

EFFECTS OF CHECK-IN/CHECK-OUT (CICO) PROCEDURES
ON SPECIAL EDUCATION STUDENTS

A Thesis

by

KELLY DYAN BERGMAN

Submitted to the Office of Graduate Studies
Texas A&M University
in partial fulfillment of the requirements for the degree of

MASTER OF SCIENCE

August 2009

Major Subject: Educational Psychology

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Approved by:

Co-Chairs of Committee,	Mack Burke
	Lisa Bowman-Perrott
Committee Member,	Emily Davidson
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ABSTRACT

Effects of Check-In/Check-Out (CICO) Procedures
on Special Education Students. (August 2009)

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Co-Chairs of Advisory Committee: Dr. Mack Burke
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Several research studies have been conducted on the effectiveness of check-in/check-out (CICO) procedures in behavior education programs (BEPs). However, little research has been conducted on implementing CICO procedures specifically for special education students. This study examined the effects of CICO procedures on six junior high students receiving special education services. Baseline data of targeted behaviors were collected during the first two weeks of the third six weeks grading period. The participants were receiving special education services due to a previous Admission, Review, and Dismissal (ARD) committee decision. CICO procedures are part of a secondary level behavior support system typically found in the BEP. The CICO procedures include a morning check-in, teacher feedback on a daily behavior report card (DBRC), an afternoon check-out, and weekly parent notification of student performance. A token economy system and behavior team meetings are two components also involved in implementing the CICO procedures. Intervention data were collected during implementation of the CICO procedures during the remaining three weeks of the third six weeks grading period. The intervention was not

implemented the last week of the grading period due to final exams. The CICO procedures had high social validity ratings. Reliability, limitations and implications for future research on the current study are discussed.

DEDICATION

To my mother, father, and Elaine

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1. INTRODUCTION: THE IMPORTANCE OF RESEARCH

The majority of studies on Positive Behavior Support (PBS) models have previously focused on primary and secondary level interventions for general education or at-risk students. However, little research has been conducted on secondary level interventions that provide support for problem behaviors among special education students. This is particularly true for junior high students with emotional disorders (ED) or learning disabilities (LD). Hawken, MacLeod, and Rawlings (2007) found that students who are unresponsive to school-wide behavioral interventions are more likely to develop more severe, problematic behavior due to poor peer and adult relationships, low academic performance, and stressful living arrangements. All of these factors have the potential to negatively influence a student's behavior in the educational and community setting.

More and more schools across America are faced with ever growing and serious challenges in the educational world. McCurdy, Kunsch, and Reibstein (2007) identify low socioeconomic status, drug or sexual abuse, deterioration of the home environment, non-highly qualified teachers, lack of school resources and an increasing number of students with severe behavior problems as current challenges of our educational system.

This thesis follows the style of *Journal of Positive Behavior Interventions*.

Students living under these conditions create a challenge for teachers and administrative staff. Hieneman, Dunlap, and Kincaid (2005) found that disorderly and harmful behaviors could result in a child developing depression or other serious mental health concerns.

Research has shown that the use of punishment based and reactionary discipline procedures (e.g., suspension) are not as effective as they once were. Some studies have shown that “punishment-oriented approaches to classroom control and school discipline remain ineffective and are often counterproductive” (Sugai & Horner, 2008, p. 68). Some of the consequences of reactionary discipline procedures include elevated levels of antisocial behavior, increased tension among student and adult, and lower academic performance. As more problematic and severe behaviors occur within a school, administrators have begun to implement the use of metal detectors, random drug tests and locker searches, and school uniforms. The reactionary responses “have emotional appeal and political support, but have not been shown to be effective in improving discipline or safety in our schools” (Elliot, Hamburg, & Williams, 1998, p.315).

It is clear that past and current educational practices have involved punishment and control as school-wide management techniques. Educators and researchers are encouraging schools to move away from using punishment based and reactionary measures to reduce or prevent problem behavior. Researchers argue that there needs to be a shift in how the educational system provides academic and socially responsible behaviors in the instructional setting. Researchers argue that it would be most beneficial to students, teachers, and school administrators to remove the reactionary measures and

replace them with prevention based methods and appropriate behavioral interventions. Gottfresson (1997) found that punishment based discipline measures have proven to be one of the three least successful approaches to dealing with problem behaviors. Additionally, he found that the most efficient interventions to use with addressing behavioral concerns include teaching social skills, modifying the curriculum, and implementing behavior based interventions.

In order to address the increasing number of students with behavior problems, our educational systems must adopt a comprehensive approach to academic and behavioral support. Researchers address the importance of needing to “prevent behavior problems through proactive instruction rather than reactive remediation of discipline problems after they develop” (Sugai, Horner & Gresham, 2002, p. 319). Many schools are turning towards PBS models to address the growing need of providing educational support to students with behavior problems. PBS is viewed as an effective alternative to using reactionary disciplinary measures. PBS can be defined as an “assessment based approach for supporting students with behavior problems that provides an empirically validated set of strategies for preventing problems and promoting prosocial behavior” (Hieneman, et al., p. 780). The three PBS levels of support are primary, secondary, and tertiary. This study focuses on the secondary level of behavior support. The secondary level of behavior support targets students who are unresponsive to school-wide prevention methods and students who engage in problematic, but non-severe behaviors. One type of secondary level intervention is the Check-In/Check-Out (CICO) procedures. Secondary level interventions can be described as interventions to prevent “at-risk

students from developing more serious and chronic patterns of antisocial behavior” (McCurdy et al., p. 12). The purpose of utilizing the secondary level of behavior support is to help prevent students from engaging in more severe antisocial or problematic behaviors.

CICO procedures have been successfully implemented in schools throughout the U.S. Many schools are turning to this particular secondary level of PBS model to address the needs of the students who are unresponsive to school-wide efforts. March and Horner (2002) found the CICO method to be effective in reducing the amount of office discipline referrals among junior high students. Others have found the CICO program to be successful as well. Fairbanks, Sugai, Guardino, and Lathrop (2005) successfully implemented the CICO procedures on a group of elementary students. They found that the targeted behaviors were decreased throughout the implementation of the CICO program. The CICO program is “blended with function-based, individual interventions as a low cost, positive, and efficient intervention that was most effective for students whose disruptive classroom behavior was maintained by adult/or peer attention” (Filter, McKenna, Benedict, Horner, Todd, & Watson, 2007, p.70). One study showed that the CICO program also has high validity ratings among teachers who have participated in the intervention. Todd, Kauffman, Mayer, and Horner (2005) presented a study in which the teachers found the CICO procedures easy to implement in their classrooms and would also encourage other teachers and schools to use the CICO procedures.

