Increasing Student On-Task Behavior in a Juvenile Detention Day School Through the Use of a Token Procedure Implemented by Juvenile Correctional Officers

By

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Abstract

Education is important for all children. This is especially true for students in detention facilities where they may receive less than optimal learning opportunities. Among many barriers to students in detention facilities receiving a quality education is the students' lack of on-task behavior or engaging in frequent classroom disruptions (Houchins, Puckett-Patterson, Crosby, Shippen, & Jolivette, 2009). Researchers have used differential reinforcement procedures in classroom settings to increase student on-task behaviors (Heering & Wilder, 2006; Kelly & Bushell, 1987; Lo & Cartledge, 2006). Additionally, token economies have been used to improve delinquent youths' behaviors such as academic performance and appropriate classroom behaviors (Bednar, Zelhart, Greathouse, & Weinberg, 1970; Seymour & Sanson-Fisher, 1975; Tyler, 1967; Tyler & Brown, 1968). Although token economies have often been used with delinquent youth in detention facilities, minimal research exists on teaching juvenile correctional officers (JCOs) to implement token procedures to increase appropriate youth behaviors in a detention day school. Therefore, the purpose of the current study was to evaluate the effects of a differential reinforcement of alternative behavior (DRA) token procedure, implemented by juvenile correctional officers (JCOs), on the on-task behavior of detention day school student participants. JCO participants were taught how to implement the DRA token procedure using behavioral skills training (BST). Results demonstrated that BST was effective in teaching the JCO participants how to implement the DRA token procedure and the DRA token procedure was effective in increasing the on-task behavior of detention day school student participants attending a detention day school.

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Table of Contents

List of Tables

List of Figures

List of Appendices

Increasing Student On-Task Behavior in a Juvenile Detention Day School Through the Use of a Token Procedure Implemented by Juvenile Correctional Officers

Introduction

Overview of Juvenile Detention

Education is important for all children. In addition to increased monetary earning potential across his or her lifespan, education has a positive effect on the individual's overall health, improved family health and welfare, and reduced criminal behavior (Stacey, 1998). Education is also important in the juvenile justice system, which has a variety of different dispositional alternatives where youth may be placed. One of these alternatives is detention. Detention is "the temporary care of a child alleged to be delinquent who requires secure custody in physically restricting facilities pending court disposition or execution of a court order" (Siegel & Welsh, 2018). Approximately 18,079 youth reside in juvenile detention centers on any given day (Sawyer, 2018). According to the United States Department of Education, in the 2015-2016 school year, an estimated 171,524 youth were educated in detention facilities nationally, of which 2,357 were educated in detention centers in Kansas. It is important that youth in these facilities receive an education, and, thus, detention centers provide effective educational classrooms.

Alternative Schools

In addition to schools in residential juvenile detention facilities, there are also alternative schools that are non-residential in nature for juveniles who engage in behaviors that bring them into the juvenile justice system. Alternative schools are often smaller than traditional public schools and provide more one-on-one instruction, a higher teacher-to-student ratio, and sometimes provide more hands-on learning (Ingersoll & LeBoeuf, 1997; Lehr, Tan, Ysseldyke,

2009). Lagana-Riordan et al. (2011) indicate alternative schools provide personal relationships with teachers and peers, and present a school-wide focus on responsibility that traditional high schools lack. The number of alternative schools in the United States is growing rapidly. According to Kleiner, Porch, and Farris (2002), the number of alternative schools, in the United States from 1993 to 2001, rose from 2,606 to 10,900.

Alternative schools were first introduced in the 1960s in the private sector as an answer to juvenile crime and delinquency; a means of preventing school vandalism and violence, dropout prevention, desegregation; and a means of increasing overall school effectiveness (Kershaw & Blank, 1993; Quinn, Poirier, Faller, Gable, & Tonelson, 2006; Raywid, 1999). Additionally, alternative schools were developed to address the view that the public education system was failing to serve students in a fair and equitable manner (Lehr et al., 2009) and as a response to the public's concern of removing violence, weapons, and drugs from school without sending potentially dangerous youth out on the streets (Kleiner, Porch, and Farris, 2002).

Today, alternative schools continue to serve students who are unsuccessful, disadvantaged, are at risk or who may not succeed in a regular educational program (Raywid, 1994), are expelled, suspended (Ingersoll & LeBouf, 1997), have poor grades, are truant, engage in disruptive behavior, or are pregnant (Kleiner, Porch, and Farris, 2002). Raywid (1994) describes three types of alternative schools. Although alternative schools typically fall into one of these three types, some programs work in combination of the three. In Type I alternative schools, youth attend by choice. These schools typically resemble magnet schools. Type II alternative schools (also known as "last chance programs") are schools in which students are court ordered to attend and the youth does not attend by choice. These alternative schools are often highly structured and are sometimes referred to as "soft jails." Type III alternative schools

are the most expensive, and they provide rehabilitation to students with academic, social, and/or emotional needs (Lange, 1998; Raywid, 1994). Students can be court ordered to attend alternative schools upon their exit from juvenile detention centers. Alternative schools are then used as an interim program to reduce the risk of reentering the traditional public school system without the needed support services (Ingersoll & LeBoeuf, 1997).

In more than one-third of states, youth are automatically enrolled in alternative schools upon their release from juvenile detention facilities (The Council of State Governments Justice Center, 2015). This may be done through a judge's court order as part of the conditions of release for the youth's previous delinquent adjudications or for not attending school as required by law. These highly structured schools may be located within secured facilities. Students are transported to the school each day, dressed in a school uniform, and complete the school day in the locked facility. At the completion of the day, students are dressed in their regular clothing and transported home. Youth routinely are kept in the locked facility after school for being behind in schoolwork or engaging in problem behaviors. These highly structured settings are important in insuring these students get the education to which they are entitled.

In the *San Antonio Independent School District v. Rodriguez* (1973) case examining school financing, the Supreme Court addressed the issue of whether there is a fundamental right to education under the United States Constitution. The Court found no mention of a right to education in the Constitution and, thus, no federal constitutional right to education (Parker, 2016; Sutton, 2008). Because of this Supreme Court finding, the authority of public education systems then falls to the states. All 50 states mandate the creation of a public education system in their state constitutions (Parker, 2016). Article 6 Section 1 of the Kansas Bill of Rights states: "The legislature shall provide for intellectual, educational, vocational and scientific improvement by

establishing and maintaining public schools, educational institutions and related activities which may be organized and changed in such manner as may be provided by law." Although there is no federal constitutional right to an education for regular education students, students with disabilities do have a right to an education under the Individuals with Disabilities Education Act (IDEA) (20 U.S.C. §1401 et seq.). Approximately one in three youth in juvenile correctional facilities have been diagnosed with a learning disability (Boundy & Karger, 2011). Therefore, all youth in juvenile detention centers have a right to an education under their state constitution, and those diagnosed with a disability also have a federal right to an education.

Despite the need for education in juvenile detention facilities, Boundy and Karger (2011) describe several issues that may interfere with a youth receiving an appropriate education. Although much of the following research refers to schools in juvenile detention facilities, many of these problems also may occur in alternative schools. Youth in juvenile detention facilities and alternative schools typically do not receive the same high-quality educational opportunities as youth in traditional schools. Instruction in these facilities often consists of low-level seat work or working individually on worksheets and workbooks (Leone & Cutting, 2004). This work may not always be appropriately challenging. There also may be a lack of differentiated instruction for wide ranges of intellect and age levels (Houchins, Puckett-Patterson, Crosby, Shippen, & Jolivette, 2009; Leone & Cutting, 2004). Additionally, youth in these facilities are often not offered the same educational and vocational services offered at traditional public schools. According to a survey conducted by the Council of Juvenile Correctional Administrators with juvenile correctional agencies in all 50 states in 2015, only 13 states provided youth in state correctional facilities with the same type of educational services available to youth in the community and only nine states provided youth in state correctional facilities with the same type

of vocational services available in the community (The Council of State Governments Justice Center, 2015)

Schools in juvenile detention centers and alternative schools often lack highly qualified teachers. To meet the criteria to be highly qualified, a teacher must have a bachelor's degree, state certification, and proven competence in each subject he or she teaches (20 U.S.C. § 6311 (h)(6)(A)(iii)). Data collected by the Juvenile Justice No Child Left Behind Collaboration Project in 2007 indicated that five out of 42 reporting states had made juvenile justice programs exempt from the highly qualified teaching requirements (Blomberg, Pesta, & Valentine, 2008). Because alternative schools serve students who have histories of behavior problems and poor attendance, Lehr et al. (2009) suggest that the quality of staffing in these facilities needs to be examined to ensure that the multiple needs, including educational and mental health needs, of the students are being met. Reimer and Cash (2003) found that successful alternative schools provided ongoing staff training in classroom management techniques and alternative instructional methods.

