacher consultation revealed Zane's three most concerning PB were inappropriate vocalizations, off-task, and non-compliance. Zane's

PB were rated on the FAIR-T II as being hypothesized to be maintained most by access to attention. Teacher consultation revealed Kenny's three most concerning PB were inappropriate vocalizations, off-task, and non-compliance. Kenny's PB were rated on the FAIR-T II as being hypothesized to be maintained most by access to attention.

### *Screening Observation*

A screening observation was conducted in the class identified by the teacher as the most problematic. Teachers were asked to teach their students as they usually would, to use their typical classroom management techniques. Additionally, observers did not provide any feedback to the students or the teachers following the observation. Screening observations lasted 20 minutes, using a 10-second momentary time sampling procedure.

### *Mentor, Teacher, and Student Training*

Once a student qualified for participation in the study, the researcher used behavioral skills training (i.e., instructions, modeling, practice, and immediate feedback) to train mentors to implement CICO, and teachers to complete the DBRC. The researchers trained the mentor to implement CICO procedures with the student. The researchers trained teachers to complete DBRCs. The researchers trained students to take their DBRC home for parent signatures and bring back to CICO the mentor the following school day.

### *Baseline*

Baseline conditions included direct observations of the participant across various classes. Teachers completed DBRCs; however, teachers in the class observed privately and completed DBRCs (i.e. DBRC scores were not shared with students) without providing feedback to the students. The researcher collected the completed DBRCs

during baseline. The average DBRC percentage of total points earned was used to determine goal percentage during intervention phases.

### *CICO intervention*

*CICO orientation meeting.* Prior to implementation of CICO, the CICO mentor and the researcher described all CICO procedures to the student. The mentor and the researcher informed the student that CICO includes morning and afternoon meetings with their mentor, receiving daily feedback from each teacher regarding their behavior, as well as an opportunity to earn prizes and privileges for meeting their goal. Additionally, the researcher conducted an interview-based preference assessment with the student. The preference assessment included first asking students open-ended questions about items that they like and showing them some prize options already available. The researcher and student identified at least 10 items that were then included in a reward bin: chips, candy, cell phone accessories, headphones, headphone accessories, and school supplies. The student could choose from their reward bin if the student met their behavior goal.

*Check-in.* Each morning, CICO mentors planned to meet with student participants in the office area to Check-in with student. CICO mentors greeted the student with enthusiasm, requested the previous day's DBRC with parent signature, and ensured that the student was in uniform and had the necessary materials for class such as a pen and paper. If the student did not have the previous day's DBRC thrice in one week, a phone call was to be made to parents as a reminder to check the student's DBRC after school. All four students required this phone call, parents informed school staff that student participants either did not bring home DBRC or must be throwing away signed DBRC.



Next, the mentor reviewed behavior expectations and the DBRC goal, which was set to 10% above median percentage of points obtained during baseline to create an achievable goal for improvement. Percentile shaping, in which the behavior goal increases as smaller successive goals in behavior change are met, has been shown effective in for increasing academic behavior for typically developing children (Athens, Vollmer, & St. Peter Pipkin, 2007) Furthermore, all participants required modification that included check-ins being conducted by first period teachers in first period classrooms due to an inconsistency or a lack of attending check-in meetings even after the CICO mentor called for the student to attend over the classroom intercom.

Finally, the mentor reminded the student to present their DBRC to each teacher at the beginning of each class period, collect the DBRC at the end of class, and return for check-out at the end of the day.

*Teacher DBRC and feedback.* Students were instructed to present their teacher with the DBRC at the beginning of each class period. Teachers were also instructed to prompt the student to present the DBRC, if the student hadn't done so independently. Teachers completed their portion of the DBRC at the end of each class period, returned the DBRC, and provided feedback to the student. Feedback included a brief statement regarding scores for the behaviors rated by the teacher. The student would then take the DBRC to the next teacher. Teachers were also given DBRC copies to complete; this was useful for instances of student not presenting DBRC to teacher or not attending check-out with fully filled out DBRC.

Prior to implementation of CICO, the researcher provided blank copies of the DBRC to the teachers so that teachers were able to rate the student's behavior even if the

student failed to present the DBRC to the teacher. If a student failed to present the DBRC to a teacher on three occasions during a two-week period, then the researcher and the mentor provided feedback to the student and assisted the student with problem-solving for more reliably presenting the DBRC to the teacher. This was required for each participant. Participants did not consistently present DBRCs to teachers throughout the day, and/or never attended check-out with the form; therefore the modification to DBRCs that were electronically filled out so that teachers throughout the day had access to the form was implemented.

*Check-out.* At the end of each day, the student was instructed to meet with the CICO mentor for check-out. The CICO mentor obtained the DBRC, then calculate and record the number of points earned. Subsequently, the CICO mentor divided the number of points earned by the number of points available in order to determine if the participant met their percentage goal for the day. The CICO mentor allowed the student to choose a reward from the reward bin only if the percentage goal was met for the day. Additionally, the CICO mentor would provide feedback to the student on behaviors for which the student was rated as performing poorly and provide praise for behaviors in which the student was rated favorably. Finally, the CICO mentor entered DBRC data into a points log for the researcher and send the DBRC home to be signed by parents.

#### *Modified CICO Intervention*

When students failed to check-out, the CICO mentor called the student to the office over the school's intercom system to report to the office. If a student did not check-out thrice in one week, a reward was offered solely based on the student's attendance to check-out while an additional reward was available for meeting their behavior goals. All

four participants required being called to the office in order to check-out; these students were subsequently offered rewards solely based on the attending the check-out while an additional reward was available for meeting their behavior goals; even after these steps were taken, these four students did not attend any check-out meetings. Further additional measures to ensure participants attended check-out meetings were taken, including check-outs that were conducted by the last period teacher. These modifications (Appendix L) were implemented as a B' phase for all participants.

#### Social Validity

At the conclusion of data collection for each student, the mentor and each teacher completed the UPR-IR. Additionally, two of the three students that had experienced the modified CICO completed the CIRP. For the two participants, the CIRP ratings were obtained one week or longer since the most recent observation due to student absences.

#### Inter-observer agreement

IOA was collected across at least 30% per phase per participant. Average IOA for Omar was 98.81% (range 95-100%). Average IOA for Jamal was 93.62% (range 85.83-100%). Average IOA for Zane was 94.72% (range 78.33-100%). Average IOA for Kenny was 93.33% (range 90.83-95%). IOA was calculated per dependent measure, by dividing the number of interval agreements by the number of interval agreements plus the number of interval disagreements and multiplied by 100. If IOA fell below 80%, then observers received performance feedback that includes review of data collection procedures, operational definitions and recommendations for improving IOA. One observation fell below the criterion, disagreements arose regarding a student facing a computer (assigned material), but one observer noticed that a movie (non-assigned material) was playing on

the screen. Part of re-training included the recommendation to observe content of computer screen.

Kappa was also calculated for each IOA observation to account for agreements likely due to chance (Watkins & Pacheco, 2000) producing a more conservative estimate of IOA. Kappa scores of .40 or less are considered poor agreement, between .41 and .60 represent fair agreement, and between .61 and .75 are considered good agreement (Watkins & Pacheco, 2000). Values above .75 are considered excellent agreement. Kappa average scores were 0.88, 0.81, 0.58, and .87 for Omar, Jamal, Zane, and Kenny, respectively. For Omar, Jamal, and Kenny, kappa scores indicate excellent agreement, whereas kappa scores for Zane indicate fair agreement. For Zane, observers recorded PB during 100% of intervals across two observations; kappa is impacted by consistent behavior occurrence, due to increases in agreement likely by chance. The observations in which Zane engaged in PB during 100% of intervals, while negatively impacting kappa, do not necessarily indicate that IOA was indeed poorer for Zane.

#### Treatment Integrity and Procedural Integrity

Treatment integrity of the implementation of CICO was monitored based on self-report and permanent product data for CICO mentors, teachers, and students. The researchers used checklists (Appendices G and L) to assess and ensure the treatment integrity of the CICO and modified CICO. For Omar, average treatment integrity in CICO was 19% with only teachers filling out DBRC or Check-ins being implemented on any given day. Average treatment integrity for Omar in Modified CICO was 95%. On the two days with less than 100% integrity, the missed component was not all teachers inputting DBRC ratings before the last period class and check-out procedure; however,

the last period teacher did correctly calculate the points earned of points possible required to determine if the student had earned a reward.

The researcher used checklists (Appendix I) to assess and ensure the procedural integrity of the initial training meetings with the CICO mentors and teachers. Procedural integrity of training CICO mentors and teachers was 100%. An independent observer was present for 25% of the trainings. Procedural integrity did not fall below 100%. Average integrity for Omar in CICO was 19% with the only component that was completed was teachers filling out DBRC or Check-ins happening. Average integrity for Omar in Modified CICO was 95% on two days not all teacher completed electronic DBRC ratings. Average integrity for Jamal in CICO was 9.5% with only teachers filling out the DBRC. Average integrity for Jamal in Modified CICO was 100%. Average integrity for Zane in CICO was 16.67% with only teachers filling out DBRC. Average integrity for Zane in Modified CICO was 100%. Average integrity for Jamal in Modified CICO was 100%. Average integrity for Kenny in CICO was 16.67% with only teachers filling out DBRC. Average integrity for Kenny in the one Modified CICO observation was 100%.

## CHAPTER III - Results

### Omar

During the screening observation, Omar emitted PB during 41.66% intervals and AEB during 60% of intervals. During the baseline, Omar demonstrated AEB an average of 32.77% (range: 0-71.67%) of intervals observed, and earned an average DBRC rating of 32.22% (range: 20-46.67%) of points possible. AEB showed a decreasing trend, with variability, before CICO was introduced. Omar's Goal DBRC rating was set to 43% of total points possible. During the initial CICO phase, Omar demonstrated AEB an average of 8.75% (range: 0-35%) of intervals observed, and earned an average DBRC rating of 30% (range: 26.67 – 33.33%) of points earned of points possible. AEB showed less variability when CICO was introduced, at rates consistently at or below baseline level. Omar did not attend morning check-ins, except for the first two occasions. Omar carried his DBRC on those two days, but rather than presenting to the teacher, he left the paper on his desk during class. Omar never attended check-out meetings. In order to implement intervention, modified CICO was introduced. During the modified CICO phase, Omar engaged in AEB an average of 11.93% (range: 0-53.33%) of intervals observed, and earned an average DBRC rating of 29.08% (range: 0-60%) of points possible. AEB showed immediate improvements, but level and variability resembled baseline patterns. Due to the overall decrease in AEB observed during intervention and modified intervention, this participant was referred for tier 3 services and discontinued the CICO (with modifications) intervention.

