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THE CLASSROOM PASSWORD: AN INDEPENDENT GROUP CONTINGENCY

TARGETING ACADEMIC ENGAGEMENT AND DISRUPTIVE BEHAVIORS IN

HIGH SCHOOL CLASSROOMS

by

Kayla Elizabeth Bates-Brantley

A Thesis
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August 2017

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ABSTRACT

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TARGETING ACADEMIC ENGAGEMENT AND DISRUPTIVE BEHAVIORS IN

HIGH SCHOOL CLASSROOMS

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The classroom password, an independent class-wide group contingency, was implemented in a high school setting in effort to determine its effects on academically engaged behaviors, disruptive behaviors and passively off-task behaviors. This was done using a reversal design across three classes. The focal point of this study was to determine if the classroom password would increase academic engagement. The classroom password was implemented by having the teacher select a word of the day that was then incorporated into the classes lecture. The students were given the word for the day before the lectures began and were required to code each time the word was spoken. Correct identification of the number of times the word was said entered the students into a drawing for a reward pool. Results yielded increases in academic engagement across classes and decreases in disruptive behaviors. No significant results were found for the reduction of passive off-task behaviors. Social validity data was taken across teachers and students, and suggested they found this intervention effective and socially valid. Results from this study suggest that this intervention is a valid option for implementation in a high school setting when increasing academic engagement is the target.

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DEDICATION

This project is dedicated to my husband, Jess, my parents Jimmy, and Susan Bates and my brother John Carr Bates. Graduate school would not have been possible without your love and support. Mom and dad you have always pushed me to be the best person I could be and completing this document and my degree is a testament to the hard work you both put into raising me.

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CHAPTER I – INTRODUCTION

Disruptive behaviors are a known factor that can limit students' academic success in the classroom. Disruptive behaviors can be broadly defined as actions that interrupt the learning environment and may include inappropriate vocalizations, out of seat behavior, and playing with objects unrelated to the academic task. Decades of past research has shown how disruptive behavior can negatively impact the learning environment in a classroom setting (Evertson & Emmer, 1982, Reupert & Woodcock, 1970, Shinn, Ramsey, Walker, Stieber, & O'Neill, 1987; Swift & Spivack, 1969; Wentzel, 1993). Common problems resulting from disruptive behavior include loss of instructional time, office discipline referrals, and disciplinary action by school personnel (Rabiner & Cole, 2000). When students engage in disruptive behavior it takes time and resources away from teachers, administration and other students (Greenwood, Horton & Utley, 2002). Self-report measures from teachers concluded that teachers find themselves most often using corrective strategies, as opposed to preventative strategies, in their classrooms to control disruptive behavior; however, the same teachers also reported that they did not believe these strategies were effective nor did they believe they received proper support from administration to handle disruptive behaviors (Reupert & Woodcock, 1970; Westling, 2010).

Disruptive behavior in the classroom is a problem, and there is a large literature base to support the use of behavioral interventions to target disruptive behaviors. The amount of time dedicated to researching evidence based effective interventions is likely due to the fact that disruptive behaviors make up the majority of office discipline referrals (Flannery, Fenning, Kato, & Bohanon 2011). An analysis by Flannery and colleagues

(Flannery et al., 2011) involving 112 high schools found that of the almost 200,000 office discipline referrals reported over the course of one year, none were due to a lack of academic engagement. Historically, disruptive behaviors have been reported by teachers in a reactive effort to gain support once the problem behavior has escalated. Once these referrals are made, administration typically applies some type of punishment on an individual basis. Scott and Barrett (2004) tracked the amount of time that school staff and students spend addressing discipline problems. Results indicated administration spends, on average, 10 minutes processing one office discipline referral, while students spend, on average, 20 minutes outside of the classroom for each office discipline referral they receive (Scott & Barrett 2004). Traditional reactive discipline procedures take time and resources away from school staff and instructional time; however, school discipline policies are moving away from a reactive system for addressing misbehavior to a more preventative system that encourages appropriate behavior (McIntosh, Horner, & Sugai, 2009).

Over the years, researchers have investigated many behavioral interventions that are applicable in a variety of settings and populations. The goal of these interventions has been consistent, to reduce disruptive behaviors in an effort to establish an environment more conducive to learning. From a meta-analysis of group contingencies as classroom management strategies, Maggin and colleagues (2012) reported that 74.4% of the studies examined utilized a primary dependent variable of disruptive behavior. Only 25.6% centered around a dependent variable measuring academic engagement (Maggin et. al 2012). Although reducing the disruptive behavior of students may be an appropriate goal for interventions, it should not be the only goal. An intervention with the primary

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goal of reducing the disruptive behavior of a student might successfully do so, but it does not guarantee an increase in appropriate behavior, such as academic engagement. In fact, it does not guarantee an increase in any behavior and may promote inactivity in students if it is not coupled with an intervention promoting positive behaviors. For example, in early research examining the Good Behavior Game, the classroom teacher would reward students when they did not exhibit disruptive behavior (Barrish, Saunders, & Wolf 1969). The intervention was deemed effective for managing disruptive and aggressive behaviors, but the authors did not identify it as a tool to increase positive classroom behaviors (Franklin, Harris & Allen-Meares, 2006); however, in recent literature involving the Good Behavior Game, a shift has been made to encourage appropriate behavior by rewarding students for reaching a criteria based on instances of appropriate behavior, such as academic engagement (Wright & Barry, 2012). Increasing appropriate behaviors, such as academic engagement, is a critical part of the movement schools are making toward positive behavior interventions. Positive behavior interventions have been linked to decreases in exclusionary discipline practices and overall improvement in school success (Sugai & Horner 2009).

In the past fifteen years researchers have noted the growing concern regarding students' low level of academic engagement in the classroom, especially in U.S. secondary schools. Chronic disengagement, when students were engaged less than 50% of the time, was reported to affect 40-60% of secondary school students (Mark, 2000). If a student is not engaged in academic work their likelihood of academic success is greatly hindered (Lloyd & Loper, 1986; Lee, Kelly, & Nyre, 1999). With schools moving toward a positive behavior model of prevention, interventions targeting appropriate

behaviors such as academic engagement are essential. In 2011, the U.S. Department of Justice released a statement supporting school discipline practices that were designed to keep children in school. This federal announcement supporting positive interventions to handle disruptive behaviors in classrooms suggests that interventions need to be tailored to increase positive classroom behaviors. Addressing academic engagement in this way would allow schools to tackle the pervasive problem of disengagement in high school classrooms (Mark, 2000).

A survey conducted by the National Center for Education Statistics (NCES, 2008) found that high school teachers reported problem behaviors slightly more frequently than elementary teachers. There is also evidence to suggest that as grade level increases, academic engagement decreases and that high school classrooms have the least amount of behavioral support for learning (Marks, 2000). High school teachers are also faced with many challenges unique to the adolescent population including competition with outside reinforcers that are more potent than reinforcement capable of being delivered in the classrooms (Jenson, 1978). Although there is a need for behavioral interventions targeting general education high school students, they continue to be an understudied population in the behavioral intervention literature. For example, Stage & Quiroz (1997) conducted a meta-analysis of 98 school-based behavioral intervention studies focused on decreasing disruptive behaviors. Of the 98 studies, only two involved high school students. Additionally, Maggin and colleagues (2012) conducted an analysis, evaluating the effectiveness of group contingencies as a classroom management strategy, that included 95 studies and only one evaluated an intervention within a general education high school classroom. Therefore, the goal of the current study is to investigate the

effectiveness of an intervention designed to promote positive classroom behaviors by targeting academically engaged behavior of high school students.

<div align="center">Importance of Academic Engagement</div>

The importance of academic engagement in a classroom cannot be stated enough, as being engaged in academic tasks is a vital part of the learning process and should be a priority in classrooms (Herring & Wilder 2006). Academic engagement includes specific classroom behaviors such as participating in task demands, reading aloud, writing, reading silently, and verbally participating in class by asking and answering questions. Academic Engagement can be conceptualized as comprising two categories of behavior: active engagement and passive engagement (Greenwood, Delquadri, & Hall 1984). Active engagement typically includes writing, reading aloud, raising a hand to answer questions or other tasks in which the student is working on assigned task demand. On the other hand, passive engagement includes behaviors such as listening to the teacher, looking at an assignment and reading silently (Shapiro, 2013). Although academically engaged behavior can be separated into these two categories, it is often described as a single construct in order to represent the total engagement of students. Research conducted by Johns, Crowley and Guetzloe (2008) evaluated the activities of students in successful classrooms. Their research indicated that students scored better on academic achievement tests when greater levels of academic engagement were exhibited. From their observations, they reported the need for students to engage in passive and active learning depending on the activity at hand. For instance, if the target skill was improving reading, a passive style of engagement would be expected over an active style. On the other hand, during lecture when notes are expected to be taken, active engagement from

the students would be a more appropriate style of engagement. Students in successful classrooms exhibited both active and passive learning throughout the day (Johns et. al., 2008).

As stated previously, responding to disruptive behaviors does not necessarily foster a positive learning environment, nor does it necessarily promote positive classroom behaviors. In fact, disruptive behaviors also decrease the effectiveness of a learning environment (McKissick et al., 2010). By definition, disruptive behavior and academically engaged behavior are incompatible, meaning that if a student is engaged in disruptive behavior they cannot simultaneously be academically engaged. In other words, exhibiting one type of behavior requires disengaging in the other (Ducharme & Shecter, 2011). Interventions that only attempt to decrease disruptive behavior cannot guarantee that a student will exhibit a corresponding increase in academic engagement; however, inventions that target an increase in academic engagement will also decrease disruptive behavior, if such behaviors are occurring. Therefore, by successfully increasing academic engagement, a decrease in disruptive behaviors should also occur. Although a student may not exhibit disruptive behavior, it does not mean that they are receiving the amount of instruction needed to learn new material. Students that are passively off-task (e.g., sleeping or daydreaming) are also at an elevated risk for missing academic material, just as a student engaging in disruptive behaviors would be (Bloom, 1976; Carroll, 1963; Godwin & Fisher, 2011)

Academic engagement is a cornerstone component for achievement in the classroom. It is often considered the framework for a successful learning environment (Fredricks, Blumenfeld, & Paris, 2004). Research has found that time spent engaged in

academic tasks has a direct link with the quantity and quality of learning that can occur. If students are not engaged with an academic task, the likelihood of them retaining the information diminishes greatly (Greenwood 1991). Finn and Zimmer (2012) highlight academic engagement as an essential part of learning. They stated that academic disengagement is a multifaceted construct often involving individual behavioral components. The number and degree of challenging behaviors displayed by students was found to be linked with student's engagement potential and academic success (Finn and Zimmer, 2012).

A common interest in academic engagement research has been the relationship between academic engagement and learning potential. A key line in this literature focuses on exploring the point at which low academic engagement could place a student at-risk for missing learning opportunities. In other words, is there a minimal level of academic engagement that is necessary for a student to benefit from his or her learning environment? Although it can be stated that academic engagement is a key contributor to academic success there is no set cut-off score or critical value that practitioners should be aware of for intervention purposes. Students that were found to be performing at an average academic level exhibited academic engaged behavior between 75 to 90% of the time (Patterson, Cobb & Ray, 1972). Another study conducted by Lloyd and Lober (1986) suggested that classrooms displaying 40% or more off-task behavior should be candidates for intervention. Lee and colleagues (1999) found that classrooms on-task 55% of the time displayed a significant increase in completion of academic work. This percentage of on-task behaviors reaffirms the previous finding by Lloyd and Lober (1986) that suggests classrooms with less than 40% academically engaged behaviors

should be targeted for intervention (Lee, Kelly, Nyre 1999). Although experts do not agree on an exact percentage of academic engagement a student needs to exhibit to be successful, it can be stated that higher levels of academic engagement increase the probability of academic success.

