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Using the Class Pass Intervention (CPI) for Children with Disruptive Behavior

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Using the Class Pass Intervention (CPI) for Children with Disruptive Behavior

by

Madison Andreu

A thesis submitted in partial fulfillment of the requirements for the degree of Master of Arts
Applied Behavior Analysis
Department of Child and Family Studies
College of Behavioral and Community Sciences
University of South Florida

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June 16, 2016

Keywords: aversive, academic engagement, positive reinforcement, negative reinforcement

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Dedication

My time spent these past two years, pursuing my degree and conducting this research is dedicated to my family, friends, and foremost - my son. I could not have made it through the challenges that life brought my way without the many people who helped take such great care of my son while I spent countless hours away in class and during my internship, and completing my work. I had such an amazing support system, without which this would have never been possible. To my friends that I haven’t seen as often as I would have liked, thank you for your understanding and love in my absence. To my friends that I made along the way, Bri, Kate, Dom, Kaitlin, Alison, Cristina, Lizzy, and everyone in my cohort, you have no idea how much you kept me motivated to not give up. You are absolutely appreciated. To my parents who always pushed me and never accepted less than great, you are the reason that I strive to be better. And lastly to my son, I did this for you just as much as I did this for me.

I am beyond thankful, I am but a person made up of even more remarkable people.
Acknowledgements

I would like to say a special thank-you to my advisor, Dr. Kwang-Sun Cho Blair. She has played a pivotal part in not only my research but also my education. She is one of the most dedicated and hard-working individuals that I have ever known and goes to great lengths to make sure that her students are well taken care of. Her guidance was essential to my academic career and future. She is selfless and sacrifices so much of herself to see that everyone is successful. The world needs more Dr. Blairs.
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Abstract

The Class Pass Intervention (CPI) is designed for students who engage in escape-motivated problem behavior to avoid or escape difficult or aversive academic work and who are not responsive to the system-wide universal supports provided to all students. Research on the CPI is in its initial stages and requires replications to be proven effective in multiple settings and become evidenced-based. Therefore, the purpose of the study was to expand the literature on CPI by targeting elementary school students and assess its impact on decreasing disruptive behavior maintained by attention and on increasing academic engagement. The study involved 4 students with disruptive classroom behavior and low academic engagement and their 2 classroom teachers. A multiple-baseline design across participants was used to demonstrate the intervention outcomes. The intervention was implemented during a targeted routine or academic time period when behavior was most likely to occur. Results indicated that teachers implemented the CPI with high levels of fidelity, and their implementation was effective in increasing academic engagement and decreasing disruptive behavior with all participants. The intervention effects were maintained after undergoing fading for all 4 students and during 2-week follow-up for 2 students. The results of social validity assessments indicated students and teachers found the intervention to be acceptable and effective. Limitations and implications for future research are discussed.
Chapter One:

Introduction

Disruptive behavior in the classroom not only negatively affects the individuals engaging in the behavior, but also interferes with the learning of the peers, and places stress on the teachers (Van Acker, 1993; Westling, 2010). Disruptive behavior, such as noncompliance, being off-task, and aggression, is commonly exhibited by children and increases the risk for continued problems and delinquency during adolescence (Broidy et al., 2003). There is ample evidence that childhood disruptive behavior is one of the best predictors of adolescent and adult criminality (Farrington, 1994; Fergusson & Horwood, 1995). In order to address disruptive behavior and promote appropriate behavior in the classroom, effective prevention and intervention procedures should be put into place. However, teachers have limited knowledge and skills necessary to effectively deal with student disruptive behavior (Abidin & Robinson, 2002; Barrett & Davis, 1995; MacDonald & Speece, 2001; Nelson, Maculan, Roberts, & Ohlund, 2001; Van Acker, 1993).

To prevent and improve problem behavior in classrooms and schools, many schools in the U.S. have been implementing Positive Behavioral Interventions and Supports (PBIS) at the system and individual levels (Lewis & Sugai, 1999). PBIS is an educational framework that employs evidence-based prevention and treatment of problem behavior at three tiers of support (Horner et al., 2009; Lewis & Sugai, 1999). The first tier provides universal supports to all students and has been shown to be effective at preventing problem behavior for 80-85% of the
school population. Students for whom tier one alone was not sufficient receive Tier 2 supports, which typically target at-risk groups of students who engage in problem behaviors and need additional assistance. Tier 2 interventions are expected to be fast, immediately accessible, and cost effective, and as a result do not require a prior functional behavior assessment (March & Horner, 2002; McIntosh, Campbell, Carter, & Dickey, 2009). Additionally, effective Tier 2 interventions prevent a high number of students from reaching the tertiary level where more intensive and individualized supports are needed (Horner, Sugai, Todd, & Lewis-Palmer, 2005; Sugai & Horner, 2002).

However, evidence on Tier 2 interventions within the framework of school-wide PBIS is lacking although a large body of literature documents effectiveness of treatments that could be considered Tier 2 interventions (Anderson & Borgmeiser, 2010; Stormont, Reinke, Herman, & Lembke; 2012). Furthermore, selecting and implementing evidence-based Tier 2 interventions that meet school needs and resources may be challenging (Maggin, Zurheide, Pickett, & Baillie, 2015). The literature indicates that primary school education has the highest inconsistency between the availability and the adoption of evidenced-based practices (Walker, 2004), which implies that teachers in elementary schools may have difficulty implanting Tier 2 interventions with fidelity.

Essential features of Tier 2 interventions, such as Check and Connect (Anderson, Christenson, Sinclair, & Thurlow, 1996), Check-in/Check-out (Fairbanks, Sugai, Guardino, & Lathrop, 2007), and First Step to Success (Carter & Horner, 2007), include direct instruction of skills, prompt for new skills, provision of opportunities to practice skills, and feedback to students (Anderson & Borgmeier, 2010). However, the literature on teacher training indicates that teachers have difficulty implementing these behavioral techniques without direct training.
procedures and ongoing consultation (Noell, Witt, Gibertson, Ranier, & Greeland, 1997; Rose & Church, 1998; Sterling-Turner, Wawtson, & Moore, 2002). Given the difficulty of implementing evidence-based interventions in schools, there is a need for simple, efficient, and effective Tier 2 interventions that can successfully be implemented by teachers who have limited resources (Maggin et al., 2015).

However, Turtura, Anderson, & Boyd (2014) suggested that a functional behavior assessment (FBA) be conducted to meet the needs of students who do not yet require an intensive individualized intervention and who may benefit from a Tier 2 intervention. Turtura et al. identified the function of problem behavior of a middle school student through indirect and descriptive FBA, and modified the standard Check-in/Check-out (CICO) procedures to meet the needs of the student whose problem behavior was maintained by escape from task demands. The CICO has been found to be more effective for children whose problem behavior is maintained by adult or peer attention (Campbell & Anderson, 2011; Maggin et al., 2015).

Recently, Cook et al. (2014) and Collins et al. (2016) reported initial outcomes of the Class Pass Intervention (CPI), which was developed as a Tier 2 intervention for disruptive behavior. The CPI is based on the Bedtime Pass Program (BPP; Friman et al., 1999), designed to reduce bedtime problem behavior by provide children with passes that could be exchanged for a break from the bedroom for a predetermined amount of time. Once all of the passes are used, the children can no longer leave the room. Children who hold on to their passes can exchange them the following day for a highly preferred item. Friman et al. (1999) found that children were likely to use their passes at the start of the intervention, but would eventually hold on to the passes for preferred items as the intervention progressed. The intervention effects were maintained over time and continued after the intervention was discontinued.
Given the positive outcome of this intervention, Cook et al. (2014) developed the CPI, which follows a similar model to BPP; however it was implemented in the classroom. CPI was designed for students who engage in escape-maintained problem behavior and who are not responsive to the system-wide universal supports. Cook et al. evaluated the CPI intervention with three typically developing students in a classroom setting. The participants in this study engaged in a variety of problem behavior such as throwing objects, leaving their seat, talking to peers about non-academic content, and singing out loud. To implement the CPI intervention, the researchers gave the students a set number of class passes. Students were told that they could either use the passes to escape an aversive activity or they could save the passes and exchange them for highly preferred items at a later time. The results showed that over time, the students chose to exchange the passes for reinforcers instead of using them to escape an activity, without there being an increase in problem behavior. Use of the pass serves as an alternative replacement behavior as it offers the students an appropriate way to request a break from activities or tasks. Social validity data also suggested that both teachers and students found the intervention to be effective and highly acceptable. They also reported the time allowed for escape from the activity after a student uses a pass is small in comparison to the increased amount of time that the students remains academically engaged (Cook et al., 2014).

In their second study, Collins et al. (2016) evaluated the CPI with 4 male high-school students with disruptive behavior using a combination of an ABAB withdrawal design and a multiple baseline across participants design. A functional behavior assessment was not conducted to determine hypothesized functions of behavior. However, the authors found that the CPI was effective at decreasing disruptive behavior and increasing academic engagement for each participant. At follow-up, improved levels of behavior was maintained with 2 of 4
participants, although the remaining participants’ behavior trended back towards baseline. This study found high acceptance and satisfaction with the CPI procedures and results (Collins et al., 2016).

