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Evaluating Check-In Check-Out With Peer Tutors for Children With Attention Maintained Problem Behaviors

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School Wide Positive Behavior Support provides schools with three tiers of support to address both academic and behavior challenges. The purpose of this study was to evaluate the use of peer tutors with three elementary students when applied to a Tier 2 intervention known as Check-In Check-Out (CICO). Peer tutors performed the morning check-in with the tutees by setting the expectations for the day and giving the tutees their Daily Progress Report (DPR) form. Throughout the day, the tutees took the DPR form to each class where they received a score from the teacher. At the end of the class period, the peer tutors provided the tutees with feedback on the scores received on the DPR form. Once the school day finished, the peer tutees checked-out with the tutors and received a reward if they met their percentage goal. The results of this study showed that CICO implemented by peers improved classroom behavior for all three participants.

KEYWORDS Check-In Check-Out, daily progress report, peer tutoring, tier 2 intervention

School Wide Positive Behavior Support (SWPBS) is an educational framework being utilized in schools nationwide to address academic and behavior problems in the school system. This approach employs three tiers of support, which emphasizes creating and teaching school wide expectations, providing clear consequences for appropriate and problem behaviors, and making data driven decisions (Sugai & Horner, 2006).

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The Tier 1 (or universal) interventions in SWPBS have proven to be effective for 80–85% of the students, with the remaining 15–20% requiring more intense and targeted help. Interventions targeted for that population fall under the second tier of SWPBS. Although countless research studies have outlined the importance of pinpointing the function of problem behaviors before designing intervention plans (e.g., Carr, 1977; Carr, Newsom, & Binkoff, 1980; Iwata, Dorsey, Slifer, Bauman, & Richman, 1994), the goal of SWPBS Tier 2 interventions is to help a group of students within 72 hr of being selected for the program; therefore, it may not be feasible to conduct a functional behavior assessment before implementing the intervention (March & Horner, 2002). A Tier 2 intervention is cost effective, requires no more than 10 min at a time, and is immediately accessible to any student that needs it (McIntosh, Campbell, Carter, & Dickey, 2009).

A common Tier 2 intervention, Check-In Check-Out (CICO), requires that students check-in in the morning with the designated coordinator where they receive the Daily Progress Report (DPR) card and are asked to demonstrate their readiness for the school day. The DPR or points card includes the number of opportunities the students have that day to receive feedback and earn points contingent on engaging in appropriate behaviors. Throughout the day, the students' teachers award them points for the behaviors they engaged in. These points are then recorded in the DPR card that includes a 3-point scoring criterion—0 (did not meet expectations), 1 (somewhat met expectations), or 2 (met expectations)—to mark the students' progress on the DPR. At the end of the school day, the student meets once again with the CICO coordinator for the check-out session where together they evaluate the feedback provided to the student (Campbell & Anderson, 2011).

Because teachers have been the ones responsible for implementing CICO in collaboration with the coordinator, several studies have analyzed its social validity and whether this intervention is only effective with maximum participation from the researchers. According to Fairbanks, Sugai, Guardino, and Lathrop (2007), teachers considered CICO to be easy to carry out and implemented it on their own with high fidelity. Filter et al. (2007) evaluated the treatment integrity of a CICO program implemented by school personnel with the natural supports provided by the school district instead of the researchers. Results suggested that when the CICO program was in effect, there was a decrease in office referrals for most participants, and not only did school personnel perceive the program as effective, they also implemented it with high fidelity on their own.