Further, youth in detention facilities who have been identified as having special needs often do not receive the services they require. These youth frequently go unidentified and often do not receive adequate special education programming or services (Boundy & Karger, 2011; Burrell & Warboys, 2000; Houchins Puckett-Patterson, Crosby, Shippen, & Jolivette, 2009; Keith & McCray, 2002; Leone, 1994; Leone & Cutting, 2004; Leone, Meisel, & Drakeford, 2002).

Schools within juvenile detention facilities often have teaching staff who are employed separately from the correctional staff. If an alternative school is located within a juvenile detention center, then this can be true. Schools in detention centers often employ teachers from the local school district who are separate from correctional staff. Forty-one states use a

combination of juvenile justice, education, and private providers to oversee the education in juvenile detention facilities (The Council of State Governments Justice Center, 2015). When students violate rules, there may be confusion between the teaching staff and the correctional staff regarding who should address the behavior. On occasion, the teaching staff provide consequences themselves; however, often they ask correctional staff to impose sanctions or remove disruptive students from their classrooms. Further, there may be inconsistencies across staff in the consequences provided. Lack of collaboration between the teaching staff and the correctional staff can lead to confusion of roles and breakdowns in the operations of the school. This lack of collaboration can cause tension between staff members that may be detrimental to the overall success of the educational programming (Boundy & Karger, 2011; Houchins, Puckett-Patterson, Crosby, Shippen, & Jolivette, 2009; Leone, Krezmien, Mason, & Meisel, 2005).

Upon release from juvenile detention facilities, youth must face the challenges of transitioning to the original school they attended. If students in schools in detention centers or alternative schools are fortunate enough to receive individualized instruction and are successful in that educational setting (De La Rosa, 1998; Ingersoll & LeBoeuf, 1997; Lehr, et al., 2009; Saunders & Saunders, 2002), they may have problems transitioning back to their original school environments where they do not have the individualized support (Frazer & Baenen, 1988). Additionally, upon reentry, the educational history of the youth is not always clear. Without complete information of the youth's educational history, schools often have difficulty selecting appropriate educational placements for these youth (Stephens & Arnette, 2000). Also, if the youth has difficulty reintegrating into his or her peer network, this may impede his or her motivation to attend and succeed in school, or the youth may be placed with peers who in the

past or present engaged in negative behaviors (e.g., gang members, drug users) that may impede the youth's successful transition. Further, school personnel who have had past behavioral problems with the youth may label the youth as a "troublemaker" and be reluctant to accept them back into school (Mears & Travis, 2004).

Teachers in juvenile detention and correctional facilities often report behavior and discipline as a major obstacle to providing youth in juvenile detention or correctional facilities with a quality education. Teachers in these schools report frequent classroom disruptions, failure to develop effective classroom rules, and inconsistent implementation of rules across staff members (Houchins, Puckett-Patterson, Crosby, Shippen, & Jolivette, 2009). To effectively teach students, it is necessary to ensure that the students are engaging in appropriate on-task behavior and not engaging in disruptive and inappropriate behaviors.

Procedures to Address Student Behavior

There have been many procedures used to address student behavior in classroom settings, including differing methods of reinforcing appropriate student behavior. Differential reinforcement and token economies are two procedures that have been used widely in classroom settings to improve student behavior using reinforcement. Differential reinforcement has been used to increase various appropriate student behaviors including bids for teacher attention (Austin & Bevan, 2011; Becraft, Borrero, Mendres-Smith, & Castillo, 2017) and compliance to teacher requests (Goetz, Holmberg, & LeBlanc, 1975). Additionally, token economies have been used to increase such behaviors as performance on quizzes (Phillips, 1968; Phillips, Phillips, Fixsen, & Wolf, 1971) and general academic performance (Phillips, 1968, Phillips, Phillips, Fixsen, & Wolf, 1971; Tyler, 1967: Tyler & Brown, 1968).

Differential Reinforcement

One method that has been used to address student behavior in classroom settings is differential reinforcement. Differential reinforcement was first referred to as discrimination training. Specifically, in B.F. Skinner's early research on the development of a discrimination, Skinner reinforced rats for pressing a lever while a light was on and provided no reinforcement in the absence of the light (Skinner, 1933). The rats began to allocate responding to the lever only when the light was on. Skinner determined that discrimination required the continued reinforcement of a response and concurrent extinction of another where the two stimuli possess similar properties but are significantly different in some way. Therefore, differential reinforcement involves the contingent reinforcement of a target response and the concurrent extinction of another. Much of the early applications of differential reinforcement was done in laboratories with animals (Boe, 1964; Ferster & Skinner, 1957; Reynolds, 1961; Skinner, 1938). Forms of differential reinforcement procedures include differential reinforcement of low rates of behavior (DRL), differential reinforcement of high rates of behavior (DRH), differential reinforcement of diminishing rates (DRD), differential reinforcement of other behavior (DRO), differential reinforcement of alternative behaviors (DRA), and differential reinforcement of incompatible behaviors (DRI) (Cooper, Heron, and Heward, 2007).

Peterson and Peterson (1968) was one of the earliest human applications of the DRO procedure. This study involved an 8-year-old boy who engaged in self-injurious behavior (SIB). During intervention, food and social praise were given to the boy contingent on the passing of 3- to 5-s intervals with no SIB. Instances of SIB decreased during the DRO treatment condition.

Zimmerman and Zimmerman (1962) demonstrated an early application of DRA with humans in a classroom setting. In Case 1, an 11 year-old boy would only spell a word after the

teacher consistently asked him to sound out the word. During intervention, the teacher ignored all instances of misspelled words and gave verbal praise when the student spelled the word correctly. Following intervention, instances of misspelled words and other undesirable behaviors decreased to almost zero. In Case 2, an 11-year-old boy engaged in tantrums and baby-talk. During intervention, the teacher ignored all tantrums and baby-talk and engaged in activities with the boy for several seconds when no tantrums or baby-talk occurred. Following intervention, tantrums and instances of baby-talk declined to levels close to zero.

With expanding success of differential reinforcement procedures used with humans, researchers began using these differential reinforcement procedures in classroom settings. In an early demonstration of DRL implemented in a classroom setting, Deitz and Repp (1974) reduced the problem behavior of students in a normal elementary school setting in a series of three studies. In Study 1, DRL was used to decrease the "talk-out" behavior of an 11-year-old fifth-grade student. This was accomplished by providing gold stars contingent on two or fewer "talk-outs" in a 45-min session. In Study 2, a DRL was used to decrease the out-of-seat behavior of a 12-year-old sixth-grade student. In this study, gold stars were again given contingent on two or fewer responses in a 45-min session. The effectiveness of the DRL procedure was demonstrated in Study 1 and 2 using a reversal design. In the final study, a DRL procedure was used to reduce the "talk-out" and out-of-seat behavior of a 11-year-old fifth grade student using a multiple baseline design. The DRL reduced the instances of problem behavior in all three studies.

Surratt, Ulrich, and Hawkins (1969) demonstrated an early application of DRO in a classroom setting, although it was used to decrease appropriate behavior to demonstrate the effectiveness of a reinforcement procedure. This study included four first grade students who reportedly did not engage in studying behaviors during 20-min individual study times. Initially,

each participant was awarded with a blue ticket on which the student could write an activity in which the student would like to engage if the student studied for a predetermined length each day. If the student met the study criterion, the student was allowed to engage in the activity written on the blue ticket for 15 min the next morning. Following this phase, a DRO procedure was implemented in which all behaviors except for studying were reinforced. Following the DRO condition, the initial reinforcement condition was reinstated. The results of the study demonstrated that the initial reinforcement condition was successful at increasing student study behavior and the DRO procedure decreased student study behavior to below baseline levels.