Based on the presented research, the CICO procedures of the secondary level of behavior support can be viewed as an effective intervention method to prevent more

severe, problematic behaviors from occurring among students who are unresponsive to school-wide prevention efforts.

1.1 Behavior Education Program

The Behavior Education Program (BEP) is a secondary level of PBS that is implemented in schools to prevent students from developing serious or severe problematic behaviors. Students who participate in the BEP have typically been unresponsive to school-wide prevention efforts and demonstrate nonviolent or nonaggressive behaviors. Hawken (2006) describes the BEP as a proactive approach to prevent students from engaging in behaviors that will result in in-school suspension, off campus suspension, or detention. Crone, Horner, and Hawken (2004) describe the BEP's core principals as providing concise limits and expectations, increased positive reinforcement, positive adult/child interaction within the school, opportunities to improve classroom behavior performance, and building a school and parent partnership. The main component of the BEP that will be implemented in this study's intervention procedures is the CICO procedures.

1.2 Check-In/Check-Out Procedures

Several studies have been conducted on the secondary level of PBS models. One specific type of secondary level intervention that will be used in this study are the CICO procedures. CICO procedures are a component of the BEP which is a secondary level of behavioral support for students with problematic behaviors. CICO procedures target students who have been unresponsive to school-wide or primary level interventions. Hawken et al. (2007) stated that the purpose of CICO procedures is to prevent students

from engaging in severe and problematic behaviors. Additionally, they focus on increasing prompts for desirable and appropriate behaviors, increasing adult feedback, enhancing the student's daily structure, and providing feedback at the end of each school day.

Hawken et al. used CICO procedures with a group of elementary students which resulted in an overall decrease in office discipline referrals (ODRs). Todd, Campbell, Meyer, and Horner (2008) used them with four elementary students who were displaying problematic behaviors. The intervention proved successful by decreasing the amount of problem behaviors in the classroom and reducing the number of ODRs. Filter et al. (2007) implemented CICO procedures across three elementary schools for reducing problem behaviors. The program was found to be effective and efficient when combined with supplementary intervention methods. CICO procedures have been implemented in schools for several years, and many of the published studies have supported the effectiveness and feasibility of the program.

CICO procedures encompass four main components including: (1) daily checking-in and checking-out, (2) daily monitoring and teacher feedback on daily behavior report cards (DBRCs), (3) a token economy as a reward system, and (4) behavior team meetings. Since minimal research has been conducted on CICO procedures with special education students, this study will address questions regarding its effectiveness with junior high-age students with ED and LD.

The first step in implementing CICO procedures involves the student checking-in with the research facilitator at the beginning of each day. The research facilitator gives

the student a DBRC (see Appendix A) that the student must carry to his or her classes and get the teacher to fill out at the end of each period. The goals on the DBRC will accurately reflect the goals and objectives on his or her BIP and IEP. The teacher will indicate a 0 for not meeting expectations, 1 for somewhat meeting expectations, and 2 for meeting expectations. The student will check-out with the research facilitator at the end of each day, and his or her points will be calculated. If the students meet their daily goal of at least 70%, they will receive positive praise and a reward for the day. If they did not meet their daily goal, the research facilitator provides feedback on what strategies and behaviors need to be focused on for the following day. Some CICO procedures require the DBRC to be sent home, signed by the parent, and then returned to the program facilitator the next day. Parent signature and return of the DBRC was not a requirement of this study. For this particular research project, the only requirement was that the student DBRCs be sent home at the end of each week the intervention was implemented.

1.3 Daily Monitoring and Daily Behavior Report Cards

Some studies have documented the success of DBRCs. However, the majority have focused on monitoring the effects of attention-deficit/hyperactivity disorder medication on children rather than monitoring problematic behaviors. Chafouleas, Riley-Tillman, and Sassu (2006) found the key benefit of DBRCs is the flexibility of addressing the specific behavioral or academic needs of a student or instructional setting. DBRCs have been used in interventions for a variety of purposes and environments. This particular monitoring procedure has been used to collect data on increasing homework

completion, decreasing outbursts and other distracting behaviors, noncompliance, on and off task behaviors, and monitor other classroom behaviors. Chafouleas, Riley-Tillman, Sassu, LaFrance and Patwa (2007) suggest that they are effective intervention tools and can be practical in encouraging positive student behavior. Previous research findings explain that DBRCs can be utilized as an alternative means to estimate and measure behavior. However, it is important to note that they do not suggest replacing direct observations with DBRCs. Chafouleas, McDougal, Riley-Tillman, Panahon, and Hilt (2005) propose using them along with additional assessment tools such as direct observation to document and measure behavior. With most DBRC procedures, the classroom teacher has the role of rating the behaviors on an appropriate, prearranged scale. Riley-Tillman, Chafouleas, and Briesch (2007) suggest that DBRCs be utilized within a precise time and location, a fixed measurement of frequency, and calculated in a reliable manner.

1.4 Token Economy

Token economy systems have been used as a reinforcement component in behavior modification programs. Behavior modification programs customarily utilize a wide array of resources to reinforce and promote students to manage and change their own behavior. Token economies have been implemented from the preschool to the collegiate level for a variety of purposes. Research has been conducted on utilizing token economies to reduce problematic behaviors among preschoolers, increase on-task behaviors with emotionally and behaviorally challenged students, and to increase active participation in a freshman level college class. Reitman, Murphy, Hupp, and

O'Callaghan (2004) found that token economies are highly successful for enhancing academic achievement and social skills, facilitating positive outcomes by supporting appropriate behaviors, and allowing the opportunity for students to more fully participate in the educational environment. The CICO token economy system is based on the student's successful mastery of the targeted behaviors on his or her DBRC. The weekly goal of target behaviors is 70-100% mastery. The student's percentage of mastery is determined by using the monitoring forms and calculated manually by the research facilitator at the end of each day and week. The student has his or her choice of reward if he or she meets his/her daily and/or weekly goal of 70% or above. Some of the rewards include stickers, magnets, pens, pencils, stuffed animals, miniature cars, and other motivating items that the researcher facilitator chooses as rewards.