<center>Group Contingencies</center>

Academic engagement, like disruptive behavior, is often hard for teachers to manage in an efficient manner. In a classroom at-risk for off-task behaviors, it is highly likely that a teacher will have more than one student who struggles to stay motived and engaged in the activity at hand. For teachers , it can become cumbersome to make sure all of their students are on-task and paying attention to the lesson at an individual level. Historically, interventions utilizing group contingencies have been used to modify the behavior of all students within a classroom setting while utilizing minimal resources (Litow & Pumroy, 1975). Group contingencies consist of the use of a single reinforcement contingency to modify the behavior of a group of individuals. This method of intervention has many practical and economic advantages (Gresham & Gresham, 1982). Interventions incorporating group contingencies have been identified as effective and time efficient (Cooper, Heron, & Heward, 2007). They have also been identified as one of the most effective classroom management strategies available to teachers as exhibited by a mean effect size of -1.02. This large negative effect size means there is a clear reduction in disruptive behavior, yielding a higher effect size than any other class of intervention examined in the meta-analysis (Stage & Quiroz, 1997). Because group contingencies allow a teacher to modify the behavior of an entire classroom, they are more efficient than trying to implement many separate interventions for individual

students (Heering & Wilder, 2006). Research dating back over 40 years has highlighted not only the efficiency of group contingencies but also their effectiveness for modifying group behavior. (Hayes, 1976; Litow & Pumroy, 1975; O'Leary & O'Leary, 1976).

There are three types of group contingencies that have been researched in classroom settings: independent, interdependent, and dependent (Litow & Pumroy, 1975). The difference among each type of group contingencies exists in the way access to reinforcement is established. Each class of group contingencies (i.e. independent, interdependent, and dependent) requires different degrees of group behavior and cooperation in order to access reinforcement. Independent group contingencies provide access to reinforcement dependent on each individual's behavior. This system of group contingency operates by requiring the same criteria for all members of the group, but each group member is responsible for their access to reinforcement (i.e. independent of the group) based upon their individual actions. An interdependent group contingency is regulated by the behaviors of the whole classroom. It functions by establishing response requirements for the entire group. Reinforcement is dependent on the collaboration of each group member and reinforcement is only delivered if the whole group meets the criterion. Finally, in dependent group contingencies, reinforcement is contingent upon one or more students' behavior for the entire group to be eligible for reinforcement. That is, the group is dependent upon a select student or students in order to receive reinforcement (Litow & Pumroy, 1975).

A review by Maggin and colleagues (2012) identified group contingencies as an empirically grounded method for targeting behavioral difficulties in the classroom. Their analysis of group contingencies was done using What Works Clearinghouse (WWC)

criteria. These criteria provide a method for assessing single-case research in which key elements must be present to meet evidence standards. These standards include: the independent must be systematically manipulated, inter-assessor agreement much occur for at least 20% of data points in each condition, a study must include at least three attempts to demonstrate an intervention by either three different points in time or three phase changes, and each phase must have at least three data points (Kratochwill et al., 2010). Using the WWC method of evaluation any study with procedural limitations, including poor interobserver agreement quality, insufficient number of within-study replications, or insufficient data points per phase, was eliminated from the analysis (Maggin et. al. 2012). Maggin and colleagues concluded that group contingencies, as a class of interventions, can be qualified as an evidence-based practice for classroom management procedures. Although this analysis included 95 relevant studies, there were relatively few studies included in the review that employed group contingencies to increase the academic engaged behavior of students. From the three studies that did target academic engagement (i.e. Ascare and Axelrod 1973; Conklin, 2010; Williamson et al., 2009) only one of these studies was conducted in a high school classroom (Williamson et al., 2009).

<center>Group Contingencies for Academic Engagement</center>

As mentioned previously, past research suggests that academic engagement is one of the most critical behaviors in determining academic achievement (Greenwood, 1996; Greenwood, Delquadri, & Hall, 1984; Greenwood, Horton & Utley, 2002; Greenwood, Terry, Marquis, & Walker, 1994). Furthermore, interventions utilizing group contingencies may offer teachers an efficient and effective behavior modification strategy

that has the potential to affect all students within a classroom (Gresham & Gresham 1982); however, the literature supporting group contingencies to increase academic engagement is sparse (Maggin et al., 2012). Thus, it is critical to identify interventions designed to increase the academically engaged behavior of students in a classroom.

Heering & Wilder (2006) conducted a study using a multiple baseline design across classrooms to investigate the intervention effects of a dependent group contingency in third and fourth grade general education classrooms. The primary dependent variable in the study was on-task behavior. Reinforcement was delivered to the whole class if a randomly selected row of students was on-task for more than 75% of the observed intervals. The random selection of target children was determined daily by drawing a row number. Students were given a forced choice preference assessment to develop a list of possible rewards that would be delivered if they satisfied the contingency. Daily rewards were chosen at the end of the intervention period by random selection. Data were recorded by the teacher's aide using planned activity checks at pre-determined intervals. Results demonstrated a meaningful change from baseline levels of on-task behaviors (Third Grade 36%; Fourth Grade 50%) to intervention levels of on-task behaviors (Third Grade 83%; Fourth Grade 85%) implementation showing an increase in class wide on-task behaviors across classrooms. Although this intervention did target on-task behavior as a primary dependent variable, the study only included two classrooms in the multiple baseline design. Because the change was not demonstrated across three conditions, results are interpreted with caution.

In 2008, Thorne and Kamps targeted academic engagement as a secondary dependent variable; disruptive behavior was the primary dependent variable. This was

done using a group contingency intervention as a part of a school-wide behavior management system similar to Positive Behavioral Intervention and Supports (PBIS). The study was conducted using four elementary school classrooms. Across these four classrooms twelve students served as target students who were at-risk for behavior problems. The intervention consisted of an independent group contingency using a classroom lottery game in which students received tickets for appropriate behavior. The students would put their names on the lottery ticket and place them in a bucket for a chance to receive reinforcement. The study also incorporated a self-management component by having the student mark down the number of lottery tickets they received per day. Additionally, an interdependent group contingency was used by allowing the class to have a pizza party when all students received 27 lottery tickets. Finally, this intervention utilized a response cost procedure where warning cards would be given out for inappropriate behavior. Students lost recess time if they received a warning card. This study yielded increased academic engagement for all 12 participants as well as decreased disruptive behaviors. This intervention also required the teacher to present daily feedback (i.e. a written note) to parents on every individual student's behavior from that day. Although this study showed substantial reductions in problem behavior and increases in academic engagement, conclusions cannot be drawn as to which intervention component actually caused an increase in academic engagement because the study utilized multiple intervention components. This intervention was deemed effective, but was so complex that implementation for the teacher was tedious and no treatment integrity data were collected to document the teachers' consistency and accuracy of intervention implementation.

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Finally, a recent study conducted by Radley, Dart, and O'Handley (2015) utilized an interdependent group contingency to target academic engagement by using a decibel meter to reinforce a quiet classroom. In this study, three first grade classrooms were analyzed. The teachers of these three classrooms were prompted every two minutes to view a digital decibel meter. If the classroom noise level was below a pre-determined criterion, the class received a smiley face. If the students earned a pre-determined amount of smiley faces then the entire class received a tangible reward. Results indicated an increase in academic engagement for all three classrooms as well as a reduction in disruptive behaviors. This study is unique in that it targeted reduction in classroom noise levels to increase academic engagement. This study utilized the principle that inappropriate vocalizations (disruptive behavior) cannot occur at the same time as academic engagement. Although this study did not directly reinforce academically engaged behaviors, it reinforced the reduction of noise level with the intention that students would engage in academic behaviors in the absence of excessive noise.

Group Contingencies in High School Settings

Group contingencies and other behavior modification procedures are often used less in high school settings than in elementary and middle schools; however, that does not mean there is not a need for interventions in a high school setting (Jenson, 1978). Expectations for academic engagement are also higher in a high school setting than elementary or middle schools (Flannery et. al. 2011). Teachers usually incorporate more instructional time in their lesson plans leading to expectations of longer periods of academic engagement (John, Crowley, Guetzloe, 2008). With the increasing demands in common core standards, teachers are facing increasing pressure to establish learning

environments that incorporate as much academic engagement as possible (Flannery et. al. 2011).

Although studies using high school populations and group contingencies are limited, there is evidence that interventions targeting high school students can be effective to reduce disruptive behaviors in a high school setting (Theodore, Bray, & Kehle 2004). Christ and Christ (2006) conducted a study using an interdependent group contingency in a high school setting. The intervention utilized a digital scoreboard to visually provide continuous feedback to students. The scoreboard was set on a two-minute timer. At the end of the timer if no students had engaged in disruptive behavior then a token was given to the class. If the class received 17 tokens they were allowed extra free time. The intervention was designed so if the class reached its goal of 17 tokens they were engaging in appropriate behavior during 70% of the class period. The intervention proved effective by not only reducing disruptive behaviors, but also increasing academically engaged behaviors. Again, although academic engagement was not the primary target of this intervention, an increase in academic engagement was observed. It should be noted that although this group contingency was conducted in a high school setting, the classroom used was a self-contained special education classroom further limiting the interventions that have been examined in general education high school classrooms.

High school teachers are also faced with the responsibility of preventing high school drop out to the greatest extent possible. Research going back over 50 years has highlighted a concern regarding the percentage of high school dropouts, especially in low SES regions (Block, 1978). Low levels of academic engagement have been identified as

a potentially leading factor to higher dropout rates (Caraway, Tucker, Reinke & Hall, 2003). Research has shown that the top three predictors of high school dropout are poor academic performance, low SES, and behavioral problems (Suh & Suh, 2007). When two or more risk factors are combined, the probability of a student finishing high school decreases significantly (Croninger & Lee 2001; Farmer et al. 2004). Finn and Zimmer (2012),indicated in their book, high school students who were reported to have low academic engagement were at an elevated risk for dropout. An intervention in a high school setting that targets not only academic engagement but also disruptive behavior could potentially be a preventative measure for high school dropout. Although the literature on group contingencies targeting academically engaged behavior for high school students is limited, there is a great need for research in this area.

<center>Classroom Password</center>

The Classroom Password is an independent group contingency intervention designed to increase academically engaged behaviors as well as to reduce disruptive behaviors (Dart et al., 2015). Originally conducted across three middle school classrooms, the intervention proved successful by increasing academic engagement while decreasing disruptive behaviors across all three classes. The intervention utilizes positive reinforcement to increase the percentage of time students are academically engaged. The intervention is implemented by having the classroom teacher select and announce to the class a "password" of the day. Every time a student hears the password during instructional time they are taught to make a tally mark on their intervention record form. At the end of the intervention session up to 5 students are eligible to receive a reward if they have indicated on their record form the correct number of times the password was

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spoken by the teacher during the intervention session. The intervention is designed as an independent group contingency whereby students are less likely to share answers because it lessens the probability of gaining access to reinforcement. Only a predetermined amount of reinforcement is available at the end of each session. For instance, if the daily reward was 10 bonus points on the next class assignment and the teacher announced the reward would be available for five students, if only one student got the correct number then that one student would receive all 10 points. If 10 students were eligible, then five students' names would be drawn and each of the five students would receive 2 bonus points.

This intervention is designed to increase academically engaged behavior when a teacher is engaged in traditional instructional activities (i.e., lectures), which are common in high school classrooms (John, Crowley, & Guetzloe, 2008). Teachers reported lecture time to be the most common occurrence of off-task behavior (Walker, Ramsey, & Gresham, 2003). By targeting this problem area with a group contingency intervention a teacher is able to manage his or her entire classroom while also increasing the amount of engagement from his or her students. Lastly, this intervention fills a gap in the current literature by offering an intervention that uses a group contingency to increase academic engagement in general education classrooms.