Thomas, Nielsen, Kuypers, and Becker (1968) described an early application of DRA in a classroom setting. The participant was a first-grade student who engaged in high levels of disruptive and uncontrolled behavior in the classroom. The teacher was instructed to ignore all instances of disruptive behavior (unless a child was being hurt) and provide attention for behaviors that facilitated learning (e.g., academic, prosocial, rule-following responses). The participant's disruptive behavior reduced to the lowest levels when the teacher ignored instances of disruptive behavior and provided high levels of praise for appropriate behaviors.

Early uses of DRI in classrooms took place in preschool settings. Allen, Hart, Buell, Harris, and Wolf (1964) used differential reinforcement to increase the frequency of peer interactions in a solitary 4-year-old preschool child. Preschool teachers were instructed to provide the child with attention whenever, and only when, she interacted with other children. Because interacting with peers is incompatible with engaging in solitary behavior, this differential reinforcement procedure could be referred to as a DRI. The child's interactions with peers immediately increased when the contingencies were in place. During reversal of this contingency, previous patterns of responding immediately returned.

Differential reinforcement of diminishing rates of behavior (DRD) is similar to DRL in that reinforcement is provided following a time interval with responding occurring below a predetermined criterion. However, the criterion is gradually lowered when using a DRD schedule as compared to a DRL schedule (Cooper, Heron, and Heward, 2007). Dietz and Repp (1973) provide an early use of DRD in a classroom setting. In a series of three studies, the authors used a DRL schedule to reduce the "subject change" behavior of 15 female high school seniors in a classroom setting. "Subject change" behavior was described as the students verbally changing the subject of conversation to a social subject away from the ongoing academic discussion. Following baseline, the participants were given a "free day" on Friday if five or fewer "subject changes" occurred during the week. As phases of the study progressed, the criterion for reinforcement decreased from five or fewer in Phase 2, three or fewer in Phase 3, two or fewer in Phase 4, to zero in Phase 5. The results demonstrated that the DRD procedure was successful in reducing the "subject change" behavior of the female high school participants. Additionally, Champagne, Ike, McLaughlin, and Williams (1990) used a DRD procedure to reduce negative facial expressions and talk-outs with delinquent adolescents in a residential setting. In this study, each participant was awarded 10 min of computer time if he or she had fewer than 10 negative facial expressions or talk-outs during the first 13 sessions. In subsequent sessions, the criterion for reinforcement was changed to five or fewer negative facial expressions or talk-outs. The DRD procedure decreased the participants' frequency of inappropriate facial expressions and talk-outs as compared to baseline.

In addition to the above classroom applications, differential reinforcement procedures have been used in classrooms to increase bids for attention (Austin & Bevan, 2011; Becraft, Borrero, Mendres-Smith, & Castillo, 2017), compliance to teacher requests (Goetz, Holmberg, &

LeBlanc, 1975), appropriate lunchroom behaviors (Wheatley, West, Charlton, Sanders, Smith, & Taylor, 2009), and on-task behavior (Heering & Wilder, 2006; Kelly & Bushell, 1987; Lo & Cartledge, 2006; Shumate & Wills, 2010; Vance, Gresham, & Dart, 2012), to name a few. Differential reinforcement procedures have utilized tokens in classrooms to increase the completion of school tasks (Rowbury, Baer, & Baer, 1976) and increase on-task behavior (Greer & Polirstok, 1982; Kamps et al., 2011). Additionally, differential reinforcement has been used alone (Conyers et al., 2004; Daddario, Anhalt, & Barton, 2007; Deitz & Repp, 1973; Eccles & Pitchford, 1997; LeGray, Dufrene, Mercer, Olmi, & Sterling, 2013; LeGray, Dufrene, Sterling-Turner, Olmi, & Bellone, 2010, Luiselli, 1996; Wright-Gallo, Higbee, Reagon, & Davery, 2006) and with tokens (Drabman, Spitalnik, & Spitalnik, 1974; Lee, Penrod, & Price, 2017) to reduce disruptive behavior.

Differential reinforcement has also been used with delinquent youth. Differential reinforcement has been used to increase delinquent youth soldiers' attendance in morning unit meetings and completion of a daily half-mile run (Boren & Colman, 1970); improve the academic performance of delinquent boys (Bednar, Zelhart, Greathouse, & Weinberg, 1970); and decrease disruptive behavior and increase compliance in adjudicated or emotionally disturbed adolescents (Brogan, Rapp, Niedfeld, Coon, Newman, & Burkhart, 2017; Champagne, Ike, McLaughlin, & Williams, 1990).

Some studies have been conducted to train teachers in the use of differential reinforcement procedures (Auld, Belifiore, & Scheeler, 2010; Flynn & Lo, 2016; Williams, 2012). Flynn and Lo (2016) used test cards, descriptions of functional analysis trials, a training DVD, and performance feedback to teach three special education middle school teachers how to conduct trial-based functional analysis and implement a DRA. Following training, all three

teachers were able to implement DRA with high procedural integrity. Reductions were seen in the target behavior of all six participating students with autism spectrum disorder as well as increases in their respective replacement behaviors.

Token Economies

Another method that has been used to address student behavior in classroom settings is a token economy. Tokens serve as conditioned reinforcers that are paired with back-up reinforcers. These tokens do not typically have any inherent value. However, the tokens become valuable when they are paired with back-up reinforcers. Back-up reinforcers refer to reinforcers such as tangible items or activities that serve as reinforcers (e.g., candy, gift cards, movie tickets, extended game time) and can be purchased with tokens (Cooper et al., 2007). In token economies, tokens (e.g., stickers, points, check marks) are awarded to participants contingent on their performance of appropriate behaviors and may be removed contingent on their engagement in inappropriate behaviors (i.e., response cost). In token economies, tokens are typically accumulated over time, and participants are allowed to use the tokens to purchase back-up reinforcers from a menu. As conditioned reinforcers, tokens have several advantages: (1) tokens can bridge the delay between a desired response and delivery of a back-up reinforcer; (2) tokens allow the response to be reinforced any time, even if a back-up reinforcer is not immediately available; (3) tokens allow sequences of responses to be reinforced without interruption; (4) a variety of back-up reinforcers are selected from a menu which decreases the likelihood of satiation; (5) and an emphasis is placed on improving behavior through positive rewards rather than the elimination of behavior through negative or coercive methods (Ayllon & Azrin, 1968).

Hackenberg (2018) reviewed the research on token economies and determined that there was limited research in the token economy literature evaluating the behavioral mechanisms

responsible for the effectiveness of token economies. The author described how the implementation of token economies in applied settings have largely addressed practical issues rather than evaluation of behavioral mechanisms. Early research on token economies in the 1930s (see below) primarily assessed to what extent tokens could acquire the reinforcing properties of an unconditioned reinforcer. However, laboratory research declinded between the 1930s and 1950s. Therefore, Hackenberg's purpose was to integrate what is known about early laboratory research on token economies and what is now known from extensive applied research. Hackenberg described that may behavioral mechanisms may be responsible for the effectiveness of token economies.

First, tokens serve as conditioned reinforcers. Tokens are effective because of repeated pairings with a back-up reinforcer. Further, tokens often serve as generalized conditioned reinforcers in token economies. In many token economies, tokens are not paired with a single back-up reinforcer. Instead, tokens are paried with a variety of activities or tangible reinforcers that the participant can choose from a menu. In these token economies, tokens serve as generalized conditioned reinforcers in that the tokens have repeatedly been paired with multiple back-up reinforcers.

Second, motivating operations may increase or decrease the likelihood that a token serves as a reinforcer. For example, if the participant is deprived of food, then a token that has repeatedly been paired with food as a back-up reinforcer will likely be reinforcing for that participant. However, if a participant has been satiated with food, then a token that has repeatedly been paired with food may no longer serve as a reinforcer at that time.

Third, the author suggests that schedules of reinforcement can be analyzed with respect to the token-production schedule (contingencies by which tokens are earned), the exchange-

production schedule (how many tokens must be earned before the token can be exchanged), and the token-exchange schedule (the schedule by which tokens are exchanged for back-up reinforcers). Modifying these schedules of reinforcement will likely influence the effectiveness of the token economy.

Fourth, the effectiveness of some token economies may be influenced through aversive procedures. If tokens are removed contingent with the occurrence of inappropriate behavior, then the token economy may be effective in reducing inappropriate behavior through negative punishment in the form of a response cost. Further, if tokens are removed contingent with the failure to engage in appropriate behaviors, then the token economy may be effective in increasing appropriate behavior through negative reinforcement in that the participant is performing appropriate behaviors at a high rate to avoid the removal of tokens.