Boniecki and Moore (2003) found that a token economy system was successful at increasing active participation among college freshman enrolled in a psychology course. The students earned tokens for actively participating and could exchange them at the end of the class for extra bonus points on their final exam. The results revealed that directed and non-directed participation increased during the token economy implementation, and the students reacted more quickly to answer questions when compared to the baseline data collected. Musser, Bray, Kehle, and Jenson (2001) found that using a token economy system as part of a multi-component intervention was successful in reducing the levels of disruptive behaviors among adolescent children. This study is comparable to the BEP program in that the BEP program uses the token economy along with other systems of support. Musser et al. (2001) discussed the

importance of token economies being more successful when combined with other reinforcement measures. Thus, token economies are not as effective when used as the primary means of intervention, but appear more suitable when used with other interventions.

1.5 Behavior Team Meetings

Behavior team meetings were conducted for 30-45 minutes four times throughout the study. The first behavior team meeting took place before the baseline data collection period. The remaining three meetings were conducted after each week of the CICO intervention. The behavior team consisted of the participating resource/fundamental teachers and the research facilitator. The BEP team followed a researcher developed agenda (see Appendix B). The behavior team would discuss student performance, any additional behavioral concerns, and teacher comments, questions, and/or concerns. All four parties were present for each meeting.

1.6 Purpose of Study and Research Questions

The purpose of this study is to examine the effects of CICO procedures on preventing problem behaviors from occurring among junior high students receiving special education services. Very few research studies have been conducted on the benefits of implementing CICO procedures with special education students who have an ED or LD at the secondary level. Thus, this study sought to fill in the gaps of existing research between a secondary level targeted intervention and junior high special education students.

The primary research questions was whether the CICO procedures would result in (a) students arriving to class on time and being prepared with all required materials, (b) completing and turning in classroom and homework assignments on time, (c) listening attentively and refraining from talking out during classroom instruction. These three behaviors were represented by a total score on a DBRC.

2. METHOD

2.1 Participants

Six junior high students participated in the current study. Of the six participants, five were boys and one was a girl. Only one male participant came from an ethnic minority background. All of these six students qualified for special education services by meeting eligibility criteria in a learning disability (LD), emotional disturbance (ED), or both. Three of the participants were in the 6th grade, two were in the 7th grade, and one was in the 8th grade. All participants qualified for and were receiving free or reduced lunch. One participant also qualified for English as a Second or Other Language (ESOL) support. All participating students were in the special education resource classroom for reading, English and math, and were mainstreamed into co-teach classes for science and social studies. All six students had in place content specific, resource classroom Individual Education Plans (IEPs) for reading, English and math. All participants had co-teach IEPs for science and social studies. Four of the participants were receiving special education support for a Speech Impairment (SI) as a secondary or tertiary disability.

Student 1 was an 11 year old, Caucasian male in the 6th grade receiving instruction in the resource setting for reading, English and math. He was in a co-teach setting for science and social studies. He qualified for special education services as a student with ED and LD. His LD affects his academic achievement in math, reading and written language. His ED affected his behavior in the area of compliance. Student 1 had IEPs for reading, English, math, science and social studies. He was also on a Behavior

Education Plan (BIP) and receiving academic and behavioral accommodations in the resource and general education setting. According to teacher surveys, the student was having difficulty complying with teacher directives, not completing classroom work, and was frequently interrupting the instructional setting.

Student 2 was an 11 year old, African American male in the 6th grade. He received special education services due to his eligibility for LD, Other Health Impairment (OHI) and SI. His disabilities impacted his involvement and progress in math, reading, written language, fluency, language development, and social interactions. IEPs for behavior, math, reading, English, science and social studies were being implemented during the duration of the study. He was in a resource setting for reading, English and math and in a co-teach setting for science and social studies. The student received academic and behavioral accommodations in the resource and general education setting throughout the study. He also received speech services for 180 minutes per a six weeks grading period. His behavioral goals included reducing off task behaviors, increasing on task behaviors, reducing bullying type behaviors, and eliminating verbal outbursts in the classroom.

Student 3 was a 12 year old, African American male in the 7th grade. He qualified for special education services as a student with LD. His disabilities affected his involvement in the areas of math, reading, written language, attention and compliance. Throughout the study, the student had IEPs for reading, English, math, science and social studies. A psychological consult by the school's Licensed Specialist in School Psychology (LSSP) was being conducted during the intervention. The student was

recommended for psychological testing by one of his resource teachers prior to the implementation of the study's intervention. His problematic behaviors included noncompliance with teacher directives and verbal outbursts in the instructional setting.

Student 4 was an 11 year old, African American female in the 7th grade. She received special education services due to her eligibility criteria in the areas of LD and SI. Her disabilities were affecting her progress in math, reading, written language, and language development. She had IEPs for reading, English, math, science and social studies. She was not successful in the resource or general education setting and was considered at risk for developing more serious and problematic behaviors. She received 180 minutes of speech services per a six weeks grading period.

Student 5 was a 14 year old, Hispanic 8th grader that received ESOL support in addition to special education services. He qualified for special education services as a student with LD and SI. His ESOL documentation stated he was an English Language Learner (ELL) and his dominant language was Spanish. He was performing at an intermediate level according to his ESOL documentation. His LD and SI impacted his educational need in math, written language, and language development. His teachers indicated on the Skill Assessment Survey that he would benefit from additional support in arriving to class on time, completing his instructional assignments, and coming to class with the appropriate materials. Student 4 had IEPs in the areas of reading, English, math, science and social studies. He was also receiving 180 minutes of speech therapy per a six weeks grading period.

Student 6 was an 11 year old, African American 6th grader that qualified for special education services as a student with LD, ED, and SI. His disabilities affected his development in math, reading, written language, attention and compliance. Throughout the intervention, the student was on a BIP as well as IEPs for math, reading, English, science and social studies. The student's problematic behaviors included disrupting instruction with verbal comments, not completing classroom or homework assignments, and not appropriately participating in the instructional setting. The student was not being academically or behaviorally successful in the resource or general education setting with special education support and accommodations.

All of the six participants engaged in similar behaviors, including coming to class late; not having the appropriate supplies; failing to complete classroom work or homework; making inappropriate comments; not participating in classroom activities; and talking without permission or during instruction. None of the students who participated in the study engaged in behaviors such as physical aggression, damaging of school property, or self-injurious behavior.