It should be noted that this study did have some limitations. In the pilot study, no frequency data were collected for the number of times the teacher said the password, therefore no treatment integrity data could be calculated for that component of the intervention. Second, the intervention utilized an interval timer which provided a tactile prompt (i.e., vibration) to teachers to use the password on a custom interval time

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schedule. Although it was effective, this device is expensive and potentially not feasible for a school district to supply. Additionally, the implementation periods of the study only lasted 15-minutes, so it is not known if the intervention would be successful when implemented for longer periods of time, as class-wide interventions often are.

Purpose of Present Study

Limited research has been conducted to examine the effects of independent group contingencies targeting academic engagement. There is also very little research involving high school populations and group contingencies. The Classroom Password is an independent group contingency which has been shown to increase academic engagement and decrease disruptive behaviors in middle school students (Dart et al., 2015). This study seeks to replicate and extend the original Classroom Password study by applying it to a new population, high school students. Also, this study seeks to address limitations of the previous study. The primary purpose of this study is to evaluate the effectiveness of the Classroom Password for increasing academically engaged behavior of high school students. A secondary purpose of this study is to evaluate the effectiveness of the Classroom Password for decreasing disruptive behaviors and passive off-task behaviors. The following research questions have been developed to guide the present study:

Research Questions

1. Is there a functional relation between implementation of the Classroom Password and an increase in the academically engaged behavior of high school students?

It is hypothesized that implementation of the Classroom Password will result in an increase in academically engaged behavior over baseline levels.

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2. Is there a functional relation between implementation of the Classroom Password and a decrease in disruptive behavior in high school students?

It is hypothesized that implementation of the Classroom Password will result in a decrease in disruptive behavior below baseline levels.

3. Is there a functional relation between implementation of the Classroom Password and a decrease in passive off-task behavior in high school students?

It is hypothesized that implementation of the Classroom Password will result in a decrease in passive off-task behavior below baseline levels.

4. Do the teachers participating in the Classroom Password find the intervention socially valid?

It is hypothesized that all four teachers involved in implementing the Classroom Password intervention will rate it as a socially valid classroom management strategy.

5. Do the students participating in the Classroom Password find it acceptable?

It is hypothesized that students will perceive the intervention as acceptable.

CHAPTER II - METHOD

Participants and Setting

Participants included students from three high school classes along with their teachers. The classes chosen consisted of a general education math, music and English class from a rural public high school located in the Southeastern United States. Classes were 90 minutes in length, with students alternating between 4 classes per day. Classes are longer in length than traditional seven period schedules because the school runs on a block schedule in which classes are longer but content is condensed across one semester. The school is made of 588 students with 51% of those students being male and 49% female. Ethnicity of the school was as follows: 31% African American, 2% Hispanic, and 65% Caucasian with 68% of these students receiving free or reduced lunch (National Center for Educational Statistics 2016). These classes were solicited for participation through referral by the behavior specialist based on high levels of disruptive behaviors. Although the primary dependent variable of the present study was academically engaged behavior, research has shown that school administrators receive referrals more often for disruptive behaviors than concerns for low academic engagement (Flannery et. al. 2011). Thus, the current study took referrals from administration based on class wide disruptive behaviors.

Classroom A was a general education math class with 24 students with 7 being African-American, 16 Caucasian and 1 Hispanic. There were 18 males and 6 females in Class A. Of these students 5 had individualized education plans (IEP) with three students being served under a ruling of specific learning disabilities in reading, two being served under a ruling of specific learning disabilities in math, and one being served under a

ruling of autism. Teacher A was female with 2.5 years of teaching experience and a Bachelor's of Science degree in mathematics. Class A's teacher independently reached out to the behavior specialist for ideas on classroom management strategies. She was referred for participation in this study as a resource for classroom management.

Classroom B was conducted in a general education music class. This class consisted of 22 students with 9 African-American and 13 Caucasian students. Classroom B held 12 male students and 10 female students and 2 students in the class were being served under IEP rulings of autism and specific learning disability in reading. Classroom B's teacher was female and in her 3rd year of teaching. She held a master's degree in music education. This class was self-referred for participation, in hopes she would gain another tool for classroom management.

Lastly, Classroom C occurred in a general education senior English class. Classroom C consisted of 28 students with 15 males and 13 females. Of these students 12 were African-American, 1 was Asian, 14 were Caucasian and 1 was Hispanic. Two students in Classroom C had IEPs under the rulings of specific learning disability in reading and specific learning disability in math. Classroom C's teacher was female with 2.5 years of teaching experience and a master's degree in English literature. Class C was referred to the behavior specialist by the principal for help regarding classroom management.

<div align="center">Materials</div>

Teacher Script

For implementation of the Classroom Password, a teacher script (Appendix A) was used. This script contained critical information regarding the intervention that

students were informed of before intervention started each day. The script also served as a tool to ensure the teacher implemented the intervention with high rates of integrity.

Interval Timer

Interval Timer is an application that could be downloaded to any smartphone. This device was chosen in place of a Motivator because the application is free for Android® and Apple® products. The Interval timer was set to vibrate in accordance with how many times the classroom teacher wished to say the password that day. The interval timer was able to prompt the teacher and therefore keep the teacher on track for the number of times the word was said. For example, if the teacher decided she wanted to say the password 5 times during the intervention session, they would set the interval timer to vibrate every 3 minutes. This would ensure that there were 5 prompts to say the password from the interval timer during the 20-minute intervention period. If the teacher only wanted to say the password twice, they would set the interval timer to 9 minutes so the interval timer would prompt near the half way mark and again toward the end of intervention period. The device was used as a timer to remind the teacher to say the password throughout the intervention period each day.

Record Form

Intervention record forms (Appendix B) were given to each student to mark the number of times the password was said during the intervention period. These forms contained empty boxes and each student was instructed to mark the box when the password was said by their teacher. Once the game has ended, teachers used these record forms to determine which student was eligible for reinforcement dependent upon the correct number of tally marks.

Audio Recording Device

An audio recording device was used to record the number of times the teacher says the password each day. This recording was used to calculate teacher integrity for delivering the password the correct number of times. The observers used their smartphones to record audio for the duration of each intervention session.

Behavior Intervention Rating Scale (BIRS; Elliott & Von Brock-Treuting, 1991)

Following completion of the study, the teachers in each classroom were asked to complete a modified version of the Behavior Intervention Rating Scale (BIRS) (Appendix C). The BIRS was used as a measure of social validity containing 24 items that are ranked using a Likert scale. Each item is given a score between 1 and 6 (1 = strongly disagree, 2 = disagree, 3 = slightly disagree, 4 = slightly agree, 5 = agree, 6 = strongly agree) with total scores ranging between 24 and 144. A score above 4.0 may indicate that an intervention was perceived as socially valid. The BIRS measured social validity along three separate factors: acceptability, effectiveness, and time to effectiveness. Individual factors were found to be reliable, with Cronbach's alpha scores of .97, .92, and .87 for the factors of Acceptability, Effectiveness, and Time, respectively.

Children's Intervention Rating Profile (CIRP; Witt & Elliot, 1985)

The Children's Intervention Rating Profile (CIRP) was used to measure student acceptability of the intervention (Appendix D). Following intervention, all students who participated in the study were asked to complete the questionnaire. Only students who returned a signed copy of the parent permission form were able to complete the survey at the completion of the study. The CIRP consisted of seven items that measured student satisfaction with the intervention. Items are scored on a Likert scale that ranges from 1 -

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6. Higher scores indicate higher satisfaction with the intervention. The CIRP possesses high internal consistency as indicated by a Cronbach's alpha of .89 (Witt & Elliot, 1985).

<div align="center">Dependent Measures</div>

Academically Engaged Behavior

The primary dependent variable was academically engaged behavior (AEB) of all students in the classroom. AEB was defined as adhering to the task demand by writing, raising a hand, reading aloud, listening to the lecture, reading silently, or looking at the teacher during lecture. These definitions were adapted from the Behavioral Observation of Students in School and consisted of both active and passive forms of academic engagement (BOSS; Shapiro, 2013).

Disruptive and Passive Off-Task Behavior

Two secondary dependent variables were measured: disruptive behavior and passive off-task behaviors. Disruptive behavior was defined as any behavior that disturbed the learning environment including: inappropriate vocalizations, being out of seat, or playing with objects. Inappropriate vocalizations included any audible vocalizations that were made without teacher permission and did not pertain to the lecture or assignment at hand. Out of seat included a student breaking contact with his or her seat for more than 3 seconds without receiving teacher permission. Playing with objects included manipulating or fidgeting with any item that is not associated with the lecture or academic task demand. This included eating and drinking during instruction time as well as touching other peers. Finally, passive off-task behavior was defined as a student being inattentive to the lecture or when a student was not academically engaged but was also not engaged in behaviors that were classified as disruptive. During the direct

observations, each behavior was evaluated but only one code was recorded. This was done because academic engagement, disruptive behaviors and passive off-task behaviors are mutually exclusive and therefore cannot occur simultaneously.

<div align="center">Data Collection</div>

Systematic Direct Observation

Academic engagement, disruptive behaviors, and passive off-task behaviors were collected in the classroom through the use of direct observations. Trained graduate students conducted direct observations each day. Observations used ten-second momentary time sampling for 20 minute periods. Teachers chose which 20 minutes the intervention was implemented during the class period, but the time of implementation remained consistent throughout the study. Coding sheets were used to collect the observed behaviors (Appendix B). An individual-fixed method was used to observe the behavior of the group (Briesch, Hemphill, Volpe, & Daniels, 2014). During each interval the observer coded the behavior of a different student. Students were observed in a fixed rotation for coding. Once the rotation was completed all the way through, the observer began again with the first student. The rotation of the students remained the same for the entire observation.

<div align="center">Design</div>

An A-B-A-B withdrawal design was used to assess the effectiveness of the Classroom Password on increasing academic engagement and decreasing disruptive behavior and passive off-task behaviors. The use of an A-B-A-B withdrawal design allowed for a demonstration of intervention effectiveness through prediction, verification, and replication of intervention effects (Hayes, Barlow, & Nelson-Gray, 1999). This

design included sufficient within-study replications by having 3 phase changes as well as having at least five data points per phase. These specifications meet the WWC standards for single case design (Kratochwill et. al, 2010). Phase change decisions were made based on visual analysis assessed through the examination of level, trend, variability, immediacy of effect, overlap of phases, and consistency across phases for academic engagement (Horner et al., 2005).

Procedures

Screening

All procedures were submitted for Institutional Review Board IRB for approval (Appendix E). Once referrals for a classroom were made by school administration, teacher consent (Appendix F) was obtained and a screening observation took place. During this observation, teachers were asked to conduct their classrooms as they normally would. During the screening process, a 20-minute systematic direct observation using 10s MTS was utilized to record the occurrence of academically engaged, disruptive, and passive off-task behavior of the entire classroom through an individual-fixed group observational method. This observation took place during 20 minutes of instructional time predetermined by the teacher. The observation was conducted during a time when the teacher was lecturing. The study used rates of academic engagement as criteria for screening. If academic engagement occurred for more than 70% of the observation, the classroom was not eligible to participate in the study; however, other intervention services would have been provided to the classroom outside the scope of this study, however, each classroom referred for participation did not have rates of academic engagement above 70% and were therefore eligible for participation in the study.

Baseline

. The screening observation was used as the first baseline point for the study. Baseline data was collected for at least 5 days for each classroom prior to implementing intervention. During baseline, the teacher was asked to continue conducting her classroom as she normally would. Observations were conducted using the target behaviors and observational methods discussed previously. Results from each baseline observation were graphed daily.