Tokens were first analyzed in animal laboratory research in the 1930s. Wolfe (1936) discovered that tokens (i.e., poker chips) could be used with six chimpanzees to induce work when food reinforcement was delayed. The author compared four conditions to test the delay that chimpanzees would endure from performing a work task to receiving food reinforcement. In Phase 1, the chimpanzees were awarded a token following the completion of the work task but were not allowed to trade it for food until the end of a delay. In Phase 2, the chimpanzees completed the work task and then were given food following a delay period. Phase 3 was identical to Phase 1 with the exception that five valueless tokens were placed with the chimpanzees during the delay period. In phase 4, the chimpanzees performed the work task, were rewarded a token, could trade the token immediately, and receive food following a delay. The order of increasing delay was the same for all four phases. Delays ranged from 1-min to 24-hrs.

Results found that the chimpanzees endured the longest delays before they quit working during phase 1.

In their 1961 seminal research of token economies with humans, Ayllon and Azrin developed and implemented a comprehensive token economy for use with patients with mental illness who were living in a large residential facility (Ayllon & Azrin, 1968). In a series of experiments, Ayllon and Azrin (1965) attempted to reinforce a variety of behaviors in 43-45 female patients with mental illness using a variety of reinforcers in a ward setting. Individualized appropriate behaviors were selected for each patient. Tokens were awarded to patients contingent on their engagement in their defined appropriate behaviors (e.g., serving meals, sorting laundry, washing dishes, mopping floors), and tokens could be used to purchase back-up reinforcers (e.g., choice of bedroom, choice of eating group, choice of a personal chair, minutes away from the ward without an escort, opportunity to attend movies, exclusive use of the radio or tv) from a menu three times a day. In Experiment 1, the authors were able to use the ward token economy to improve eight ward patients' performance of off-ward tasks (e.g., serving meals, cleaning floors, sorting laundry, washing dishes). In Experiment 2, noncontingent tokens were provided to the same eight ward patients, and performance of tasks decreased, further validating the results of Experiment 1. Experiment 3 further demonstrated the effectiveness of the token economy by improving 44 ward patients' performance of on-ward tasks.

Token systems have also been widely used in adult and juvenile detention, correctional, and secure psychiatric wards for many years. Bassett, Blanchard, and Koshland (1975) used a token economy to improve adult male prisoners' news comprehension and attendance in a remedial education center in a series of two experiments. In Experiment 1, 39 participants were instructed to watch a news program and points were awarded contingent on correct answers on a

quiz about the news program and could be traded for other reinforcers. The number of observations of participants watching the news and the number of correct quiz answers increased when points were awarded contingent on correct quiz answers. In Experiment 2, the same participants were awarded additional points for attending a remedial education program during their free time. Using a reversal design, the authors demonstrated that participants attended the remedial education program at higher rates when bonus points were awarded than in baseline.

In addition to academic behaviors, researchers in adult facilities conducted research to evaluate the number of tokens earned (Lawson, Greene, Richardson, McClure, & Padina, 1971; Quinsey & Sarbit, 1975), the number of response costs (i.e., removal of a reinforcer contingent on an inappropriate response) delivered (Bassett & Blanchard, 1977), inmate academic performance (Bassett, Blanchard, & Koshland, 1975), lunchroom behaviors (Cohen, Florin, Grusche, Meyer-Osterkamp, & Sell, 1972), cigarette purchases (Hayden, Osborne, Hall, & Hall, 1974), pill taking (Parrino, George, & Daniels, 1971); and general appropriate behaviors such as personal grooming, room cleaning, and bed making (Gershone, Errickson, Mitchell, & Paulson, 1977; Milan & McKee,1976).

Token economy programs have been used to improve academic performance in programs serving delinquent youth. Phillips (1968) implemented a token economy in Achievement Place, a home-style community-based facility serving pre-delinquent and delinquent youth, and targeted homework completion among other desirable behaviors. In one of a series of experiments, Phillips compared phases consisting of 25 cents, weekly 1 hr extended bedtime, daily 1 hr extended bedtime, or 500 points, each of which were awarded for each homework assignment completed with 75% or better accuracy. Points could be used to purchase weekly privileges (e.g., allowance, bicycle, games, permission to go downtown). Results showed that points awarded

contingently on homework completion yielded the highest percentage of homework assignments completed. Also conducted at Achievement Place, Phillips, Phillips, Fixsen, and Wolf (1971) used the same procedures as Phillips (1968) to improve five boys' news comprehension among other behaviors. The dependent variable was questions answered correctly on a quiz covering information from the news program. Highest quiz scores were achieved when 600 points were awarded for each quiz question answered correctly, but only if 40% or more of the questions were answered correctly.

In addition to academic performance (Phillips, 1968; Phillips, Phillips, Fixsen, & Wolf, 1971; Seymour & Sanson-Fisher, 1975; Tyler, 1967; Tyler & Brown, 1968), token systems have been used with juvenile delinquents to improve chore completion (Barkley, Hastings, Tousel, & Tousel, 1976; Gambrill, 1976; Phillips, 1968; Phillips, Phillips, Fixsen, & Wolf, 1971; Wood & Flynn, 1978), increase verbal IQ scores (Holt & Hobbs, 1979), and engage in appropriate social behaviors (Hobbs & Holt, 1976). Likewise, token economies have been used to decrease fines received (Miller, Cosgrove, & Doke, 1990) and disruptive behaviors (e.g., out-of-chair, touching others' property, aggression, and time off-task) (Fineman, 1968; Kaufman & O'Leary, 1972; Mendham & Thorne, 1984; Phillips, 1968).

Behavioral Skills Training (BST)

Differential reinforcement and token procedures are procedures that could be beneficial in an alternative school setting. However, alternative school staff may lack training in differential reinforcement or token procedures. One method for training a new skill is behavioral skills training (BST). Miltenberger (2016) defines BST as "a procedure consisting of instruction, modeling, behavioral rehearsal, and feedback that is used to teach new behaviors or skills" (p. 223).

BST has been used extensively for teaching safety skills to children such as fire setting prevention and safety (Jones, Kazdin, & Haney, 1981; Houvouras & Harvey, 2014; Vanselow & Hanley, 2014), abduction prevention (Johnson et al., 2006; Vanselow & Hanley, 2014), poison avoidance (Vanselow & Hanley, 2014), gun safety (Kelso, Miltenberger, Waters, Egemo-Helm, & Bagne, 2007; Miltenberger, Flessner, Gatheridge, Johnson, Satterlund, & Egemo, 2004), appropriate touching (Miltenberger & Thiesse-Duffy, 1988), and identifying emergencies and calling 911 (Jones & Kazdin, 1980; Rosenbaum, Creedon, & Drabman, 1981). For example, using a pretest-posttest control group design, Jones and Kazdin (1980) taught 33 male and 27 female pre-school children in a classroom setting how to make phone calls during emergencies. During BST training, teachers gave instructions to the pre-school children, modeled the response, allowed the student to attempt the response, and provided feedback and reinforcement. Results showed that BST was effective in training preschoolers in a classroom setting how to make emergency calls.

In addition to safety skills, behavioral skills training has been used extensively in teaching social skills to youth. Ferguson and Shapiro (2016) used BST to teach children between 8-12 years-of-age to take turns, give verbal and physical compliments, and make positive postgame comments. BST has also been widely used to teach social skills to juvenile delinquents or pre-delinquents (Hazel, Schumaker, Sherman, & Sheldon-Wildgen, 1982(a); Hazel, Schumaker, Sherman, & Sheldon-Wildgen, 1982(b); Hazel, Schumaker, Sherman, & Sheldon-Wildgen, 1995; Hollin, Huff, Clarkson, & Edmondson, 1986; Kifer, Lewis, Green, & Phillips, 1974; Long & Sherer, 1985; Mathur & Rutherford, 1994; Minkin, et al., 1981; Ollendick & Hersen, 1979; Serna, Schumaker, Hazel, & Sheldon, 1986; Serna, Schumaker, Sherman, & Sheldon, 1991; Spence & Marzillier, 1979; Spence & Marzillier, 1981; Spence & Spence; 1980;

Werner, Minkin, Minkin, Fixsen, Phillips, & Wolf, 1975). For example, Werner, Minkin, Minkin, Fixsen, Phillips, and Wolf (1975) used BST to teach six court-adjudicated delinquent youth the appropriate social skills to use when interacting with police officers. Using a multiple-baseline design, youth participants were taught appropriate facial orientation, polite short answers, a statement that they had "learned their lesson and intended to stay out of trouble," and an expression of understanding and cooperation. Following BST training, performance of the social skills increased above baseline levels.