2.2 Setting

The study was conducted in an urban junior high school in southeast Texas. The school had 1,099 students in 6th through 8th grade. The junior high did not have in place any school-wide positive behavior support (PBS) programs. The only PBS model in place was a tertiary model called the Positive Approach to Student Success (PASS) program. PASS is a component of the special education support program, but it is specifically targeted for ED students with physically aggressive and destructive

behaviors. None of the participants were receiving PASS support during the study.

Based on teacher feedback from the researcher developed Skill Assessment Survey (see Appendix C), the setting for the CICO intervention was conducted in all of the participants' reading, English, and math resource classes.

2.3 Procedures

The participants of this study were chosen based on their eligibility for special education services. Students were selected for participation in the study if they: (a) received at least two office discipline referrals and (b) were selected by teachers on the researcher developed Skill Assessment Survey to receive additional behavior support. The participants' teachers, co-teachers, and para-educators were asked to complete a researcher developed Skill Assessment Survey identifying problem behaviors. The selected students also had to demonstrate problematic, but non-severe behaviors more than one class period a day. Based on the results of the survey and the participants' current IEP goals and objectives, all six of the students were deemed as appropriate candidates for this specific study. Before any data collection occurred, a parent consent form was signed by each parent or guardian of the participating students (see Appendix D). After parent permission was granted, the research facilitator began to collect baseline data in the participants' reading, English and math resource classrooms. Baseline data were collected on a baseline data collection form (See Appendix E) for the first 2 weeks of the 3rd 6 weeks grading period. Students were not receiving researcher feedback on targeted behaviors during the baseline data collection phase. The researcher only provided student feedback during the intervention phase.

2.4 Intervention

After parent and student permission were obtained for each participant, the CICO procedures were implemented for the remaining 3 weeks of the 3rd 6 weeks grading period. Procedures consisted of four components including morning check-in with research facilitator, student receiving teacher feedback on DBRC, afternoon check-out with research facilitator, and parent notification of weekly student performance. Students were first required to check-in with a special education teacher before first period. The students received a DBRC with targeted behaviors from his or her IEP at this time. The students would carry the DBRC throughout the day and receive feedback from their reading, English and math teachers. The students were then asked to review and state their behavioral goals for the day.

The second component of the CICO procedures requires the students to receive feedback for their behavior on the DBRCs for their reading, English and math classes. The teachers will rate the students' behaviors on the DBRCs as 0 for not meeting expectations, 1 for somewhat meeting expectations, and 2 for meeting expectations. The third component occurs when the students check-out with a special education teacher at the end of the day. The students turn in their DBRCs and the percentage of points is calculated. The students received positive praise and a reward if they met their daily goal of 70%. Examples of rewards were stickers, magnets, pens, pencils, stuffed animals, folders, miniature cars, candy, and hair ties. If the student did not achieve his or her daily goal, the special education teacher would provide helpful information on what the student will need to focus on for the next day. At the end of each week during

intervention, copies of the DBRCs would be made and then sent home for parent notification of their child's weekly performance. The fourth and last step of the CICO procedures involves the student taking the DBRC home to provide parents of weekly student performance.

Student data were calculated and summarized every day of the intervention. The special education teacher would meet with every participant at the end of each week to discuss student progress with the CICO procedures. Students were considered successfully meeting expectations of the CICO procedures if they received 70% or more of their possible points each day.

2.5 Experimental Design

An A-B design with replication across single subjects was used to study the effects of CICO procedures on student punctuality and preparedness, work completion, and attentiveness and participation during classroom instruction and activities. The same CICO intervention was implemented with the same students in the same instructional setting. A-B designs are direct and provide a "straightforward accounting of the results in a before-and-after fashion that is usually sufficient for self-evaluation" (Cooper, Heron, & Heward, 2006, p. 608). This particular design is satisfactory in evaluating the effects of the majority of self-management studies. The A phase, or baseline, was collected for the first 2 weeks of the 3rd 6 weeks grading period. The B phase, or intervention, was implemented and data was collected for the next 3 weeks of the 3rd 6 weeks grading period after phase A. The study did not return to phase A or baseline due to final exams the last week of the grading period.

2.6 Dependent Measures and Data Analysis

Three primary behaviors were measured in this study and summarized as a total score. The variables that were recorded on the DBRCs were student punctuality and readiness, work completion, and listening attentively during classroom instruction without talking out. The resource teachers would also indicate on the DBRC whether a student came to class prepared, if they completed and turned in their work on time, and whether or not they listened attentively during classroom instruction. The DBRCs were then turned in to the research facilitator at the end of each day during check-out. Daily student performance was documented on the DBRC by the resource teachers. Students received a score of zero for losing their DBRC, days spent in in-school suspension and for being absent. The zeros for these days were not graphed. Baseline and intervention data were then calculated and analyzed. Effect size was calculated by using NCSS.

2.7 Social Validity

Social validity was measured using the researcher developed pre-intervention and post-intervention acceptability questionnaires (see Appendix F & Appendix G). The questions were asked to assess teacher perceptions of improving problem behavior in the classroom, including increasing the number of times a student comes to class on time and prepared; turns in his or her classroom and homework completed and on time; listens to instruction without talking out; and raises his or her hand when needing to make a comment or ask a question.