There was a weak effect size between Omar's AEB in baseline compared to CICO (Tau-U = -0.53, 90% CI = -1.00 – -0.04); was a weak effect size between Omar's

AEB in baseline compared to the total intervention (Tau-U = -0.52, 90% CI = -0.99 – -0.04). Figure 1 displays Omar’s levels of PB and AEB; Figure 2 displays Omar’s AEB and DBRC percentage of points earned.

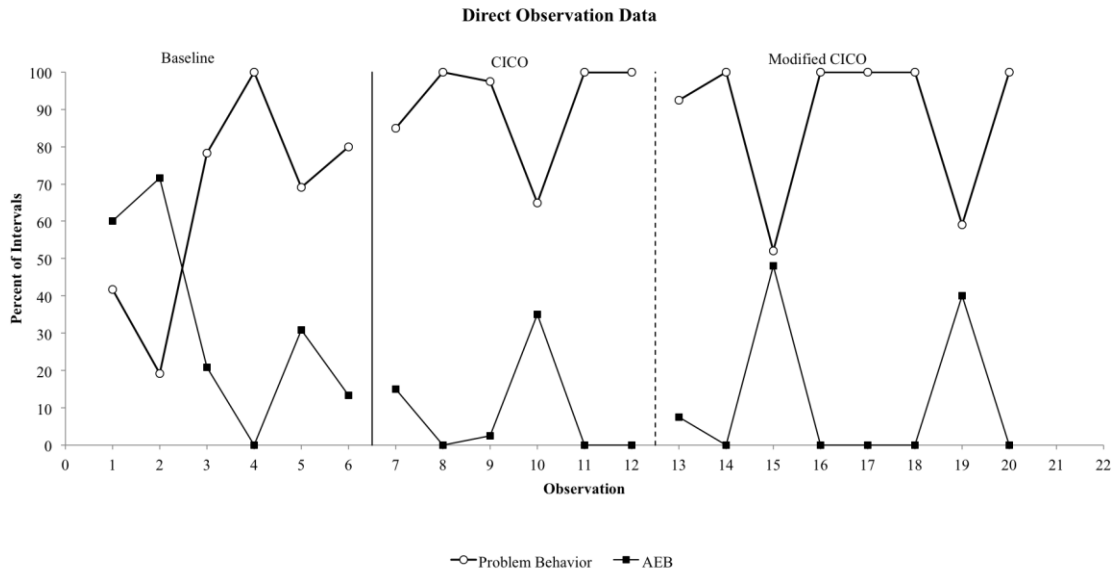


Figure 1. Omar’s PB and AEB

Percent of intervals observed with PB or AEB

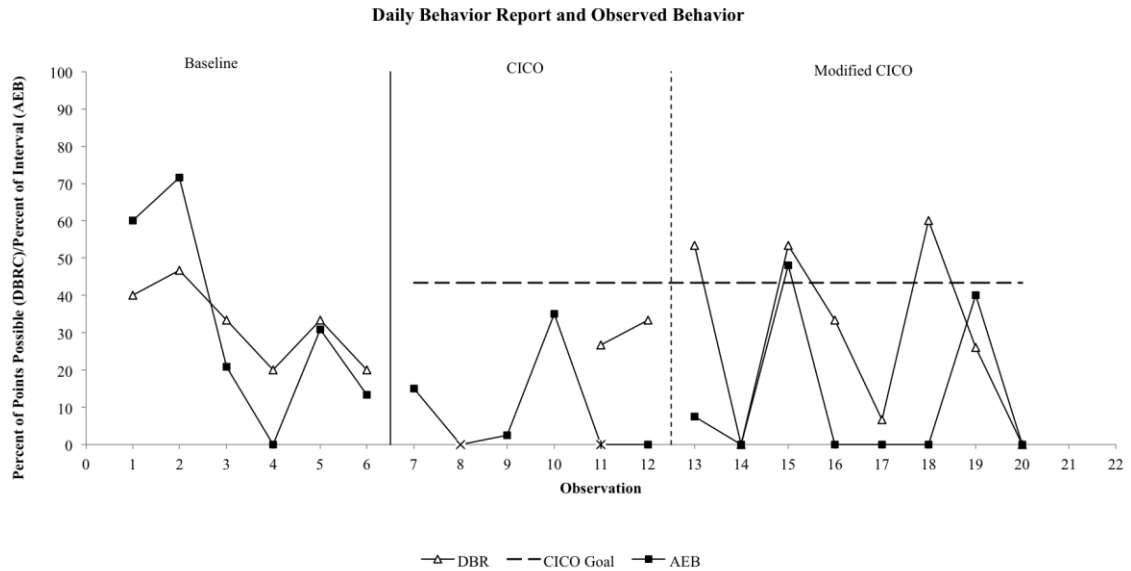


Figure 2. Omar's AEB and DBR

Percent of intervals observed with AEB and Percent of points earned on DBRC. Session marked with × indicates when student was prompted to attend check-in and check-out meetings. Session marked with \* indicates when student was offered a reward for attending meetings.

### Jamal

During the screening observation Jamal emitted PB during 64% of intervals and AEB during 35% of intervals. During the baseline, Jamal demonstrated AEB an average of 31.57% (range: 10.83-85.83%) of intervals observed, and earned an average DBRC rating of 32% (range: 26.67-33.33%) of points possible. Jamal's Goal DBRC rating was set to 43% of total points possible. During the initial CICO phase, Jamal demonstrated AEB an average of 26.87% (range: 0-57.77%) of intervals observed, and earned an average DBRC rating of 48.8% (range: 0-73.33%) points earned of points possible. AEB showed similar variability when CICO was introduced, at rates consistently at or below baseline levels. Jamal never attended morning check-ins. Jamal never attended check-out meetings, despite improvements in AEB and teacher rated behavior that would have met



his goal and allow him to earn a prize. In order to implement intervention despite Jamal's refusal to attend meetings in the school office, modified CICO was introduced. During the modified CICO phase, Jamal engaged in AEB an average of 28.01% (range: 0-47.50%) of intervals observed, and earned an average DBRC rating of 27.10% (range: 20-33.33%) of points possible. An immediate increase in AEB was observed; quickly after the immediate increase, AEB followed a decreasing trend to levels similar to baseline observations. Due to the overall decrease in AEB observed during intervention and modified intervention, this participant was referred for tier 3 services and modified CICO was discontinued.

There was a moderate effect size between Jamal's AEB in baseline compared to CICO (Tau-U = 0.33, 90% CI = -0.22 – 0.88) despite not actively participating in the intervention. There was a moderate effect size between Jamal's AEB in baseline compared to all intervention (Tau-U = 0.33, 90% CI = -0.16 – 0.82) and there was a small effect size between original CICO and modified CICO (Tau-U = 0.06, 90% CI = -0.52 – 0.64). Additionally, it is important to note that the moderate effect size is based on arbitrary descriptive criterion (Vannest & Ninci, Evaluating intervention effects in single-case research designs, 2015) and does not account for magnitude of effect. Clearly, the level of AEB during CICO is not a level that would be considered clinically significant by educational professionals. Figure 3 displays Jamal's levels of PB and AEB; Figure 4 displays Jamal's AEB and DBRC percentage of points earned.

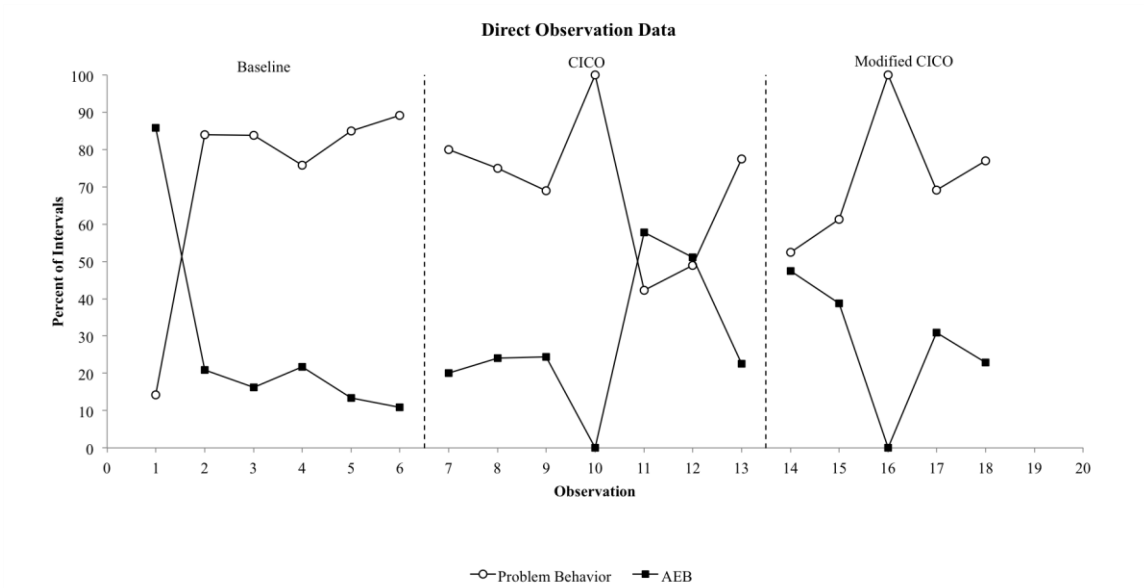


Figure 3. Jamal’s PB and AEB

Percent of intervals observed with PB or AEB

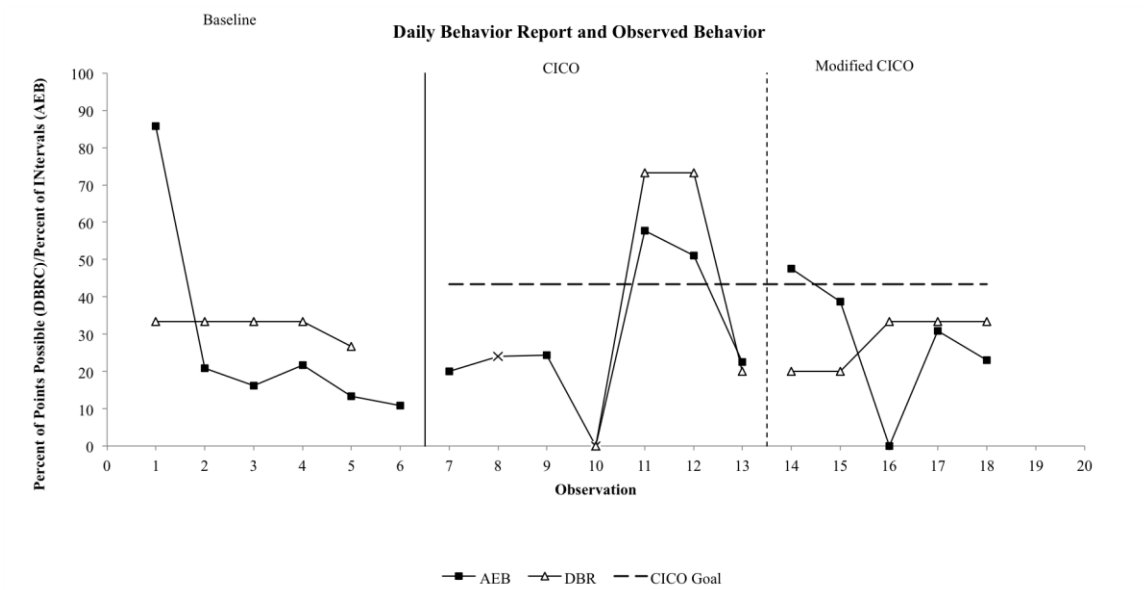


Figure 4. Jamal’s AEB and DBR

Percent of intervals observed with AEB and Percent of points earned on DBRC. Session marked with × indicates when student was prompted to attend check-in and check-out meetings. Session marked with \* indicates when student was offered a reward for attending meetings.