In addition to social skills, BST has been used with juvenile delinquents in residential settings to address various behaviors such as decreasing anxiety by teaching appropriate assertive responding (De Lange, Barton, & Lanham, 1981), applying for a job, resisting peer pressure, taking problems to a teacher or probation officer, and how to pass up immediate temptation for better long-term outcomes (Sarason & Ganzer, 1973). Some components of BST were used to increase a juvenile's time spent on-task (e.g., looking at the math worksheet, writing problems on a math worksheet, looking away from a paper but appearing to think) (Caldwell & Joseph, 2012). Further, Maloney, Phillips, Fixsen, and Wolf (1975) used components of BST to teach three teaching-parent couples in group homes for juvenile delinquents to increase positive statements, smiles, and decrease negative statements when interacting with youth. Providing instructions plus graphical feedback produced variable results for the three couples. Adding modeling to the instructions and graphical feedback was effective in increasing the teaching couples' behaviors.

Purpose

The purpose of the current study was to evaluate the effects of a DRA token procedure, implemented by juvenile correctional officers (JCOs), on the on-task behavior of detention day school participants. The primary researcher evaluated the effectiveness of the token procedure

using a reversal design (Baer, Wolf, & Risley, 1968). It was anticipated that detention day school students would increase the amount of intervals spent on-task in classroom activities and decrease the amount of intervals spent off-task. The primary researcher anticipated this could lead to improved academic performance, improved interactions between students and staff members, and improvements in schoolwork completion. Additionally, the primary researcher was also interested in JCOs' ability to learn the token procedure and effectively implement it after participating in BST. Also of interest was determining whether learning BST affected the JCOs' every day interactions with youth in the detention day school.

Methods

Participants

JCO Participants. The University of Kansas Human Subjects Committee and the director of the JDC approved this research prior to implementation. All JCOs on the first shift were given the opportunity to participate. The primary researcher explained the study to each JCO on first shift and answered any questions that each JCO had. Each JCO was given an opportunity to read and sign the JCO consent form (see Appendix A), and, again, the primary researcher answered any questions that the JCOs had. All JCOs agreed to participate, and therefore, data for all JCOs working on the first shift are included in the study.

The study included two types of participants: Juvenile Correctional Officers (JCOs) and detention day school students. The procedures were implemented with all JCOs and detention day school students; however, data were only collected for those JCOs and detention day school students who consented to participate. Juvenile Correctional Officers (JCOs) employed at a Kansas juvenile detention center (JDC) were recruited to participate. To participate in the study, JCO participants had to work on the first shift (6:45 am to 3:15 pm) because this was the shift the

detention day school was in session from 8:30 am to 2:30 pm. All nine JCOs working on the first shift consented to participate. JCO Participant 1 was a 44-year-old Caucasian female who had been working in the field and at this JDC for 21 years. Prior to the study, she completed 3 years of college and had training implementing a Positive Behavioral Support program and a token economy program. JCO Participant 2 was a 46-year-old Caucasian female who had been working in the field and at this JDC for 14.5 years. Prior to the study, she completed some college and had training implementing a Positive Behavioral Support program and a token economy program. JCO Participant 3 was a 23-year-old Caucasian male who had been working in the field and at this JDC for 3 years. Prior to the study, he completed a high school diploma and had training implementing a Positive Behavioral Support program and a token economy program. Participant 4 was a 27-year-old Caucasian male who had been working in the field for 3.5 years and at this JDC for 2 years. Prior to the study, he completed 2 years of college and had training implementing a Positive Behavioral Support program and a token economy program. JCO Participant 5 was a 39-year-old Hispanic male who had been working in the field and at this JDC for 16 years. Prior to the study, he completed some college and had training implementing a Positive Behavioral Support program and a token economy program. JCO Participant 6 was a 41-year-old Caucasian male who had been working in the field and at this JDC for 13 years. Prior to the study, he completed some college and had training implementing a Positive Behavioral Support program and a token economy program. JCO Participant 7 was a 26-year-old Caucasian male who had been working in the field and at this JDC for 3 years. Prior to the study, he completed a Bachelor of Arts degree and had training implementing a Positive Behavioral Support program and a token economy program. JCO Participant 8 was a 46-year-old Hispanic/White male who had been working in the field for 10 years and at this JDC for 5 years.

Prior to the study, he completed a 2-year college degree and had training implementing a Positive Behavioral Support program and a token economy program. JCO Participant 9 was a 27-year-old Caucasian female who had been working in the field and at this JDC for 6.5 years. She had a Bachelor's degree in Criminal Justice and had training in implementing a Positive Behavioral Support program and a token economy program. For a summary of the JCO participants demographic information, see Table 1.

Detention Day School Student Participants. To recruit detention day school students, the lead teacher at the detention day school gave each detention day school student a sealed 9" x 13" (228.2mm x 330.2mm) envelope containing parent/guardian consent forms (see Appendix B), instructions to parents/guardians (see Appendix C), and a 4 $^{1/8}$" x 9 $^{1/2}$" (104.775mm x 241.3mm) envelope for youth to return with signed consent forms. The detention day school students were instructed to give the sealed 9" x 13" (228.2mm x 330.2mm) envelope to their parents or guardians. Parents/guardians who agreed to allow their child to participate signed the parent consent form, sealed it in the included 4 $^{1/8}$" by 9 $^{1/2}$" (104.775mm x 241.3mm) envelope, and returned it to the lead teacher at the detention day school. The primary researcher then collected the sealed envelopes from the lead teacher. There were 27 students attending the detention day school at the time of recruitment. Fifteen parents or guardians returned consent packets. Of the 15 packets returned, 11 guardians consented to allow their detention day school student to participate in the study, and four guardians signed that they did not consent for their detention day school student to participate in the study.

After receiving parental consent for a detention day school student to participate in the study, the primary researcher spoke to each student about his or her participation. The primary researcher explained the study to the detention day school student and answered any questions he

or she had. Next, the primary researcher gave the student an assent form (see Appendix D), allowed him or her to read the form, answered any questions he or she had, and then asked the student to sign the form if she or he agreed to participate. Assent was obtained for all 11 detention day school students for whom parent/guardian consent was received. However, one of the day school students for whom consent was received was not included in the study because this participant was arrested and placed in juvenile detention prior to baseline. Therefore, 10 detention day school students participated in the study. Detention day school students' data were not collected until both the parent/guardian signed consent form and the student-signed assent form had been received.

Detention day school students were recruited to participate and were youth between 10 and 17 years of age who were attending day school at the JDC. All detention day school students were court ordered to attend. Participant 1 was a 15-year-old Caucasian male who was adjudicated as a juvenile offender for a Level 4 drug felony and a Class A non-person misdemeanor. Participant 2 was a 17-year-old Caucasian male who was adjudicated as a juvenile offender for a Level 9 theft felony, a Level 9 burglary of a motor vehicle felony, three counts of a Class B misdemeanor for battery, a Class A misdemeanor for possession of drug paraphernalia, and was adjudicated a Child in Need of Care (CINC) for truancy. Participant 3 was a 15-year-old Caucasian female who was adjudicated a CINC for truancy. Participant 4 was a 17-year-old Caucasian male who was adjudicated a CINC for truancy. Participant 5 was a 15-year-old Caucasian who identified as both male and female and was adjudicated a CINC for truancy. Participant 6 was a 17-year-old Caucasian male adjudicated as a juvenile offender for a Level 4 felony for aggravated burglary and a Class A misdemeanor for theft. Participant 7 was a 15-year-old Caucasian female adjudicated as a CINC for truancy. Participant 8 was a 15-year-old

Caucasian female adjudicated as a CINC for truancy. Participant 9 was a 15-year-old Caucasian female adjudicated as a CINC for truancy. Participant 10 was a 17-year-old Caucasian male who was adjudicated as a juvenile offender for a Class B misdemeanor for possession of marijuana and was adjudicated as a CINC for unreported circumstances. In sum, participants included two juvenile offenders, six CINCs, and two youth who had been adjudicated as both juvenile offenders and CINCs (see Table 2). All detention day school student participants were between 15-17 years-of-age.