Simonsen, Myers, and Briere (2011) compared the effects of CICO to regular instruction on problem behavior. Results suggested that students who received the CICO intervention engaged in much less problem behavior and reported more academic gains than did those receiving regular instruction. Hawken, MacLeod, and Rawlings (2007) also found a decrease in office discipline referrals and an increase in class participation with 11

regular education students and one special education student at an elementary school. Similar results were attained by Todd, Campbell, Meyer, and Horner (2008) and March and Horner (2002). A limitation noted in these studies has been the difference in effectiveness of CICO with some students. Fairbanks et al. (2007) indicated that after the implementation of CICO problem behaviors decreased for all the students; however, only students who engaged in attention maintained problem behaviors reached criterion levels. Another study by McIntosh et al. (2009) achieved similar results, which suggests that although all children benefitted from the intervention, those children whose behaviors were maintained by attention achieved greater gains.

Because Tier 2 interventions are required to operate on minimal resources but at the same time be fast, easy, and effective it is important to identify ways to achieve this. Peer tutoring has been used as a way to make intervention more efficient and accessible (Tarasenko, Miltenberger, Brower-Breitwleser, & Bosch, 2010). Peer tutoring has been used in preschool (e.g., Tabacek, McLaughlin, & Howard, 1994), elementary (e.g., Nelson, Johnson, & Marchand-Martella, 1996), and middle school (e.g., Allsopp, 1997) settings. Peer tutoring can take place with more knowledgeable students teaching other students in the same grade level (heterogeneous groups), students teaching others who possess similar skills (homogeneous groups), older students teaching younger students (cross-age groups), and students classified with a disability providing tutoring to other students who may or may not have a disability (reverse-role) (Utley, Mortweet, & Greenwood, 1997).

Mastropieri et al. (2001) compared traditional instructional techniques to peer tutoring for teaching reading comprehension to middle school students diagnosed with intellectual and learning disabilities. The results of this study showed that students in the peer tutoring conditions scored higher than students in the "business as usual"/regular education group on a posttest designed to evaluate reading comprehension. Students also suggested that peer tutoring had been an enjoyable activity; however, they had a difficult time providing corrective feedback to their partners. These results are consistent with a literature review of peer tutoring by Stenhoff and Lignugaris/ Kraft (2007), which suggested that for peer tutoring to be effective, it is important for peer tutors to be trained to provide feedback, correct errors made by the peers, and monitor progress. Other studies have shown that the academic, social (Franca & Kerr, 1990) and behavioral (DuPaul, Ervin, Hook, & McGoey, 1998) benefits from peer tutoring are not only exhibited by the tutees but also by the peer tutors (e.g., Dineen, Clark, & Risley, 1977). Peer tutoring has been used to teach math (Allsopp, 1997; Tsuei, 2012), vocabulary (Hogan & Prater, 1993), social studies (e.g., Mastropieri, Scruggs, Spencer, & Fontana, 2003), social communication (e.g., Thiemann & Goldstein, 2004), social skills (e.g., Laushey & Heflin, 2000), and safety skills (e.g., Jostad, Miltenberger, Kelso, & Knudson, 2008).

According to the results of the peer tutoring literature, peer tutoring is a beneficial method of providing academic instruction to typically developing children and children with disabilities. It is also reported that peer tutoring helps students achieve greater scores academically, engage in more on task behaviors, and engage in appropriate social interactions while being a method that is preferred by teachers (Mastropieri et al., 2001). While it is clear that peer tutoring has been effective in improving academic and social behaviors for children with and without disabilities, limited information is available about whether peer tutoring can efficiently and effectively be used for children who are not responsive to the system wide, Tier 1 intervention. Including peers in the CICO process may be a beneficial addition to this widely used Tier 2 intervention because it may decrease the number of school staff necessary to implement CICO and therefore further decrease the resources required for its implementation. Using peers as intervention agents may be a practical, time-efficient way to implement the CICO intervention. Therefore, the purpose of this study was to evaluate the implementation of CICO with peer tutors in an elementary school currently labeled as a Positive Behavior Support (PBS) school but not implementing Tier 1 PBS with fidelity.