## Zane

During the screening observation Zane emitted PB during 70% intervals and AEB during 30% of intervals. During baseline, Zane demonstrated AEB an average of 41.99% (range: 30.00-55.00%) of intervals observed, and earned an average DBRC rating of 46.67% (range: 26.67- 53.33%) of points possible. Zane's Goal DBRC rating was set to 56% of total points possible. During the initial CICO phase, Zane demonstrated AEB an average of 36.5% (range: 15.83 67.50%) of intervals observed, showing similar level and variability observed in baseline conditions. Zane earned an average DBRC rating of 79.99% (range: 73.33-100%) of points possible; despite this immediate and stable increase in DBR, Zane never attended check-in or check-out meetings, and therefore proceeded to Modified CICO. During the modified CICO phase, Zane engaged in AEB an average of 36.5% (range: 0-41.67%) of intervals observed, and earned an average DBRC rating of 79.99% (range: 0-66.67%) of points possible. Zane's AEB were following an increasing trend during the modified CICO phase, however the highest level of AEB reached those comparable to baseline, not above. Zane did not attend either the class period observed or school for three weeks following the last datum collected, until the school year ended.

There was a weak effect size between Zane's AEB in baseline compared to CICO ( $\text{Tau-U} = -0.40$ , 90% CI = -1.00 – -0.23); there was a weak effect size between Zane's AEB in baseline compared to the total intervention ( $\text{Tau-U} = -0.53$ , 90% CI = -1.00 – -0.02). Again, it is important to note that the moderate effect size is based on arbitrary descriptive criterion (Vannest & Ninci, Evaluating intervention effects in single-case research designs, 2015) and does not account for magnitude of effect. Clearly, the level

of AEB during CICO is not a level that would be considered clinically significant by educational professionals. Figure 5 displays Zane’s levels of PB and AEB; Figure 6 displays Zane’s AEB and DBRC percentage of points earned.

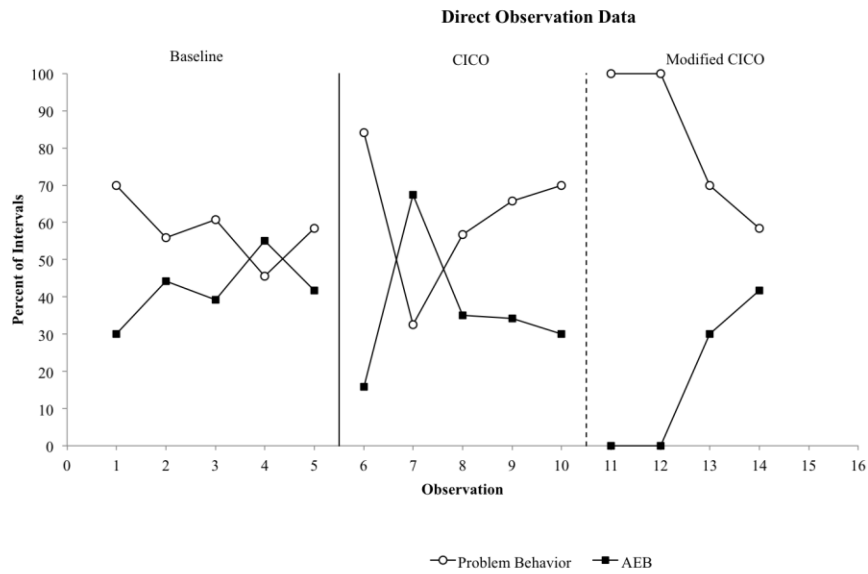


Figure 5. Zane’s PB and AEB

Percent of intervals observed with PB or AEB

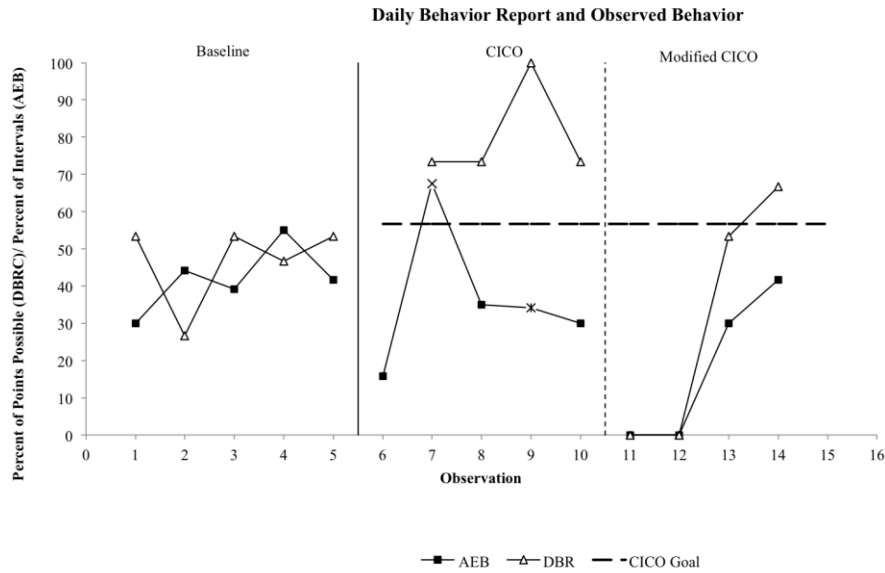


Figure 6. Zane's AEB and DBR

Percent of intervals observed with AEB and Percent of points earned on DBRC. Session marked with × indicates when student was prompted to attend check-in and check-out meetings. Session marked with \* indicates when student was offered a reward for attending meetings.

### Kenny

During the screening observation Kenny emitted PB during 92.5% intervals and AEB during 7.5% of intervals. During baseline, Kenny demonstrated AEB an average of 45.3% (range: 0-93%) of intervals observed, and earned an average DBRC rating of 63.93% (range: 7.50-93.33%) of points earned of points possible. Kenny's Goal DBRC rating was set to 73% of total points possible, using the mean rather than the median due to great variability in baseline data. During the initial CICO phase, Kenny demonstrated AEB an average of 48.17% (range: 18.33-80.83%) of intervals observed and earned an average DBRC rating of 63.99% (range: 26.67-86.67%) of points possible. Similar to other participants, Kenny never attended check-in or check-out meetings, and therefore proceeded to Modified CICO. Unfortunately, only one observation during the modified

CICO phase was conducted, during which, Kenny emitted AEB during 43.33% of intervals observed, and earned 60% of the DBRC points for that day. Kenny showed variable levels of AEB across phases; however, his data are limited due to absences from school and several days of state-testing according to school accommodations, which allow him unlimited time to complete each exam.

There was a small effect size between Kenny’s AEB in baseline compared to CICO (Tau-U = 0.08, 90% CI = -0.55 – 0.71); was a small effect size between Kenny’s AEB in baseline compared to the total intervention (Tau-U = 0.10, 90% CI = -0.50 – 0.70). Figure 7 displays Kenny’s levels of PB and AEB; Figure 8 displays Kenny’s AEB and DBRC percentage of points earned.

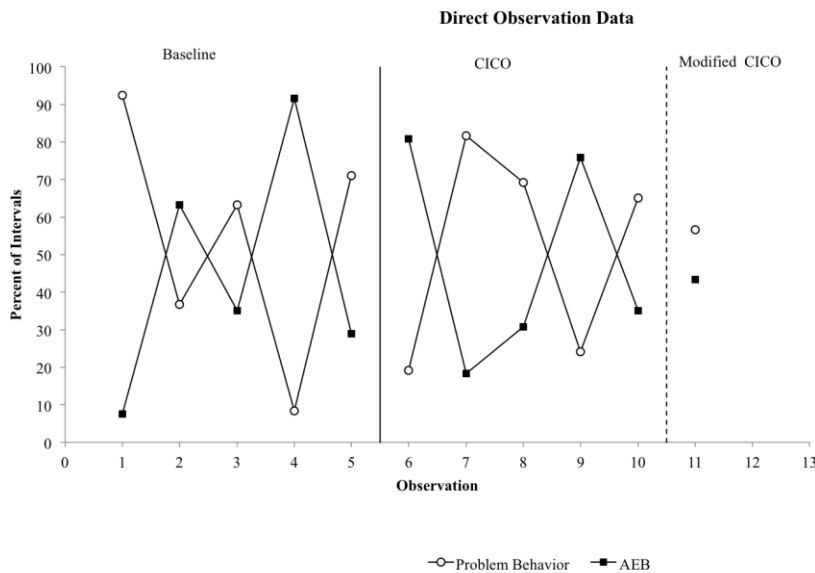


Figure 7. Kenny’s PB and AEB

Percent of intervals observed with PB or AEB

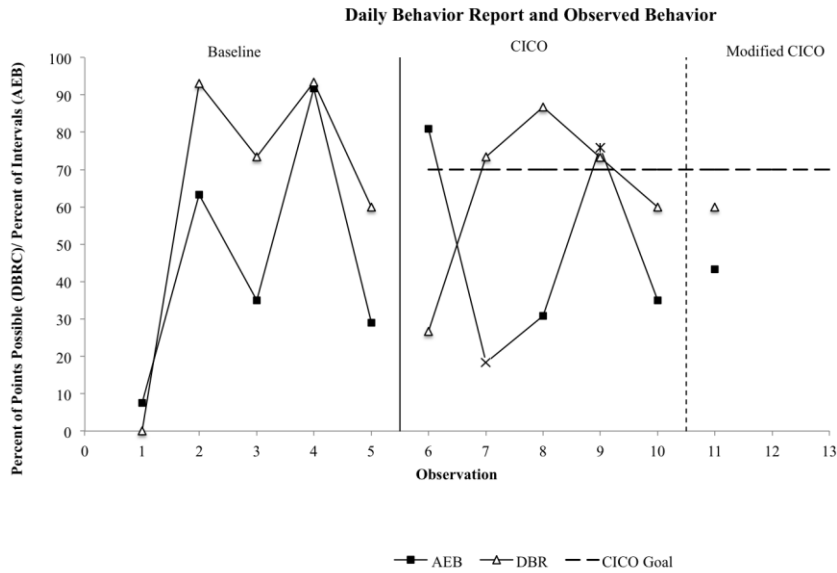


Figure 8. Kenny's AEB and DBR

Percent of intervals observed with AEB and Percent of points earned on DBRC. Session marked with × indicates when student was prompted to attend check-in and check-out meetings. Session marked with \* indicates when student was offered a reward for attending meetings.