Teacher Training

After the completion of baseline data, which ended after a minimum of five data points and when data reached stability or academic engagement was decreasing, the classroom teacher was trained to implement the Classroom Password intervention. Training occur during each teacher's planning period. Training was conducted as follows: introduction of the intervention protocol, training through the teacher script and training for the use of materials including the recording forms and interval timer. Teachers were trained on each component of the intervention and the researcher modeled each step for the teacher. The teacher was then required to demonstrate each component of the intervention with 100% integrity. Performance feedback was given to teachers throughout the training process and demonstration of the intervention components occurred for as many times as necessary within a single training session until 100% integrity was observed. Each training was conducted in a single training session. Teachers were also be given instructions on how to choose a password. Teachers were encouraged to choose a password that was not too obvious (e.g., "Encyclopedia") but not

so common that it would be difficult to restrict its usage within the context of the intervention (e.g., "the").

Intervention

.Following the teacher training, teachers were asked to implement the intervention during the set time previously determined. First, the teacher was told how many times the password was to be said during the 20-minute intervention period. This was chosen through a random number generator with number 1-5 as options. This was done without the student's knowledge and was regulated through the use of the interval timer. Depending on how many times the teacher was slated to say the password, the interval timer was set as previously discussed before the intervention began.

The teacher began the intervention by announcing that the game was about to begin. The teacher then announced the password for the day and handed out a record form to each student. The teacher then announced the reward that was available to the students and that up to five students could win. Rewards were selected by the teacher based on what they believed would serve as a reinforcer for the students' academically engaged behavior. After the teacher passed out the record forms, the games rules and expectations were relayed to the class.

The teacher explained to the students that every time they heared the password they were to write a tally mark or "X" on their recording sheet. It was important for teachers to incorporate the password as naturally as possible into their lecture shortly after the Interval timer vibrated. Teachers were informed to use the password any time within approximately one minute following the prompt (i.e., vibration) from the Interval timer. This precaution was in place so that the password did not appear to be

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implemented on a fixed schedule. Once the 20-minute intervention period ended, the teacher collected the forms and announced the number of times the password of the day was said. The teacher then used the students' record sheets to determine which student or students marked the correct number. Up to five students that marked the correct number were randomly selected to receive the daily reward.

As previously stated, the rewards were set in a pool fashion that could be divided by the number of winners for the day. The intervention was designed to create a competitive atmosphere in order to establish an abolishing operation for students sharing record forms. Teachers were allowed to select any rewards they believed would provide motivation for their classroom. Selected rewards included: headphone access passes to use while in class, homework passes, extra bathroom passes, bonus points, chips, candy, extra free time in class. Rewards were in compliance with school guidelines.

Withdrawal

After the completion of the first intervention phase, which consisted of at least five data points and stability within the data or academic engagement ascending, the intervention was withheld from the students for a minimum of five days. Similar to baseline the teacher was asked to conduct her classroom as they normally would before intervention was implemented. The teacher announced to the class that they are no longer using the Classroom Password during this time and all intervention materials were removed from the classroom.

Intervention

After the withdrawal phase, the Classroom Password game was resumed as previously stated. Intervention continued for a minimum of five days in order to properly

analyze treatment effects through the examination of the level, trend and variability of the

class' academically engaged behavior.

<div align="center">Interobserver Agreement</div>

Interobserver agreement (IOA) was calculated between the primary observer and

a trained graduated student for at least 27% of baseline observation periods and for 30%

of intervention periods for all three classrooms. Observers were trained using the

aforementioned operational definitions for academic engagement, disruptive behavior,

and passive off-task behaviors as well as the observation procedures. Observers were

graduate students in a school psychology program who were trained and attained a 90%

IOA criterion for observational procedures. If IOA fell below 80% at any time, retraining

would have taken place for the secondary observer before any further observations were

conducted by that observer, however this was not needed. IOA was calculated by using

an exact agreement method. This was done by dividing the total number of intervals with

agreement between observers by the total number of intervals and multiplying by 100

(Cooper, Heron, & Heward, 2007).

IOA was collected for 30.43% of all observations for Classroom A. During

baseline sessions IOA was collected for 42% of observations, 40% during intervention,

20% during withdrawal and 20% during reimplementation. IOA ranged from 93.7%-

97.9% with an average of 95.6%. For Classroom B IOA was collected for 28.5% of all

observations with 40% IOA completed during baseline, 33.3% during intervention, 20%

during reversal, and 20% during reimplementation. Mean IOA for Classroom B was

97.85% with a range of 96-100%. Finally, for Classroom C IOA was collected during

27% of all observations. IOA was collected for 20% of baseline observations, 28.5% of

intervention, 20% of withdrawal and 40% of reimplementation. IOA ranged from 91.6-

99.1% agreement with a mean of 96.29%.

Procedural Integrity

During the teacher training procedural integrity was conductedto ensure that each step of

the intervention was taught, understood and implemented independently by the teacher.

Teachers were trained at the end of the baseline phase before the intervention began.

Each teacher was trained separately. During this training, the steps for the classroom

password were reviewed and each teacher was given a script and checklist to follow

(Appendix A & Appendix G). During this training a secondary observer was present for

all teacher trainings to collect IOA data and ensure that each step was taught to the

teachers. Procedural integrity was 100% across all three teacher trainings with 100% IOA

across both the primary and secondary observer.

Treatment Integrity

Treatment integrity was assessed during 100% of intervention sessions throughout

the study. This was done to ensure that teachers were implementing the classroom

password as it was designed. The primary observer filled out an integrity checklist

(Appendis H) during each observation. IOA for treatment integrity was collected during

at least 30% of intervention sessions. Treatment integrity was calculated by dividing the

total number of steps completed by the total number of steps multiplied by 100 to yield a

percentage of steps completed. If the teacher fell below 90% integrity, performance

feedback was given. If the teacher fell below 90% integrity on three consecutive sessions

with performance feedback, a retraining session would have occured before the teacher

implemented the intervention again, however this did not occur.

Assessment of treatment integrity also included reviewing permanent product audio recordings to ensure that the teacher reported the correct number of times the password was used. Permanent product was taken for each intervention point via audio recordings of the intervention. The audio recording was used to monitor teacher's integrity of using the Classroom Password. After each intervention session integrity data was reviewed using the recording to make sure the teacher said the password the number of times she reported she said the word. Teachers were made aware of any inconsistencies before the next implementation session .

For Classroom A, treatment integrity averaged 94% across intervention phases with a range of 80-100%. IOA for treatment integrity was 100% across observations.

Teacher B implemented the intervention with 100% integrity across all intervention sessions. IOA for treatment integrity was also 100% across sessions.

Finally, Class C had a mean treatment integrity of 91% with a range of 90-100%. IOA for class C treatment integrity was 100%.

<div align="center">Data Analysis</div>

The primary data analysis was conducted through the use of visual inspection. Changes in academic engagement, disruptive behavior, and passive off-task behavior were assessed through the examination of level, trend, variability, immediacy of effect, overlap of phases, and consistency among similar phases (Horner et al., 2005). An effect size was calculated on all three outcome variables using nonoverlap of all pairs (NAP) (Parker, Vannest, 2009). This non-parametric method is used to show improvements in treatment with scores of 1 representing improved treatment and scores of 0 representing no treatment effect (Vannest and Ninci, 2015).

This effect works by calculating the percentage of chance that any randomly selected baseline point would overlap with a randomly selected intervention point. Higher effect sizes indicate a higher level of demonstrated change. This effect size was chosen because of its well established mathematical principals Vannest and Ninci, 2015). Two NAPs will be calculated for each class period using an online calculator available at singlecaseresearch.org (Vannest, Parker, & Gonen, 2011). NAP will be calculated separately for the first and second baseline and intervention phase pairs. These two effect sizes will then be averaged to arrive at an overall weighted effect size. Effect sizes will be calculated in this way for academically engaged behavior, disruptive behavior, and passive off-task behavior.

CHAPTER III - RESULTS

Academic Engagement

For Classroom A, academically engaged behavior (see Figure 1, top panel) averaged 62.58% during baseline with little variability (range = 56.6-70%). When the classroom password was introduced a slight immediate increase occurred with a steady increasing trend and moderate stability throughout the phase. AEB averaged 80.76% (range = 75.8-86.8%). During withdrawal, AEB dropped immediately with a slight descending trend for AEB that averaged 68.82% (range = 51.7-75.8%). re-implemented, a sharp increase occurred which then stabilized across the last three data points. AEB averaged 74.96% (range= 59-81.7%).

Some variability was noted for Classroom B's AEB (see Figure 1, middle panel) during baseline. AEB averaged 57.2% (range = 45-67%). When intervention was introduced a slow increasing trend occurred with some variability, but little overlap with baseline. AEB averaged 70.91% (range = 52.5-81.6). During withdrawal an immediate drop was noted for AEB that stabilized across the last three intervention points and included points that were lower than original baseline points. During withdrawal AEB averaged 48.68% (range = 40-69.2). Finally, when the intervention was re-introduced, immediate increases in AEB occurred with little variability and no overlap. AEB averaged 79.02% (range = 75-83.3%).

For Classroom C, academically engaged behaviors (see Figure 1, bottom panel) averaged 57.62% during baseline (range= 39.5-69%) with some variability including a sharp drop in AEB during the last baseline data point. When the classroom password was introduced a gradual increase in AEB behaviors was noted with some variability. During

intervention AEB averaged 67.31 (range = 51.6-77.1%). During withdrawal, AEB

dropped immediately and remained stable with percentages lower than baseline levels of

AEB. AEB averaged 46.46 (range = 41.6-59.3%). When the classroom password was re-

implemented, a slight increase was noted with a steady increase that stabilized across the

last three data points. AEB averaged 67.4 (range = 49-78.4%).
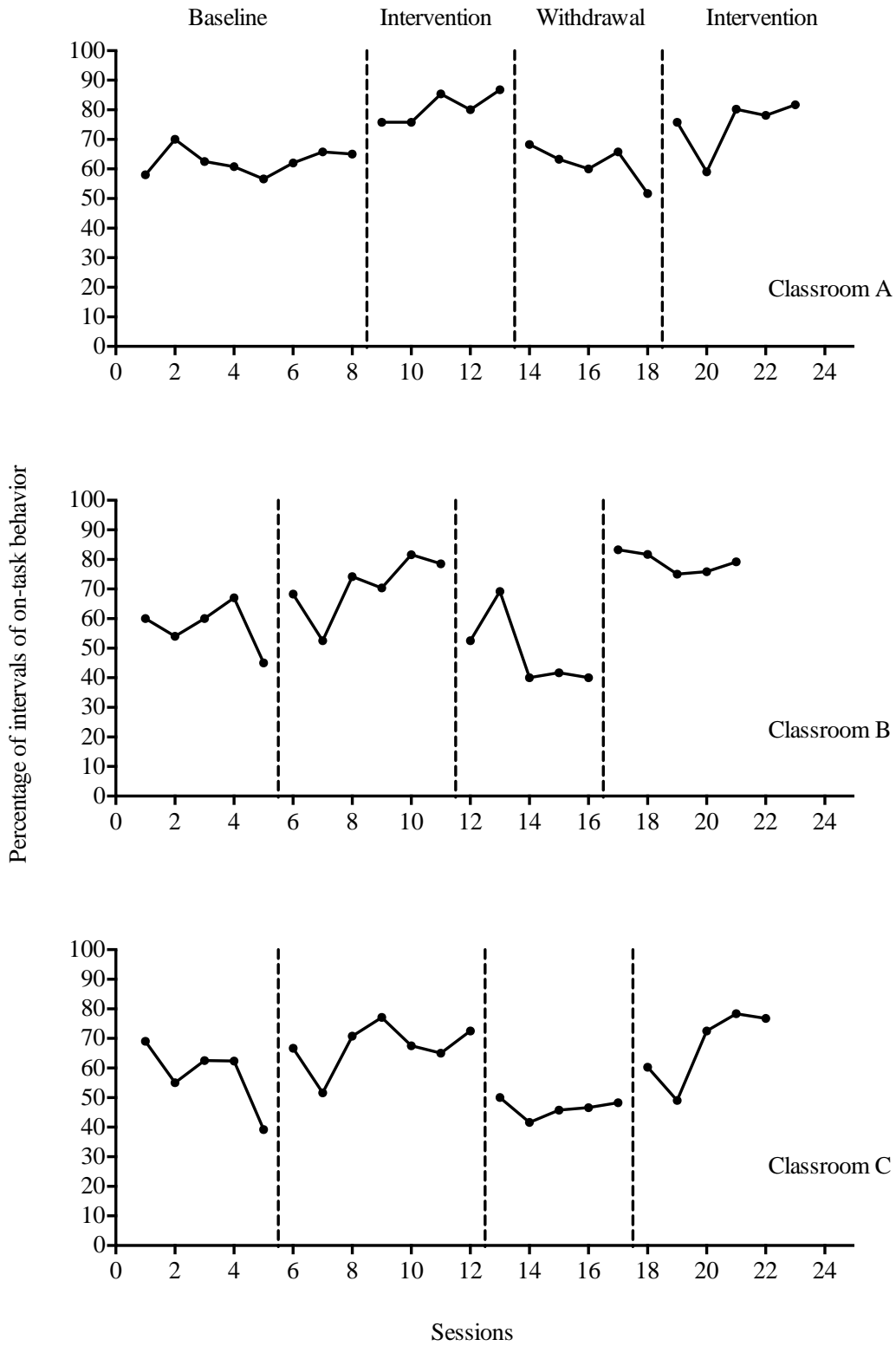
Figure 1. Academically engaged behaviors across classrooms