METHOD

Participants and Settings

The study took place at an inner city high-poverty elementary school in south Florida in which 90% or more of its student population received free or reduced-price lunch. The school had been considered as a school implementing School Wide Positive Behavior Support by the school district; however, due to a lack of leadership team functioning and commitment and high teacher turnover rates, the school was struggling with establishing Tier 1 process and procedures. The participants for this study were five, fourth-grade students ages 8-10. Two of the students participated as the peer tutors and the other three (A.W, C.C, and X.J) participated as the tutees. All participants were placed in a fourth-grade classroom the entire day. All students received classes in the same classroom; however, two students were part of the morning group and the other three students were part of the afternoon group. None of the target students had disabilities; however, a reading aid assisted A.W during his afternoon reading class. At the time the study took place, classroom rules had been developed by the teacher, but according to direct observations, these rules were not frequently reviewed with the students. Typically, if students engaged in problem behaviors in the classroom, the teacher scolded them and asked them to stop. If this was not effective, the behavior specialist or administrator was called to either speak with the student or remove the student from the classroom. The tutees were referred by the teacher to this study for engaging in problem behaviors—including disrespect, fighting, and inappropriate behaviors as labeled by the teacher.

Students were selected by the teacher using the Teacher Nomination Form provided to them. The Teacher Nomination Form required the teacher to list students who engaged in problem behaviors in the classroom and identify if they engaged in internalizing or externalizing behaviors—definitions for both internalizing and externalizing behaviors were included in the form. The inclusion criteria for tutees were having attention-maintained problem behaviors of concern, being fully oral, and being able to follow instructions. Peer tutors were students who engaged in the appropriate behaviors outlined for the classroom, had all the same classes as the tutees, and were able to provide other students with instructions and feedback.

Once students were nominated to participate in this study, a functional behavior assessment was completed to determine if their problem behaviors met the criteria for participation in this study. A daily points goal was established in which the student must earn at least 80% of the total possible points in one day to receive the reward at the end of the day.

Functional Behavior Assessment

Once students were nominated by the teachers as having problem behaviors of concern a functional behavior assessment was conducted. This process involved interviews and direct observations of the child in the classroom. Interviews lasted between 20–30 min and consisted of a meeting with the teacher in which the students' problem behaviors were identified and described. The teacher was also asked to provide examples of when the student typically engaged in these behaviors, the consequences of the problem behaviors, any setting events they were aware of that increased the probability that a student would engage in problem behaviors (not receiving teacher attention for a while), and times of days in which problem behaviors were more likely to occur.

Once the interview was completed and the information suggested a teacher attention function for the problem behavior, direct observations occurred in which a trained researcher inconspicuously collected ABC data on the student's problem behaviors. Direct observations took place in the classroom during 3–5 days at varying times of the day. An ABC recording chart was used for every observation. In the chart, the researcher recorded antecedent events that occurred prior to the problem behaviors, a detailed description of the student's behaviors, and any teacher responses that followed the problem behavior. Recording took place until a discernible pattern emerged in the data with teacher attention being recorded as the predominant consequence of the behavior (suggesting an attention function). Only those students who had interview and observation results suggesting attention-maintained behaviors of concern were asked to participate in this study.

Data Collection and Interobserver Agreement

Data for the evaluation of CICO were collected in one of the students' current classrooms. Because students switched classrooms in the middle of the day and only one of the students' teachers chose to participate, data were collected for only half of the day in one specific classroom. The student's day with the participating teacher was divided into the naturally occurring time intervals provided for the class and data were collected on the percentage of points received on the Daily Progress Report (DPR) form (see Appendix A). The target behaviors outlined in the DPR form were derived from the classroom rules developed by the teacher. These behaviors were: using nice and appropriate words, using hand signals, listening to the teacher before asking questions, and remaining quiet with body and words.