### DBRC and Direct Observation Correlation

Spearman's rank correlation was used to calculate the strength of the relationship between students observed behavior and teacher rating of student behavior. This was calculated across phases for each participant, using AEB from the observed classroom and the DBRC rating from the teacher in the observed class. For Omar, his teacher's rating of his behavior and his observed behavior showed a weak correlation (Spearman's  $r=0.303$ ,  $p=0.194$ ). For Jamal, his teacher's rating of his behavior and his observed behavior showed a weak correlation (Spearman's  $r=0.371$ ,  $p=0.119$ ). For Jamal, his teacher's rating of his behavior and his observed behavior showed a moderate correlation (Spearman's  $r=0.387$ ,  $p=0.171$ ). For Kenny, his teacher's rating of his behavior and his observed behavior showed a weak correlation (Spearman's  $r=0.316$ ,  $p=0.344$ ).

## Social Validity

The URP- IR (Briesch, Chafouleas, Neugebauer, & Riley-Tillman, 2013) was used to assess CICO mentor perceptions of the social validity the CICO intervention, and then for teacher perceptions of CICO when teachers participated in CICO mentorship duties as part of the modified CICO procedures. Higher scores indicate a higher perception of social validity. The original CICO mentor, Ms. Green reported an average rating of 3.82 on the URP-IR for the original CICO phase. Omar's first period teacher, delegated to presenting the behavior goal and materials necessary for class periods, reported an average rating of 3.48 on the URP-IR for the modified CICO phase; Omar's last period teacher, delegated to totaling and presenting the behavior rating from the day, then providing reward contingent on meeting that goal, reported an average rating of 1.34 on the URP-IR for the modified CICO phase. Jamal's first period teacher, delegated to presenting the behavior goal and materials necessary for class periods, reported an average rating of 2.97 on the URP-IR for the modified CICO phase; Jamal's last period teacher, delegated to totaling and presenting the behavior rating from the day, then providing reward contingent on meeting that goal, reported an average rating of 1.34 on the URP-IR for the modified CICO phase. Zane's first period teacher, delegated to presenting the behavior goal and materials necessary for class periods, reported an average rating of 2.03 on the URP-IR for the modified CICO phase; Zane's last period teacher, delegated to totaling and presenting the behavior rating from the day, then providing reward contingent on meeting that goal, reported an average rating of 3.21 on the URP-IR for the modified CICO phase. Table 1 presents URP-IR data across factors, per adult participant.



Table 1 *URP-IR Rating*

<u>Factors</u>	Omar's teachers		Jamal's teachers		Zane's teachers		Ms. Green
	1 <sup>st</sup> period	6 <sup>th</sup> period	1 <sup>st</sup> period	6 <sup>th</sup> period	1 <sup>st</sup> period	6 <sup>th</sup> period	
Acceptability	2.33	1.00	2.78	1.56	1.88	3.22	3.89
Understanding	2.00	1.00	3.00	1.00	2.67	3.33	4.33
Home-School	2.33	1.00	2.33	1.00	2.00	3.00	3.00
Feasibility	5.50	1.83	3.50	1.83	2.17	3.17	3.83
School Climate	3.80	1.00	3.40	1.00	1.60	3.40	3.60
System Support	5.00	2.67	2.33	1.00	2.33	3.00	4.33
Total	3.48	1.34	2.97	1.34	2.03	3.21	3.82

The CIRP assesses children's' acceptability of interventions, a total score of 24.5 or greater indicates an acceptable rating. Of the participants, the CIRP was collected for two, Omar and Jamal, the two students who attended and were observed enough to complete the modified CICO intervention. Omar's total rating on the CIRP was 22 points. Jamal's total rating on the CIRP was 24 points. Neither of these students found the CICO (with or without modification) intervention as acceptable. Both Omar and Jamal reported agreeing that there were better ways to deal with PB; however, both also reported agreeing that CICO may help other students.

## CHAPTER IV – Discussion

This study tested the effects of CICO for increasing AEB and decreasing PB for four high school students attending a traditional high school. Additionally, students and teachers rated the social validity of CICO.

### Research Questions 1 and 2

The first research question addresses the efficacy of CICO for decreasing students' PB. For all four participants, the CICO intervention, even after modification was not effective in decreasing PB. The next research question addresses the efficacy of the CICO interventions for increasing students' AEB. For all participants, the CICO intervention, even after modification not effective in increasing AEB. These results are inconsistent with limited research indicating the effectiveness of CICO intervention package with high school students. For example, Harpole (2010) had found success in improvements as demonstrated by indirect measures, DBRC ratings; however, it is difficult to determine if changes were associated with direct measures of behavior change. Ennis et al. (2012) found CICO to be effective in reducing high school students' PB in non-traditional school settings, specifically a residential school setting. This difference may have contributed to the continuity of in class behavior to out-of-class contingencies component of CICO that was not successfully utilized during the current study.

The CICO literature includes fewer tests of CICO with high school students relative to elementary and middle school students. Additionally, publication bias may result in only studies with impressive results being published. It is therefore possible that other studies examining CICO in high school settings are less accessible, if they have

also been unsuccessful in resulting in behavior improvements. As a result, it is unknown whether or not these results are consistent with how a large sample of high school students may respond to CICO.

Future research should explore the moderators of treatment effectiveness for CICO for high school students. This study was conducted with students from one high school in the southeastern United States. The school had previously implemented SW-PBIS; however SW-PBIS was no longer implemented. Moreover, anecdotal observations by members of the research team indicated chaotic school conditions such as absence of instruction and supervision of students in some classes. Moreover, office staff reported that some of the participants exhibited PB far more serious than those reported by teachers as primary referral concerns. For example, office staff reported that two of the participants regularly skipped classes and school and one participant attended school while possibly under the influence of illicit drugs. CICO may not have been effective for these students because the chaotic nature of the school, the intensity of the students' behavioral concerns, or a combination of those two factors. Researchers are encouraged to identify the school and student characteristics that influence CICO effectiveness.

### Research Question 3

Finally, the question of social validity was answered with mixed perceptions in this setting. Generally, teachers participating in CICO mentorship provided lower ratings, indicating low social validity, when compared to Ms. Green's ratings. Ms. Green's rating of the original CICO was higher than teacher participants' ratings of modified CICO. Additionally, for two students, the first period teachers rated the intervention as much more socially valid, than the students' last period teachers did. The opposite was found

for the third participant; the last period teacher rated the intervention as more socially valid than the first period teacher did. The CICO mentor and teachers participating in check-ins or check-outs rated the intervention as low when asked about the acceptability of the intervention, their understanding of the intervention, home-school collaboration required to implement intervention, feasibility of the intervention, system climate conducive to the intervention, and system support for implementing intervention.

Additionally, the student participants rated the intervention as not socially valid. Student participants also verbally complained about intervention or observers, and engaged in novel PB associated with intervention or observers such as avoiding CICO mentor, avoiding observer's view or exiting class upon observer's arrival. Relatively few CICO studies have included social validity data. In those studies, teachers and other school personnel have rated CICO as more acceptable, but also more effective (Filter, McKenna, Benedict, Horner, Todd, & Watson, 2007; Hawken, MacLeod, & Rawlings, 2007; Simonsen, Myers, & Briere, 2011). It is possible that the actual effectiveness of an intervention affect the social validity of that intervention. Other researchers (Riley-Tillman, Chafouleas, Briesch, & Eckert, 2008) have evaluated the acceptability of the DBRC component alone, and found that teachers from all school settings find the DBRC more acceptable when rating positive replacement behaviors rather than PB; however, average ratings were in the 'slightly agree' range. In this study it is not surprising that some teachers and students rated the intervention poorly in terms of social validity. Teachers observed that the intervention was ineffective and students largely refused to participate in the intervention. Future research should continue to explore this issue. High School teachers and students' perceptions of the social validity of CICO may be

important in terms of predicting whether or not high school teachers implement CICO and high school students participate in CICO.

#### Direct Observation and DBRC Correlation

For each participant, results from the observed behavior and teacher ratings of behavior showed weak to moderate correlations. Three of the participants' observed behaviors and teachers' ratings demonstrated a weak correlation and the fourth participant's observed behavior and teacher's ratings demonstrated a moderate correlation. These results do not provide as much support for teacher ratings as accurate estimates for student behavior as compared to other studies have found correlations more often in the moderate range using a similar 0-5 point Likert scale DBRC (Chafouleas, McDougal, Riley-Tillman, Panahon, & Hilt, 2005). Previous research (Chafouleas, McDougal, Riley-Tillman, Panahon, & Hilt, 2005) has included teachers from elementary and middle schools, whereas this study included high school teachers. It may be that high school teachers are less likely to rate students' behavior on a DBRC in a manner that strongly correlates with direct observation data. However, that is unknown. Future research should explore this issue as the use of DBRC data in high school hinges on the extent to which high school teachers' ratings on a DBRC correspond with direct observations of student behavior.

#### Limitations and Conclusion

The current study has some limitations that should be addressed and considered when interpreting results. The current study included a small, homogenous sample of high schoolers from a single low-SES high in Mississippi – such a sample may limit the

extent to which these results extend to other populations. It is possible that for a different high school sample, a sample including students with regular school attendance, the intervention may be more effective. Another possible threat to external validity is that a highly trained, advanced graduate student under supervision of a licensed psychologist, was present and prompted the CICO mentor and teachers to provide intervention. Researcher and graduate students provided all rewards, conducted all trainings, conducted all observations, and provided data collection materials – without this assistance and support, it is unlikely that the public high school would have had materials or skills to implement this intervention. School systems without this intensive level of support would likely not be able to implement such procedures without such consultation services available nor the motivation to persist with the intervention.

Additional limitations are related to the study design that were the result of intervention modifications. The intention of this study was to employ a rigorous ABAB design that included maintenance phases. Unfortunately, due to student refusal to participate in intervention and lack of student response to a modified intervention the researcher could not withdraw and subsequently reintroduce treatment to demonstrate experimental control. Modifications were made based on ethical responsibilities that are associated with applied research. As a result, this study includes a non-experimental design. Future research with similar populations and research questions should certainly employ rigorous experimental designs that meet single case design standards (Kratochwill, et al., 2013).

An additional limitation related to the internal validity of the study is the lack of IOA for treatment integrity. While there were many methods of collecting treatment

integrity (e.g. self-report, direct observation, and permanent product), IOA would have strengthened the results of the integrity collected.