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Disruptive Behavior

For Classroom A, during baseline DB (see Figure 2 top panel) averaged 19.2%

(range = 9-34.4%) with a slight increasing trend until stability was reached during that

last three data points. During intervention a sharp drop in DB occurred and remained

stable averaging 8.46% (range = 5.8-16.6). When withdrawal was implemented, a slight

increase was noted with a continuing upward trend throughout the phase with DB

averaging 23.68 (range = 11.7-32.5). Finally, when the classroom password was re-

implemented, a noticeable drop in DB occurred, mean 11.58% (range = 4.2-22.2%), with

more variable data than the previous intervention phase.

Classroom B, during baseline DB (see Figure 2 middle panel) had a decreasing

trend with a sharp increase during final data point. During baseline DB averaged, 21.78%

(range = 13- 36.6%). During intervention DB averaged 17.86% (range = 10.8-32.5%)

with a small immediate drop occurring when intervention was introduced and a

downward trend occurring throughout with little variability. During withdrawal an

immediate increase occurred with an increasing trend that varied slightly. DB averaged

31.18% (rang = 22.5-41.7%). Finally, when the intervention was reintroduced, an

immediate decrease occurred that remained stable throughout the phase with no overlap

between previous phase. DB averaged 13.58% (range = 9.2-17.5%).

Lastly for classroom C, DB (see Figure 2 bottom panel) was stable throughout

with a large jump in DB during the final data point. DB averaged 30.5% (range = 20.8-

53.5%). When the intervention was introduced, an immediate decrease occurred followed

by stable rates of DB

that were similar to baseline rates, mean 27.52 (range = 20.2-27.5%). When intervention

was withdrawn an increase in DB occurred immediately with stability. DB averaged

43.06% (range = 48.3-34.2%). During reimplementation of the intervention, a slight

immediate decrease in DB occurred with a downward trend that occurred throughout. DB

averaged 27.3% (range = 23.3-36%)
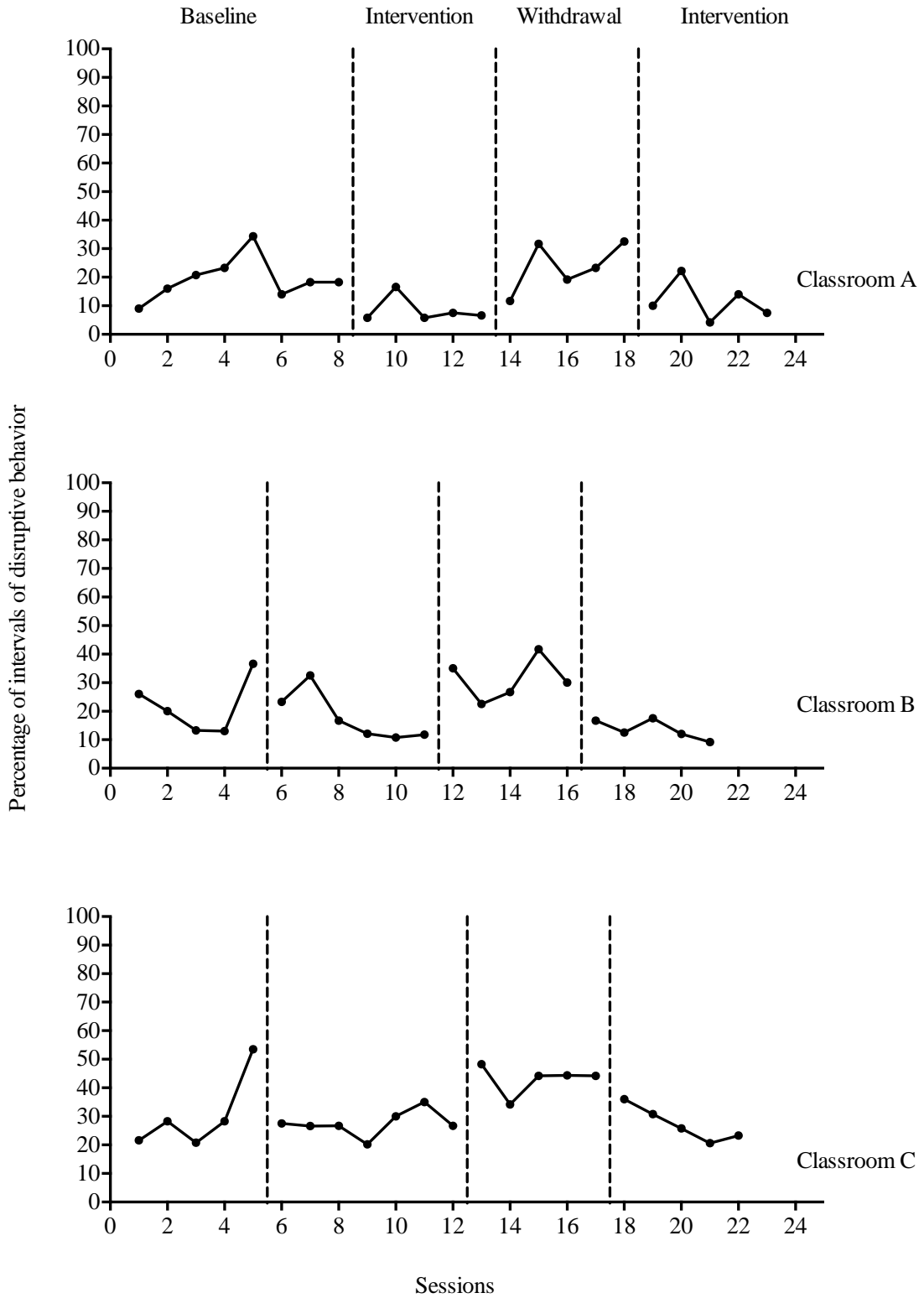
Figure 2. Disruptive behaviors across classrooms

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Passively Off-Task

POT for classroom A (See Figure 3 top panel) averaged 17.72 during baseline (range =

8.9-32%) with low levels, some variability and no trend occurring. During intervention

levels of POT remained low, with little variability and a slight downward trend. POT

averaged 10.5% (range = 6.6-20%). With intervention was withdrawn, an immediate

increase in POT occurred with variability throughout. POT averaged 14.48% (range = 5-

20.8%). Finally when intervention was reimplemented, no immediate change was noted

for POT although a slight decreasing trend did occur (mean = 13.46; range = 7.9-18.8%).

For classroom B during baseline (see Figure 3 middle panel), relatively low and stable

levels of POT occurred. During baseline classroom B averaged 20.98% (range = 14-

26.6%). During intervention, an immediate increase occurred for POT with levels

remaining low although some variability occurred. POT averaged 11.15% (range = 5-

17.4%) When intervention was withdrawn no immediate change for POT was observed

although an upward trend occurred with variability. POT averaged 20% (range = 8.3-

33.3%). Finally, when intervention was introduced, POT averaged 7.4% (range = 0-

11.7%) with an immediate decrease, little variability and an increasing trend occurring.

For classroom C during baseline (see Figure 3 bottom panel), low and stable

levels of were observed with a spike of POT during the final data point. POT averaged

11.91% (range = 9.17-23.3%). During intervention, an immediate increase in POT

occurred followed by a decreasing trend that lead to low stable levels of POT. POT

averaged 5.14 (range = 0-35%). When the intervention was withdrawn, POT remained

low with no trend and little variability, (mean 10.3%; range = 1.7-24.2%) Finally, when

the intervention was re-implemented, levels for POT remained low with some variability

(mean 4.94%; range 0-20%).
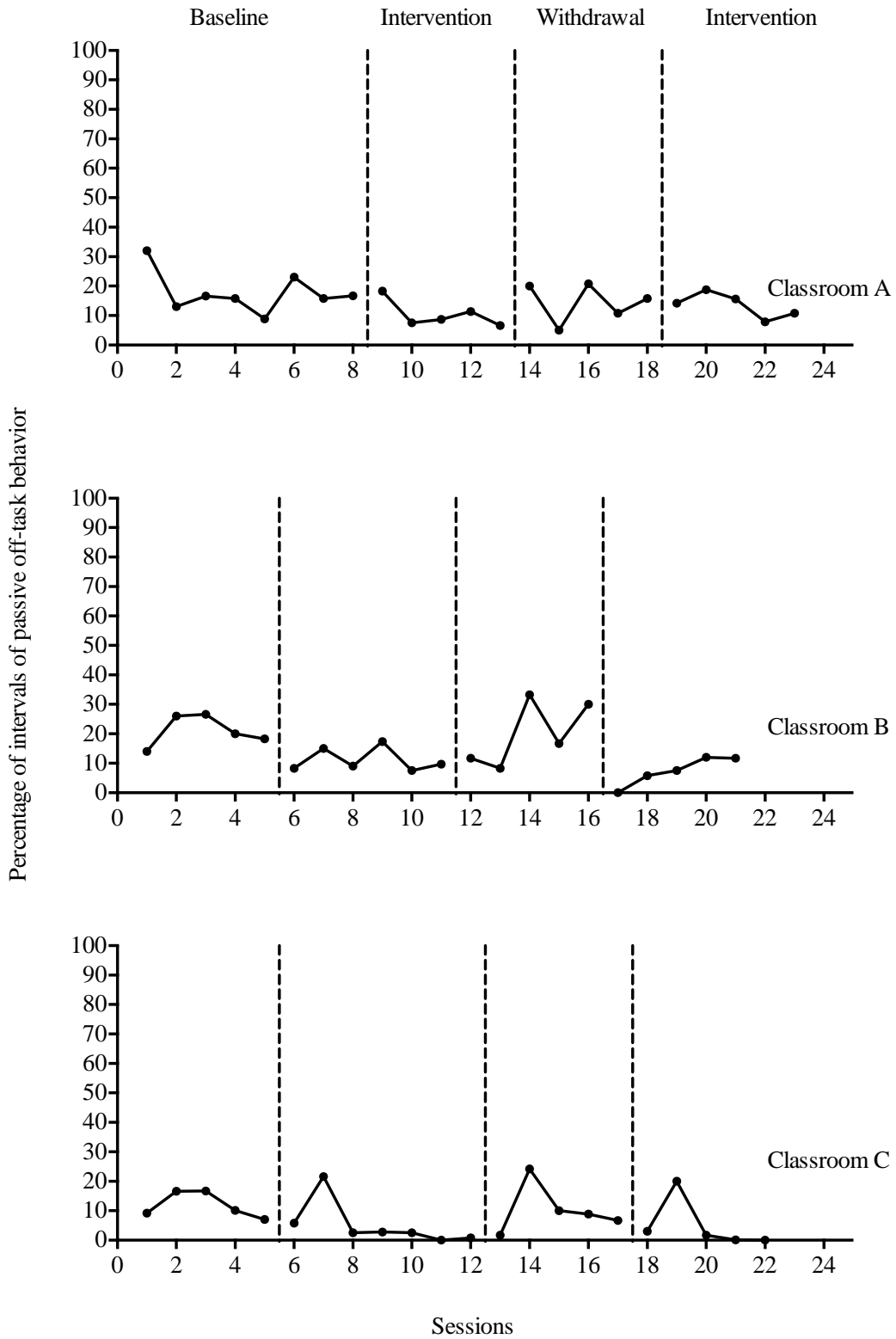
Figure 3. Passive off-task behaivors across classrooms

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Effect Sizes

Effect sizes were calculated for all three classrooms as displayed in Table 1.