Interobserver agreement (IOA) on the score received in the DPR form was collected at least 33% of all the days. An independent observer (the primary researcher) was present during one of the class periods and used a DPR form identical to the one being used by the teacher to score the interval. Because the progress report card provided four opportunities for scoring (four appropriate behaviors the students had the opportunity to engage in during each interval), IOA was measured by calculating the percentage of agreement in the interval. This was done by dividing the number of appropriate behaviors both the teacher and the observer scored the same by the total number of appropriate behaviors possible. IOA was calculated by adding the percentages for all the sessions in which IOA was collected and dividing it by the total number of sessions for all the participants. IOA for this study was 84.2%. Mean IOA for A.W was 75% with a range of 25–100%. The mean percentage was 87.5% for C.C with a range of 75–100%, and 90% for X.J with a range of 75–100%.

Design

A multiple baseline design across participants was used to evaluate the outcome of treatment in this study. Following baseline, the CICO with peer tutors procedure was implemented in a staggered fashion across all the students. An embedded ABC design was used to evaluate if DPR scores maintained following the fading plan (further explained below) for two of the students.

Procedure

Once the participants were referred for inclusion in the study, the functional behavior assessment began. Students whose problem behaviors were maintained by attention were assessed in baseline and then moved to the CICO Peer phase. Once students met the criteria for termination of this phase, the fading plan was started.

BASELINE

During baseline, the teacher was provided with the DPR forms and told to score each target student in every class period. No feedback was provided to the student by the teacher or peer tutors.

CHECK-IN CHECK-OUT—PEER

Peer tutors were trained to implement the CICO program using a behavioral skills training approach. Throughout three, 20-25 min sessions, the tutors met with the researcher who gave them specific instructions on how to implement the program, modeled how to do so, asked the tutors to rehearse and provided corrective feedback. A treatment fidelity checklist (Appendix B) was used to ensure the tutors engaged in all the required behaviors. During the CICO program the peer tutor and tutee arrived at the school prior to the start of the first period class. Both students met in a designated area in the classroom where the peer tutor provided the tutee with a DPR form that was divided into the student's class periods. One of the peer tutors worked with a single tutee, and the other peer tutors worked with two tutees. The tutees were expected to carry this form with them throughout the entire time they were in class with the participating teacher. During this initial check-in, the students were asked to demonstrate that they were ready to begin the day by showing the tutors their notebooks and pencils/pens. The tutees were also asked to turn in the previous day's DPR form signed by the parents and were given praise for doing so. If a student did not bring the signed form, the tutor reminded him to do so the next day. The tutees were also asked to identify specific goals and appropriate behaviors to engage in during the day and were provided with feedback by the tutors.

At the beginning of each period, the peer tutors reminded the tutees of the classroom rules for that day. Classroom rules were broken down into appropriate behaviors for all the students. Because all three participants were in the same teacher's classroom in the morning or in the afternoon, the teacher selected the same appropriate behaviors for all of them to work on based on her classroom rules. A.W met with this teacher for the afternoon session and both C.C and X.J were in the teacher's morning session. At the end of the class period, the teacher scored each student on all four appropriate behaviors he was expected to engaging in, awarding him with a "0" if he did not meet the classroom expectations, "1" if he somewhat met the expectation, and "2" if the he met the class expectations. At the end of the class period, the teacher met briefly with the tutee and provided him with

feedback on the scores he received. The peer tutor was also present during this interaction. If a student received a score of "0," the teacher let the tutee know which behaviors he engaged in that were inappropriate and encouraged him to do better during the next class period. If the tutee received a "1," the teacher provided praise for appropriate behaviors and followed the same protocol listed above for inappropriate behaviors; and if the tutee received a "2," the teacher provided praise and encouraged the continuation of appropriate behaviors throughout the school day. Following this session, the peer tutor briefly encouraged the tutee to follow the expectations for the next class period.