Another limitation of the study relates to the sample in that the school attendance. Data were collected between December and May of a single school year and still only a maximum of 20 data points were collected; numerous (30 or more) observations were not conducted due to a student absence. Students were often absent from school or absent from individual periods for unexcused reasons. These absences were not only a hindrance to intervention implementation in that students would arrive late to school, avoiding walking to the office of school for check-ins, and leave early, avoiding walking to the office of school for check-outs, but also served as an obstacle in evaluating if the intervention was ineffective or not consistently implemented based on student availability for intervention. Confounding attendance and participation in intervention were the standard discipline practices of the high school. Students with patterns of PB, including participants of the study, resulted in in-school suspension, out-of-school suspension, or relocation to an alternative education setting. Two of the final four participants missed several days of intervention and observation due to in-school suspension. One participant was dropped from the study due to relocation to an alternative education setting.

Although the current study targeted school behavior, to increase on-task behavior which would have hopefully related to increased academic performance and acted as a safeguard against high school dropout, it appears that attendance/truancy overshadowed any behavior interventions programmed. Truancy not only contributes to a student's performance, and likelihood to dropout; results from this study also indicate that that truancy affects receptiveness to intervention, or availability for intervention. Perhaps for

high school students with PB and any concern of skipping class or truancy, intervention should first target attendance before targeting in-school behaviors. Unfortunately, truancy has been a common problem for decades with no single solution (Baker, Sigmon, & Nugent, 2001). Truancy is difficult to track in high school populations; as observed in this study, students may attend a homeroom or early period class – resulting in a ‘present’ mark in attendance records- then wander throughout school campus or leave school grounds during other class periods – where the student is essentially ‘absent’. Furthermore, activities available outside of classroom settings are often of greater magnitude of those available for positive reinforcement interventions. For example, rewards offered for student meeting CICO goal in this study included cell phone accessories, snacks, and unconventional school supplies with designs or interesting features, whereas students were often seen by observers outside of assigned class settings talking to friends, at gas station where the same snacks are available, all while there are no schedule constraints or task demands as there would be in a classroom.

School attendance is the minimum requirement for school performance, and for high school students with PB, truancy may be a preliminary concern. Some interventions targeting truancy include components such as family based reward systems, school interventions for academics and vocational training, and finally, community organization intervention (often punitive) resulting in family contact by law enforcement agencies (Sutphen, Ford, & Flaherty, 2010). Another common component of truancy intervention includes a school staff mentor that is assigned to the truant student (McCray, 2006). The current study included several of these components: family involvement by sending home



DBRC, school staff mentorship by assigning CICO mentor, and school intervention by programming contingent rewards.

Additionally, students reported a disinterest in participating in the intervention during the first week of its introduction. Students then became aware of observers, and avoided observers or observed classrooms view during observations in addition to typical off-task behaviors. This may account for decreases in AEB observed between baseline and initial intervention conditions. This suggests that another intervention may be better suited for these students.

Although results of this study are disappointing in that monetary resources, school staff efforts, and researcher/observer efforts were expended yet produced no improved student outcome, there is information to be gleaned and considered in future school intervention/research. First, the aspect of high school truancy is highlighted as not only a problem that needs better intervention, but also a factor to be considered especially when designing intervention for in-school behavior. Second, the importance of early intervention is demonstrated from this study. These high schoolers, those with PB and at risk of dropping out have means and motivation to avoid school and interventions that are less likely for younger students. Early intervention also has lasting effects on educational outcomes. Participants in this study could avoid school with neither detection nor adverse consequence. Younger students have less independence when it comes to supervision between classes, as well as fewer transitions between class, thus creating fewer opportunities to wander away from supervised activities. Many students ultimately identified as dropping out of high school were also identified at earlier stages in school (ranging from 1<sup>st</sup> grade-3<sup>rd</sup> grade) as having academic or behavior concerns (Lloyd &

Bleach, 1972). This indicates that high school students engaging in PB, or other risk factors associated dropping out, may have displayed these problematic behaviors or risk factors before the high school years (Bridgeland, DiIulio, & Moroson, 2006). Specifically for black males, truancy in elementary school was related to increased likelihood of highschool dropout, along with other home factors such as SES, changing schools frequently, and early experience with alcohol (Stroop & Robins, 1972).

In conclusion, although CICO is evidence-based for elementary and middle school students, it is unknown if it is evidence-based for high school students. Additionally, if CICO is effective for high school students, it the student and school factors that are associated with effective CICO are unknown. Therefore, additional research testing CICO in traditional high schools is warranted.

## APPENDIX A – Student Consent Form

### University of Southern Mississippi Consent Document for Research Participants

**Title of the study:**

Implementation and Fading of Check-In/Check-Out Intervention for High School Students

**Purpose**

Your child is being asked to participate in a study that is evaluating the effects of an intervention in decreasing disruptive classroom behavior, and increasing appropriate classroom behavior. This study is important because it will evaluate the effectiveness of an efficient intervention for schools to implement in order to address the behavioral needs of at-risk students.

**Participants:**

Your child was selected for participation because he or she was recommended by a teacher or administrator due to presenting behavioral concerns, and because the problem behaviors presented do not include severe or dangerous behaviors.

**Procedure:**

If you agree to allow your child to participate in this study, your child will participate in the intervention. The intervention consists of your child checking in with a staff member in the morning, and that individual will discuss your child's behavioral expectations for the day and provide a behavior report card for the child to bring to class. Your child will then go to class and he or she will get feedback on his or her behavior in class and behavioral ratings on his or her report card. At the end of the day, your child will check-out with the staff member, who will provide praise and/or corrective feedback as well as a reward if your child met his or her goal that day. The staff member will then provide your child with a copy of the report card to take home for you to review and sign, which will then be returned to school the following day. The intervention will be withdrawn for a period to determine if any behavioral gains are maintained, and will then be re-implemented. When your child is determined to consistently engage in appropriate behavior, the intervention will be slowly removed.

**Benefits/Risks to Participant:**

Your child's participation in the study will provide him or her with additional teacher and staff attention and feedback, in an attempt to improve his or her behavior at school. Rewards will be provided to your child for meeting his or her behavioral goals. The

potential risks include a possible increase in your child's inappropriate behavior as the use of these procedures could increase inappropriate behavior.

**Voluntary Nature of the Study/Confidentiality:**

Your child's participation in this study is entirely voluntary and you may refuse to complete the study at any point during the experiment. In addition, all information obtained during the study will be kept confidential. All information that may identify you will be withheld. Your name and other identifying information will not be used in the research papers, any submission to a professional journal for publication, or presentation. The only circumstances in which we would release information about you or your child would be if he or she tells us he or she is a harm to self or others, if one of your child is abused, if the release of information is court ordered, or if there is a medical emergency in which release of information is important for your child's safety

**Contacts and Questions:**

At any time you may withdraw from the study or ask any questions you may have regarding this study. Questions concerning the research should be directed to Ashley Murphy or Dr. Brad Dufrene at (601) 266-5255 or via email at a.murphy@usm.edu or brad.dufrene@usm.edu.

**Parental Consent:**

I have had the purposes and procedures of this study explained to me and have had the opportunity to ask questions. My questions have been answered to my satisfaction, and I am voluntarily signing this form to participate in this research study. My signature shows my willingness to allow my child to participate in this study under the conditions stated.

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This Section to be Completed by Parent

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*Name of Parent*

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*Date*

## APPENDIX B – Teacher/Staff Consent Form

University of Southern Mississippi

Consent Document for Research Participants

### **Title of Study:**

Implementation and Fading of Check-In/Check-Out Intervention for High School

Students

### **Purpose**

You are being asked to participate in a study that is evaluating the effects of an intervention in decreasing disruptive classroom behavior, and increasing appropriate classroom behavior. This study is important because it will evaluate the effectiveness of an efficient intervention for schools to implement in order to address the behavioral needs of at-risk students.

### **Participation:**

You are being asked to participate because one of your students is participating in the study, or you have been nominated to serve as the coordinator of the intervention.

### **Procedure:**

If you agree to participate in this study, you will be participating in an intervention that provides increased attention and feedback to an at-risk student in an attempt to increase his or her appropriate behaviors. The intervention consists of the student checking in with the coordinator in the morning and the coordinator will discuss the students' behavioral expectations for that day. Depending on the phase of the study, the coordinator may provide the student with a daily behavior report card for him or her to take to each of his or her teachers to fill out during the day. The teacher will rate the student's behavior at the end of each class period. The teacher may or may not give feedback to the student, again depending on the phase. At the end of the day, the coordinator will total the number of points the student earned throughout the day and will provide praise and/or corrective feedback as well as a reward if the child met his or her goal that day. The coordinator will then provide the student with a home note to take home for a parent/guardian to sign, which will then be returned to school the following day.

### **Benefits/Risks to Participant:**

Your student's participation in the study will provide him or her with additional teacher and staff attention and feedback, in an attempt to improve his or her behavior at school. Rewards will be provided to your child for meeting his or her behavioral goals. The potential risks include a possible increase in your child's inappropriate behavior as the use of these procedures could increase inappropriate behavior.

### **Voluntary Nature of the Study/Confidentiality:**

Your participation in this study is entirely voluntary and you may refuse to complete the study at any point during the experiment. In addition, all information obtained during the study will be kept confidential. All information that may identify you will be withheld.

Your name and other identifying information will not be used in the research papers, any submission to a professional journal for publication, or presentation. The only circumstances in which we would release information about you would be if there is a threat of harm to self or others, abuse, if the release of information is court ordered, or if there is a medical emergency in which release of information is important for someone's safety.

**Contacts and Questions:**

At any time you may withdraw from the study or ask any questions you may have regarding this study. Questions concerning the research should be directed to Ashley Murphy or Dr. Brad Dufrene at (601) 266-5255 or via email at a.murphy@usm.edu or Brad.Dufrene@usm.edu. This project has been reviewed by the Human Subjects Protection Review Committee, which ensures that research projects involving human subjects follow federal regulations. Any questions or concerns about rights as a research subject should be directed to the chair of the Institutional Review Board, The University of Southern Mississippi, 118 College Drive #5147, Hattiesburg, MS 39406-0001, (601) 266-6820. A copy of this form will be given to the participant.

**Participant Consent:**

I have had the purposes and procedures of this study explained to me and have had the opportunity to ask questions. My questions have been answered to my satisfaction, and I am voluntarily signing this form to participate in this research study. My signature shows my willingness to participate in this study under the conditions stated.

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This Section to be Completed by Teacher/Staff

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*Name of Teacher/Staff*

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*Date*

## APPENDIX C – Student Assent Form

### University of Southern Mississippi Assent Document for Research Participants

**Title of Study:**

Implementation and Fading of Check-In/Check-Out Intervention for High School

Students

**Purpose**

You are being asked to participate in a study that is evaluating the effects of an intervention in decreasing disruptive classroom behavior, and increasing appropriate classroom behavior. This study is important because it will evaluate the effectiveness of an efficient intervention for schools to implement in order to address the behavioral needs of at-risk students.