A strength of the CPI is that it has multiple components that involve positive reinforcement, negative reinforcement, and choice. The combination of these components increases the likelihood that CPI can be used as a multi-function-based intervention (Collins et al., 2016). However, research on CPI is in the initial stages, which requires replications to be proven effective in multiple settings and become evidenced-based. Additionally, it is not known whether the intervention can be used for children whose behavior is not maintained by social negative reinforcements. Thus, the purpose of the current study was to extend the literature on the CPI by evaluating its impact on decreasing disruptive behavior maintained by attention and on increasing academic engagement in elementary school students who need Tier 2 intervention supports. The following research questions were addressed in the study:

1. To what extent can CPI decrease disruptive behavior maintained by attention?
2. To what extent can CPI increase academic engagement in students whose disruptive behavior maintained by attention?
3. To what extent are levels of disruptive behavior and academic engagement attained during intervention observed at follow-up?
Chapter Two:

Methods

Setting

This study took place at a local public elementary school serving Grades K through 6 in an urban city. This school was listed as a Title 1 school where 95% of the students were eligible for free or reduced-price lunch services. The school had a population of approximately 531 students with a large minority population and scored a 84% on their most recent Benchmarks of Quality, a scoring guide used to identify areas that need improvement and areas of success in the implementation of SWPBS (Kincaid, Childs, & George, 2005). The school wide Tier 1 supports in this school consisted of behavioral expectations, PAWS (Positive Attitude, Always Respectful, Working Hard, and Stay Safe) and a school-wide reinforcement system. Before the study began, the school had an average of 21.2 PAWS alerts, a minor discipline referral form, per month. Of the 191 total referrals received at the school, 90 (47%) of them belonged to students in grade 2, and 81 (42%) belonging to grade 3. Disruptive behavior was the top reason for referrals written. The school is currently providing interventions that utilize passes in order to take breaks from academic tasks for a small number of students needing supports, however a reinforcement component is not included.

The study was conducted in three general education classrooms. The first classroom was a 3rd grade class with 20 students. However, attendance varied from 15 to 20 students. Two participants belonged in this classroom. Both reading and writing were targeted academic times selected by the classroom teacher, and occurred at the end of the day. Intervention was
implemented for one participant during reading, and the other during writing. This classroom had posters indicating class- and school-wide rules, expected behaviors, and academic advice. School-wide Tier 1 PBIS interventions were in place, including a ‘behavior buck’ reinforcement system that aligned with the PAWS expectations. Students were separated into four groups, with their individual desks combined to make one larger table; however, one participant was separated from the group with an isolated desk at the front of the class. Every task that the students were expected to complete during the academic period was written on the board at the front of the class. Typical tasks for reading included independent-silent reading, reading comprehension activities, and taking comprehension based assessments. Typical tasks during the writing period included individual based assessments and formation of essays, poems, and letters. The instructor of this class was the lead teacher of the grade in reading and writing.

The second classroom was also a 3rd grade reading and writing class, belonging to one participant with approximately 20 students. The academic time period targeted was writing. This classroom had a similar set-up to the first classroom, with posters indicating class- and school-wide rules and expected behaviors. Although the School-wide Tier 1 PBIS interventions were in place, the ‘behavior buck’ reinforcement system was never observed to be implemented during the writing period. However, other reinforcement strategies were utilized including consistent praise for on task behavior and random prizes for completed work. The desk arrangement was grouped similar to the first classroom. Typical tasks during the targeted period included reading assigned articles and writing responses, answering comprehension questions, developing essays, text-coding paragraphs, and reading and writing poetry. The targeted period occurred immediately after returning from lunch and specials (e.g., P.E., Art, Music) in the middle of the day. Each of the 3rd grade classes spent half of the day with a separate math and
science teacher during their mornings, and switched to the teacher and class with the targeted routines in the afternoon.

The final classroom was a 2nd grade class with approximately 20 students, which remained with the teacher the whole day. 15 of the 20 students were considered to be English Language Learners and needed extra assistance from the teacher when completing tasks. The targeted academic period was reading. Typical tasks given during the reading period included independent silent reading and comprehension tasks. The teacher utilized this time to pull groups of students to spend extra time increasing and testing their literacy, as the majority of the students were Tier 2 in the Response to Intervention (RTI) for reading. As with previous classes, the desk arrangement consisted of multiple students’ desks creating one larger table. The participant from this classroom sat isolated in the front of the class, separate from these tables. The teacher gave occasional breaks to the students by playing music and allowing them to dance around the classroom briefly before coming back to the task. The School-wide Tier 1 reinforcement system was in place and a random reinforcement strategy was used in which students who completed their work would be put into a drawing for a prize from the “treasure box”. The targeted time period occurred in the morning. Teachers would indicate the start of the academic period by announcing that they were moving into that block of time or making the researcher aware that the academic period was beginning.

Participants

Participants in this study included 4 students in grades 2 and 3, and their classroom teachers. The principal of the school provided the researcher with a list of teachers that she believed would benefit from this intervention due to having students with high numbers of referrals for disruptive behavior. Teacher participants were recruited by with a flyer (Appendix
A) placed in their mailbox and an email sent by the researcher notifying them of the opportunity to participate in the study.

The researcher’s contact information was provided in the flyer and email so that teachers who were interested in this research knew how to contact the principal investigator for more information. Interested teachers were given a teacher and student consent form (Appendix C) to be signed and returned to the researcher. Once both forms were returned, potential student participants, as nominated by the principal and teacher, teacher interviews were scheduled.

Teachers were eligible for participation if they nominated at least one student who needed a Tier 2 intervention with a signed consent from the student’s parents. The teachers were excluded from the study if they were currently implementing an intervention that addressed disruptive behavior and were unwilling to replace this existing intervention for the duration of the CPI research.

Selection criteria for student participants included: (a) engaging in disruptive behavior that occurred daily during at least one instructional period, (b) were ages 5-12 years old, and (c) had not responded to the class-wide universal support. Students were excluded from inclusion in the study if: (a) the previous criteria were not met, (b) their disruptive behavior was dangerous to themself or to others, (c) the researcher was unable to determine a hypothesized function of disruptive behavior, or (d) the student engaged in disruptive behavior for a hypothesized automatic function. Teachers were allowed to use the intervention for other students who were not chosen for the study. Nominated students who were classified under the externalizing behaviors category participated in the study. Student participants were asked to give verbal assent.
After potential student participants were identified, a functional behavior assessment was conducted to confirm their inclusion eligibility. The participating teachers were given an in-person 30-min interview by the researcher, using the Functional Assessment Checklist for Teachers and Staff (FACTS; Anderson & Borgmeier, 2007) (Appendix E) that contained questions designed to identify antecedents, consequences, instructional periods associated with high levels of problem behavior, and hypothetical functions. Interviews occurred at a time and in a location that was convenient for the teacher.

Students whose problem behaviors were hypothesized to be maintained by social positive or negative reinforcement based on the interview results, moved on to the next stage of the selection process. This stage included direct observations conducted by the researcher, during an instructional period in which problem behavior was most likely to occur. The researcher used the Functional Assessment Observation Form (O’Neill et al., 1997) (Appendix F) to collect direct observation data on the antecedents preceding the target behavior, a detailed description of the target behavior, and any consequences that followed the occurrence of the behavior. The researcher continued to collect data until a clear pattern is identified which suggested a social positive (attention) or negative function (escape). Three students whose behavior was hypothesized to function for attention were selected. A fourth student whose behavior was hypothesized to function for escape was also selected to further the research on the impact of the CPI on socially negatively reinforced disruptive behavior.

**Brian.** Brian was a 9-year-old African American male student in the 3rd grade. He was labeled gifted and split his academic time between a general-education and advanced-education classroom. Brian was nominated for the study based on his high level of disruptive behavior and low academic engagement during the academic period of writing. A preference assessment
determined writing to be neither preferred nor non-preferred by Brian. Teacher interview and observations hypothesized that Brian’s disruptive behavior functioned for both teacher and peer attention. Brian had a total of four referrals prior to the implementation of the CPI. Previous interventions for Brian’s behavior included phone calls to parents, peer mediations, conferences with parent, time outs, and schedule change. Brian also sat isolated from the rest of the class with his desk facing the front wall of the classroom closest to the white board.

**Katherine.** Katherine was a typically developing, 9-year-old, African-American female student in the same 3rd grade, general education classroom as Brian. Katherine was nominated for the study based on her high level of disruptive behavior and low academic engagement during the academic period of reading. Katherine indicated during her preference assessment that reading was her favorite subject, despite her low levels of academic engagement. Teacher interview and observations hypothesized that Katherine’s disruptive behavior functioned for both teacher and peer attention. Katherine had a total of four referrals prior to the implementation of CPI. Previous interventions included seat changes, being sent to another room, time-out, and phone calls to parent.

**Lowell.** Lowell was an 8-year-old African-American male student in a 2nd grade, general education classroom. He was diagnosed with Attention-Deficit Hyperactive Disorder (ADHD). According to his teacher, he did not receive any medication or additional services for this diagnosis. Lowell was nominated for this study based on his high-level of disruptive behavior and low-level of academic engagement during reading. During Lowell’s preference assessment, he indicated that he enjoyed reading only if he was able to choose the book that he read. Teacher interview and observations hypothesized that Lowell’s disruptive behavior functioned for both teacher and peer attention. Prior to the implementation of the CPI, Lowell had 15 referrals for
problem behavior, 13 of which took place in the classroom. Previous interventions for problem behavior included being sent to other rooms, seat changes, time-out, being given a chance to “cool down”, phone call and letter to parent, conference with a parent, and being asked to apologize. Lowell sat isolated from the class with his desk facing away from the rest of the students and alone, as compared to the other students who sat in groups.

**Dominick.** Dominick was an 8-year-old Hispanic male in a third grade, general-education classroom. His home language was listed as Spanish. Dominick was nominated for this study based on his high levels of disruptive behavior and low levels of academic engagement in reading and writing. Dominick indicated during his preference assessment that both reading and writing were his favorite academic periods if he was allowed to choose the topic. Based on his functional assessment results, writing was chosen as the target academic time period for intervention. Teacher interview and observations determined the hypothesized function of Lowell’s disruptive behavior was escape from task. Prior to the implementation of CPI, Lowell had received 12 referrals and one out-of-school suspension. All of his referrals occurred in the classroom, and previous interventions included time-outs, conferences with parent, phone calls to parents, and being sent to the office or to another room. Dominick was also frequently absent or signed out early from school throughout the school year.