During the teacher prompting procedure, the researcher came in the classroom each time the class periods ended and prompted the teacher to meet with the student and award him the points. Once the teacher was observed engaging in this behavior on her own, prompting was terminated. Because data suggested that A.W was still not meeting the points goal following the modification, a visual aid was used. The visual aid included the days of the weeks and the number of points received after each day, which the student could keep in his desk to remind him of how many points he received each day. He was told that he would earn a more preferred reinforcer at the end of the week if he met his points each day. Once this change didn't prove to be effective, all modifications were removed and the intervention continued as descried above.

At the end of the day, both the tutors and the tutees met once again in a designated place where the total daily points were calculated for the tutees. The daily points were then traded for tangible items such as candy, toys, or restaurant coupons. To earn these rewards, the tutees needed to earn the number of points agreed on at the initial meeting. If the students did not meet their daily points the peer tutor identified specific behaviors to work on the following school day. The tutors also gave the tutees their daily points card, which they were asked to bring back the next day with parental signature. The percentage on the DPR form was analyzed daily to examine student progress. Students were deemed as making progress if they received 80% of their daily points total for five consecutive days.

FADING PLAN

Once students received at least 80% of their daily points for five consecutive days, a fading plan was started. The fading plan consisted of daily meetings with the peer tutors in the mornings and afternoons. The teacher scored the DPR form at the end of the day, right before the check-out time, but no longer held the feedback meetings following each class period. The tutees were still required to receive at least 80% of their daily points to receive a reward at the end of the day.

Treatment Fidelity

Treatment fidelity data were collected once each week to ensure correct implementation by the peer tutors. A checklist with specific steps (Appendix B) was used to monitor the peers. Monitoring occurred at least once a week both during the check-in and check-out sessions by directly observing each peer tutor providing the tutees with feedback. If the peer tutor received a score of less than 80% on the fidelity check, he met with the researcher and rehearsed the steps on the checklist. The peer tutor then engaged in role-plays with the researcher on how to provide feedback. Both peer tutors scored 100% in all fidelity assessments for the majority of the sessions. Peer tutor training only occurred once with one of the tutors who scored less than 80% on the check out session as he missed two of the six steps required.

Social Validity

Following the completion of this study, the students and teacher completed a social validity questionnaire (Appendix C). The questionnaire consisted of four questions for the peer tutors and tutees, and six questions for the teachers that helped identify if this procedure was well accepted and likely to be implemented in the future. It also helped identify any aspects of the procedure the students did not like.

RESULTS

Figure 1 shows participants' percentage on DPR forms in baseline, CICO with peer tutors, and the fading phase. During baseline, the percentages on the DPR form were variable for all three participants ranging, from 0-87.5%. The mean baseline score for A.W was 28.6% and his mean CICO score was 72.7%. Although multiple modifications were added to his CICO program he only achieved the goal of 80% or above six times during the intervention and did not meet the goal established for progress or fading. For C.C., baseline was highly variable with a mean of 54.9%. His performance increased to a mean of 85% during CICO. Although he reached 80% or higher during three of 12 baseline sessions, he achieved 80% or above for five consecutive days during CICO and proceeded to fading. While in the fading phase, he attained the 80% goal 12 of 13 days with a mean score of 85.8%. Although there is some overlap between baseline and intervention data, baseline was highly variable while the CICO and fading interventions produced stable data consistently above the 80% criterion. The data for X.J were highly variable during baseline with a mean of 47.0%. During intervention the mean increased to 86.9% with all sessions above the 80% criterion. Once in the fading phase, the performance became highly variable and the mean dropped to 69.8%.