**Participants:**

You were selected for participation because you were recommended by a teacher or administrator due to presenting behavioral concerns, and because the problem behaviors presented do not include severe or dangerous behaviors.

**Procedure:**

If you agree to participate in this study, you child will participate in the intervention. The intervention consists of your child checking in with a staff member in the morning, and that individual will discuss your behavioral expectations for the day and provide a behavior report card for you to bring to class. You will then go to class and get feedback on your behavior in class and behavioral ratings on your report card. At the end of the day, you will check-out with the staff member, who will provide praise and/or corrective feedback as well as a reward if you meet your goal that day. The staff member will then provide you with a copy of the report card to take home for your parents/guardians to review and sign, which will then be returned to school the following day. The intervention will be withdrawn for a period of time to determine if any behavioral gains are maintained, and will then be re-implemented. When you are determined to consistently engage in appropriate behavior, the intervention will be slowly removed.

**Benefits/Risks to Participant:**

Your participation in the study will provide you with additional teacher and staff attention and feedback, in an attempt to improve your behavior at school. Rewards will be provided to you for meeting your behavioral goals. The potential risks include possible

**Voluntary Nature of the Study/Confidentiality:**

Your participation in this study is entirely voluntary and you may refuse to complete the study at any point during the experiment. In addition, all information obtained during the study will be kept confidential. All information that may identify you will be withheld. Your name and other identifying information will not be used in the research papers, any submission to a professional journal for publication, or presentation. The only circumstances in which we would release information about you would be if you are a harm to self or others, if one of you are abused, if the release of information is court ordered, or if there is a medical emergency in which release of information is important for your safety.

**Contacts and Questions:**

At any time you may withdraw from the study or ask any questions you may have regarding this study. Questions concerning the research should be directed to Ashley Murphy or Dr. Brad Dufrene at (601) 266-5255 or via email at a.murphy@usm.edu or brad.dufrene@usm.edu.

**Parental Consent:**

I have had the purposes and procedures of this study explained to me and have had the opportunity to ask questions. My questions have been answered to my satisfaction, and I am voluntarily signing this form to participate in this research study. My signature shows my willingness to allow my child to participate in this study under the conditions stated.

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This Section to be Completed by Student

\_\_\_\_\_

*Name of Student*

\_\_\_\_\_

*Date*



## APPENDIX D – IRB Approval Letter



**INSTITUTIONAL REVIEW BOARD**  
118 College Drive #5147 | Hattiesburg, MS 39406-0001  
Phone: 601.266.5997 | Fax: 601.266.4377 | [www.usm.edu/research/institutional.review.board](http://www.usm.edu/research/institutional.review.board)

### NOTICE OF COMMITTEE ACTION

The project has been reviewed by The University of Southern Mississippi Institutional Review Board in accordance with Federal Drug Administration regulations (21 CFR 26, 111), Department of Health and Human Services (45 CFR Part 46), and university guidelines to ensure adherence to the following criteria:

- The risks to subjects are minimized.
- The risks to subjects are reasonable in relation to the anticipated benefits.
- The selection of subjects is equitable.
- Informed consent is adequate and appropriately documented.
- Where appropriate, the research plan makes adequate provisions for monitoring the data collected to ensure the safety of the subjects.
- Where appropriate, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of all data.
- Appropriate additional safeguards have been included to protect vulnerable subjects.
- Any unanticipated, serious, or continuing problems encountered regarding risks to subjects must be reported immediately, but not later than 10 days following the event. This should be reported to the IRB Office via the "Adverse Effect Report Form".
- If approved, the maximum period of approval is limited to twelve months.  
Projects that exceed this period must submit an application for renewal or continuation.

PROTOCOL NUMBER: 17121902  
PROJECT TITLE: Maintenance of Check-in/Check-out High School Students  
PROJECT TYPE: New Project  
RESEARCHER(S): Ashley Murphy  
COLLEGE/DIVISION: College of Education and Psychology DEPARTMENT: Psychology  
FUNDING AGENCY/SPONSOR: N/A  
IRB COMMITTEE ACTION: Expedited Review Approval  
PERIOD OF APPROVAL: 05/28/2018 to 05/27/2019  
**Lawrence A. Hosman, Ph.D.**  
**Institutional Review Board**

# APPENDIX E – Functional Assessment Informant Record for Teachers II

## FUNCTIONAL ASSESSMENT INFORMANT RECORD FOR TEACHER-II

Functional Assessment Informant Record for Teachers - II      Teacher No.: \_\_\_\_\_      Student No.: \_\_\_\_\_

**Teacher Information**      Teacher Name: \_\_\_\_\_      School: \_\_\_\_\_

Please Circle One:

Gender:      Male      Female      Area:      General Education      Special Education

Race/Ethnicity:      African American      Asian      Caucasian      Hispanic      Native American      Other

Age:      22-25      26-29      30-33      34-37      42-45      46-49      50-53      54-57      58-61      62-65      66+

Years Teaching:      1      2      3      4      5      6      7      8      9      10      11      12      13      14      15      16      17      18      19      20+

Grade Level You Are Teaching (If you teach more than one grade, please circle all that apply):

K      1      2      3      4      5      6      7      8      9      10      11      12

Highest Degree:      Bachelors      Masters      Masters +30      Specialist      Doctorate

Experience with Functional Behavior Assessment:

1      2      3      4      5      1 = No Experience      5 = Very Experienced

Experience with Classroom Consultants:

1      2      3      4      5      1 = No Experience      5 = Very Experienced

**Student Information**      Assigned Student Number: \_\_\_\_\_

Briefly list below the student's typical daily schedule of activities.

Time	Activity	Time	Activity
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Please indicate good days and times to observe. (At least two observations are needed.)

<u>Observation #1</u>	<u>Observation #2</u>	<u>Observation #3 (Back-up)</u>
Date: _____	Date: _____	Date: _____
Time: _____	Time: _____	Time: _____

**Student Information**

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<b>Gender:</b>	Male	Female	<b>Grade:</b>	_____	<b>Age:</b>	_____
<b>Race/Ethnicity</b>	African American	Asian	Caucasian	Hispanic	Native American	Other
<b>Classification:</b>	General Education	Special Education	<b>Ruling:</b>	_____		

**Please do not reference the student by name. Please put "he" or "she" or the student's initials.**

1. Describe the referred student. What is he/she like in the classroom? (Write down what you believe is the most important information about the referred student.)  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
2. Pick a second student of the same sex who is also difficult to teach. What makes the referred student more difficult than the second student?  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
3. a. On what grade level is the student reading? \_\_\_\_\_  
b. On what grade level is an average student in the class reading? \_\_\_\_\_
4. a. On what grade level is the student performing in math? \_\_\_\_\_  
b. On what grade level is an average student in the class performing in math? \_\_\_\_\_
5. a. What is the student's classwork completion percentage (0 - 100%)? \_\_\_\_\_  
b. What is the student's classwork accuracy percentage (0 - 100%)? \_\_\_\_\_
6. a. What percentage of adult instructions will the student follow the first time ? \_\_\_\_\_  
b. What percentage of adult instructions will the student eventually follow? \_\_\_\_\_  
c. What is the student's accuracy for compliance with adult instructions? \_\_\_\_\_
7. Is the student taking any medications that might affect their behavior?  
\_\_\_\_ Yes \_\_\_\_ No If yes, briefly explain: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
8. Do you have any specific health concerns regarding this student?  
\_\_\_\_ Yes \_\_\_\_ No If yes, briefly explain: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
9. Please describe the student's strengths.  
\_\_\_\_\_  
\_\_\_\_\_
10. What have you tried in the past to deal with this student's problem behavior?  
\_\_\_\_\_  
\_\_\_\_\_

11. Describe your current classroom behavior management plan.

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12. When during the day (two academic activities and times) does the student's problem behavior(s) typically occur?

Academic

Activity #1: \_\_\_\_\_ Time: \_\_\_\_\_

Academic

Activity #2: \_\_\_\_\_ Time: \_\_\_\_\_

**Problem Behaviors**

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Please circle 1 to 3 problem behaviors only and rank the behaviors in order of severity with 1 being the most severe and 3 being the least severe.

<b>Potential Problem Behaviors (only circle 3; rank in order of severity 1= most; 3 = least )</b>	<b>Rank Order</b>
Off-task behavior (e.g., looking away from academic work/ teacher; failing to complete work)	1 2 3
Inappropriate Vocalizations (e.g., talking without permission; making sounds; calling out)	1 2 3
Fidgeting or playing with objects (e.g., tapping pencil; playing with toys)	1 2 3
Out of Seat or Area (e.g., leaving assigned seat or area; student leaves classroom)	1 2 3
Non-complaint behavior (e.g., failing to follow adult instructions)	1 2 3
Disrespectful behavior (e.g., arguing with adults, using profanity)	1 2 3
Aggressive Behavior (e.g., hitting, kicking, biting others; throwing objects at others)	1 2 3
Self-injurious Behavior (e.g., hurting oneself)	1 2 3
Bullying (e.g., picking on peers; making fun of others; coercive comments)	1 2 3
Tantrum (e.g., yelling, screaming, crying, throwing oneself on the floor)	1 2 3
Inappropriate social behavior (e.g., staring at others; too close in physical proximity)	1 2 3
Failure to speak/talk in class (e.g., will not talk to others despite ability to do so)	1 2 3
Emotional behavior (e.g., student shuts down; student cries excessively outside of tantrums)	1 2 3
Sleeping in class (e.g., student lays head down or sleeps during instruction)	1 2 3
Other behavior: _____	1 2 3

1. Rate how manageable the behavior is:

a. Problem Behavior 1	1	2	3	4	5
	Manageable				Unmanageable
b. Problem Behavior 2	1	2	3	4	5
	Manageable				Unmanageable
c. Problem Behavior 3	1	2	3	4	5
	Manageable				Unmanageable

2. Rate how disruptive the behavior is:

a. Problem Behavior 1	1	2	3	4	5
	Mildly				Very
a. Problem Behavior 2	1	2	3	4	5
	Mildly				Very
a. Problem Behavior 3	1	2	3	4	5
	Mildly				Very

3. How often does the behavior occur per day (please circle)?

a. Problem Behavior 1	< 1 - 3	4 - 6	7 - 9	10 - 12	> 13
a. Problem Behavior 2	< 1 - 3	4 - 6	7 - 9	10 - 12	> 13
a. Problem Behavior 3	< 1 - 3	4 - 6	7 - 9	10 - 12	> 13

4. How many months has the behavior been present?
- |                       |     |   |   |   |                    |
|-----------------------|-----|---|---|---|--------------------|
| a. Problem Behavior 1 | < 1 | 2 | 3 | 4 | entire school year |
| a. Problem Behavior 2 | < 2 | 2 | 3 | 4 | entire school year |
| a. Problem Behavior 3 | < 3 | 2 | 3 | 4 | entire school year |
- 
5. How long does the problem behavior last in duration?
- |                       |         |           |            |          |
|-----------------------|---------|-----------|------------|----------|
| a. Problem Behavior 1 | < 1 min | 1 - 5 min | 6 - 10 min | > 10 min |
| b. Problem Behavior 2 | < 1 min | 1 - 5 min | 6 - 10 min | > 10 min |
| c. Problem Behavior 3 | < 1 min | 1 - 5 min | 6 - 10 min | > 10 min |
6. For each problem behavior, provide an appropriate replacement behavior that you would like the student to perform instead of the current problem behavior.
- |                       |                                |
|-----------------------|--------------------------------|
| a. Problem Behavior 1 | a. Replacement Behavior: _____ |
| b. Problem Behavior 2 | b. Replacement Behavior: _____ |
| c. Problem Behavior 3 | c. Replacement Behavior: _____ |

Antecedents:

Behavior 1: \_\_\_\_\_ Behavior 2: \_\_\_\_\_ Behavior 3: \_\_\_\_\_

0= never happens 1= happens a little 2= happens some 3= happens very often

Please circle the corresponding number for each of the three behaviors listed.