**Data Collection**

The primary dependent variables for this study included disruptive problem behavior and academic engagement measured as percentage of intervals. Disruptive behavior was defined individually for each student as shown in Table 1. Academic engagement was defined for all students as any instance of attending to the teacher with eyes on instruction for longer than 5 s, interacting with assigned materials (e.g., any instance of using hands to hold or touch materials,
<table>
<thead>
<tr>
<th>Disruptive Behavior</th>
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<tbody>
<tr>
<td><strong>Brian</strong></td>
</tr>
<tr>
<td>Floor Play - sitting, crawling, or rolling on the floor near desk. May also include crawling to other student’s desk.</td>
</tr>
<tr>
<td>Inappropriate Sitting - Failure to remain in assigned seat, being out of assigned area.</td>
</tr>
<tr>
<td>Classroom Disruption - any attempt to verbally yell out questions or answers both on and off topic, throwing objects at other students, desk, wall, or teacher; whispering and/or talking to other students during independent activities; and contorting face and/or hands while facing other students, making faces and/or gestures.</td>
</tr>
</tbody>
</table>

| **Katherine** |
| Inappropriate Sitting - Failure to remain in assigned seat, being out of assigned area, falling out of, or standing in chair. |
| Classroom Disruption - any attempt to verbally yell out questions or answers both on and off topic, throwing objects at other students, desk, wall, or teacher; whispering and/or talking to other students during independent activities; singing; telling jokes; dancing; making noises with mouth and/or body by pounding fists or tapping on desk; laughing loudly during silent activities; engaging in tantrums by crossing arms, stamping feet, crying, and throwing items. |

| **Lowell** |
| Inappropriate Sitting - Failure to remain in assigned seat, being out of assigned area, leaning seat back onto two legs, falling out of, or standing in chair. |
| Floor Play - sitting, crawling, or rolling on the floor anywhere in classroom. |
| Classroom Disruption - any attempt to verbally yell out; throwing objects at other students, desk, wall, or teacher; whispering and/or talking to other students during independent activities; singing; telling jokes; dancing; making noises with mouth and/or body by pounding fists or tapping on desk with fingers or pencil; and contorting face and/or hands while facing other students, making faces and/or gestures. |

| **Dominick** |
| Inappropriate Sitting - Failure to remain in assigned seat, being out of assigned area; and leaning seat back onto two legs. |
| Classroom Disruption - any attempt to verbally yell out; talking out loud about off-task topics to self or peers; throwing objects at other students, desk, wall, or teacher; whispering and/or talking to other students during independent activities; singing; telling jokes; dancing; making noises with mouth and/or body by pounding fists or tapping on desk with fingers or pencil; contorting face and/or hands while facing other students, making faces and/or gestures; calling other students names; and manipulating non-academic items in desk for more than 3 s. |
active writing, reading, and/or eyes on materials for longer than 3s), and raising hand to ask questions or responding to questions asked with hand raised. During group activities, academic engagement was further defined as speaking to peers about the assigned task materials and working on assignment (e.g., collaborative poetry, group poster presentation) for longer than 5 s.

Disruptive behavior and academic engagement data were collected using a 15 s partial interval recording system (Appendix G) by the researcher or research assistants scoring as the presence (+) or absence (-) of the behavior during each interval. The length of observation ranged from 30-45 min based on the task given during the academic period. Data collection occurred at a minimum of three times per week, and data collection materials included pencil, scoring sheets, and an electronic timer on a smart phone to signal the end of the intervals within the observation period.

**Interobserver Agreement.** Interobserver agreement (IOA) was assessed across participants for approximately 30% of all observations during baseline, intervention, and follow-up phases. To assess IOA, a second observer independently and concurrently recorded the occurrence of academic engagement, disruptive behavior, and treatment integrity. Two research assistants (RAs), who were graduate level students in the Applied Behavior Analysis master’s program, were trained on data collection for student target behaviors and treatment fidelity for this study through instruction, modeling, and practice data collection. Training used videos of classrooms observations that were available online to demonstrate students engaging in similar behaviors as to those being targeted. RAs practiced data collection and scoring during the training. They met or exceeded 90% IOA criterion prior to initiation of the study.

IOA for academic engagement and disruptive behavior was calculated by dividing the total number of intervals with agreements by the total number of intervals with agreements plus
disagreements, multiplied by 100. IOA for fidelity measures was calculated by taking the number of steps agreed upon by each observer divided by the total number of steps and then multiplied by 100. Table 2 displays the scores on IOA throughout each experimental phase across participants.

**Table 2.** Mean Percentages of Interobserver Agreement

<table>
<thead>
<tr>
<th>Phases</th>
<th>Brian</th>
<th>Katherine</th>
<th>Lowell</th>
<th>Dominick</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AE</td>
<td>DB</td>
<td>AE</td>
<td>DB</td>
</tr>
<tr>
<td>Baseline</td>
<td>100%</td>
<td>98.33%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>CPI 4</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>CPI 3</td>
<td>100%</td>
<td>100%</td>
<td>99.55%</td>
<td>99.12%</td>
</tr>
<tr>
<td>CPI 2</td>
<td>100%</td>
<td>100%</td>
<td>98.27%</td>
<td>99.16%</td>
</tr>
<tr>
<td>CPI 1</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Follow-Up</td>
<td>100%</td>
<td>100%</td>
<td>95%</td>
<td>98.33%</td>
</tr>
<tr>
<td>Mean</td>
<td>100%</td>
<td>99.67%</td>
<td>98.56%</td>
<td>99.32%</td>
</tr>
</tbody>
</table>

**Treatment Integrity.** Trained observers collected and assessed treatment integrity by teachers during all sessions in all intervention and fading phases using a checklist (Appendix H) developed by Cook et al. (2014). The checklist was scored yes/no based on whether the following components were observed: (a) student was given the class passes, (b) if student exhibited disruptive behavior, the teacher prompted the student to use a class pass for the break, (c) if student used a class pass and they went to the predetermined place and engaged in a preferred activity, (d) if student returned to academic activity after specified amount of break time elapsed, (e) if teacher tallied up the number of passes retained by the student at the end of the instructional period, and (f) if teacher allowed the student to exchange passes for a preferred item or activity from the reward menu. Treatment integrity data was represented as a percentage.
of components implemented across implementation occasions and was averaged for each teacher. Treatment fidelity was assessed for 100% of the observations during the intervention phases. Scores on the treatment integrity checklist indicated that the teachers implemented all steps (100%; 6 out of 6) of the CPI were implemented correctly indicating high integrity across all observation sessions and students. No additional trainings were needed with the teachers.

**Social Validity.** Acceptability of this intervention by teachers and students was assessed by a survey using an adapted Intervention Rating Profile (IRP-15; Martens, Witt, Elliot, & Darveaux, 1985) at the end of intervention (See Appendix I). The questionnaire included 15 items and was designed for school environments. The items were assessed using a 6-point Likert-type scale to indicate whether the intervention was acceptable, effective, and efficient. Items on both of this measure was ranked from strongly disagree to strongly agree (1-6) on a Likert scale. The student social validity questionnaire included 7 items and was developed by the researcher using age appropriate language. The student questionnaire (Appendix J) included 4 items rated on a 5-point Likert-type scale to indicate whether they found the intervention to be acceptable and if they preferred to use it in other settings. Items on this measure were ranked from strongly disagree to strongly agree (1-5). Three open-ended questions were also included to identify elements of the CPI that were most and least preferred by the students.

**Experimental Design and Procedures**

This study used a concurrent multiple baseline design across participants design. The intervention began after baseline, followed by a CPI phase with systematic fading. Follow-up probes were conducted following the termination of the intervention for participants if time allowed or fading was successful. Due to the end of the school year, follow-up data were collected for only two participants. Phase changes occurred weekly or when data were stable.
throughout the condition. The study was conducted over a period of nine weeks including follow-up. Participants were not introduced to the intervention unless the previous participant showed stability in their data for consecutive observations. Brian was the first participant to receive intervention, which was then introduced to Lowell following stability and level change in Brian’s data. Katherine was the third participant to receive intervention, and lastly Dominick.

**Baseline.** After obtaining consent and determining the hypothetical function of behaviors for each participant, observations were conducted during target academic periods. During this condition, the teacher ran class and conducted instruction as usual. All teachers continued to participate in the SWPBS universal supports and provided consequences for behavior as they normally would. Students also continued to engage in any school-wide behavioral supports already being implemented, such as the school or class store. Throughout the study, students were able to continue to engage in these same supports. No components of the CPI were conducted. When students engaged in problem behavior, teachers would stop instruction to address the behavior and student, and provide additional consequences such as warnings, referral to the office, a bad note home to parents, and seat changes. Data collection began when the teacher indicated it was the start of the academic period. Baseline data were collected for a minimum of three days per week during target the academic period. All participants began baseline at the same time.

**Preference Assessment.** Participating students were given preference assessments to determine potential reinforcers such as tangibles, edibles, privileges, and activities that were deemed acceptable and appropriate for the classroom setting for the positive reinforcement component of the CPI. The assessment was an open ended questionnaire (Appendix K) and included questions such as, “What is your favorite book?” and “What is your favorite movie?”
to get an idea of areas of interest. Preferred items, activities, and locations indicated by the preference assessment survey were then discussed with the teacher. The researcher and teacher collaborated to identify possible appropriate items to be offered as reinforcers, locations that the participant could go during their break, and activities that could be completed during the break. Tangible items that were not readily available at the school were then obtained and paid for by the researcher and given final approval by the teacher before being offered to the students. Example of tangible items included interest specific books, toys, and playing cards, pencils, and preferred edibles. Free rewards were also created that would allow the participant to choose to exchange their passes for opportunities to complete academic task with a friend, share a story, draw pictures, or joke with the class, or receive a positive note home from the teacher. Once the final reinforcers were established as acceptable, the researcher guided the student to place these items in a rank order of the most preferred to least preferred reinforcer. Value of the reinforcer was based on this rank order (the more desirable, the higher the cost) and the number of passes that students needed to exchange for the reinforcer at the end of the period was chosen by the researcher.