When evaluating effect sizes using NAP scores of 0-0.65 are considered weak effects,

0.66-0.91 are considered medium effects and 0.92-1.00 are considered large effect sizes.

For the classroom password overall, medium effects sizes were found for academically

engaged behaviors (NAP = .90). When disruptive behaviors were calculated across

classes medium effect sizes were observed (NAP = .83). Finally, for passively off-task

behaviors (NAP = .81) medium overall effects were found.

Table 1 *Total Combined Weighted Effect Sizes*

	Dependent Variables Weighted Total		
Classrooms	AEB	DB	POT
Classroom A	0.92	0.90	0.73
Classroom B	0.93	0.84	0.89
Classroom C	0.86	0.74	0.82
Overall Mean	0.90	0.83	.81

When effect sizes were broken down by dependent variable, Classroom A was

received a large effect size (NAP = .92) for academically engaged behaviors (Table 2).

Medium effect sizes were also noted when comparing baseline phases to interventions

phases (NAP = .88). When withdrawal phases were compared to intervention phases

large effect sizes were observed (NAP = .93) across classes. For classroom A, when

baseline was compared to intervention a very large effect size was observed (NAP = 1).

Additionally, when withdrawal was compared to intervention a medium effect size was

noted (NAP = 0.84). Finally, an overall large effect sizes for Classroom A was observed

(NAP = 0.92). For classroom B, when baseline was compared to intervention, a medium

effect size was observed (NAP = .87). When withdrawal was compared to intervention a

very large effect size was observed (NAP = 1). Yielding a large overall effect size (NAP

= .93) for classroom B. Finally, for classroom C, when baseline was compared to

intervention a medium effect size was observed (NAP = .78). When withdrawal was

compared to intervention a large effect size was observed (NAP = .96) lending to an

overall medium effect size (NAP = .86) for academically engaged behaviors across

classroom C.

Table 2 *Effect Sizes for Academically Engaged Behaviors*

Classrooms	Academically Engaged Behaviors		
	Baseline-Intervention	Withdrawal-Intervention	Overall Effect
Classroom A	1	0.84	0.92
Classroom B	0.87	1	0.93
Classroom C	0.78	0.96	0.86
Overall Mean	0.88	0.93	0.90

For disruptive behaviors (Table 3) when baseline was compared to intervention phases across classrooms a medium overall effect size was observed (NAP = .72). When withdrawal was compared to intervention a large effect size was noted across classes (NAP = .95). Finally, across all three classrooms a medium overall effect size was noted for disruptive behaviors (NAP = .83). For classroom A, when baseline was compared to intervention, a large effect size was noted (NAP = .93). When withdrawal was compared to intervention a medium effect size was observed (NAP = .88). Yielding an overall medium effect size for classroom A (NAP = .90). When baseline was compared to intervention for classroom B a medium effect size was observed (NAP = .70). For withdrawal compared to intervention a very large effect size was observed (NAP = 1). An overall medium effect size was observed for classroom B disruptive behaviors (NAP = .84). Finally for classroom C, when baseline was compared to intervention a weak effect size was observed (NAP = .54). When withdrawal was compared to intervention a large effect size was observed (NAP = .96). Yielding an overall medium effect size for classroom C (NAP = .83).

Table 3 *Effect Sizes for Disruptive Behaviors*

	Disruptive Behaviors		
Classrooms	Baseline-Intervention	Withdrawal-Intervention	Overall Effect
Classroom A	0.93	0.88	0.90
Classroom B	0.70	1	0.84
Classroom C	0.54	0.96	0.74
Overall Mean	0.72	0.95	0.83

For passive off-task behaviors (Table 4), an overall medium effect size was observed when baseline was compared to intervention (NAP = .87). When withdrawal was compared to intervention a medium overall effect size was observed (NAP = .75). Lending to a medium overall effect size (NAP = .81) across all classrooms. For classroom A medium effect sizes were observed when baseline was compared to intervention (NAP = 0.83). However, when withdrawal was compared to intervention, a weak effect size was observed (NAP = .62). Lending to an overall medium effect size (NAP = 0.73) for classroom A. When baseline was compared to intervention for Classroom B's passive off-task behaviors a large effect size was observed (NAP = .93). Additionally, when withdrawal was compared to intervention a medium effect size was observed (NAP = .86) Yielding an overall medium effect size for classroom B (NAP = .89). Finally, for classroom C when baseline was compared to intervention, a medium

effect size was observed (NAP = .86). When withdrawal was compared to intervention a medium effect size was observed (NAP = .75) Yielding an overall medium effect size (NAP = .81) for classroom C's passive off-task behaviors.

Table 4 *Effect Sizes for Passive Off-Task Behaviors*

	Passive Off-Task		
Classrooms	Baseline-Intervention	Withdrawal-Intervention	Overall Effect
Classroom A	0.83	0.62	0.73
Classroom B	0.93	0.86	0.89
Classroom C	0.86	0.78	0.82
Overall Mean	0.87	0.75	.81

Social Validity

Social validity was assessed using two measures. The BIRS (Table 5) was given after the completion of the classroom password. Ratings closest to 6 indicated positive ratings of the intervention. Teacher A reported an overall mean of 3.38 indicating she slightly disagreed with the acceptability, effectiveness and time of effectiveness for the classroom password. For acceptability, teacher A indicated a score of 4.06 indicating she slightly agreed with the acceptance of the intervention. For effectiveness a mean of 3.1 was given representing slight disagreement with the effectiveness of the intervention. For time of effectiveness a score of 3 was given also yielding slight disagreement that the

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intervention worked in a timely manner. Classroom B had the highest rates of social validity with ratings of 5.07 for acceptability, 3.78 for effectiveness and 5.5 for time of effectiveness, with a mean of 4.78 indicating she slightly agreed with the intervention. Finally, class C teacher scored a 4.62 for acceptability, 3.78 for effectiveness and 4 for time of effectiveness with an overall mean of 4 also indicating slight overall agreement with the intervention.

Table 5 *Mean Ratings for Behavior Intervention Rating Scale*

	Classroom		
Factor	A	B	C
Acceptability	4.06	5.07	4.62
Effectiveness	3.1	3.78	3.78
Time of Effect	3.0	5.5	4.0
Overall Mean	3.38	4.78	4.13

The second form of social validity was taken using the CIRP (Table 6) which measured the student's acceptance of the classroom password. Of the 73 students that participated in the classroom password, 30 students completed the CIRP (41%). 9 students from classroom A completed the CIRP resulting in 39% of the class participating. For classroom B, 20 students completed the survey resulting in 90% of class participation. Finally for classroom C, 10 students participated resulting in 36% of

the class completing the CIRP. Scores with an average of 6 and a sum of scores of 36 would indicated a perfect rating for social validity. Classroom A had an average rating of 4.98 with a sum of scores equaling 29.9. Classroom B had an average score of 5.05 with a sum of scores 30.3. Classroom C had an average score of 4.7 with a sum of scores equaling 28.2. Each of these scores indicates that the classroom game was well accepted by students.

Table 6 *Mean ratings for Children's Intervention Rating Profile*

	Classroom		
Mean	A	B	C
All Items	4.98	5.05	4.7
Overall Score	29.9	30.3	28.2

CHAPTER IV – DISCUSSION

Increasing academic engagement in the classroom settings has been the focus of recent literature as the field moves in the direction of positive behavior interventions (Wright & Berry 2012; Sugai & Horner 2009). From a review of the literature it is clear that many interventions targeting whole classrooms included measures to decrease disruptive behaviors but did not guarantee that an increase would also occur in academic engagement (Maggin et. al 2012). Academic engagement is considered a keystone behavior for a successful learning environment. When students are not academically engaged they run the risk of missing key educational instruction time (Lloyd & Loper, 1986; Lee, Kelly, & Nyre, 1999). This study utilized an independent group contingency to target academically engaged behaviors across three high school classrooms.

The current study is a continuation from a previous study conducted by Dart et. al 2016 who piloted the use of the classroom password. However, this study targeted secondary education, due to gaps in the literature for effective interventions, but also due to the fact that there is a growing concern for low levels of academic engagement across U.S. secondary schools (Mark 2000). While academic engagement was the focus of this study, disruptive behaviors, and passive off-task behaviors were also monitored.

Results across classrooms indicated that the classroom password had large effects for increasing academically engaged behaviors. Literature suggests that AEB should be at or above 70% to ensure a conducive learning environment. For classroom A AEB averaged 77.86% across intervention phases. Similarly, classroom B averaged 74.96% with classroom C averaging 67.25. For all three classrooms after the implementation of the classroom password increases in academic engagement occurred that were over or

close to 70% indicating that levels of AEB were appropriate for a learning environment. It should be noted that Classroom A almost was at that level before any intervention was introduced (AEB = 62.59%), yet increases were seen across phases. This could indicate that the ceiling effect for this intervention might be higher than traditional group contingency interventions. Meaning this intervention could be beneficial even for classes who are exhibiting high levels of academic engagement.

Although disruptive behaviors were not the primary dependent variable it was hypothesized that if AEB increased DB would therefore decrease due to the incompatibility of the behaviors. For classroom A, disruptive behaviors dropped to very low levels when the intervention was implemented. Again, it should be noted for Classroom A disruptive behaviors were relatively low during baseline levels, limiting the potential of effects when intervention was introduced. For classroom B disruptive behaviors increased above baseline levels when the withdrawal phase was implemented and then dropped to lowest levels when intervention was reintroduced. Meaning that in the absence of the classroom password disruptive behaviors increased to a level not previously seen, however they quickly returned to low levels are the reimplementation of the intervention. A fading procedure could have been useful for Classroom B to reduce the rebound effect from occurring in the future. This might look like the teacher going from implementing the classroom password 4 times per week to only 3, then 2, then once per week until the intervention is faded out. Classroom C showed the highest levels of disruptive behaviors throughout the study. Classroom C was also the only classroom in the study that was not self-referred, but referred by administration for help regarding classroom management. Modest effects were found for classroom C in regards to

decreasing disruptive behaviors. Specifically, during the final intervention phase classroom C saw a 15% decrease in disruptive behaviors. While decreases in disruptive behaviors were seen across classes the findings were not as robust as the increases in academically engaged behaviors.

Small effects were found for decreasing passive off-task behaviors during this study. This is likely due to the low percentage of passive off-task behavior exhibited by students throughout the study. It was hypothesized that this intervention would not only affect students' academically engaged behaviors, but would also modify passive off-task behavior. (e.g., staring off in space, day dreaming, sleeping); however only modest effects were found.