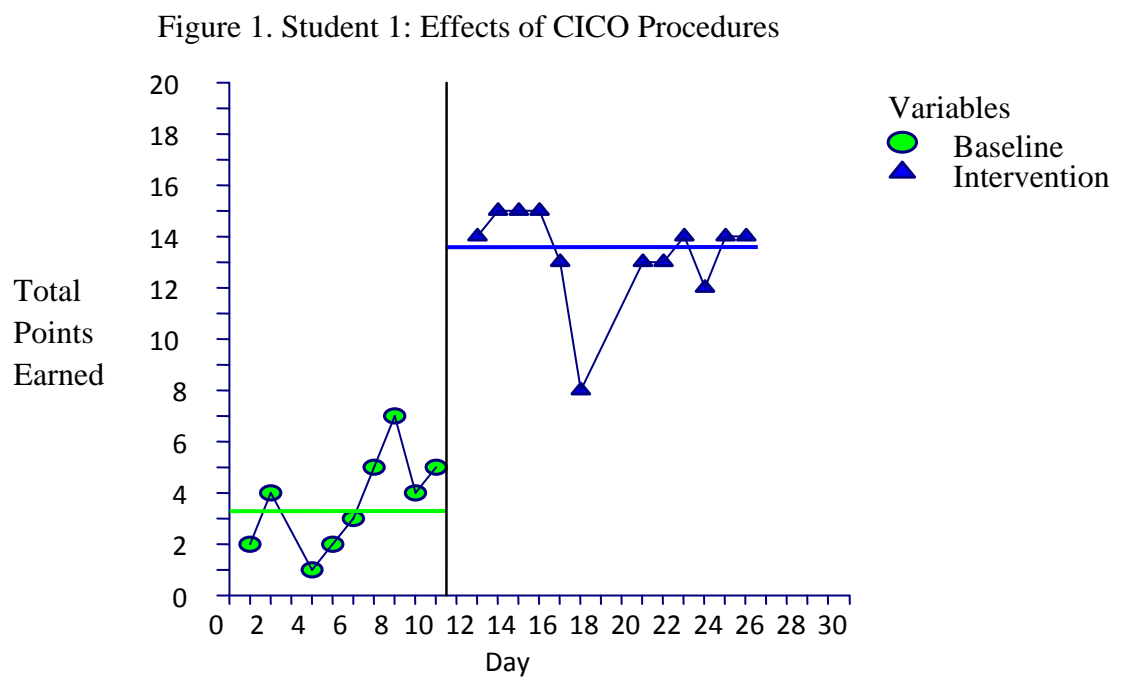
2.8 Procedural Changes

Throughout the implementation process, there were procedural changes that needed to be taken into consideration. The first procedural change resulted when one of the resource teachers was absent. The research facilitator would consult with the substitute teacher about the baseline data collection procedures and/or intervention implementation procedures on the days that the resource teachers were absent. The second procedural change occurred when the participants would lose or misplace their DBRC. New forms would have to be copied on the days that the student lost his or her copy. Then, time allowing, the student would have to go back to his or her resource teachers at the end of the day, as opposed to the end of a class period. The students would then ask their resource teachers to complete the form based on his or her performance that day. Lastly, procedural changes needing to be considered for future research would be to extend the length of the intervention to an entire semester, include more participants that are at risk for developing more serious behaviors, and implement the CICO procedures in all of the participant's classes throughout the entire school day.

3. RESULTS

The purpose of this study was to examine the effects of CICO procedures on preventing problem behaviors from occurring among junior high students receiving special education services. Few research studies have been conducted on the benefits of implementing CICO procedures with special education students who have ED, LD, or both. This study sought to fill in the gaps of existing research between a secondary level targeted intervention and junior high special education students.

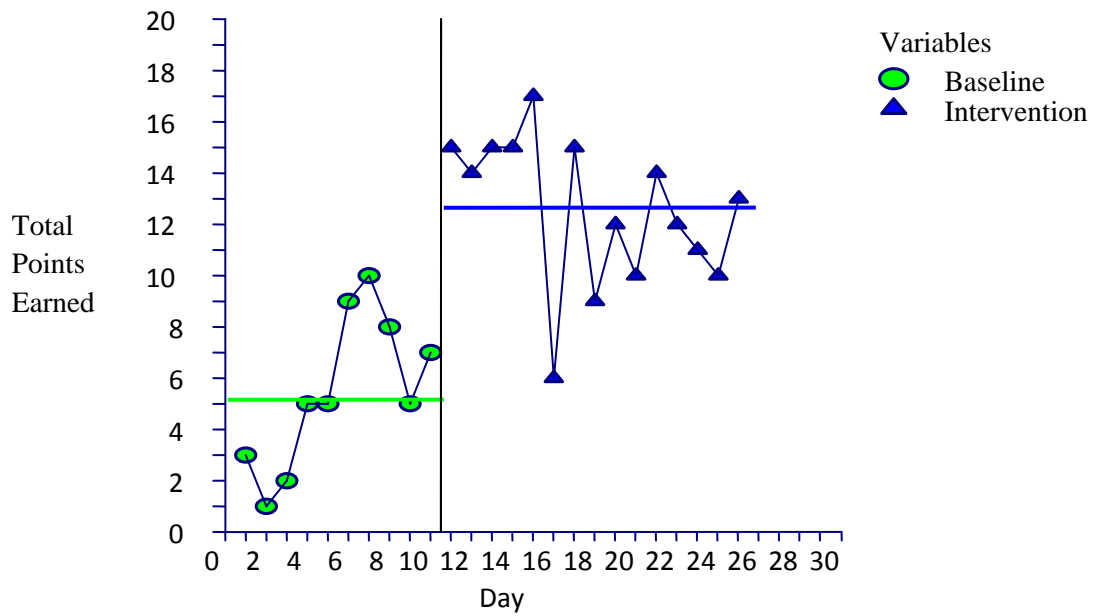
Visual analysis of student 1 shows that the student did make progress on the targeted behaviors throughout the intervention period (see Figure 1). Student 1 demonstrated an effect size of .379 or 38% between baseline and intervention.



Student 1 earned an average of 3.8 total points during the two weeks of baseline. Throughout the three weeks of intervention, student 1 earned a mean of 13.6 of total points. The daily goal of each student was to earn at least 70% of the total possible behavior points for each day. Student 1 met his daily goal 10 out of the 15 days of intervention. The effect size for student 1 was .54 or 54%.

Another student who responded positively to the intervention was student 2 (see Figure 2). Student 2 earned a mean of 5.6 daily points which was 32% of the possible points available during baseline. However, his behaviors improved throughout the intervention by averaging 13.4 daily points which was 70% of the possible earned points for phase B. The effect size for student 2 was .43 or 43% between the baseline and intervention period. Additionally, the client met his daily goal of earning 70% of the possible points 8 out of the 15 days of intervention.

Figure 2. Student 2: Effects of CICO Procedures



Student 3 showed an effect size of .53 or 53% between baseline and intervention and only met his daily goal of earning 70% of the total possible points 4 of the 15 days of the intervention (see Figure 3). Student 3 earned a mean of 3.9 total points during baseline, and earned a mean of 13.4 total points during intervention.