**Teacher Training.** Teachers were provided a 30-min training on the use of the CPI, prior to implementation, using the behavioral skill training procedures (Miles & Wilder, 2009; Nigro-Buzzi & Sturmey, 2010) at a time and location convenient for the teacher. This training involved the researcher giving instruction and explaining the components of the CPI, modeling how to complete each step of the intervention, and allowing the teacher to role-play use of the CPI, giving specific feedback and allowing for questions. Teachers were also provided with a fidelity checklist (Appendix H) with specific procedures for reference during experimental
conditions. Teachers were required to demonstrate all components with 100% fidelity during three role-play scenarios without the use of prompts or scripts, before considered fully trained.

**Student Training.** The researcher and classroom teacher jointly provided 30 min training to students which included instruction on how to use the class pass (e.g., raising hand and waiting patiently to give the teacher the pass), five conditions under which to use (e.g., bored, tired, disinterested with work, need help with work, feeling frustrated), and how to exchange the passes for reinforcers. Modeling on expected use and role-playing with feedback was done during this training when students demonstrated mastery by successfully using and exchanging passes across 3 consecutive role-plays. Training ended upon mastery. Dominick was the only participant that needed retraining in the area of conditions under which to use the passes, as discussed later on.

**Class Pass Intervention.** All participants, regardless of the function maintaining their problem behaviors, received the same intervention components. Prior to implementation, a location where the student can go during his or her requested break (e.g., computer station, reading center, science center) was chosen in addition to a preferred activity (e.g., computer assisted learning activities, reading, drawing) for the student to do during their break. A visual timer helped notify when the time was up and signal when the student should return to his/her academic activity.

At the beginning of the academic period the participating student received a predetermined number of passes depending on the occurrence of the problem behavior as observed in baseline (e.g., 2 = occurring less 25% of intervals, 3 = occurring 25-50% of intervals, 4 = occurring more than 50% of intervals). Dominick, Brian, and Katherine all received three passes during the initial phase, and Lowell received four passes. Each student was
to raise their hand to use a pass and given a break from the academic task. If the teacher observed the student starting to engage in the disruptive behavior, he or she would prompt the student to use a pass by saying, “Would you like to use one of your passes and take a break?” The student proceeded to the designated area that was predetermined and was allowed to engage in a preferred activity for 5 minutes. Both Brian and Katherine were allowed to take their breaks in a neighboring classroom and engage in a preferred reading or writing task; however, neither ever chose to use a pass. Lowell was allowed to take a break within the classroom and engage in either drawing, drawing with a friend, or computer time. Lowell most often chose to draw when using his pass. Dominick was also allowed to take a break in a neighboring classroom and engage in computer time or independent reading of a chosen book. However, Dominick also never chose to use a pass. If the participant chose to use a pass, a visual timer was set so that the student had a signal for when to return to the academic task.

Students were not allowed to use the passes during an exam or immediately following a break (wait at least 5 min before using another pass). Students had the choice of keeping their passes and exchanging them for preferred items at the end of the instructional period. The number of passes used and retained was documented. If the teacher scored below an 80% fidelity over 3 consecutive sessions, it was planned to provide a booster training by the researcher, which would include a review of the CPI steps with feedback and modeling and role playing if requested or determined by the researcher as necessary; however this was not needed.

**Fading.** Gradual fading of the CPI occurred when data were stable within a phase for a minimum of four observations. The number of passes each student received was systematically reduced by one pass each week or following stability in the phase. During fading, the procedures previously described remained the same as well as the number of passes needed to exchange for
preferred reinforcers. Phases were designated and labeled as CPI 4, 3, 2, or 1, indicating the number of passes that were provided to the participant at the beginning of the academic period.

**Follow-Up.** After 2 weeks of completion of the intervention, follow-up observations were conducted weekly on each participant, if time allowed, to assess maintenance effects. Data collection methods remained the same. During follow-up, no components of the CPI were in effect as compared to previous research, which continued to implement the positive reinforcement (Collins et al., 2016; Cook et al., 2014)
Chapter Three:

Results

Student Behavior

Figure 1 shows implementation of the CPI across four participants in regards to their percentage of intervals with disruptive behavior and academic engagement. During baseline, all participants showed higher levels of disruptive behavior and lower levels of academic engagement compared to the intervention phase. An immediate decrease in disruptive behavior and an immediate increase in academic engagement occurred following the implementation of the CPI across all participants.

In baseline, Brian engaged in disruptive behavior approximately 36.25% of intervals (range: 33-42%) and in academic engagement approximately 35.5% (range: 27-45%) which gradually decreased over consecutive observations during this phase. In baseline, his academic engagement behavior showed an increasing trend. Following implementation of the CPI, an immediate level change occurred. Disruptive behavior decreased to an average of 9.25% (range: 3%-13%) of intervals, showing a decreasing trend, while academic engagement increased to 81% (range: 73-88%) of intervals with an increasing trend. By the fourth day (session) of observation in this phase, disruptive behavior neared 0% of intervals.

Fading of passes occurred following one week of intervention, and within the CPI 2 phase, behavior change maintained similar levels to those of the first intervention phase levels. Brian engaged in disruptive behavior an average of 5.25% of intervals (range; 3-8%) and academic engagement an average of 94.5% of intervals (range; 81-100%). Disruptive behavior
continued to decrease, while academic engagement remained at a 100% of all intervals following phase change to 1 pass (CPI 1). Brian engaged in disruptive behavior an average of 0.5% of intervals (range: 0-1%) during this phase. After three weeks of intervention, the CPI was fully faded out and follow-up observations were conducted for four weeks. At each follow-up observation, academic engagement maintained at 100% of intervals. Disruptive behavior occurred on average 2.5% of intervals, gradually increasing from 0% to occurring for 5% of intervals after 4 weeks following the completion of the intervention. While this increase was present, levels of disruptive behavior remained well below baseline and levels of academic engagement did not decrease. The overall average of intervals with disruptive behavior during implementation of CPI was 5%, a 31.25% decrease from baseline. Academic engagement occurred an average of 91.8% of intervals, a 56.3% increase from baseline. Across all phases, Brian never chose to use a pass in order to take a break, and instead only chose to exchange his passes for reinforcers.

Lowell had the highest levels of disruptive behavior and lowest levels of academic engagement of all participants during baseline. Lowell engaged in disruptive behavior on average 60.7% of intervals with an increasing trend (range: 52%-70%) and academic engagement an average of 18% of intervals (range: 11-23%). Due to the behavior occurring at these levels, it was recommended that Lowell begin intervention with an extra pass, and thus was the only participant to begin in the CPI 4 Phase. Implementation of the CPI resulted in an immediate decrease of disruptive behavior to 9.5% of intervals (range: 8-12%) and an immediate increase in level of academic engagement to an average of 79.25% (range: 63-93%) with a gradual increasing trend across observations. In the CPI 3 phase, disruptive behavior decreased
to an average of 3.5% (range: 2-5%) of intervals and academic engagement increased to an average of 96% of intervals (range: 90-100%).

An attempt to fade the passes and move into the next phase resulted in an increase of disruptive behavior (13% of intervals) and a decrease in academic engagement (75%). Once Lowell used both passes, his disruptive behavior became more frequent and his academic engagement less frequent as the observation went on. It was decided that a return to the previous phase was necessary, and at the next observation, Lowell again received 3 passes. In the second CPI 3 phase, disruptive behavior occurred an average of 7.25% of intervals (range: 5-11%) and academic engagement returned to the previous CPI 3 phase level of an average of 96.25% (range: 95-98%).

A second attempt to fade passes was successful, and the average number of intervals with disruptive behavior decreased to 2.75% (range: 0-5%) and academic engagement maintained at an average of 97% (range: 93-100%). Similar to previous issues with the fading of passes, fading to 1 pass resulted in an increase in disruptive behavior (13%) and a large decrease in academic engagement (50%) following the use of Lowell’s only pass. A return to 2 passes resulted in a return to similar levels as previous phases with disruptive behavior occurring an average of 1.5% of intervals (range: 0-3%) and academic engagement occurring an average of 97.25% of intervals (range: 96-98%). Further fading and a follow-up phase were not conducted with Lowell due to the end of the school year and no longer having access the participant. The overall average of intervals with disruptive behavior during implementation of CPI was 7.2%, a 53.4% decrease from baseline. Academic engagement occurred an average of 84.4% of intervals, a 66.4% increase from baseline. Lowell was the only participant who used his passes for breaks.
Katherine’s intervention results followed a similar pattern to Brian’s; however, had a greater immediate initial increase in academic engagement and decrease in disruptive behavior. During baseline Katherine engaged in disruptive behavior an average of 41.5% of intervals (range: 33-51%) and academic engagement an average of 31.9% of intervals (range: 17-42%). Desired behaviors were seen and maintained throughout all fading phases. Overall, disruptive behavior occurred an average of 0.7% (range: 0-3%) of intervals during intervention, a 40.8% decrease from baseline. Academic engagement occurred an average of 99.4% (range: 97-100%) of intervals during intervention, a 67.5% increase from baseline. Katherine also never chose to use a pass, and chose instead to exchange all of her passes for reinforcers.

Dominick was the last participant to receive intervention and was the only participant with an escape function. During baseline he engaged in disruptive behavior an average of 43% (range: 28-55%) of intervals and academic engagement averaged 34.3% of intervals (range: 20-45%). Following implementation of the CPI here was a moderate level change in academic engagement, with a similar decrease in disruptive behavior as seen with the other three participants. During CPI 3, disruptive behavior occurred during an average of 6.75% (range: 4-7%) of intervals, a decrease of 36.2%. Academic engagement occurred during 64.1% (range: 55-75%) of intervals, an increase of 28.8%. He remained in the CPI 3 phase for extended observations due to a decreasing trend in his academic engagement for the first four observations. Following this fourth observation, his academic engagement started increasing. During this phase disruptive behavior remained stable and maintained a low level of occurrence.
Figure 1. Percentage of intervals with target disruptive behavior and academic engagement across participants and phases
In the following two phases of fading, Dominick’s academic engagement increased to an average of 98.4% (range: 96-100%) of intervals and disruptive behavior occurred an average of 2.6% (range: 0%-4%) of intervals. No follow-up was conducted due to the end of the school year and the confounding variable of the introduction of medication. Dominick never chose to use a pass, and chose instead to exchange all of his passes for reinforcers.