The original classroom password study utilized a Motivator to help teachers keep track of how many times they said that classroom password. While the Motivator was successful for helping teachers keep track, of the number of times they said the password they cost around $50.00 for each device and are not very common in classrooms. This study attempted to increase the utility of the intervention with the use of interval timers that could be downloaded to any smart phone. Although the interval timer worked much the same as the Motivator, each teacher had trouble at least once during the study with keep track of how many times they said the classroom password. Classroom A struggled to keep up with the number of times she said the word. Although she set the interval timer she often ignored or did not feel the vibration of her phone in her pocket. Permanent product from the recordings of intervention sessions reveled that teacher A misreported the number of times she said the word 3 out of 10 times the intervention was implemented. A consultation meeting took place after the 4th day of intervention to

address the drop in treatment integrity and to problem solve how to help her keep track of the number of times she said the password. It was decided that Teacher A would have small slips of paper in the palm of her hand as she taught. Each time she said the word she would drop one paper onto her desk or podium, once the papers were gone she no longer needed to say the word. After this modification, Teacher A had no more discrepancies in the numbers of times she meant to say the word vs actually saying the password of the day. Teacher B also had two incidents where she thought she said the word a different number of times than she actually said it. Permanent product data revealed she conducted the intervention 9 out of 11 times without discrepancies. One of these discrepancies occurred during the first day of intervention. It was reported that teacher B could not feel her phone vibrate with the interval timer in her pocket so it was decided that she would move it to her podium and remove the vibrating sound. Teacher B reported to her podium enough that she was able to keep track of the timer and know when to say the word. No discrepancies were noted in the reimplementation phase of the intervention. Finally, Classroom C's teacher did not like using the interval timer. A motivator was offered to her as an alternative but she reported that the motivator was invasive and was not needed that she could keep track of the time on her own. Discrepencies in the number of times she said the word was not an issue for class C therefore an interval timer was not used during reimplementation of the intervention. Class C's permanent product revealed that she implemented the intervention without discrepancy 11 out of 12 times. While Teacher C set her interval timer daily she did not follow the prompts from the timer and often said the word in very close proximities of one other. This however did not seem to have a large effect on the interventions

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effectiveness. It should be noted for teacher A and B the discrepancies occurred during the first phase of intervention. It was noted that with practice both of these teachers were better able to keep track of how often they said the word.

Social validity was taken across both teachers and classes using the BIRS and CIRP. The teacher's in this study rated the acceptability of the intervention higher than effectiveness or time of effectiveness of the intervention. While data indicated that the classroom password was effective across all three classes, from the teacher's perspective they did not believe the intervention was highly effective. This could be explained by the levels of academic engagement observed during baseline. Classes for this study were largely chosen because of availability and willingness to participate. Excluding teacher C, classroom A and B had relatively high levels of academic engagement when the study began. It is possible that ceiling effects limited the level of change that occurred during the intervention. This could explain the teacher's feelings and why the intervention was rated higher for acceptability rather than effectiveness. Despite the ratings for effectiveness all three teachers rated the intervention as acceptable meaning they did think the intervention held merit as a tool for behavior management in their classrooms. Students also rated the intervention as favorable further yielding to the social acceptance of the classroom password.

<div align="center">Limitations and Future Research</div>

An independent group contingency was chosen for the classroom password to reduce the chance that sharing answers would occur due to the fact that if there was only one winner the winning pool was bigger. Although this design theoretically decreased the chances of sharing the current study has no data to support this was the case. An

alternative group contingency should be explored. The lottery system that was used in the current study was not always easy to implement in the high school setting. Teachers often had trouble choosing rewards that could be broken down and split when there was more than one winner. Often teachers would choose items such as candy that were not appropriate for lottery system because these types of reinforcers held the potential of one student ending up with 5 candy bars. Utilizing a more interdependent reward system might be more beneficial. Using this method a percentage of the class would be required to have the correct number of passwords. For classes who particularly have one or two problem students, target students in which the group contingency is dependent upon might be a useful step.

The current study did not seem to make an impact on students who were passively off-task.. It is possible that the response effort of listening for the entire 20 minutes was not worth the benefits of potentially entering the drawing for a prize. It was also noted that when the award was announced at the beginning of the game if students did not like the day's reward they would often lay their head down and not engage in the game at all. This again, could have been because the classroom password required continuous sustained attention on the students during their lecture. Future research should utilize a preference assessment to better choose rewards. In the current study it was up to the teachers what they gave the students. Increasing the magnitude of reinforcement might also be beneficial for targeting students who are passively off-task.

A limitation of the classroom password is the number of working parts the intervention has in order to be implemented with integrity. Its requires the teachers to integrate a word into their lecture that would not otherwise seem out of place in their

classroom, to keep up with the number of times they say a word through the use of an interval timer and to come up with a daily reward pool that would be reinforcing to most of the students in their class. While treatment integrity data from this study was very high the method of assessing treatment integrity did not account for discrepancies in the number of times the teacher said the password. Methods for assessing discrepancies in the number of times the password was actually said were assessed using permanent product and were not a part of the check-list for treatment integrity. As mentioned earlier all three teachers had trouble with implementing the password the correct number of times and on an interval schedule. To ensure that teachers keep track of how many times the word is said, an easier way to keep track might be to add tangible tokens or objects similar to the way Teacher A keep track. The use of paper with teacher A was easy to implement and was not invasive to teacher or students. While this would help teachers keep track of the number of times the word was said this once again adds another component to the intervention. More research is needed to expand and these components.

Future research should look at extending this intervention to more diverse populations, including to students who struggle with attention problems, such as students with ADHD.

Finally, while the primary DB of this study was academic engagement no data was collected to see if the increases in academic engaged behaviors generalized to classroom grades or completions of academic tasks. Future studies should look at this component.

Conclusions

Previous research on the importance of increasing academic engagement is clear, the more academically engaged a student is the greater the chance learning will occur. Therefore, any intervention that successfully increases academic engagement is a resource for teachers. The classroom password is an independent group contingency that proved to be effective for increasing academically engaged behaviors across three high school classrooms. The classroom password also resulted in decrease in disruptive behaviors across classes. Teachers rated this intervention as socially valid particularly in its acceptability as a class wide intervention. While this classroom password proved to be effective at increasing academically engaged behaviors in the high school setting more research is needed to assess the generalization of these findings across more diverse populations.

BEFORE THE GAME BEGINS:

- Determine the password of the day!
  - o It is important to remember to pick a word that will not be too easy or out of the ordinary for the students (e.g. Flamingo). Also try not to pick a work that you would easily say in common lecture conversation (e.g. "and" "then").

- Determine what the winner of the game will receive and how many students can win.
  - o To ensure that each student is trying his/her best be sure to make the reward is reinforcing to a majority of the class. Also make sure that the reward can be split between the number of winners selected. (e.g. 20 bonus points, 10 pieces of candy, 30 minutes of computer time). Announce the reward to the class.

- Decide how many times you will say the word during the 20 minutes the class is playing the game(between 1 and 7 times).

- Set the Motivaider to vibrate at the frequency that corresponds to the number of times you chose to say the word. The following guide can help:

Number of Passwords given	Motivaider Display
1	0:10
2	0:08
3	0:06
4	0:04
5	0:03
6	0:03
7	0:02

- Put the Motivaider in your pocket or on your belt. Make sure you place the Motivaider where you will be able to feel it when it vibrates.

TO BEGIN THE GAME:

1. Announce that the Classroom Password game is about to begin.
   "Okay class we are about to begin the Classroom Password game."

2. Next announce to the class what the password of the day will be
   "**Today's password is "_____".**

3. Announce the reward that is available to the winners:
    "Today's reward is _____. Up to _____ winners will split the reward. Remember if there is only one winner they get the whole prize themselves"

4. Pass out each student a record sheet
    "I am passing out sheets of paper you will record each time you hear me say the password for today. Please make an X or tally mark each time you hear the word. When the game ends anyone who has the correct number of times the word was said will be eligible for the reward. Remember only __ students can win so don't react or tell your neighbor when I say the word.

5. When you are ready to begin switch the Motivaider to start the clock. When the Motivaider vibrates work the password into your lecture as natural as possible within 30 seconds of the vibration.

6. At the end of the 20 minutes announce that the game is over and collect all the record sheets from the students.
        "Okay class, the game is finished. Please turn in your record sheets

        over and pass them to the end of your row.

7. Check each students record sheet and determine which students have the correct number of marks based on how many times the password was said.

8. From the papers of correct students randomly draw the number of students that was predetermined. If fewer students than the number you predetermined won, then split the reward between the correct students. If only one person won then he/she gets the full prize.

9. Provide the winning student/students with their reward **right** away. If this is not possible (e.g. extra points on the next quiz) give the student a tangible item such as a card or coupon.

Classroom Password Record Sheet

Name:_____   Date:_____

Classroom Password Record Sheet

Name:_____   Date:_____

Classroom Password Record Sheet

Name:_____   Date:_____

Classroom Password Record Sheet

Name:_____   Date:_____

APPENDIX C – BEHAVIOR INTERVENTION RATING SCALE

Please respond to each of the following statements thinking about the intervention you

implemented (i.e., Classroom Password Game) Please then circle the number associated with your

response. Be sure to answer all statements.

	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
Password Game was an acceptable intervention for the students' problem behavior(s).	1	2	3	4	5	6
Most teachers would find The Password Game appropriate for other classroom behavior problems.	1	2	3	4	5	6
The Password Game proved effective in helping to change students' problem behavior(s).	1	2	3	4	5	6
I would suggest the use of the Password Game to other teachers.	1	2	3	4	5	6

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The behavior problems were severe enough to warrant use of this intervention.	1	2	3	4	5	6
Most teachers would find the Password Game suitable for the classroom use described.	1	2	3	4	5	6
I would be willing to use the Password Game again in the classroom.	1	2	3	4	5	6
The Password Game did *not* result in negative side effects for the students.	1	2	3	4	5	6
This intervention would be appropriate for a variety of students.	1	2	3	4	5	6
The Password Game was consistent with interventions I have used in the classroom setting.	1	2	3	4	5	6
The Password Game was a fair way to handle the students' problem behavior.	1	2	3	4	5	6

The Password Game was reasonable for the problem behaviors described.	1	2	3	4	5	6
I liked the procedures used in the Password Game	1	2	3	4	5	6
The Password Game was a good way to handle the students' problem behavior.	1	2	3	4	5	6
Overall, the Password Game was beneficial to the students.	1	2	3	4	5	6
The Password Game quickly improved the students' behavior.	1	2	3	4	5	6
The Password Game produced a lasting improvement in the students' behavior.	1	2	3	4	5	6
The Password Game improved the students' behavior to the point that it did not noticeably deviate from other classmates' behavior.	1	2	3	4	5	6

Soon after using The Password Game, the teacher noticed a positive change in the problem behavior.	1	2	3	4	5	6
The students' behavior remained at an improved level even after The Password Game was discontinued.	1	2	3	4	5	6
Using The Password Game did not only improve the students' behavior in the classroom, but also in other settings (e.g., other classrooms, home).	1	2	3	4	5	6
When comparing the students with other well-behaved peers before and after the use of the intervention, the students' and the peers' behavior more more alike after using the intervention.	1	2	3	4	5	6

The intervention produced enough improvement in the students' behavior so the behavior was no longer a problem in the classroom.	1	2	3	4	5	6
Other behaviors related to the problem behavior were also likely improved by the intervention.	1	2	3	4	5	6

APPENDIX D – CHILDREN'S INTERVENTION RATING PROFILE

	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
Classroom Password Game was fair.	1	2	3	4	5	6
I liked Classroom Password Game	1	2	3	4	5	6
I think other students would like Classroom Password Game	1	2	3	4	5	6
Classroom Password Game helped me do better in school.	1	2	3	4	5	6
There are better ways to handle problem behaviors than using Classroom Password Game	1	2	3	4	5	6
Classroom Password Game caused problems for my friends	1	2	3	4	5	6

Parental Permission Requested

Overview
Your child's teacher has been implementing a new classroom management strategy over the past several weeks as part of a local research project. Your child is being asked to complete a brief survey about the intervention to determine if he/she liked the intervention. The survey will take 1-2 minutes to complete and should not cause any discomfort to your child.
If you elect for your child not to complete the survey, they will be asked to complete other school work while his/her classmates complete the questionnaire. Your child's academic standing will not be affected by completion or non-completion of the survey. No identifying information (such as your child's name) will be collected.