	Behavior 1	Behavior 2	Behavior 3
<b>I. Academic Task Demand</b>			
1 Does the behavior occur during a certain <u>type</u> of task?	0 1 2 3	0 1 2 3	0 1 2 3
2 Does the behavior occur during <u>easy</u> tasks?	0 1 2 3	0 1 2 3	0 1 2 3
3 Does the behavior occur during <u>difficult</u> tasks?	0 1 2 3	0 1 2 3	0 1 2 3
4 Does the behavior occur during <u>certain subject areas</u> ?	0 1 2 3	0 1 2 3	0 1 2 3
5 Does the behavior occur during <u>new</u> subject material?	0 1 2 3	0 1 2 3	0 1 2 3
<b>II. Transitions</b>			
6 Does the behavior occur when a request is made to <u>stop</u> an activity?	0 1 2 3	0 1 2 3	0 1 2 3
7 Does the behavior occur when a request is made to <u>begin a new activity</u> ?	0 1 2 3	0 1 2 3	0 1 2 3
8 Does the behavior occur during <u>transition</u> periods (academic subjects or locations)?	0 1 2 3	0 1 2 3	0 1 2 3
<b>III. Academic Settings</b>			
9 Does the behavior occur in <u>certain settings</u> ?	0 1 2 3	0 1 2 3	0 1 2 3
10 Does the behavior occur in <u>large group</u> ?	0 1 2 3	0 1 2 3	0 1 2 3
11 Does the behavior occur in <u>small group</u> ?	0 1 2 3	0 1 2 3	0 1 2 3
12 Does the behavior occur in <u>independent work</u> ?	0 1 2 3	0 1 2 3	0 1 2 3
13 Does the behavior occur in <u>one-to-one interaction</u> ?	0 1 2 3	0 1 2 3	0 1 2 3
<b>IV. Non-Classroom Settings</b>			
14 Does the behavior occur in the <u>bathroom</u> ?	0 1 2 3	0 1 2 3	0 1 2 3
15 Does the behavior occur at <u>recess</u> ?	0 1 2 3	0 1 2 3	0 1 2 3
16 Does the behavior occur in the <u>cafeteria</u> ?	0 1 2 3	0 1 2 3	0 1 2 3
17 Does the behavior occur on the <u>bus</u> ?	0 1 2 3	0 1 2 3	0 1 2 3
18 Does the behavior occur in <u>other situations</u> ? Specify other: _____	0 1 2 3	0 1 2 3	0 1 2 3
<b>V. Presentation Style</b>			
19 Does the behavior occur when items are presented <u>auditorily</u> ?	0 1 2 3	0 1 2 3	0 1 2 3
20 Does the behavior occur more often during motor activities?	0 1 2 3	0 1 2 3	0 1 2 3
21 Does the behavior occur when items are presented <u>visually</u> ?	0 1 2 3	0 1 2 3	0 1 2 3
<b>VI. Time of Day</b>			
22 Does the behavior occur in the morning (before lunch)?	0 1 2 3	0 1 2 3	0 1 2 3
23 Does the behavior occur in the afternoon (after lunch)?	0 1 2 3	0 1 2 3	0 1 2 3
<b>VII. Physiological</b>			
24 Does the behavior occur when the student is having complications with a medical condition?	0 1 2 3	0 1 2 3	0 1 2 3
25 Does the behavior occur if the student appears to be hungry?	0 1 2 3	0 1 2 3	0 1 2 3
33 Does the behavior occur if the student appears to be tired?	0 1 2 3	0 1 2 3	0 1 2 3
<b>VIII Other</b>			
26 Does the behavior occur when a <u>disruption</u> occurs in the normal routine?	0 1 2 3	0 1 2 3	0 1 2 3
27 Does the behavior occur when the student's <u>request has been denied</u> ?	0 1 2 3	0 1 2 3	0 1 2 3
28 Does the behavior occur when a <u>specific person is in the room</u> ?	0 1 2 3	0 1 2 3	0 1 2 3
29 Does the behavior occur when a <u>specific person is absent from the room</u> ?	0 1 2 3	0 1 2 3	0 1 2 3
30 Are there any other behaviors that usually <u>precede</u> the problem behavior? What?	0 1 2 3	0 1 2 3	0 1 2 3
31 Is there anything you could do that would <u>ensure</u> the occurrence of the behavior? What?	0 1 2 3	0 1 2 3	0 1 2 3
32 Are there any events occurring in the child's home that seem to <u>precede</u> the occurrence of the behavior at school? What?	0 1 2 3	0 1 2 3	0 1 2 3
34 Does anything else precede the problem behavior that is likely to "set it off"?	0 1 2 3	0 1 2 3	0 1 2 3

Consequences:

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Behavior 1: \_\_\_\_\_ Behavior 2: \_\_\_\_\_ Behavior 3: \_\_\_\_\_

0= never happens 1= happens a little 2= happens some 3= happens very often

Please circle the corresponding number for each of the three behaviors listed.

	Behavior 1	Behavior 2	Behavior 3
<b>I. Positive Reinforcement: Access to Preferred Activities or Items</b>			
1 Does someone provide the student with access to an activity after the behavior has occurred?	0 1 2 3	0 1 2 3	0 1 2 3
2 Does someone provide the student with access to a toy or item after the behavior has occurred?	0 1 2 3	0 1 2 3	0 1 2 3
3 Does the student take possession of an activity after the behavior has occurred?	0 1 2 3	0 1 2 3	0 1 2 3
4 Does the student take possession of a toy or item after the behavior has occurred?	0 1 2 3	0 1 2 3	0 1 2 3
5 Does the student bring activities, toys, or items to school that are associated with the behavior?	0 1 2 3	0 1 2 3	0 1 2 3
<b>II. Negative Reinforcement: Escape, Delay, Reduction or Avoidance of Demands</b>			
6 Are ongoing task demands removed or terminated during or after the behavior has occurred?	0 1 2 3	0 1 2 3	0 1 2 3
7 Are ongoing task demands reduced during or after the behavior has occurred?	0 1 2 3	0 1 2 3	0 1 2 3
8 Is the start of a new task demand delayed after the behavior has occurred?	0 1 2 3	0 1 2 3	0 1 2 3
9 Is the start of a new task demand completely avoided after the behavior has occurred?	0 1 2 3	0 1 2 3	0 1 2 3
10 Is there any task you have stopped presenting to the student as a result of the problem behavior? If yes, describe: _____	0 1 2 3	0 1 2 3	0 1 2 3
<b>III. Positive Reinforcement: Attainment of Peer and Teacher Attention</b>			
11 Does the student receive positive attention from peers during or after the behavior has occurred?	0 1 2 3	0 1 2 3	0 1 2 3
12 Does the student receive negative attention from peers during or after the behavior has occurred?	0 1 2 3	0 1 2 3	0 1 2 3
13 Does the student receive positive attention from adults during or after the behavior has occurred?	0 1 2 3	0 1 2 3	0 1 2 3
14 Does the student receive negative attention from adults during or after the behavior has occurred?	0 1 2 3	0 1 2 3	0 1 2 3
15 Does the teacher re-direct or interrupt the child during or after the behavior is exhibited?	0 1 2 3	0 1 2 3	0 1 2 3
<b>IV. Negative Social Reinforcement: Escape, Delay, Reduction or Avoidance of Attention</b>			
16 Are ongoing social interactions with peers stopped during or after the behavior has occurred?	0 1 2 3	0 1 2 3	0 1 2 3
17 Are upcoming social interactions with peers avoided after the behavior has occurred?	0 1 2 3	0 1 2 3	0 1 2 3
18 Are ongoing social interactions with adults stopped during or after the behavior has occurred?	0 1 2 3	0 1 2 3	0 1 2 3
19 Are upcoming social interactions with adults avoided after the behavior has occurred?	0 1 2 3	0 1 2 3	0 1 2 3
20 Specific individuals stopped interacting with this student due to the behavior?	0 1 2 3	0 1 2 3	0 1 2 3
<b>V. Automatic Reinforcement:</b>			
21 Does the student display the behavior when alone without interaction from others?	0 1 2 3	0 1 2 3	0 1 2 3
22 Does the student appear to be calm or relaxed as a result of performing the behavior?	0 1 2 3	0 1 2 3	0 1 2 3
23 Does the student appear to be excited or aroused as a result of performing the behavior?	0 1 2 3	0 1 2 3	0 1 2 3
24 Does the student appear to obtain pleasure or enjoyment from performing the behavior itself?	0 1 2 3	0 1 2 3	0 1 2 3
25 Does the student appear to obtain stimulation (visual, auditory, motor) as a result of performing the behavior?	0 1 2 3	0 1 2 3	0 1 2 3
<b>VI. Other Problems</b>			
26 Are there other problem behaviors that often occur after the behavior is exhibited? If yes, describe: _____	0 1 2 3	0 1 2 3	0 1 2 3
<b>VII Intervention</b>			
27 Does the student typically receive praise or any positive consequence when behavior occurs that you would like to see instead of the problem behavior? If yes, describe: _____	0 1 2 3	0 1 2 3	0 1 2 3



### APPENDIX F – Daily Behavior Report Card

Please indicate the point value corresponding to the degree to which each behavior was displayed: 0= Never (0%) 1= Occasionally (1-20%) 2= some (21-40%) 3= Approximately half(41-60%) 4= Most(61-80%) 5= Majority (81-100%)