Setting

This study took place in the detention day school attached to a JDC in a mid-size town in Kansas. To attend the detention day school, the students had to have a court order specifying that the student must attend the detention day school. Students who were attending the detention day school had either been adjudicated a juvenile offender (i.e., a youth between the ages of 10 and 18 who commits a felony or a misdemeanor) or a CINC who had been found to be in contempt of court for not obeying a court order to attend school. The detention day school provided academic services with teachers through the local school district; supervision of detention day school students was provided by JCOs through the JDC.

The detention day school consisted of three classrooms: Classroom A, Classroom B, and Classroom C (see Appendix E). Classroom A was the largest classroom and contained 40 student desks. This arrangement provided a desk for each student enrolled in the detention day school. In addition to functioning as a classroom, this classroom also had an area for all of the students to gather prior to school and between classes while on breaks. Classroom A also contained a desk where a JCO sat and monitored the students, a teacher's desk, a whiteboard, a computer cart containing enough laptop computers to supply all students enrolled in the detention day school,

and a door leading to a holding area that was blocked off from the detention day school where disruptive students could be temporarily placed. Classrooms B and C each contained a teacher's desk, 12 student desks, and a white board. The wall separating Classroom A from Classrooms B and C was glass; therefore, JCOs or teaching staff in Classroom A were able to observe student behavior in Classrooms B and C. The primary researcher conducted observations in each of these classrooms.

Dependent Variables

Detention Day School Student Participants. The primary dependent variable for detention day school student participants was the percentage of intervals spent on-task in appropriate classroom activities during the observation period. The secondary dependent variables for detention day school student participants were the number of staff-instructed cooldowns received; the number of voluntary cooldowns taken; the number of day room restrictions received; and the percentage classroom assignments completed each week. Detention day school participants could be in any of the three classrooms during the observation period. When conducting observations, the primary researcher and research assistants stood in Classroom A so that observations could be made directly in Classroom A and through the glass wall of Classrooms B and C. Due to the glass wall, the primary researcher and research assistants were unable to hear the specific verbal behavior of detention day school students in Classrooms B and C. Therefore, **on-task appropriate classroom activities** included: sitting in his or her chair with his or her head off of the desk and keeping his or her eyes open, along with any of the following:

- speaking to teachers or JCOs;

- looking toward the teacher or JCO when the teacher or JCO is speaking or giving instruction;
- sitting in his or her chair and looking toward the computer monitor when completing computer assignments;
- looking toward the paper and using a writing utensil to write answers to the questions on the paper when completing written assignments;
- and looking toward a book or paper when completing reading assignments.

Additionally, a detention day school student participant would be scored as on-task if he or she was turning in an assignment, writing on the whiteboard, sharpening a pencil, or picking up or putting away a book or computer at the time of observation.

Examples of **off-task behavior** included the following:

- talking to other classmates;
- using the drinking fountain or restroom during class time instead of during breaks;
- leaving his or her seat for reasons other than turning in an assignment, writing on the whiteboard, sharpening a pencil, picking up or putting a way a book or computer, or speaking to a teacher or JCO;
- serving a staff-instructed or voluntary cooldown;
- yelling, fighting, or throwing objects;
- closing eyes for more than 2-s;
- and laying his or her head down on the desk.

A **staff-instructed cooldown** was defined as an instance when a JCO or teacher requires a detention day school student participant to go to an unlocked resident room in the JDC or designated classroom desk in one of the classrooms with the desk separated from other students'

desks and remain in this room or at this desk for a 15-min period. Staff-instructed cooldowns could be given for a variety of reasons such as not following instructions, being disruptive in the classroom, or arguing with teaching staff, JCOs, or peers.

A **voluntary cooldown** was defined as any instance a detention day school student participant asked a JCO or teaching staff member for a break from academic demands. Voluntary cooldowns were 15 min in duration and occurred at the detention day school student's desk or other designated seat. During this break, the detention day school student participant was permitted to silently lay his or her head on the desk, but the student was not permitted to engage in activities such as using the internet on a laptop or have conversations with the peers around him or her. Voluntary cooldowns often result from detention day school students being upset with a JCO, teacher, or peer, or from being frustrated with schoolwork. Detention day school students were allowed to have two voluntary cooldowns per day. On rare occasions, JCOs would permit a detention day school student to take a third voluntary cooldown if the JCOs determined it was necessary.

A **day room restriction** was defined as any instance a JCO requires a detention day school student participant to go to an unlocked resident room in the JDC and remain in this room for a 1-hr period. Day room restrictions could be given for a variety of reasons such as being removed from class for arguing with a teacher, refusing to do schoolwork, or for receiving more than two staff-instructed cooldowns.

An additional secondary dependent variable for detention day school student participants included the percentage of **classroom assignments** completed. Each week in the detention day school, each of the three teachers assigned approximately four to five assignments in his or her classroom that were due by 1:30 pm on Friday of the same week**.** Each assignment was

considered satisfactorily completed if 100% of the assignment had been completed with 80% or better accuracy. Each week, the primary researcher collected class assignment completion data from the three detention day school teachers. The three teachers scored each detention day school student with a "Yes" or a "No" for having completed all assignments for their respective classes from the previous week. If all three teachers gave the detention day school student participant a "Yes," then the primary researcher scored the detention day school student as having completed 100% of his or her assignments for the week. If two "Yeses" and one "No" were received, then the primary researcher scored the detention day school student as having completed 66.6% of his or her assignments for the week. If one "Yes" and two "Nos" were received, then the primary researcher gave a score of 33.33% of his or her assignments completed for the week. If three "Nos" were received, then the primary researcher scored the detention day school student as having completed zero percent of his or her assignments for the week. Additionally, each week the three teachers provided the Detention Operations Manager, who collected and recorded data for the teachers, with a "Yes" or a "No" assignment completion score for the detention day school student participants for the previous week. As a reliability measure, the primary researcher obtained the information from the Detention Operations Manager and compared the assignment completion information provided by the teachers to the assignment completion information provided by the Detention Operations Manager. The Detention Operations Manager was a supervisor at the JDC and was responsible for recording data from the detention day school for purposes of the JDC.

For students who completed all of their assignments by the end of the day on Thursday, the detention day school allowed the students to have a "free day" on Friday. On this "free day," detention day school students who had satisfactorily completed all of their work for the week

could engage in special activities (e.g., watch movies, read books, help in the garden, work ahead on assignments). Because detention day school student participants who completed all of their coursework before Friday were allowed to have a "free day" on Friday, data collection occurred only Monday through Thursday.

JCO Participants. The primary dependent variable for JCO participants was the percentage of **DRA token procedural steps** performed correctly in administering the DRA token procedure with detention day school participants. The DRA token procedure included using tokens to reinforce detention day school participants' on-task behavior. The DRA skill steps included four token delivery steps and three social behavior steps and are as follows:

Token Delivery Steps:

- Within the specified 15-min time period, the JCO delivers one token to each of the designated nine detention day school students who are on-task and in class (i.e., not on a staff-instructed or voluntary cooldown, or removed from class during the interval);
- the JCO refrains from delivering a token to a detention day school student who is off-task, on a staff-instructed or voluntary cooldown, or removed from class during the interval;
- the JCO allows the detention day school students to purchase back-up reinforcers with earned tokens at the designated token exchange times (i.e., 10:30 am, 12:30 pm, 2:30 pm); and
- the JCO correctly exchanges tokens for back-up reinforcers.

Social Behavior Steps:

- the JCO refrains from delivering attention to a detention day school student who is off-task, on a staff-instructed or voluntary cooldown, or removed from class during the interval;
- the JCO engages in appropriate social behaviors (e.g., faces the detention day school student, makes eye contact, uses a pleasant facial expression, or makes a positive gesture) when interacting with the detention day school student;
- the JCO refrains from making negative comments (e.g., sarcastic positive statements, use of profanity, name calling) to the detention day school student;

For each of the seven DRA token procedural step, the JCO participant was scored using a "yes" or "no." (For complete scoring definitions, see Appendix F.)

Procedures

Behavioral Skills Training. The primary researcher used BST to teach JCOs how to implement a DRA token procedure with the detention day school students in the detention day school. In an individual teaching session with each JCO participant, the primary researcher used BST to teach the JCO participants how to implement the DRA token procedure to increase detention day school student participants' on-task behavior.