Background Information
This survey will be used by researchers at The University of Southern Mississippi to evaluate the acceptability and effectiveness of a classroom management intervention. Your child's classroom teacher utilized the intervention over the past several weeks to determine its effects on academic engagement and disruptive behavior. This research is intended to improve the services we can give children in public schools and is not associated with agency other than The University of Southern Mississippi and your child's school district.

Additional Information
A copy of the survey will be made available to you upon request. Students returning a signed copy of this form will be provided with a small reward. Rewards will be provided for any student returning the form regardless of parental decision of consent.

Participant's Assurance
This project has been approved by the Institutional Review Board, which ensures that research projects involving human subjects follow federal regulations. Any questions or concerns about rights as a research subject should be directed to the Manager of the Institutional Review Board at 601-266-5997. Participation in this project is completely voluntary, and participants may withdraw from this study at any time without penalty, prejudice, or loss of benefits.

If you have questions or concerns about the research, please contact Kayla Bates or Dr. Evan Dart. Phone: 601-266-5255; Email: kayla.e.bates@eagles.usm.edu; evan.dart@usm.edu

Consent

By signing this portion of the consent form, I acknowledge that I have read the information in this form and **I agree to allow** my child to take part in this brief survey.

_____
_
Child's Name

_____   _____
_   _
Parent/Guardian's Name   Parent/Guardian's Signature

_____   _____
Relationship to Child   Date

Or

By signing this portion of the consent form, I acknowledge that I have read the information in this form and **I will _not_ allow** my child to take part in this survey.

_____
_
Child's Name

_____   _____
_   _
Parent/Guardian's Name   Parent/Guardian's Signature

_____   _____
Relationship to Child   Date

APPENDIX F OBSERVATION SHEET

Teacher Initials:_____   Date:_____   Observer:_____   IOA:_____

Interval	AEB	Pass. On-T	DB	Inn	Interval	AEB	Pass On-T	DB	Inn	Interval	AEB	Pass. On-T	DB	Inn
1.1					7.5					14.3				
1.2					7.6					14.4				
1.3					8.1					14.5				
1.4					8.2					14.6				
1.5					8.3					15.1				
1.6					8.4					15.2				
2.1					8.5					15.3				
2.2					8.6					15.4				
2.3					9.1					15.5				
2.4					9.2					15.6				
2.5					9.3					16.1				
2.6					9.4					16.2				
3.1					9.5					16.3				
3.2					9.6					16.4				
3.3					10.1					16.5				
3.4					10.2					16.6				
3.5					10.3					17.1				
3.6					10.4					17.2				
4.1					10.5					17.3				
4.2					10.6					17.4				
4.3					11.1					17.5				
4.4					11.2					17.6				
4.5					11.3					18.1				
4.6					11.4					18.2				
5.1					11.5					18.3				
5.2					11.6					18.4				
5.3					12.1					18.5				
5.4					12.2					18.6				
5.5					12.3					19.1				
5.6					12.4					19.2				
6.1					12.5					19.3				
6.2					12.6					19.4				
6.3					13.1					19.5				
6.4					13.2					19.6				
6.5					13.3					20.1				
6.6					13.4					20.2				
7.1					13.5					20.3				
7.2					13.6					20.4				
7.3					14.1					20.5				
7.4					14.2					20.6				

Operational Definitions for Observation Form

1. Disruptive Behavior: Includes inappropriate vocalizations (e.g., talking without permission to other students or teacher, shouting out, talking back); Out of seat – buttocks removed from seat for 3+ seconds (students are allowed to sit on their feet); Playing with Objects (Playing with objects not associated with academic related tasks – e.g., combing hair, slamming books, scribbling/coloring, digging in book bag, playing on phone).
2. Academic Engagement: Attending to the ongoing task demand for 3+ seconds (e.g., working on assignment, talking to the teacher or group members with permission, taking notes or raising a hand. Or when the student is passively attending to the assigned work and includes (but is not limited to) listening to a lecture, looking at a worksheet, reading assigned material silently, looking at the blackboard or teacher during instruction, listening to a teacher or peer respond to a question
3. Passive Off-Task: when a student is not attending to the academic task at hand actively or passively nor are they being disruptive. (i.e. staring into space, sleeping, doing nothing)
- Observation Procedure: Momentary time sampling: when notified, look up at student for 3 seconds and record if student is engaging in DB, AEB, or POA. Observe each child in the class: start with one child and alternate after each interval.
- ONLY ONE BOX WILL BE CHECKED PER INTERVAL!

Occurrence of AEB = _____/120= _____%

Occurrence of DB = _____/120= _____%

Occurrence of POT = _____/120= _____%

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APPENDIX G – IRB Approval Letter

THE UNIVERSITY OF SOUTHERN MISSISSIPPI

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

NOTICE OF COMMITTEE ACTION

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

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

PROTOCOL NUMBER: 12345678
PROJECT TITLE: How to Achieve IRB Approval at USM
PROJECT TYPE: New Project
RESEARCHER(S): Jonas Doe
COLLEGE/DIVISION: College of Education and Psychology
DEPARTMENT: Psychology
FUNDING AGENCY/SPONSOR: N/A
IRB COMMITTEE ACTION: Expedited Review Approval
PERIOD OF APPROVAL: 01/02/2015 to 01/01/2016
Lawrence A. Hosman, Ph.D.
Institutional Review Board

APPENDIX H TEACHER CONSENT FORM

Dear Teacher,

I am a doctoral student in the School Psychology Program at The University of Southern Mississippi working under the guidance of Dr. Evan Dart. As part of my thesis, I am researching the effectiveness of a classroom-based intervention, the Classroom Password Game, a procedure used to increase on-task behaviors and decrease disruptive behavior. Your classroom has been referred for class wide inattention and disruptive behavior, which the intervention aims to address, therefore we hope you will participate in the study.

If you agree to participate in this study, we will ask you to perform several tasks. First, prior to the implementation of the CPG, a screening procedure will be conducted to verify your classroom's capacity for participation. If your classroom qualifies for participation, I will conduct a training session to explain and practice the steps of the intervention with you prior to implementation. The CPG is an intervention in which students will be asked to record the number of time the password of the day is stated. In order to participate in the study, your classroom must demonstrate disruptive behavior in at least 30% of the observation intervals at the time of the screening session in order qualify for the study. If the classroom does not qualify for participation other services will be made available to you.

Throughout the study, classroom observations will be conducted multiple times a week by myself or another trained graduate student from the USM School Psychology program. The study will consist of two phases. Following the initial screening observation, data will be collected on the targeted behaviors. At this time, you will conduct class as normal without the implementation of the CPG. During the second phase, the CPG will be implemented in the classroom. The game will consist of you picking out a password of the day that pertains to your lecture but will not be too obvious or too common. The students are asked to make a tally or "X" on their record sheet every time they hear you say the word. At the end of each game the students with the correct number of tally marks or "X's" are eligible for a prize.

Following each day of observations, you will be provided with feedback on the game implementation. At the end of the study, you will be asked to complete a questionnaire to assess social acceptance of the CPG. Agreeing to participate in this study may offer several benefits for you and your students. By participating in this study you will be trained on the implementation of a new intervention technique that can be used with other students. An additional benefit is the expected decrease in inappropriate behaviors and the increased appropriate on-task behaviors by your students.

Students' behavior will be monitored to ensure undesired effects (e.g., increase in inappropriate behaviors) do not happen. Should we observe any unanticipated effects on your students' behavior, modifications or discontinuation of the intervention will occur,

and your students will be provided with other appropriate services. There appear to be very few risks for either you or your students participating in this study. The greatest discomfort for you may be related to implementing a new procedure in the classroom. To reduce discomfort, I and/or other trained graduate students will provide training, materials, and will be available to answer any questions you may have. Your students should not experience any discomfort from the implementation of the recommended intervention.

All interviews, observations, and other information obtained during this study will be kept strictly confidential. Your name, students' names, and other identifying information will not be disclosed to any person not connected with this study. Results from this research project may be shared at professional conferences or published in scholarly journals; however, all identifying information will be removed from publications and/or presentations. Your participation in this study is entirely voluntarily. In addition, you may withdraw from this study at any time without penalty, prejudice, or loss of benefits. Further services, if needed, may be provided outside the scope of this study. Whereas no assurance can be made concerning results that may be obtained (as results from investigational studies cannot be predicted) the researcher will take every precaution consistent with the best scientific practice.

If you agree to participate, please read, sign, and return the following page. Please keep this letter for your records. If you have any questions about this study, please contact Kayla E. Bates at (601-416-8803; Kayla.e.bates@eagles.usm.edu) or Dr. Evan Dart (Evan.dart@usm.edu). This project and this consent form have been reviewed by the Human Subjects Protection Review Committee at USM, which ensures that research projects involving human subjects follow federal regulations. Any questions or concerns about rights as a research subject should be directed to the Institutional Review Board Office, The University of Southern Mississippi, Box 5147, Hattiesburg, MS 39406-5147, (601) 266-6820.

Sincerely,

Kayla E. Bates, B.S. School Psychologist in Training

THIS SECTION TO BE COMPLETED BY TEACHER

Please Read and Sign the Following:

I have read the above documentation and consent to participate in this project. I have had the purpose and procedures of this study explained to me and have had the opportunity to ask questions. I am voluntarily signing this form to participate under the conditions stated. I have also received a copy of this consent. I understand that I will be asked to implement a classroom-based intervention called the Classroom Password Game, and observations will be conducted in the classroom on the students' behavior. In order to do so, I will be required to complete a consultation session, to implement the intervention, and to complete a structured questionnaire to assess my satisfaction with the intervention. In addition, I will be trained on all of the intervention procedures by the primary experimenter. I further understand that all data collected in this study will be confidential and that my name and the students' names will not be associated with any data collected. I understand that I may withdraw my consent for participation at any time without penalty, prejudice, or loss of privilege.

_____ *Signature of Teacher*

_____ *Date*

APPENDIX I PROCEDURAL INTEGRITY CHECKLIST

Date: _____ _____   Observer: _____

	Training Steps	Yes	No
1	How to determine the password of the day		
2	Determining the number of winners and prizes per day		
3	Selecting the number of time the word will be said		
4	Explaining how the interval timer works		
5	Have the teacher set the timer		
6	Explain classroom password game procedures		
7	Explain the record sheets		
8	Explain how to end the game		
9	Explain how to select winners		
10	Decides on a reward		

Number of steps competed: **/10**

Percentage of steps completed: _____

APPENDIX J TREATMENT INTEGRITY CHECKLIST

To be completed by the observer at the end of game

Date: _____ Teacher: _____

Observer: _____ IOA:_____

	Classroom Password Game	Yes	No
	Before the Game		
1	Announce the game is about to begin and daily password?		
2	Announce reward available and how many eligible winners		
3	Pass out the record sheets		
4	Set and started the interval timer		
5	Works password discreetly into typical instruction/conversation		
	End of the Game		
6	Announce the end of the game after 20 minutes		
7	Number of times Password was said		
8	Pick up, check record sheets, and draw from the number of winners		
9	Announce the winners		
10	Provide the winners with the reward		

Number of steps competed: **/10**

Percentage of steps completed: _____

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Block, J. (1978). Effects of a rational–emotive mental health program on poorly achieving, disruptive high school students. *Journal Of Counseling Psychology*, *25*, 61-65.

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