Social Validity

At the conclusion of the study, students and teachers were given surveys to determine their opinions on the intervention. The results of teacher ratings on IRP-15 indicated that the CPI was highly acceptable by the teachers, and the teachers were highly satisfied with the outcomes of the intervention. Overall mean rating of 5.4 out of 6 (range: 5.1-5.6) across items indicated high social validity of the CPI. Teachers also made comments that indicated satisfaction throughout the study such as, “He is finally completing work”, “I have never seen him behave so well”, and “Can I use this intervention for the whole day?”. Only 2 teachers completed the social validity questionnaire. Students were given a questionnaire developed specifically for this study with both Likert style and open-ended questions. Overall scores showed high satisfaction amongst all participants, with a mean rating of 4.87 (range: 4.5-5), and all students indicated that they would like to use the Class Pass Intervention again or in other classes. Tables 3 and 4 show the results of the social validity assessments with teachers and students.
### Table 3. Student Social Validity Survey Results.

<table>
<thead>
<tr>
<th>Question</th>
<th>Brian</th>
<th>Lowell</th>
<th>Katherine</th>
<th>Dominick</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I liked using the Class Pass</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>2. It was easy to use the Class Pass</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>3. I want to keep using the Class Pass</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>4. What rating would you give your experience with the Class Pass</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>5. What did you like best about using the Class Pass? Rewards Exchange</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. What did you not like about using the Class Pass? Using Passes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Do you wish you could use the Class Pass in other classes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Rewards Exchange

Using Passes
### Table 4. Teacher Social Validity Survey (Modified IRP-15) Results.

<table>
<thead>
<tr>
<th></th>
<th>Teacher 1</th>
<th>Teacher 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>This was an acceptable intervention for the problem behavior engaged in by the targeted students in my class.</td>
<td>5</td>
</tr>
<tr>
<td>2.</td>
<td>Most teachers would find this intervention appropriate for behavior problems.</td>
<td>5</td>
</tr>
<tr>
<td>3.</td>
<td>This intervention proved effective in changing the overall problem behavior for targeted students in my class.</td>
<td>5</td>
</tr>
<tr>
<td>4.</td>
<td>I would suggest use of this intervention to other teachers.</td>
<td>5</td>
</tr>
<tr>
<td>5.</td>
<td>The problem behavior was severe enough to warrant use of this intervention.</td>
<td>6</td>
</tr>
<tr>
<td>6.</td>
<td>Most teachers would find this intervention suitable for the behavior problems in their class.</td>
<td>5</td>
</tr>
<tr>
<td>7.</td>
<td>I would be willing to use this intervention with other students.</td>
<td>6</td>
</tr>
<tr>
<td>8.</td>
<td>This intervention did NOT result in negative side effects for children in my class.</td>
<td>5</td>
</tr>
<tr>
<td>9.</td>
<td>This intervention would be appropriate for a variety of children and classrooms.</td>
<td>5</td>
</tr>
<tr>
<td>10.</td>
<td>The intervention was consistent with those I have used in classroom settings.</td>
<td>5</td>
</tr>
<tr>
<td>11.</td>
<td>This intervention was a fair way to handle the problem behavior in my classroom.</td>
<td>5</td>
</tr>
<tr>
<td>12.</td>
<td>This intervention was reasonable for the behavior problems in my classroom.</td>
<td>5</td>
</tr>
<tr>
<td>13.</td>
<td>I liked the procedures used in this intervention.</td>
<td>5</td>
</tr>
<tr>
<td>14.</td>
<td>This intervention was a good way to handle the problem behaviors in my classroom</td>
<td>5</td>
</tr>
<tr>
<td>15.</td>
<td>Overall, this intervention was beneficial for the students in my classroom.</td>
<td>5</td>
</tr>
</tbody>
</table>

Mean 5.1 5.6
Chapter Four:

Discussion

This study evaluated the impact of the Class Pass Intervention (CPI) on decreasing disruptive behavior maintained by attention and on increasing academic engagement in 3 elementary school students who needed Tier 2 intervention supports. In addition to the 3 students with attention maintained behavior, a 4th student with escape maintained behavior participated in this study to further the literature on the potential efficacy of CPI on escape maintained disruptive behavior. The results of the study indicate that the participating teachers implemented the CPI with high levels of fidelity, which led to increased academic engagement and decreased disruptive behavior for all four students. For all students, disruptive behavior decreased dramatically and academic engagement increased dramatically when the CPI intervention was implemented. The intervention effects were maintained after undergoing fading for all students and during 2-week follow-up for 2 students. The intervention demonstrated high levels of social validity; both teachers and students alike expressed approval of the procedures and their outcomes.

The present study extends the literature on CPI by evaluating its potential efficacy with students whose behavior functioned for attention; past research has looked at escape-maintained behaviors (Cook et al., 2014) and behaviors with undetermined functions (Collins et al., 2016). In the current study, for all three students with attention maintained disruptive behavior, the CPI was associated with dramatic increases in academic engagement and decreases in disruptive
behavior. Treatment integrity scores across teachers indicated that teachers could implement the steps of CPI with high levels of integrity for all phases.

The results also showed that the CPI was effective in maintaining the changes in student behavior with very few passes or without any passes once changes in the behavior were established. Clear maintenance effects were seen in 3 out of the 4 students during fading (Brian, Katherine, and Dominick) although one student (Lowell) required extended time with the passes before fading to achieve maintenance of improved levels. For the two participants who were placed into the follow-up phase, levels of behavior maintained with a slight increase in disruptive behavior, which stayed well below baseline levels.

This study’s findings are consistent with that of the initial research on the CPI completed by Cook et al. (2014) and subsequent research by Collins et al. (2016). Results support previous findings that there was a functional relationship between the CPI and both disruptive behavior and academic engagement that were replicated across participants. Results are also consistent with Cook et al.’s findings that effects of the CPI maintained through systematic withdrawal and at follow-up. Whereas the follow-up phase in the Cook et al.’s study kept the positive reinforcement contingency in place for meeting daily goals for low rates of disruptive behavior and higher rates of academic engagement, this study did not; the CPI was totally withdrawn during follow-up. Finally, just as found in previous research, teachers and students found the CPI to be acceptable and socially valid (Collins et al., 2016; Cook et al., 2014).

As mentioned above, the present data suggest that use of the CPI has a significant impact on the reduction of disruptive behavior and increase of academic engagement maintained by attention in the classroom setting. Several findings are important for discussion. The researcher conducted a preference assessment with all participants, receiving information on favorite
movies, games, books, toys, etc., and with that information, purchased reinforcers that were aligned with these interests and that were approved by the school. Prior to the implementation of the intervention, the participants were allowed to look at and handle all of the reinforcers to increase motivation to exchange passes for these items. The reinforcers were seen as highly preferred by all of the participants, and it may have played a role in the success of the intervention. This implies that, as numerous studies demonstrated, the identification of potent reinforcers may critical for successful treatment development (Fisher, Piazza, Bowman, & Amari, 1996; Ringdahl, Vollmer, Marcus, & Roane, 1997; Deleon & Iwata, 1996), and as discussed by Pence, Peter, and Tetreault (2012), training teachers to implement preference assessment may be required to increase teachers’ acceptance and use of behavioral interventions in school settings.

Unlike the finding from Collins et al. (2016) where the study participants (high school students) utilized most of the available passes during each phase of intervention, it was found that 3 students in the current study more frequently chose to hold on to their passes, rather than using them for breaks. Lowell was the only participant who used his passes for breaks. This may suggest that when the CPI intervention is used with elementary school students, less number of passes could effectively be used by identifying and using powerful backup reinforcers; powerful reinforcing items and activities may be more preferred than the ability to access brief breaks during instruction for younger children.

However, as shown by one of the participants, Lowell, for some children more number of passes may be required to increase their academic engagement. Lowell’s academic engagement decreased significantly once all of his passes were used, indicating that there was less motivation to engage in tasks when there was no longer an ability to exchange passes for later reinforcers. In
the case of Dominick, while there was an immediate level change, the increase in academic engagement was moderate during the first phase of intervention. This may be due to escape from task or avoidance continuing to be reinforced. Dominick’s disruptive behavior decreased as a form of escaping tasks; however, his disruptive behavior was replaced with non-disruptive avoidance behaviors such as placing his head down on his desk, staring at the ceiling, and quietly manipulating items in his personal space. Additional training was provided on when would be a good time to use a pass to take a break; however, he continued to choose to keep his passes in exchange for reinforcers. Both of these issues with academic engagement indicate that additional antecedent manipulations may be needed with some students at Tier 2 level to make tasks less aversive or more motivating and to increase academic engagement and performance (Dyer, Dunlap, & Winterling, 1990; Kern, Childs, Dunlap, Clarke, & Falk, 1994).

An additional benefit of this study was the increased praise and attention that the participants received for increased academic engagement. On multiple occasions, each participant contacted attention from peers and the teacher in the form of praise for completion of work. This further indicates that the addition of more frequently delivered praise contingent on appropriate behavior may also prove helpful in maintaining a high level of academic engagement.

**Limitations**

Feedback provided by the teachers indicated several limitations with the use of the CPI in the classroom. While all teachers received high treatment scores and rated the procedures as highly acceptable and effective, they indicated that it was difficult to keep the exchange for reinforcers covert to the other students in the classroom. In one classroom, some students made comments, expressing jealously that the participant was allowed to use passes and that they were
not. Other comments made by the teachers revealed that they would be unable to purchase highly reinforcing items to be used for their students and questioned if the intervention would have been as successful using less expensive and specific tangibles.