Figure 3. Student 3: Effects of CICO Procedures

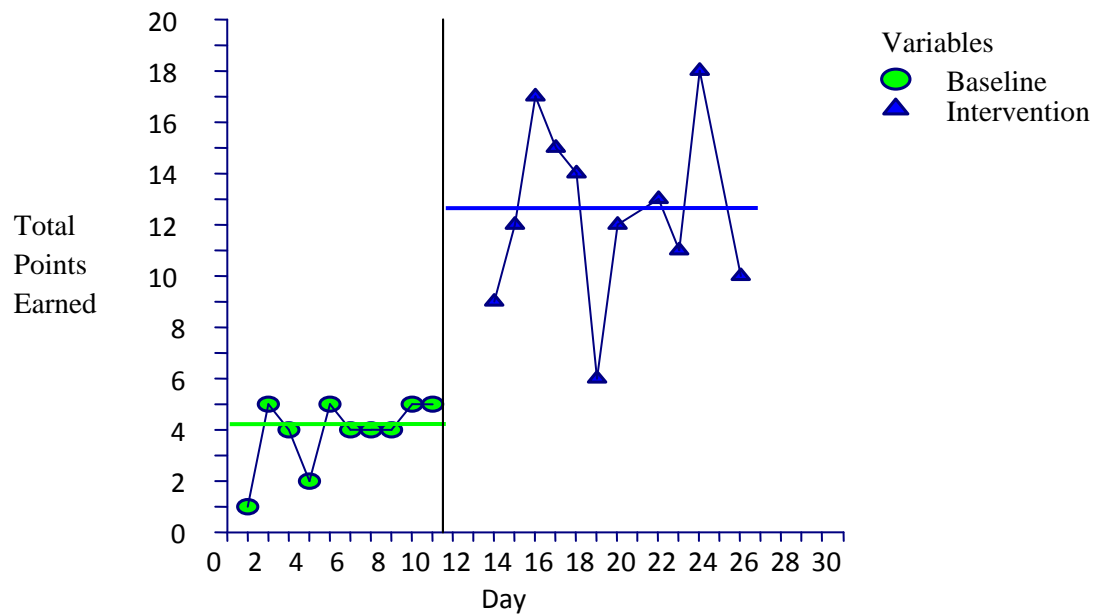
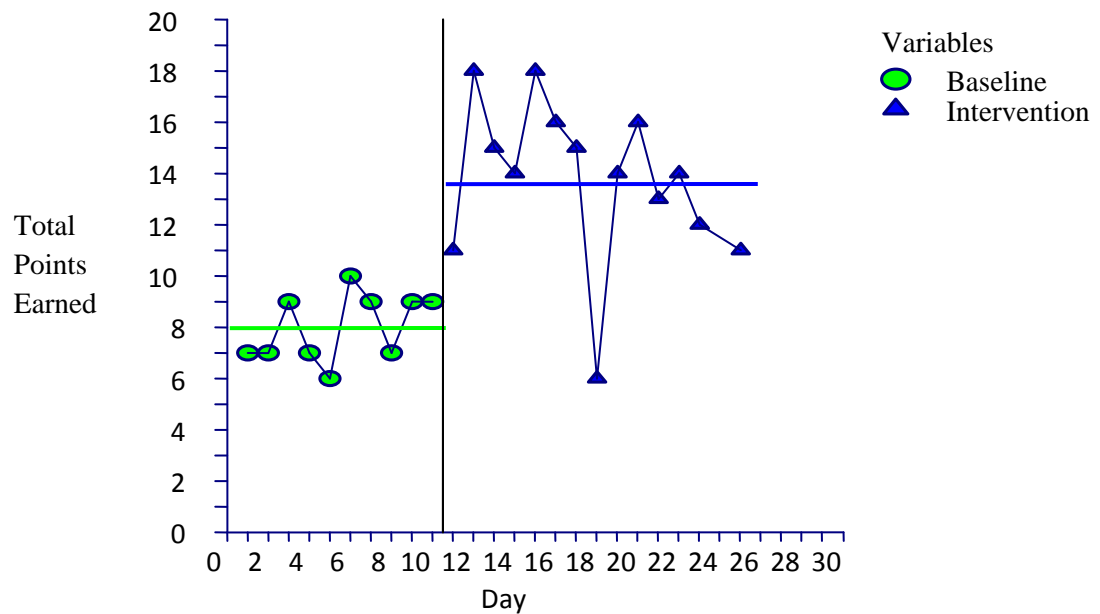


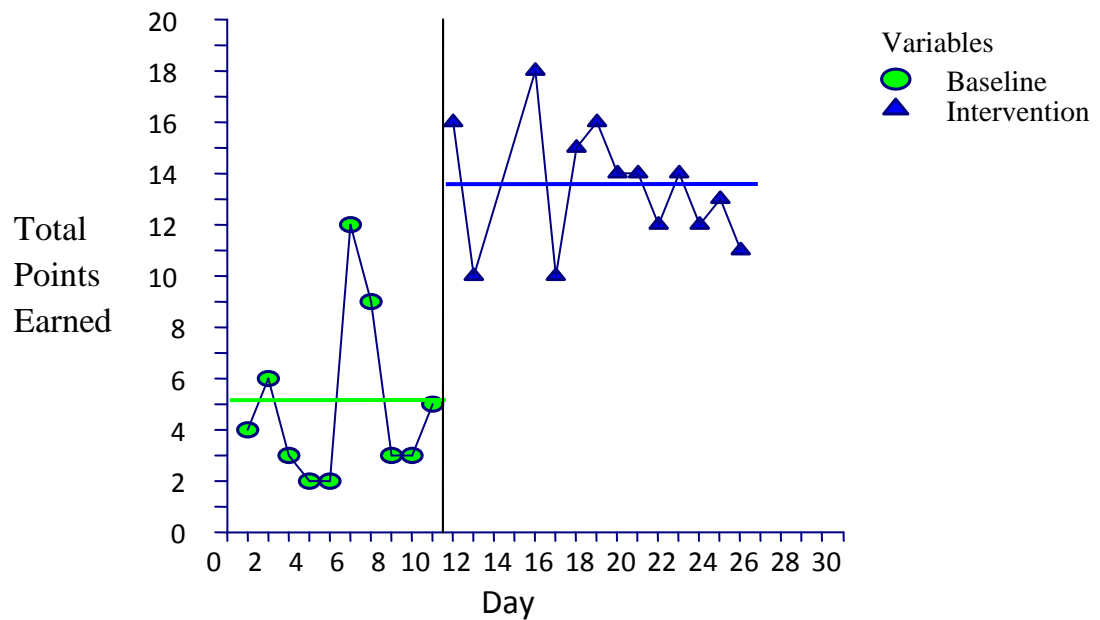
Figure 4 indicates an effect size of .34 or 34% of student 4 between the baseline and intervention phases. The student earned a mean of 8.9 points during baseline. Throughout intervention, student 4 earned a mean of 15.1 total points. During baseline, she met her daily goal of earning 70% of the total available points 0 out of the 10 days. However, throughout intervention, student 4 met her daily goal 6 of the 15 days. There is a noticeable intercept gap for student 4 between baseline and intervention.