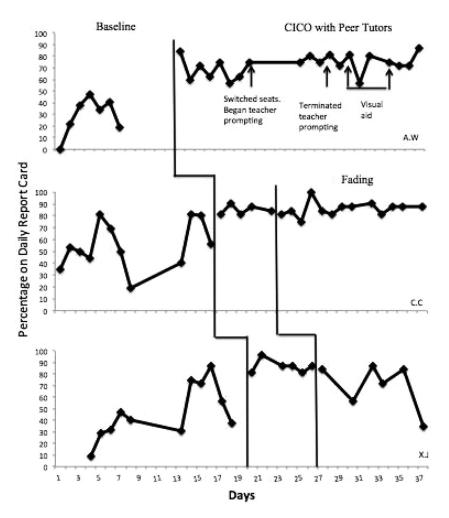


FIGURE 1 Percentages received on Daily Progress Report Cards during baseline and Check-In Check-Out with the peer tutors for three participants and fading for two of the participants.

According to responses provided by the teacher on the social validity questionnaire, the maximum score of 5 was given to the first four questions. The teacher also mentioned she enjoyed seeing how interested her students were in participating in the intervention and receiving rewards at the end of the day. However, she believed the students were dependent on her attention and disliked this aspect of the intervention the most.

Responses by the students varied depending on the questions, but they were similar regardless of their role in the study. All students reported that they enjoyed working with their peer (mean = 4.5 for peer tutors and 4.7 for tutees). When asked if they would do this study again, two participants—a peer tutor and a tutee—gave a 3, meaning neutral, but the rest

of the participants scored this as 4 and 5 (mean = 3.5 for peer tutors and 4.3 for tutees). The tutees mentioned they enjoyed being able to communicate with the teacher and getting a reward when they met their point. One student reported that he did not like the days in which he wasn't able to earn a reward. The tutors wrote they enjoyed working with the peer and being able to give them rewards for meeting their points.

DISCUSSION

As schools continue to implement the tiered systems of support using the Positive Behavior Support (PBS) framework, existing interventions are likely to evolve to decrease cost, response effort, and time required for implementation. The current study examined the effects of peer tutoring on the CICO intervention with fourth-grade students engaging in attention-maintained problem behaviors. The results of this study indicate that all students increased their score on the DPR form following intervention suggesting that peer tutoring may be a viable modification for CICO.

The use of peer tutors in the CICO intervention may be a possible direction in which this intervention could advance, and the results obtained in this preliminary investigation are encouraging. According to responses obtained in the social validity questionnaire, it seems that this procedure was well liked by both the teacher and students resulting in minimal response effort on the part of the teacher. The target students also consistently reported that they liked working with their peer and most students said they would participate in this study again. Results of the present study show a substantial increase in percentage received in the Daily Progress Report form during the CICO with peer tutor phase as indicated by the level change in the data for all three participants from baseline to intervention. The outcome of this intervention for students with attention maintained behaviors is consistent with the existing literature (Fairbanks et al., 2007; McIntosh et al., 2009). This finding contributes to the literature by expanding on the effectiveness of CICO as a commonly used secondary intervention within a three-tiered system. With the addition of peer tutors, this intervention could become more feasible and consume less of the school staff's time. It also allows students to become more involved with the school's system wide application of PBS.

It is also of relevance to explain that this intervention was conducted in the students' classroom by a teacher and two peer tutors in a school not currently implementing School Wide Positive Behavior Support with fidelity or any other stable and effective behavior management program. The use of CICO with peer tutors in the absence of a school-wide behavior management program indicates that only the peer-mediated CICO intervention was responsible for the increase in scores since other interventions were not in place. When traditional CICO was proposed to the school staff, the main concern vocalized by most of the individuals was the time and cost associated with it. It was said that having a staff member working with students in the morning and afternoons would distract from the staff's primary responsibilities, a factor that was addressed in this modification of CICO by having peer tutors complete the morning and afternoon meetings. Also, the cost associated with the intervention was about \$30 in edibles and coupons the school received for free from preferred restaurants, which the students seemed to pick often. It was also observed that, although the teacher had difficulties with treatment fidelity at the beginning of the intervention with A.W, following prompting and fading she implemented the procedure throughout the remainder of the study with very high fidelity. Given all of this information, it can be suggested that this intervention can possibly by used as a stand-alone intervention in schools not currently implementing School Wide Positive Behavior Support.