Another limitation of this study was the shared classroom with participants Brian and Katherine. While each participant received his or her intervention during different times of the day and during different academic periods, Katherine was exposed to the intervention by way of direct observation of Brian. This did not show an impact on baseline data; however, having observed use of the passes by Brian to exchange for reinforcers, may have contributed to the very large immediate behavior change once the CPI intervention was introduced.

An uncontrollable confounding variable was present in the last two fading phases with Dominick, after the start of his medication. While there was a level change between baseline and the first phase of CPI, it is undeterminable whether the further increase and decrease of targeted behaviors would have occurred with the CPI procedures alone. Additionally, while Lowell’s targeted behavior reached desired levels, further fading of passes and a follow-up phase was not conducted due to time constraints. Therefore, it cannot be determined if behavior change would have maintained with further fading. Lowell’s data also indicated that some participants may need and extended amount of time with a higher number of passes before fading is introduced.

**Further Research**

Future replications on the Class Pass Intervention is necessary to establish it as evidenced based and to further the current research. Additional populations, such as kindergartners and preschoolers or children with autism spectrum disorders and other varying disabilities, may find this intervention useful as well. As noted in past research, a component analysis should be conducted to determine the whether the negative reinforcement, positive reinforcement, element
of choice, or the combination of these components are most responsible for the noted change in behaviors (Collins et al., 2016; Cook et al., 2014).

Also, using the CPI with larger population sizes needs to be examined, as all studies have used a small number of participants, and it is unclear whether the results of these studies would be found with a larger number of participants. It would also be beneficial to examine the effectiveness of this intervention across settings design to see if behavior change maintains across academic periods, classes (such as P.E. and art), different teachers, and times of the day.

Despite its limitations, the results of this study indicate that the CPI may act as an acceptable and effective intervention for decreasing attention-maintained disruptive behavior and increasing academic engagement with students who need Tier 2 supports in the classroom. This was the first study demonstrated the positive association between the CPI and disruptive behavior and academic engagement in students with attention maintained disruptive behavior.
References


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Appendices
Appendix A: Teacher Flyer

Class Pass Intervention for Disruptive Behavior Research

The Applied Behavior Analysis Program at the University of South Florida (USF) is currently recruiting teachers and children (grades 1-5) who might benefit from participating in a study that provides class (break) passes to students who engage in disruptive behavior during academic tasks. Unused passes during an academic period can be exchanged for a reinforcer/reward at a later time to encourage the student to remain engaged. The purpose of this study is to expand the literature on Class Pass Intervention (CPI) by targeting elementary school students and assessing its impact on decreasing disruptive behavior maintained by social reinforcement and on increasing academic engagement. We are looking to recruit students with high levels of disruptive behavior and low levels of academic engagement.

If you have a student you believe would benefit from this intervention and would like additional information about this study please contact your USF PBS Intern, Madison Andreu, at ... or e-mail her at ....
Appendix B: Teacher Nomination Form

Date: ______________________________
Teacher Initial: _______________________________________________________________
Grade(s): __________________________________________________________________
Date: ___________________________________________________

The first step is to identify all students in your class or across your day who are of concern to you on two categories of inappropriate behavior: externalizing and internalizing behaviors. If you are a middle school, high school, specials, or any other type of teacher who interacts with hundreds of students throughout the day, you will identify the top students across your day rather than by class or period.

Externalizing behaviors are those behaviors that are displayed outwardly by the child towards an external social event in the environment. Externalizing behaviors typically occur too often or too much. Examples include aggression towards people, animals, or things; arguing; defiance; out of seat; calling out; tantrums; non-compliance; hyperactivity; stealing; and not following directions.

Examples of disruptive behaviors::
• Aggression to others or things
• Hyperactivity
• Non-compliance
• Off-Task
• Arguing
• Defiance
• Stealing
• Not following directions
• Calling out

Step 1) Using student initials, list at least 2 students and no more than 5 students in your class or throughout your day who exhibit externalizing or internalizing behaviors. You do not have to list them in order.

Nomination Number  Grade/Period  I or E
_________________  ____________  _____
_________________  ____________  _____
_________________  ____________  _____
_________________  ____________  _____
_________________  ____________  _____

Step 2) Using your list generated above, rank no more than your 6 disruptive students. Please use nomination number.

Check “YES” if you have personally taught the expectations to the student. “Personally taught” is defined as: Having discussed each school-wide expectation one-on-one with the student, after
which the student demonstrates an understanding of each of the concepts.
Check “YES” if you have personally given a School-wide PBS reward to the student.

<table>
<thead>
<tr>
<th>Externalizing</th>
<th>Academic Concerns</th>
<th>Personally Taught Expectations</th>
<th>Personally Given SW Reward</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. ___________</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>2. ___________</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>3. ___________</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>4. ___________</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>5. ___________</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>
Appendix C: Teacher Consent Form

Informed Consent to Participate in Research Involving Minimal Risk

Pro # 00024274

You are being asked to take part in a research study. Research studies include only people who choose to take part. This document is called an informed consent form. Please read this information carefully and take your time making your decision. Ask the researcher or study staff to discuss this consent form with you, please ask him/her to explain any words or information you do not clearly understand. We encourage you to talk with your family and friends before you decide to take part in this research study. The nature of the study, risks, inconveniences, discomforts, and other important information about the study are listed below.

We are asking you to take part in a research study called: Using the Class Pass Intervention (CPI) for Children with Disruptive Behavior

The person who is in charge of this research study is Madison Andreu. This person is called the Principal Investigator. However, other research staff may be involved and can act on behalf of the person in charge. She is being guided in this research by Dr. Kwang-Sun Blair.

The research will be conducted at your school in Hillsborough County Elementary Schools.

Purpose of the study

The purpose of the this study is to extend the literature on the Class Pass Intervention (CPI) by evaluating its impact on decreasing disruptive behavior maintained by escape, attention, or tangible reinforcement and on increasing academic engagement in students who need Tier 2 intervention supports. The CPI utilizes a set number of passes that the students are able to use to escape a non-preferred academic task for a short amount of time; however, any unused passes may be exchanged for a reinforcer at the end of the academic period to encourage the student to stay academically engaged.

We want to know if the CPI helps to decrease the student’s disruptive behavior by replacing it with a more acceptable way to request escape and also if it increases academic engagement. This study will be carried out in the normal classroom routines and activities.

Why are you being asked to take part?
We are asking you to take part in this research study because you are a teacher, grades 1-5 and there is at least one student in your classroom that needs additional behavior support in daily routines and activities.

**Study Procedures:**

If you take part in this study, you will be asked to:

- Attend a brief (20-min) interview with the researcher to identify target behaviors and routines or activities for a participating student.
- Allow the Principal Investigator to observe participating student for a maximum of 30 minutes during targeted academic period to collect data on problem behavior.
- Attend one 30-minute training on how to use the CPI. During the training, we will review the steps of CPI, model, and practice its use.
- Implement the CPI during the target classroom routines.
- Provide participating student with a reinforcer at the end of the academic period if they wish to exchange their unused passes.
- Allow 1-3 research staff members to observe the student and you during the targeted routines, lasting 15-30 minutes in each routine for approximately 4-6 weeks.
- Allow the researcher to return approximately two weeks following the conclusion of the study to obtain follow-up data during the targeted daily routines.
- Complete a 15-question survey on the acceptance and feasibility of the study.

**Total Number of Participants**

About 12 individuals (6 teachers and 6 students) will take part in this study at USF.

**Alternatives / Voluntary Participation / Withdrawal**

You do not have to participate in this research study.

You should only take part in this study if you want to volunteer. You should not feel that there is any pressure to take part in the study. You are free to participate in this research or withdraw at any time. There will be no penalty or loss of benefits you are entitled to receive if you stop taking part in this study. The decision to not participate will not affect your job status

**Benefits**

The potential benefits of participating in this research study include:

- Teachers will benefit from the training related to CPI and increased experience with behavior assessment and a Tier 2 intervention for students engaging in problem behaviors.
- Teachers will also benefit from expected decrease in student problem behaviors and increase in student replacement behaviors (e.g., academic engagement) due to the implementation of the CPI.

**Risks or Discomfort**
This research is considered to be minimal risk. That means that the risks associated with this study are the same as what you face every day. There are no known additional risks to those who take part in this study.

**Compensation**

You will receive no payment or other compensation for taking part in this study.

**Costs**

It will not cost you anything to take part in the study.

**Privacy and Confidentiality**

We will keep your study records private and confidential. Certain people may need to see your study records. Anyone who looks at your records must keep them confidential. These individuals include:

- The research team, including the Principal Investigator, and all other research staff.
- Certain government and university people who need to know more about the study, and individuals who provide oversight to ensure that we are doing the study in the right way.
- The USF Institutional Review Board (IRB) and related staff who have oversight responsibilities for this study, including staff in USF Research Integrity and Compliance.

We may publish what we learn from this study. If we do, we will not include your name. We will not publish anything that would let people know who you are.

**You can get the answers to your questions, concerns, or complaints**

If you have any questions, concerns or complaints about this study, or experience an unanticipated problem, call Madison Andreu at.

If you have questions about your rights as a participant in this study, or have complaints, concerns or issues you want to discuss with someone outside the research, call the USF IRB at (813) 974-5638.
Appendix D: Parental Consent Form

Parental Permission for Children to Participate in Research Involving Minimal Risk

Information for parents to consider before allowing your child to take part in this research study

Pro # 00024274

The following information is being presented to help you and your child decide whether or not he/she wishes to be a part of a research study. Please read this information carefully. If you have any questions or if you do not understand the information, we encourage you to ask the researcher.

We are asking you to allow your child to take part in a research study called: Using the Class Pass Intervention (CPI) for Children with Disruptive Behavior

The person who is in charge of this research study is Madison Andreu. This person is called the Principal Investigator. However, other research staff may be involved and can act on behalf of the person in charge. She is being guided in this research by Dr. Kwang-Sun Blair. The research will be conducted at your child’s school in Hillsborough County.