Figure 4. Student 4: Effects of CICO Procedures



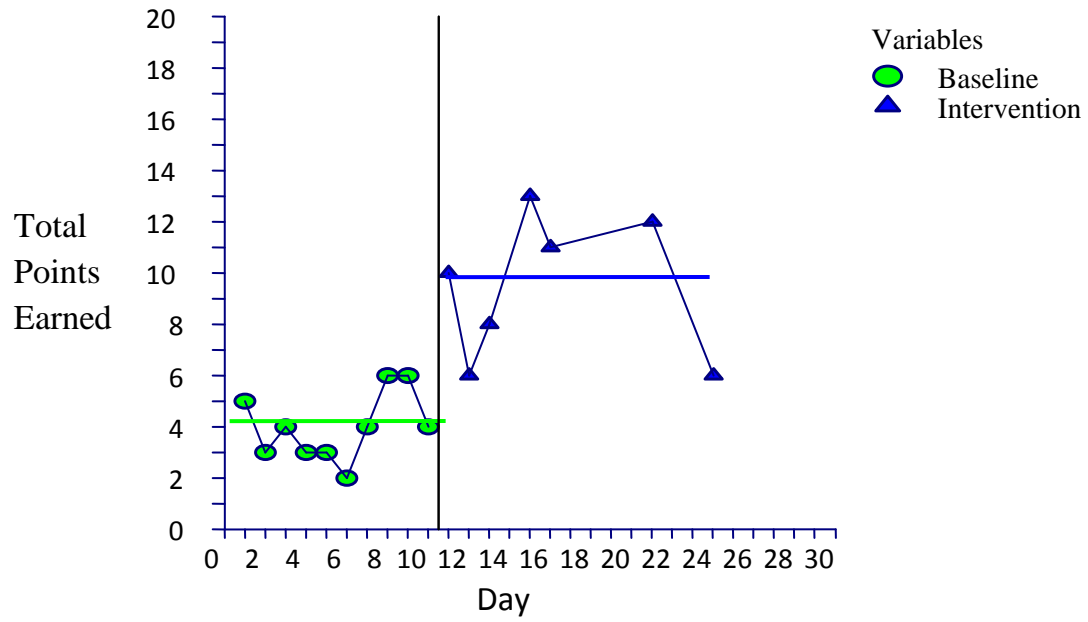
The student 5 also made progress between baseline and intervention was (see Figure 5). Throughout the baseline period, he averaged 5.0 total daily points. During the intervention period, he earned a mean of 13.2 daily behavior points. Overall, the student displayed an effect size of .46 or 46% between baseline and intervention data. Student 5 met his daily goal of 70% of possible earned points 8 out of the 15 days of the intervention.

Figure 5. Student 5: Effects of CICO Procedures



Student 6 demonstrated an overall growth of .32 or 32% between Phase A and Phase B (see Figure 6). Student 6 had a mean of 4.0 points during baseline, and had a mean of 9.7 points throughout intervention. He only met his daily goal of earning 70% of the total possible points one day out of the 15 days of intervention. Student 6 was assigned ISS for three days during the intervention and lost his DBRC on four separate days. The student received no score for the days he lost his DBRC or was assigned to in-school suspension.

Figure 6. Student 6: Effects of CICO Procedures



4. DISCUSSION AND SUMMARY

Based on the data presented for the 6 participants, the results indicate that the CICO procedures were effective for all of the students in reducing the targeted problem behaviors. The CICO procedures appear to be a resourceful method of intervention for special education students with LD, ED, or both. However, it is important to note that this study and other previous research (Hawken 2006) indicates that not all students participating in secondary level behavior interventions were successful. The study was conducted at the end of the first semester, which was directly before the students were to leave for winter break. Results may have been improved if the intervention was implemented at another time throughout the school year.

In reviewing the data in Figure 2 and Figure 6, it is obvious that some of the behaviors did not improve as much when compared with the other participants. Student 2 and student 6 had low baseline results, and the clients did not make a significant amount of improvement during the intervention phase. Student 6 was absent for one day during the intervention and received no score for that day. However, it is important to mention that 3 out of the 15 intervention days were spent in in-school suspension. Additionally, the client did not turn in his DBRC four out of the fifteen days of intervention. This student may not have been as responsive to the CICO program as the other participants due to needing a more intense and individualized intervention. Another suggestion for why this student did not perform as well as his peers was due to the possibility that this particular client did not find positive adult reinforcement motivating for him to improve his problem behaviors. Furthermore, it is questionable as

to how the student would have responded if he would have been present and not lost his DBRC for all the days throughout the intervention.

Based on the presented data of the current study, the intervention should be maintained for four of the six participants. Hawken et al. (2007) suggest that more intense and individualized interventions need to be put into practice for students who are unresponsive to a secondary level of behavior of support. The students who demonstrated the most success with the CICO program should continue the program to maintain problem behaviors in their resource classrooms. Additionally, the CICO program could be effective with other students with similar characteristics of those that participated in the current study. One benefit of the CICO program is that “a relatively large number of students can be addressed simultaneously” (McKurdy et al. 2007, p. 17). Other LD or ED students who display problematic, but non-severe behaviors could easily be impacted by the CICO program. The CICO program could possibly serve as the continuum of behavior support that would help prevent more critical or serious behaviors from occurring (Hawken 2006).

The measurement system used in the current study was found by the resource teachers and research facilitator to be appropriate in measuring the targeted behaviors or dependent measures. The direct observation method used in the current study contributed to the overall feasibility of the data collection process. The CICO measurement allows for modifications or variations to be made according to the behavioral need or needs of each particular student.

It must be noted that the results of the CICO procedures impact the student, teacher, parents and the LSSP. The CICO program impacts the student by promoting academic success, reducing a negative school climate, and reducing a lack of attachment to previous academic failure. These factors correlate with parent perceptions about what productive changes are being made in the lives of their child's academic career. The CICO procedures help to build a supportive and collaborative environment among teachers and parents. Additionally, teachers and the LSSP continue to promote and foster positive adult interaction and feedback throughout the CICO program.