To ensure that all JCOs received the BST training by the first day the DRA token procedure without exchange phase began, the primary researcher implemented the BST training sessions with each JCO during his or her shift while the detention day school students were out of school for spring break. The primary researcher conducted all BST training sessions individually with each JCO participant in "Classroom A" in the detention day school. Four research assistants were present for all BST sessions. Two research assistants participated in the

BST session playing the roles of detention day school students engaging in on- or off-task behavior. The remaining two research assistants served as treatment integrity observers. The BST procedure included the following steps:

1. The primary researcher **defined** the DRA token procedure for the JCO participant by stating that the differential reinforcement token procedure will be used to increase the amount of time detention day school students are on-task in classroom activities. Differential reinforcement involves providing reinforcement following an appropriate behavior and withholding reinforcement following inappropriate behaviors. The term DRA was not used during BST sessions. Instead, the primary researcher referred to the DRA token procedure as "the token procedure." The primary researched stated that this token procedure will include rewarding detention day school students who are on-task with tokens and withholding tokens from detention day school students who are not on-task. Tokens will be traded throughout the day for candy.
2. The primary researcher provided a **rationale** to the JCO participant by stating that the reason for learning the token procedure is that it may increase the time detention day school students spend on-task leading to improvements in academic performance and reductions in disruptions and cooldowns in the day school classroom.
3. The primary researcher provided written **definitions of on-task and off-task behaviors** to the JCO participants (see Appendix G). The primary researcher verbally stated every definition from the written handout and answered any questions asked by the JCO participant.
4. The primary researcher provided the JCO participant with written **skill steps necessary for completing the DRA token procedure**.

- After the primary researcher verbally read the step, “Within the specified 15-min time period, the JCO delivers one token to the designated detention day school students who are on-task and in class (i.e., not on a cooldown or removed from class),” the primary researcher:
    - gave the JCO participant an example daily DRA token implementation schedule (see Appendix H).
    - The primary researcher stated that he wanted the token procedure to be implemented approximately once every 15-min to ensure that tokens were being awarded to detention day school students as frequently as possible.
    - The primary researcher stated that 15-min intervals were selected to ensure there is frequent opportunity for the detention day school students to earn tokens, but the intervals are not so frequent that it interferes with the JCO participant’s ability to complete other work tasks.
    - The primary researcher explained that the daily token implementation schedule included nine randomly assigned detention day school student names in each 15-min observation period throughout the day and that these names were assigned in a way that each detention day school student has approximately equal opportunities to earn tokens each day.
    - The primary researcher explained that when the JCO participant is implementing the token procedure, he or she should observe the

detention day school students listed in a specific 15-min interval once during that interval. For example, after 8:30 am, but before 8:45 am, the JCO participant should make one observation of each of the nine detention day school students listed in the 8:30 am interval on the daily DRA implementation schedule (see Appendix H).

- The primary researcher then stated to the JCO participant that immediately following the JCO participant's observation of the designated detention day school students, he or she should deliver one token to the observed detention day school students who were on-task and not on a cooldown or removed from class.
- The primary researcher then gave the JCO participant an example token sheet (see Appendix I). Using the example token sheet, the primary researcher demonstrated how a token is delivered by using an ink pen to write his or her initials in the first token box under the "Morning" heading. The primary researcher stated to the JCO participant that the day would be divided into three equal time periods, "Morning" 8:30-10:30 am, "Late Morning" 10:30 am-12:30 pm, and "Afternoon" 12:30-2:30 pm. The primary researcher stated that as the JCO participant delivers tokens to the detention day school students throughout the day, he or she will continue to use an ink pen to write his or her initials in the next blank token box in the corresponding time period. For example, if the time was 11:14 am and the JCO participant was delivering a token to a detention day school student who already

earned one token under the "Late Morning" heading, the JCO participant would use an ink pen to sign his or her initials in the second token box under the "Late Morning" heading.

- After the primary researcher verbally read the step, "The JCO refrains from delivering a token to detention day school students who are off-task and/or on a cooldown or removed from class at the time of observation," the primary researcher explained to the JCO participant that of the nine detention day school student participants who were observed during the 15-min interval, the JCO participant should not deliver tokens to those detention day school students who were off-task. For example, if seven of the nine detention day school students were on-task at the time of observation, then the JCO should deliver a token to the seven detention day school students who were on-task and refrain from delivering a token to the two detention day school students that were off-task.
- After the primary researcher verbally read the step, "The JCO allows detention day school students to purchase back-up reinforcers with earned tokens at the designated token exchange times," the primary researcher explained to the JCO participant that the tokens the detention day school students earned could be used to purchase candy. The primary researcher stated that the candy bucket (provided and supplied daily by the primary researcher) should be made available each day at 10:30 am, 12:30 pm, and 2:30 pm. At these times, the JCO participant should allow the detention day school students to use earned tokens to purchase candy.

- After the primary researcher verbally read the step, “The JCO correctly exchanges tokens for back-up reinforcers,” the primary researcher explained to the JCO participant that each piece of candy costs one token. When the detention day school student uses tokens to purchase candy, the JCO participant should use an ink pen to shade in the token boxes of the spent tokens. The primary researcher explained to the JCO participant that the detention day school students did not have to use their tokens at each exchange time and they could instead save their tokens for later exchange times in the day. However, any tokens not spent at the final exchange time would be lost and not saved for another day. Finally, the primary researcher explained to the JCO participant that a bonus of three pieces of candy should be delivered at the final 2:30 pm exchange time to those detention day school students who earned two or more tokens in each of the three time periods throughout the day (i.e., 8:30-10:30 am, 10:30 am-12:30 pm, 12:30-2:30 pm).
- After the primary researcher verbally read the step, “The JCO refrains from delivering attention to detention day school students who are off-task and/or on a cooldown or removed from class at the time of observation,” the primary researcher explained that the JCO participants should not deliver any attention to students who are off-task and/or on a cooldown or removed from class at the time of observation. After reading this step, many of the JCO participants had concern that it was their work responsibility to redirect off-task students to return them to being on-task. The primary researcher gave the rationale that although the JCO participants would be delivering negative attention to the

detention day school students, any form of attention may be reinforcing the detention day school students' behavior and , therefore, increasing their off-task behavior. The primary researcher stated to the JCO participants that they were welcome to redirect the detention day school students to return them to being on-task, but they should only provide minimal attention. That is, they should provide a specific instruction for the detention day school student to return to being on-task and provide no further attention. The primary researcher stated to the JCO participant that in the event that a detention day school student who is off-task tries to gain the attention of the JCO participant, the JCO participant should respond with the statement, "I will be with you in a moment," and then wait at least 1-min before providing attention to that detention day school student.

- After the primary researcher verbally read the step, "The JCO engages in appropriate social behaviors," the primary researcher stated to the JCO participant that he or she should face the detention day school student, make eye contact, use pleasant facial expressions, and make a positive statement or gesture when delivering tokens to on-task detention day school students.
- After the primary researcher verbally read the step, "The JCO refrains from making negative comments," the primary researcher stated to the JCO participant that he or she should refrain from making sarcastic positive statements, using profanity, or calling the detention day school students names.

5. After the primary researcher verbally read and discussed each of the seven DRA token procedural steps with the JCO participant, the primary researcher asked the JCO participant to **verbally rehearse** the DRA token procedural steps out loud until he or she felt he or she had committed the steps to memory. Once this had been achieved, the primary researcher asked the JCO participant to turn the DRA token procedural step handout face down on the desk and verbally recite the DRA token procedural steps, in order, from memory. This process continued until the JCO participant was able to recite all seven DRA token procedural steps, in order, from memory.
6. Following verbal rehearsal, the primary researcher **modeled** how to implement the DRA token procedure using two research assistants playing the role of on- or off-task detention day school students. Each research assistant playing the role of a detention day school student was seated at a student desk and had work materials and a blank token sheet on the desk in front of them. The primary researcher and JCO participant stood behind the JCO desk with an example daily implementation schedule on the desk in front of them. The primary researcher then played the role of a JCO participant and demonstrated how he would check the daily implementation schedule and that he had determined that the two research assistants playing the role of detention day school students were two detention day school students who he should be observing at that time. The primary researcher then walked up to the research assistants playing the role of detention day school students and implemented the DRA token procedure while leaving out the steps making eye contact, using a pleasant or happy voice tone, refraining from delivering a token to youth who are off-task, and

refraining from delivering attention to youth who are off-task. Following the first modeling session, the primary researcher asked the JCO participant to identify steps he performed correctly and steps he could improve on. Next, the primary researcher modeled the DRA token procedure again, this time performing the DRA token procedural skill steps 100% correctly. Following the second modeling session, the primary researcher again asked the JCO participant to identify steps he performed well and steps he could improve, if any.