Purpose of study:

The purpose of the this study is to extend the literature on the Class Pass Intervention (CPI) by evaluating its impact on decreasing disruptive behavior maintained by escape, attention, or tangible reinforcement and on increasing academic engagement in students who need Tier 2 intervention supports. The CPI utilizes a set number of passes that the students are able to use to escape a non-preferred academic task for a short amount of time; however, any unused passes may be exchanged for a reinforcer at the end of the academic period to encourage the student to stay academically engaged.

We want to know if the CPI helps to decrease the student’s disruptive behavior by replacing it with a more acceptable way to request escape and also if it increases academic engagement. This study will be carried out in the normal classroom routines and activities.

Why is your child being asked to take part?
Your child may be included in this study if it is determined that they are having difficulties engaging in routines and activities based on observations, following your permission for participation. The observations will be completed by their teacher during their typical classroom routines.

If your child is selected following your permission to participate, you will be notified. We are interested in potentially helping your child with his or her adjustment to the classroom environment, if needed. Also, we want to teach your child’s teacher to be able to prevent problems and teach new skills to your child or other children in their classroom.

**Study Procedures:**

If your child takes part in this study, s/he will be asked to:

- Allow 1-3 research staff members to observe him/her during targeted daily classroom routines or activities. Observers will be unobtrusive as possible and will not interfere with classroom routines or activities. The observer will observe your child and record how well your child engages in routines or activities and interact with teacher and classmates.
- Attend one 30-minute training on how to use the CPI. During the training, we will review the steps of CPI, model, and practice its use. This training will be completed during a non-core academic period of time so that your child will not miss instructional time, as deemed most appropriate by their teacher.
- Participate in simple CPI procedures in one daily routine or activities, lasting 5 to 30 minutes in each routine or activity, 3-5 times per week for approximately 6-9 weeks.
- When needing a break from a task, raise their hand and use a class pass and proceed to take a break in a safe and preferred area to engage in a preferred task.
- If they choose, exchange their unused passes at the end of the academic period for a reward.
- Allow the researchers to return approximately two weeks following the conclusion of the study to obtain follow-up data during the targeted daily routines or activities.

**Total Number of Participants**

About 12 individuals (6 students and 6 teachers) will take part in this study.

**Alternatives / Voluntary Participation / Withdrawal**

If you decide not to let your child take part in this study, that is okay. Instead of being in this research study your child can choose not to participate. You should only let your child take part in this study if both of you want to. You or child should not feel that there is any pressure to take part in the study to please the study investigator or the research staff.

**If you decide not to let your child take part:**

- Your child will not be in trouble or lose any rights he/she would normally have.
- You child will still get the same services or academic benefits he/she would normally have.
- Your child can still get their regular educational services from his/her teachers.
You can decide after signing this informed consent form that you no longer want your child to take part in this study. We will keep you informed of any new developments, which might affect your willingness to allow your child to continue to participate in the study. However, you can decide you want your child to stop taking part in the study for any reason at any time. If you decide you want your child to stop taking part in the study, tell the study staff as soon as you can.

Benefits

The potential benefits to your child include:

- Students are likely to benefit from decrease instances of behavior problems during classroom routines.
- Students are likely to benefit from increased appropriate behaviors such as increased engagement in routines or activities.

Risks or Discomfort

There are no known risks to those who take part in this study.

Compensation

Your child will receive no payment or other compensation for taking part in this study.

Costs

It will not cost you anything to let your child take part in the study.

Privacy and Confidentiality

We will keep your study records private and confidential. Certain people may need to see your study records. Anyone who looks at your records must keep them confidential. These individuals include:

- The research team, including the Principal Investigator, and all other research staff.
- Certain government and university people who need to know more about the study, and individuals who provide oversight to ensure that we are doing the study in the right way.
- The USF Institutional Review Board (IRB) and related staff who have oversight responsibilities for this study, including staff in USF Research Integrity and Compliance.

We may publish what we learn from this study. If we do, we will not include your name. We will not publish anything that would let people know who you are.

You can get the answers to your questions, concerns, or complaints.

If you have any questions, concerns or complaints about this study, call Madison Andreu at.
If you have questions about your child’s rights, or have complaints, concerns or issues you want to discuss with someone outside the research, call the USF IRB at (813) 974-5638.

Consent for My Child to Participate in this Research Study

I freely give my consent to let my child take part in this study. I understand that by signing this form I am agreeing to let my child take part in research. I have received a copy of this form to take with me.

________________________________________________          __________________
Signature of Parent of the Child Taking Part in Study          Date

___________________________________________
Printed Name of Parent of the Child Taking Part in Study

Statement of Person Obtaining Informed Consent

I have carefully explained to the person taking part in the study what he or she can expect from their participation. I confirm that this research subject speaks the language that was used to explain this research and is receiving an informed consent form in their primary language. This research subject has provided legally effective informed consent.

___________________________________________
Signature of Person Obtaining Informed Consent          Date

___________________________________________
Printed Name of Person Obtaining Informed Consent
Appendix E: Functional Assessment Checklist for Teachers and Staff (FACTS)

Efficient Functional Behavior Assessment: The Functional Assessment Checklist for Teachers and Staff: Part A

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

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

Step 3
Problem Behavior(s): Identify problem behaviors

- Tardy
- Unresponsive
- Withdrawn
- Fight/physical Aggression
- Verbal Harassment
- Inappropriate Language
- Incalculative
-工作不认
- Verbally Inappropriate
- Work not done
- Incoherence
- Theft
- Vandalism
- Other
- Self-injury

Describe problem behavior:

Step 4
Identifying Routines: Whose, When and With Whom Problem Behaviors are Most Likely.

<table>
<thead>
<tr>
<th>Schedule (Time)</th>
<th>Activity</th>
<th>Likelihood of Problem Behavior</th>
<th>Specific Problem Behavior</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Low 1 2 3 4 5 6</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>1 2 3 4 5 6</td>
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<td>1 2 3 4 5 6</td>
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<td>1 2 3 4 5 6</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 2 3 4 5 6</td>
<td></td>
</tr>
</tbody>
</table>

Step 5
List the Routines in order of Priority for Behavior Support: Select routines with ratings of 5 or 6. Only combine routines when there is significant (a) similarity of activities (conditions) and (b) similarity of problem behavior(s). Complete the FACTS Part B for each of the prioritized routine(s) identified.

<table>
<thead>
<tr>
<th>Routine #</th>
<th>Activities/Context</th>
<th>Problem Behavior(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>#2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>#3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Efficient Functional Behavior Assessment: The Functional Assessment Checklist for Teachers and Staff: Part B

Step 6

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

<table>
<thead>
<tr>
<th>Routine/Activities/Context</th>
<th>Problem Behavior(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Step 7

Provide more detail about the problem behavior(s):

What does the problem behavior(s) look like?

How often does the problem behavior(s) occur?

How long does the problem behavior(s) last when it does occur?

What is the intensity/level of danger of the problem behavior(s)?

Step 8

ANTECEDENTS: TRIGGERS AND SETTING EVENTS

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

Identify the trigger generally:

1. In this routine, what happens most often just before problem behavior?

2. If you put this trigger in place 10 times, how often would it result in problem behavior?

3. Does problem behavior ever happen when (opposite of trigger or trigger absent)?

Identify specific features of the trigger:

<table>
<thead>
<tr>
<th>Triggers</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Tasks</td>
<td>Reprimands</td>
<td>Transitions</td>
</tr>
<tr>
<td>Unstructured time</td>
<td>Structured/non-academic</td>
<td>Isolated, no-one around</td>
</tr>
<tr>
<td>activities</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

If tasks (e.g., group work, independent work, small-group instruction, lecture...)

Describe the task in detail (e.g., duration, ease of task for student), what features of it likely are aversive to the student and why is this hypothesized?

If unstructured time...

Describe the setting, activities, and who is around.

If reprimand...

Describe who delivers the reprimand, what is said, and what the purpose of the correction is.

If structured, nonacademic activities

Describe the context, who is around, what activities are going on, what behaviors are expected?

If transitions

Describe the activity that is being terminated and the one that is being transitioned to. Identify whether any of the activities are highly preferred or non-preferred, which are structured versus non-structured.

If isolated

Where did the behavior occur? What features of the environment might be relevant?

Step 9

Are setting events relevant?
1. Is there something that, when present makes it more likely that the trigger identified above sets off the behavior?
2. If yes, is this event present sometimes and absent others? Does the behavior occur only when the event is present?

<table>
<thead>
<tr>
<th>Setting Events</th>
</tr>
</thead>
<tbody>
<tr>
<td>__Correction/failure in previous class</td>
</tr>
<tr>
<td>__Peer conflict</td>
</tr>
<tr>
<td>__Change in routine</td>
</tr>
<tr>
<td>__Conflict at home</td>
</tr>
<tr>
<td>__Correction from adult earlier in day</td>
</tr>
<tr>
<td>__Homework/assignment not completed</td>
</tr>
<tr>
<td>__Hunger</td>
</tr>
<tr>
<td>__Lack of sleep</td>
</tr>
<tr>
<td>__Medication (missed or taken)</td>
</tr>
</tbody>
</table>

Step 10

CONSEQUENCES
What consequences appear most likely to maintain the problem behavior(s)?

Identify the consequence generally
In the routine identified, when the trigger occurs and problem behavior happens, what occurs next?
1. What do you do? What do other students do? What activities happen or stop happening?
2. Narrow it down: Take each consequence identified above:
   a. Would the behavior still happen if that consequence couldn’t occur (e.g., if peer attention, no other students were around); if your attention, would the behavior still occur if you were not around? If escape, would the behavior still occur if the task was easier?)
   b. Of the last 10 times you saw the behavior, how often did this consequence occur?