Period	Problem Behavior 1						Problem Behavior 2						AEB					
1	0 0%	1 20%	2 40%	3 60%	4 80%	5 81-100%	0 0%	1 20%	2 40%	3 60%	4 80%	5 81-100%	0 0%	1 20%	2 40%	3 60%	4 80%	5 81-100%
2	0 0%	1 20%	2 40%	3 60%	4 80%	5 100%	0 0%	1 20%	2 40%	3 60%	4 80%	5 100%	0 0%	1 20%	2 40%	3 60%	4 80%	5 81-100%
3	0 0%	1 20%	2 40%	3 60%	4 80%	5 100%	0 0%	1 20%	2 40%	3 60%	4 80%	5 100%	0 0%	1 20%	2 40%	3 60%	4 80%	5 81-100%
4	0 0%	1 20%	2 40%	3 60%	4 80%	5 100%	0 0%	1 20%	2 40%	3 60%	4 80%	5 100%	0 0%	1 20%	2 40%	3 60%	4 80%	5 81-100%
5	0 0%	1 20%	2 40%	3 60%	4 80%	5 100%	0 0%	1 1-20%	2 21-40%	3 41-60%	4 61-80%	5 81-100%	0 0%	1 1-20%	2 21-40%	3 41-60%	4 61-80%	5 81-100%

Student Name: \_\_\_\_\_ Date: \_\_\_\_\_

Total Points Earned (Possible \_\_\_): \_\_\_\_\_ Percentage Earned: \_\_\_\_\_ Goal Percentage: \_\_\_\_\_

Morning Sign in: \_\_\_\_\_ Afternoon Sign in: \_\_\_\_\_

If Goal Met, Reward Chosen: \_\_\_\_\_

Student Initials After Reward Received: \_\_\_\_\_

APPENDIX G – CICO Mentor Treatment Integrity Checklist

CICO MENTOR TREATMENT INTEGRITY CHECKLIST

- Student attended morning check in (office)
- Parent initialed the DBRC indicating they had reviewed the previous day's data
- Student attended check out at the end of the school day (office)
- Teachers accurately filled out the DBRC
- CICO staff mentor accurately tallied points
- Student was allowed access to rewards when criterion is met

## APPENDIX H – Teacher Treatment Integrity Checklist

- Teacher 1 accurately filled out the DBRC
- Teacher 2 accurately filled out the DBRC
- Teacher 3 accurately filled out the DBRC
- Teacher 4 accurately filled out the DBRC

## APPENDIX I – CICO Mentor Training Procedural Integrity Checklist

### **Introduction:**

- “Check in/Check out is an easily implemented intervention that provides students with additional structure and feedback on their behavior. In this training, we are going to cover the basics of CICO implementation, and you will have the opportunity to practice the CICO procedures.”

### **Morning Check In:**

- “When the student arrives, you will want to greet them and engage in some conversation to establish a rapport. You might start off saying, for example, ‘Good morning, Jimmy! How are you today?’”
- “You will then ask if the student has materials needed for school, such as a pencil and notebook. So you would say, ‘Jimmy, are you ready for school? Do you have a pencil and notebook?’ If the child is prepared, you should praise them and say something like ‘Good job coming prepared!’”
- “Next you would ask the student if they have their report card from the previous day. Again, you should praise the student for coming prepared.”
- “At this time, you should give the student the new report card for the day.”
- “After giving them the card, review their point goal. You can offer tips on how to meet their goal as well. For example, ‘Jimmy, your point goal for today is 80% or 60 points. Yesterday, you had trouble remaining on-task in first period; so, remember to look at the teacher when she is talking and to complete your assignments.’”

- “You’ll also want to praise the student for attending check in, so you could say ‘You’re starting off great today by remembering to check in, keep up the good work!’”
- “The student should also be encouraged to meet their point goal. Try to provide encouragement with statements such as, ‘Your point goal is 60, and I know you can reach it!’”
- “At this time, check in is over, and the student can report to class. You should then record check in on the CICO Student Record Form. On the Record Form, you should report the date and the student’s name, and then indicate if the student had their materials, turned in the previous day’s report card, and that you reviewed the goals for the day with the student.”
- “Do you have any questions? Let’s practice a typical check in.”
- Have the teacher go through all steps of the CICO procedure, and use the Treatment Integrity Form to determine if all steps are completed.
- Provide feedback on the practice session.

**Teacher CICO:**

- “When the student arrives for class, you will want to collect the behavior report card. If the student forgets to bring it to you, prompt the student for the card. I will provide you with extra cards in case the student loses it during the day. Don’t penalize the student for forgetting to give you the card; but if they lose the card, they must start over, and they do not get any points previously earned.”

- “At the end of the period, use the card to rate the student’s behavior during the class period. Each rating has corresponding descriptors and percentages to aid you in making an accurate estimate of behavior. Please do your best to rate the child’s behavior for the class period immediately preceding your rating.”
- “At this time, you should meet with the student to review the report card. Review the student’s points earned, and provide feedback on their behavior. When providing feedback, try to use positive statements. Even if the student had a bad day, try to think of something they did well. For example, ‘Jimmy, you earned 2 points for “Be Responsible,” you had some trouble staying on task today, but I loved how you remained in your seat raised your hand to ask questions!’”
- “After reviewing the report card, check in is complete. You simply return the card to the student and send them off to their next class.”
- “Do you have any questions? Let’s practice a typical check in.”
- Have the teacher go through all steps of the CICO procedure, and use the Treatment Integrity Form to determine if all steps are completed.
- Provide feedback on the practice session.

**Check Out:**

- When the student arrives at check out, collect the report card and provide praise for appropriate behavior. Even if the student had a bad day, they probably earned some points. Provide praise for anything they did well. For example, ‘Great job staying in seat during 3<sup>rd</sup> period, Jimmy!’”

- “If the student seemed to have trouble in a particular area, provide constructive feedback. Again, try to phrase feedback in a positive manner. For example, ‘Jimmy, you seemed to have trouble completing your assignments today. Tomorrow, do your best to stay on-task and finish your work. You can do it!’”
- “Next, you are going to calculate the percentage of points the child earned that day. Add up all points earned, divide by the total points possible, and multiply by 100. The total number of points earned should be written at the bottom of the report card, as should the percentage of points earned.”
- “Based on the point goal for the day, use the percentage of points earned to determine if the goal is met. For example, the total points possible will be 75. If a student earns 60 points, 60 divided by 75 is .8, times 100 is 80%. If the point goal for the day is 80%, the goal has been met.”
- “If the student reaches the point goal, allow him or her to choose a reward from the reward menu. I will provide you with the rewards.”
- “Make a copy of the behavior report card for the child to bring home for parent signature, and file the original. Remind the student to get the report card signed prior to releasing them from check out.”
- “At this time the student is finished checking out, and you may allow them to leave. Record on the Student Record form that you filed the original copy of the report card, and also record the percentage of points earned.”
- “Do you have any questions? Let’s practice a typical check out.”

- Have the teacher go through all steps of the CICO procedure, and use the Treatment Integrity Form to determine if all steps are completed.
- Provide feedback on the practice session.



# APPENDIX J – Usage Rating Profile, Intervention Revised



## URP Intervention-

**Directions:** Consider the described intervention when answering the following statements. Circle the number that best reflects your agreement with the statement, using the scale provided below.

	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
1. This intervention is an effective choice for addressing a variety of problems.	1	2	3	4	5	6
2. I would need additional resources to carry out this intervention.	1	2	3	4	5	6
3. I would be able to allocate my time to implement this intervention.	1	2	3	4	5	6
4. I understand how to use this intervention.	1	2	3	4	5	6
5. A positive home-school relationship is needed to implement this intervention.	1	2	3	4	5	6
6. I am knowledgeable about the intervention procedures.	1	2	3	4	5	6
7. The intervention is a fair way to handle the child's behavior problem.	1	2	3	4	5	6
8. The total time required to implement the intervention procedures would be manageable.	1	2	3	4	5	6
9. I would not be interested in implementing this intervention.	1	2	3	4	5	6
10. My administrator would be supportive of my use of this intervention.	1	2	3	4	5	6
11. I would have positive attitudes about implementing this intervention.	1	2	3	4	5	6
12. This intervention is a good way to handle the child's behavior problem.	1	2	3	4	5	6
13. Preparation of materials needed for this intervention would be minimal.	1	2	3	4	5	6

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	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
14. Use of this intervention would be consistent with the mission of my school.	1	2	3	4	5	6
15. Parental collaboration is required in order to use this intervention.	1	2	3	4	5	6
16. Implementation of this intervention is well matched to what is expected in my job.	1	2	3	4	5	6
17. Material resources needed for this intervention are reasonable.	1	2	3	4	5	6
18. I would implement this intervention with a good deal of enthusiasm.	1	2	3	4	5	6
19. This intervention is too complex to carry out accurately.	1	2	3	4	5	6
20. These intervention procedures are consistent with the way things are done in my system.	1	2	3	4	5	6
21. This intervention would not be disruptive to other students.	1	2	3	4	5	6
22. I would be committed to carrying out this intervention.	1	2	3	4	5	6
23. The intervention procedures easily fit in with my current practices.	1	2	3	4	5	6
24. I would need consultative support to implement this intervention.	1	2	3	4	5	6
25. I understand the procedures of this intervention.	1	2	3	4	5	6
26. My work environment is conducive to implementation of an intervention like this one.	1	2	3	4	5	6
27. The amount of time required for record keeping would be reasonable.	1	2	3	4	5	6
28. Regular home-school communication is needed to implement intervention procedures.	1	2	3	4	5	6
29. I would require additional professional development in order to implement this intervention.	1	2	3	4	5	6

APPENDIX K – Child Intervention Rating Profile

Children’s Intervention Rating Profile (Witt & Elliot, 1985)

Teacher ID:	Student ID:	Date:			
<p>We are interested in learning your ideas about Check-in Check-out. Below are some sentences. You may or may not agree with the sentences. For each one, please circle the number that describes how much you agree or disagree with the statement. Using the following guide:</p> <p>5 = I disagree very much          4 = I sort of disagree          3 = I don't agree or disagree          2 = I sort of agree          1 = I agree very much</p>					
	I agree very much	I sort of agree	I don't agree or disagree	I sort of disagree	I disagree very much
1. The things used to deal with the problem were fair.	1	2	3	4	5
2. The teacher/parent were too hard (mean).	1	2	3	4	5
3. The things used to deal with the problem might cause problems with my friends.	1	2	3	4	5
4. There are better ways to handle this problem.	1	2	3	4	5
5. The things used would be good for other children.	1	2	3	4	5
6. I like the things used to handle this problem.	1	2	3	4	5
7. The things used for this problem would help other children do better in school.	1	2	3	4	5

APPENDIX L – Modified CICO Treatment Integrity Checklist

- Student attended morning check in (1<sup>st</sup> period)
- Teachers fill out DBRC electronically
- Student attended check out at the end of the school day (last period)
- Teachers accurately tallied points from
- Student was allowed access to rewards when criterion is met (last period teacher)

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