4.1 Limitations and Future Research

Limitations of the current study include no reliability check being conducted, length and duration of the intervention, and the restricted number of students who participated in the CICO program. A reliability check was not conducted by the research facilitator or another special education support staff member. Scheduling conflicts and time constraints of the special education staff prevented the appropriate personnel from conducting a reliability check throughout the intervention period. The lack of a reliability check being conducted should be taken into account when reviewing student performance, but should not have an adverse effect on the reader's interpretation of the results. The results should not be dismissed due to this limitation, but should rather be reviewed with caution since there was not a second observer in the classroom. However, it must be noted that fidelity of implementation procedures and reliability was discussed during each of the behavior team meetings.

The results could have been further validated with a continuation of the intervention. If the intervention was continued for a longer period of time, cumulative reports would indicate more sufficient and descriptive data. Lastly, the study limited the number of participants due to the special education eligibility criteria. In future research, more students with LD and ED could be included in the CICO program, as well as those students that are considered at risk for developing more serious and problematic behaviors.

The CICO procedures appear to be an effective method of intervening among students with LD and ED who have problematic, but non-serious behaviors. Five of the six participants responded with positive results to the CICO intervention. One participant was recommended for additional behavioral support due to the lack of responsiveness with the CICO procedures. The current study of implementing a secondary level of behavior support proved to be successful in reducing problematic behaviors among students with LD and ED.

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APPENDIX A

Daily Behavior Report Card – Junior High School

Name: _____ Date: _____

Total points earned: _____ Daily Goal: _____ Goal achieved: YES NO

Teachers: Please indicate the student's behavior based on the following:

2 – Exceeded Expectations

1 – Somewhat Met Expectations

0 – Did Not Meet Expectations

GOALS	Math			Reading			English		
	Period 5 10:45 – 11:30			Period 8 1:00 – 1:45			Period 9 1:50 – 2:35		
1. Be prepared and in your seat when the bell rings	2	1	0	2	1	0	2	1	0
2. Complete and turn in all classroom and homework assignments on time	2	1	0	2	1	0	2	1	0
3. No talking without permission; raise hand when needing to speak	2	1	0	2	1	0	2	1	0
Total Points									

Teacher comments:

APPENDIX B

BEP Team Meeting Agenda

Date: _____

Members Present:

CICO Students:

1. Positive News
2. Student Performance
3. Behavioral Concerns
4. Fidelity/Reliability Check
5. Teacher Feedback

Notes: _____

APPENDIX C

Skill Assessment Survey

Created by Kelly D. Bergman

Student Name: _____

Please rank each skill using the following scale:

1 – Never or rarely

2 – Sometimes

3 – Often

Educational Skills

- ___ 1. Listens attentively during classroom instruction
- ___ 2. Appropriately participates in classroom activities
- ___ 3. Asks questions or requests clarification
- ___ 4. Can read and comprehend grade level materials
- ___ 5. Gives accurate responses to questions asked

Self-Regulation/Self-Management Skills

- ___ 1. Arrives to class on time
- ___ 2. Displays adequate organization of materials/supplies
- ___ 3. Completes and turns in classroom and homework assignments on time
- ___ 4. Use appropriate social skills to participate in small group activities
- ___ 5. Shows no inappropriate verbal aggression
- ___ 6. Talks out without raising his/her hand

Comments: _____

APPENDIX D

Parent Letter of Consent

I, Kelly Bergman, am a graduate student at Texas A & M University (TAMU) in the EPSY 691 Field Based Research course under the direction of Dr. Mack Burke. This semester I will be collecting observational data on three to six students who have specific behaviors that are important to change. This data collection is of the type typically done in the classroom and may be already in place.

I would like to request permission to use this data to target behavior for improvement in working with _____ this semester.

This data will be confidential and neither the student's name nor any identifying information will be used at any time.

Benefits to you and your child are expected to include improved behavior and there are no known risks or costs. You will be provided with a copy of the results so that you may see the degree of improvement over the semester.

By signing this document, you consent to allow your child, _____, to participate in this project.

Signature _____ Date _____

If you have questions or need more information you may contact me at kellybergman@neo.tamu.edu or Dr. Mack Burke at mburke@tamu.edu.

APPENDIX E

Baseline Data Collection Form – Junior High School

Name: _____ Week of: _____

Total points earned for the week : _____

Teachers: Please indicate the student's behavior based on the following:

- 2 – Exceeded Expectations
- 1 – Somewhat Met Expectations
- 0 – Did Not Meet Expectations

Fundamentals of Math

	Monday	Tuesday	Wednesday	Thursday	Friday
1. Be in your seat when the bell rings ready to begin class	2 1 0	2 1 0	2 1 0	2 1 0	2 1 0
2. Complete and turn in all classroom and homework assignments on time	2 1 0	2 1 0	2 1 0	2 1 0	2 1 0
3. No talking without permission; raise hand when needing to ask a question or make a comment	2 1 0	2 1 0	2 1 0	2 1 0	2 1 0
Total Points					

APPENDIX F

Pre-Intervention Questionnaire

The purpose of this questionnaire is to gain information that will contribute to the implementation of a classroom intervention. Please circle the number which best reflects your agreement or disagreement of each statement.

Social Validity Form A**Pre-Intervention Acceptability Questionnaire**

	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree
1. CICO procedures target important behaviors	5	4	3	2	1
2. CICO procedures can be easily implemented in my classroom	5	4	3	2	2
3. I intend on implementing the designed CICO procedures in my classroom	5	4	3	2	1
4. CICO procedures are likely to improve the targeted behaviors	5	4	3	2	1
5. The CICO intervention is likely to help students achieve their behavior goals	5	4	3	2	1

APPENDIX G

Post-Intervention Questionnaire

The purpose of this questionnaire is to gain information about the implementation of a classroom intervention. Please circle the number which best reflects your agreement or disagreement of each statement.

Social Validity Form B**Post-Intervention Acceptability Questionnaire**

	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree
1. The CICO procedures targeted important behaviors	5	4	3	2	1
2. The CICO procedures were easily implemented in my classroom	5	4	3	2	2
3. I implemented the designed CICO procedures in my classroom	5	4	3	2	1
4. The CICO procedures improved the targeted behaviors	5	4	3	2	1
5. The CICO intervention helped students achieve their behavior goals	5	4	3	2	1

VITA

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