<table>
<thead>
<tr>
<th>Things that are Obtained</th>
<th>Things Avoided or Escaped From</th>
</tr>
</thead>
<tbody>
<tr>
<td>__adult attention</td>
<td>__hard tasks</td>
</tr>
<tr>
<td>__peer attention</td>
<td>__reprimands</td>
</tr>
<tr>
<td>__activity</td>
<td>__peer negatives</td>
</tr>
<tr>
<td>__money/things</td>
<td>__physical effort</td>
</tr>
<tr>
<td>Other:</td>
<td>Other:</td>
</tr>
<tr>
<td></td>
<td>__adult attention</td>
</tr>
</tbody>
</table>

Identify specific features of the Consequence

<table>
<thead>
<tr>
<th>Identify specific features of the consequence</th>
</tr>
</thead>
<tbody>
<tr>
<td>If adult or peer attention is obtained or avoided.</td>
</tr>
<tr>
<td>Define who delivers attention, what they say, and how long the attention typically lasts. What does the student do following this attention—is there a back-and-forth that occurs? Does behavioral escalation occur?</td>
</tr>
<tr>
<td>If an activity or request follows or is removed</td>
</tr>
<tr>
<td>Describe the specific activity including who else is present, what the activity consists of, and how long it lasts.</td>
</tr>
<tr>
<td>If tangible items are obtained or removed</td>
</tr>
<tr>
<td>Describe the specific item(s) obtained including who else is present and how long the student has access to the item.</td>
</tr>
<tr>
<td>If sensory stimulation possibly occurs or is removed</td>
</tr>
<tr>
<td>Describe the context, who is around, what activities are going on, what behaviors are expected?</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Setting Events</th>
<th>Trigger</th>
<th>Behavior</th>
<th>Consequence</th>
</tr>
</thead>
</table>

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

<table>
<thead>
<tr>
<th>Not very confident</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Very Confident</th>
</tr>
</thead>
</table>

# Functional Assessment Observation Form

Name: 

Starting Date: 

Ending Date: 

<table>
<thead>
<tr>
<th>Time</th>
<th>Behaviors</th>
<th>Predictors</th>
<th>Actual Conseq.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Demand/Request</td>
<td>Difficult Task</td>
<td>Transitions</td>
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| Totals |           |            |              |              |                  |                     |                |                             |                   |              |        |                    |                        |          |

Events: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40

Dates:
Appendix G: Interval Recording Sheet

Interval Recording Sheet

Participant Identifier: _______  Observer: __ ______  Date: ______
Routine/Activity: __________________
Participant Target Behaviors: __________________________________________

Type:  ☐ Partial Interval

Code: + (occurrence) - (nonoccurrence)

<table>
<thead>
<tr>
<th>Min</th>
<th>10 s</th>
<th>20 s</th>
<th>30 s</th>
<th>40 s</th>
<th>50 s</th>
<th>60 s</th>
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</tbody>
</table>

B1: __________  B2: ______________

Whole interval: behavior is continuous in interval  Partial interval: single instance is observed in interval
Momentary time sampling: record only if behavior present at the end of interval

Total number of Intervals: ____
Total number of intervals with ____________ (B1): ____
Percentage of intervals with ____________ (B1): ___ %
Total number of intervals with ____________ (B2): ____
Percentage of intervals with ____________ (B2): ___ %
## Appendix H: Treatment Fidelity Checklist

<table>
<thead>
<tr>
<th>Step</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Student was given class passes</td>
<td>Yes/No</td>
</tr>
<tr>
<td>2. When student exhibited disruptive behavior, the teacher prompted the student to use a class pass for the break</td>
<td>Yes/No</td>
</tr>
<tr>
<td>3. If the student used a class pass, they went to the predetermined place and engaged in a preferred activity</td>
<td>Yes/No</td>
</tr>
<tr>
<td>4. Student returns to academic activity after specified amount of break time elapsed</td>
<td>Yes/No</td>
</tr>
<tr>
<td>5. Teacher tallied up the number of passes retained by the student at the end of the instructional period</td>
<td>Yes/No</td>
</tr>
<tr>
<td>6. Teacher allowed the student to exchange passes for preferred item or activity from the reward menu</td>
<td>Yes/No</td>
</tr>
<tr>
<td><strong>Total Yes:</strong> /6</td>
<td></td>
</tr>
<tr>
<td><strong>Percentage:</strong></td>
<td></td>
</tr>
</tbody>
</table>
Appendix I: Adapted IRP-15

Adapted from the IRP-15 Copyright, 1982. Brian K. Martens & Joseph C. Witt

Please circle the number that best describes your agreement or disagreement with each statement using the scale below.

1= Strongly disagree  2= Disagree  3= Slightly disagree  4= Slightly agree  5= Agree  6= Strongly agree

1. This was an acceptable intervention for the problem behavior engaged in by targeted students in my class.

2. Most teachers would find this intervention appropriate for behavior problems in addition to those described.

3. This intervention proved effective in changing the overall problem behavior for targeted students in my class.

4. I would suggest the use of this intervention to other teachers.

5. The problem behavior was severe enough to warrant use of this intervention.

6. Most teachers would find this intervention suitable for the behavior problems in their class.

7. I would be willing to use this intervention in the classroom setting with other students.

8. This intervention did not result in negative side effects for children in my class.

9. This intervention would be appropriate for a variety of children and classrooms.

10. This intervention was consistent with those I have used in classroom settings.

11. This intervention was a fair way to handle the problem behavior in my classroom.
12. This intervention was reasonable for the behavior problems in my classroom.

13. I liked the procedures used in this intervention.

14. This intervention was a good way to handle the problem behaviors in my classroom.

15. Overall, this intervention was beneficial for the students in my classroom.
## Appendix J: Student Social Validity Questionnaire

1. I liked using the Class Pass.

   |   1 | 2 | 3 | 4 | 5 |
   |----------------|
   | Strongly disagree | Disagree | Neutral | Agree | Strongly agree |

2. It was easy to use the Class Pass.

   |   1 | 2 | 3 | 4 | 5 |
   |----------------|
   | Strongly disagree | Disagree | Neutral | Agree | Strongly agree |

3. I want to keep using the Class Pass.

   |   1 | 2 | 3 | 4 | 5 |
   |----------------|
   | Strongly disagree | Disagree | Neutral | Agree | Strongly agree |

4. What rating would you give your experience with the Class Pass?

   | 5 | 4 | 3 | 2 | 1 |
   |----------------|
   | I loved using the Class Pass | I liked using the Class Pass | I didn’t care about using the Class Pass | I did not like using the Class Pass | I hate using the Class Pass |

5. What did you like best about using the Class Pass?

6. What did you not like about using the Class Pass?

7. Do you wish you could use the Class Pass in your other classes?
Appendix K: Preference Survey

Preference Assessment Questionnaire

Identifier: ________________ Date: ________________

Part 1 “My favorite”

What is your favorite color? ______________
What is your favorite computer program? ______________
What is your favorite food? ______________
What are 3 of your favorite toys or items?
What is your favorite story? ______________
What is your favorite school subject? ______________
What is your favorite TV show? ______________
What is your favorite school activity? ______________
What is your favorite movie? ______________
Who is your best friend(s)? ______________
What is your favorite music? ______________
Where is your favorite place to go at school? ______

Part 2 “My Choice”

Would you prefer reading or writing?
Would you prefer to watch or listen to a story?
Would you prefer reading or math?
Would you prefer to do math problems or count items?
Would you prefer writing or math?
Would you prefer to listen to or read directions?
Would you prefer speech or language arts?
Would you prefer someone tell you or show you how to do something new?
Would you prefer to hear or read a story?
Would you prefer someone help you or let you try something hard?
Would you prefer to write about or draw out an activity?
List your 3 favorite items or activities from Part 1 above 1. ______________ 2. ______________ 3. ______________
Would you prefer doing one of the things from part 1 by yourself or playing with a friend?
Tell me about a unique talent you have.
Tell me something about you, which you think is important, that I may not know.
Appendix L: IRB Approval

January 7, 2016

Madison Andreu
ABA-Applied Behavior Analysis
Tampa, FL 33612

RE: Expedited Approval for Initial Review
IRB#: Pro00024274
Title: Using the Class Pass Intervention (CPI) for Children with Disruptive Behavior

Study Approval Period: 1/7/2016 to 1/7/2017

Dear Ms. Andreu:

On 1/7/2016, the Institutional Review Board (IRB) reviewed and APPROVED the above application and all documents contained within, including those outlined below.

Approved Item(s):
Protocol Document(s):
CPI_research_protocol_v1_1.4.2016.docx

Note, no research activities can begin without submitting the required letter of support and receiving an approval through the Amendment process.

Consent/Assent Document(s)*:
Parental_Permission_V1_1.4.16.docx.pdf
Teacher_Consent_V1_12.5.15.docx.pdf
Student_Assent_V1_12.18.15.pdf **not stamped

*Please use only the official IRB stamped informed consent/assent document(s) found under the "Attachments" tab. Please note, these consent/assent document(s) are only valid during the approval period indicated at the top of the form(s).

It was the determination of the IRB that your study qualified for expedited review which
includes activities that (1) present no more than minimal risk to human subjects, and (2) involve only procedures listed in one or more of the categories outlined below. The IRB may review research through the expedited review procedure authorized by 45CFR46.110 and 21 CFR 56.110. The research proposed in this study is categorized under the following expedited review category:

(7) Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

Study involves children and falls under 45 CFR 46.404: Research not involving more than minimal risk.

As the principal investigator of this study, it is your responsibility to conduct this study in accordance with IRB policies and procedures and as approved by the IRB. Any changes to the approved research must be submitted to the IRB for review and approval via an amendment. Additionally, all unanticipated problems must be reported to the USF IRB within five (5) calendar days.

We appreciate your dedication to the ethical conduct of human subject research at the University of South Florida and your continued commitment to human research protections. If you have any questions regarding this matter, please call 813-974-5638.

Sincerely,

[Signature]

Kristen Salomon, Ph.D., Vice Chairperson
USF Institutional Review Board