The results of the study also suggest that the peer-mediated CICO procedure can be used as a resource for schools that are not interested or have difficulty in implementing the entire tiered system of PBS but have a need for effective interventions that are low in cost and response effort, particularly, for high-need schools as in the case for this study setting. The use of peer tutoring holds promise for the application of CICO in high-need public schools with high concentrations of low-income populations, where they lose on average, over one fifth of their faculty each year (Ingersoll, 2001). Considering that turnover occurs most often among the highest achieving teachers (Podgursky, Monroe, & Watson, 2004), which leaves less experienced teachers to replace those teachers who are best equipped to impact implementation of School Wide Positive Behavior Support and student success, utilizing peer tutors may contribute to sustainability of Tier 2 intervention.

However, it is important to consider the role of the peer tutor and the appropriateness of its use. As was the case in the study, although the peer tutor was responsible for setting expectations, providing feedback at the end of the day based on the points awarded by the teacher, and giving the tutees a reward when they met the points, it must be noted that the peer tutors were not responsible for observing their peer's behavior. This distinction must be made because it would be inappropriate for the tutors to observe their peer's behaviors as this would distract from attending during class. The peer tutors also may not be capable of interpreting which behaviors are problematic and which ones are acceptable leading to confusion and lack of objectivity. It is also of significance to continue to explore the nature of the peer tutor in the context of a CICO intervention. Research indicates that both peer tutors and tutees can benefit from an intervention in which peer tutors are involved (e.g., Dineen et al., 1977) highlighting an interesting area for further investigation.

Although results suggest positive outcomes, several limitations should be noted. Although DPRs have been cited in the literature as a key feature of CICO (e.g., Campbell & Anderson, 2011), DPRs are not a direct measure of problem behavior; therefore, the effect of this program on the frequency of problem behaviors exhibited by the students cannot be evaluated. This limitation also applied to sessions in which interobserver agreement was calculated, as independent observers scored occurrence/nonoccurrence of the identified target replacement behaviors listed in the DPR instead of individual problem behaviors. As was the case during this study, researcher involvement was necessary in training peer tutors and prompting teachers due to the lack of implementation of PBS practices or any other effective behavior intervention school wide or in the classroom. Had this intervention taken place within an already existing School Wide Positive Behavior Support being implemented with consistency and fidelity, it is possible that researcher involvement could have been limited to occasional consultation. It is also possible that when implemented in a school utilizing the PBS framework the teacher-prompting phase of this intervention could have been avoided given that the universal PBS encourages frequent positive interactions with students and well as Tier 2 supports, typically in the way of CICO.

The criterion used in this study for demonstrating progress was only 5 days at 80%, an amount of time that can be considered short if using this intervention long term. The robustness of the effects of CICO over longer periods of time can be evaluated in future studies. The overall interobserver agreement for this study was adequate but lower than hoped for, perhaps due to the subjectivity of the scoring system that left much room for variability. Future research should look at developing a more objective scoring regimen for CICO. Also, although results suggest an increase in daily percentages, data were not gathered on specific problem behaviors and so it cannot be concluded that this intervention had an impact on the frequency, intensity, or duration of any particular problem behaviors exhibited by the students in the classroom. This study also took place during half the school day due to the other teachers' reluctance to participate in the study. It would be important to see if replication of these results can be obtained throughout an entire school day.

Another limitation in this study is that the initial goal for A.W may have been too high. Based on the difficulty experienced by A.W, the mean percentages received during baseline should be considered before setting a goal for intervention. In the case of A.W, it is possible that the intervention goal was too high to allow frequent contact with reinforcement. In this case, a changing criterion design with increasing goal levels might have been more beneficial. It is also obvious from the results that the fading program used in this study was not entirely effective. Although positive outcomes can be seen for C.C, this was not the case for X.J. A few speculations can

be made as to why this was so, such as increased absences during this phase interfering with the student's frequent contact with the intervention. It is also possible that the intervention should have been carried out longer for this student before moving on to the fading program. And lastly, another possibility may be that considering the student's primary function for problem behaviors was teacher attention, by removing this portion during fading, the intervention was no longer functionally equivalent and therefore unsuccessful. Although these are all speculations, the lack of success of the fading program is consistent with a study by Campbell and Anderson (2011), in which the complete removal of the teacher feedback session resulted in a decrease in academic engagement and a slight increase in problem behaviors.

Given the results obtained in this study and the response provided by the teacher and students in the social validity questionnaire, it is possible that utilizing peer tutors as the implementers of the CICO intervention may be a good way to decrease time and increase accessibility of this intervention. The use of peer tutors to implement CICO is promising and future studies should provide direct and systematic replications to demonstrate the robustness of the procedure.

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APPENDIX A

No bullying	Shared Reading		Guided Reading		Word Work/ Vocabulary		Pride Time	
- Use nice words and appropriate words	0 1	2	0 1	2	0 1	2	0 :	1 2
Use hand signals	0 1	2	0 1	2	0 1	2	0	1 2
Follow the Golden Rule							+	
- Listen to the teacher before asking questions		2	0 1	2	0 1	2	0	1 2
- Remain quiet with body and words (Be peaceful)	0 1	2	0 1	2	0 1	2	0	1 2
Total								
You need to earn at least 25 points	getar	eward How	many point	s?	Rew	ard? Y/N		

APPENDIX B

Morning Check-In

Behaviors Yes/No

Provide the student with DPR

Ask if he's ready for the day. If materials are needed let teacher know.

Ask student to turn in last night's card

Check card is signed

If signed, provide with praise

If not signed, remind student to bring it signed for the next day

Ask student to identify goals for the day

Score

End of day Check-Out

Behaviors Yes/No

Calculate daily points total

Check the student met the points

If points are met, provide with praise

Allow student to choose reward

If points not met, provide with specific behaviors to work on for the next day Give DPR form to the student and ask to bring it back signed the next day

Score

APPENDIX C

My role in this study was: Peer tutor/Peer tutee

1—I liked w	orking with my	peer.	
Disagree 2	Neutral 3	Agree 4	Strongly Agree 5
2—I wo	uld do this aga	in.	
Disagree 2	Neutral 3	Agree 4	Strongly Agree 5
3—What di	id you like the	most?	
4—Was there a	anything you di	dn't like?	
Teacher S	ocial Validity F	orm	
1—I liked par	ticipating in thi	s study.	
Disagree 2	Neutral 3	Agree 4	Strongly Agree 5
ıdent's behavior in	nproved followi	ng the interve	ention in this study.
Disagree 2	Neutral 3	Agree 4	Strongly Agree 5
3—This interventi	on was easy to	implement.	
Disagree 2	Neutral 3	Agree 4	Strongly Agree 5
ld participate in ar	nother study sin	nilar to this on	ne again.
Disagree 2	Neutral 3	Agree 4	Strongly Agree 5
5—What di	id you like the	most?	
6—What d	id you like the	least?	
	Disagree 2 2—I wo Disagree 2 3—What di 4—Was there a Teacher S 1—I liked pan Disagree 2 Ident's behavior in Disagree 2 3—This interventi Disagree 2 Id participate in ar Disagree 2 5—What di	Disagree Neutral 2	2 3 4 2—I would do this again. Disagree Neutral Agree 2 3 4 3—What did you like the most? 4—Was there anything you didn't like? Teacher Social Validity Form 1—I liked participating in this study. Disagree Neutral Agree 2 3 4 ident's behavior improved following the interverse 2 3 4 3—This intervention was easy to implement. Disagree Neutral Agree 2 3 4 Id participate in another study similar to this or Disagree Neutral Agree