7. The primary researcher told the JCO participant it was his or her turn to **role-play** the DRA token procedure with the two research assistants playing the role of on- or off-task detention day school students. Using the BST token procedure skill steps role-play data sheet (see Appendix J), the primary researcher scored the JCO participant as having completed each DRA token procedural step correctly with either a "yes" or a "no."
8. Between each role-play session, the primary researcher provided **positive and corrective feedback.**
9. The JCO participant was required to continue role playing until the **criterion performance** of implementing all seven of the DRA token procedure skill steps correctly in three consecutive role-plays.
10. Had the JCO participant failed to implement all seven of the DRA token procedure skill steps 100% correctly in at least one of his or her first three role-play attempts, then the primary researcher would have **returned to modeling.**

At the conclusion of each BST session, the primary researcher told the JCO participant that implementation of the DRA token procedure would begin when the detention day school

students returned from spring break; however, candy would not be included until a later phase in the study. Additionally, the primary researcher explained to the JCO participants that he or a research assistant would be collecting data in the detention day school both on the on-task behavior of the detention day school students, and also on the JCO participant's implementation of the DRA token procedure as well. The primary researcher stated that at the end of each observation, the primary researcher or research assistant would give the JCO participant a copy of the data sheet containing the DRA token procedural steps the JCO participant performed correctly and incorrectly as well as a percentage score of the DRA token procedural steps performed correctly. The primary researcher stated that if a JCO participant's implementation of the DRA token procedure fell below 90% following an observation, then he would schedule a time with that JCO participant to practice the DRA token procedure in a role-play setting the following work day that would be similar to the procedures used in the BST session.

JCO Implementation of the DRA Token Procedure in the Detention Day School with all Detention Day School Students. The primary researcher divided the entire school day into 24 15-min intervals (i.e., 8:30 am-2:30 pm). It would have been difficult for the JCOs to observe all 27 detention day school students and implement the DRA procedure with each detention day school student during each 15-min interval. Therefore, the primary researcher created a daily DRA implementation schedule and randomly assigned a sample of nine detention day school students to each 15-min interval with whom the JCO implemented the DRA token procedure (see Appendix H). The purpose of this was to implement the DRA token procedure with a sample of detention day school students in each 15-min interval throughout the day but ensure that all detention day school students were selected two or three times during each of the three time periods of the day. The three time periods of the day (i.e., 8:30 am-10:30 am, 10:30

am-12:30 pm, and 12:30 pm-2:30 pm) each contained eight 15-min intervals. A random numbers generator was used to assign the 27 detention day school students to one of the first three 15-min intervals. This was done again to assign the detention day school students to one of the second three 15-min intervals. For the final two 15-min intervals, a random numbers generator was used to place the 27 detention day school students in a random order. The first 18 detention day school students produced by the random numbers generator were assigned to the last two 15-min intervals. This process was repeated for each of the three periods of the day (See Appendix K). Therefore, all 27 students were eligible to earn two to three tokens in each of the three time periods throughout the day.

Each day, the primary researcher gave JCO participants a daily DRA implementation schedule (See Appendix H). This schedule contained several times throughout the school day when the JCO should implement the DRA token procedure. The times listed on the DRA implementation schedule occurred every 15-min. Next to each time listed on the DRA implementation schedule was a list of names of nine randomly selected detention day school students (as described above). The JCO was required to implement the DRA token procedure with the nine randomly selected detention day school students any time after the time listed on the DRA implementation schedule but had to be completed before the next time listed on the DRA implementation schedule. The JCO participants implemented the DRA token procedure only when the detention day school students were in the classroom.

After all JCOs successfully completed the BST training with the primary researcher, the primary researcher asked each JCO to implement the DRA procedure when assigned to the detention day school post and at the times specified on the daily DRA implementation schedule. Although the JCOs implemented the DRA token procedure with all detention day school

students throughout the day, during any 15-min interval, the JCOs only gave tokens to nine designated students. Using the daily DRA implementation schedule, the primary researcher asked the JCO participants to implement the DRA procedure throughout the entire school day, not only when the primary researcher was present. The daily DRA implementation schedule did not require the JCO participants to observe the detention day school participants continuously and, therefore, allowed the JCO participants to complete their many other work responsibilities. The primary researcher or research assistants, however, only observed and recorded during unannounced 45-min observation periods Monday-Thursday.

Any time after each time listed on the DRA schedule, but before the next time listed on the DRA implementation schedule, the JCO observed the behavior of the nine randomly assigned detention day school students listed on the DRA implementation schedule for that time period. At this time, the JCO quietly walked to the specified detention day school students who met the definition of engaging in on-task behavior and used an ink pen to sign the JCO's initials in a box on the detention day school students token sheet under the corresponding time period (i.e., 8:30 am–10:30 am, 10:30 am–12:30 pm, 12:30 pm–2:30 pm) (see Appendix I). The detention day school students were not permitted to have pens in their possession while in the detention day school; therefore, there was little possibility that the detention day school students would forge the initials of the JCO. Following distribution of the tokens, the JCO repeated the above procedure at the next time period listed on the daily DRA implementation schedule with the nine randomly selected detention day school students assigned to that time. The JCO participants implemented the DRA token procedure with all detention day school students. When the study was designed, there were 27 students attending the detention day school. When the study began on February 25, 2019, there were 29 students attending the day school. The number of students

enrolled in the detention day school increased to 30 on March 28, 2019; 31 on April 1, 2019; 32 on April 5, 2019; 33 on April 11, 2019; 34 on April 12, 2019; 35 on April 16, 2019; 36 on April 17, 2019; 38 on April 29, 2019; and 39 on May 9, 2019. Therefore, the number of students enrolled in the detention day school varied across phases. The same procedure for randomly assigning students to the daily implementation schedule was used throughout the study, but the probability for receiving a token decreased.

Every Sunday, the primary researcher delivered an accordion folder containing folders labeled Monday, Tuesday, Wednesday, and Thursday to the detention day school. Each of these folders contained the DRA implementation schedule for that day as well as a token sheet for each student enrolled in the detention day school. This ensured that the JCO who was assigned to the detention day school post each day would have the daily DRA implementation schedule and all necessary token sheets in advance. Additionally, the primary researcher delivered performance feedback directly to the JCO participants on their implementation of the DRA token procedure in the classroom (Courtemanche, 2014). Following each observation, the primary researcher or research assistant provided a copy of the data sheet containing the JCO's treatment integrity data for that day (See Appendix F). This data sheet indicated the skills steps performed correctly and incorrectly with each of detention day school student participants during each 15-min interval. This data sheet also contained an overall percentage of the DRA token procedure skill steps performed correctly across the entire 45-min observation and a section for the primary researcher or research assistant to leave general comments about the JCO's performance. Additionally, following observations in which the JCO participant implemented the DRA token procedure skill steps with less than 90% total procedural fidelity that day, the primary researcher would have notified the JCO participant via phone, email, or in person within 24 hrs of the observation and

given behavior specific praise regarding the DRA token procedural steps the JCO participant performed correctly and also suggestions for improvement on the DRA skill steps that the JCO participant performed incorrectly or omitted. The primary researcher also would have arranged a time during the next work day for the JCO participant to practice the DRA skill steps in a role-play situation with the primary researcher. During the study, no additional JCO training sessions were needed.

Data Collection

Treatment integrity data collection during BST instructional sessions. The primary researcher created six training videos to teach research assistants how to collect treatment integrity data on the primary researcher's implementation of BST with the JCO participants. Two graduate students, two undergraduate students, and two peers were recruited to be actors in the training videos. Each training video contained the primary researcher conducting the BST training with one actor playing the role of a JCO participant. Additionally, two actors were used in each video playing the role of a detention day school student participant either on-task or off-task in classroom activities. Prior to filming the videos, actors were given scripts of their assigned parts for each video (see Appendix L). In two of the training videos, the primary researcher implemented the BST procedure 100% correctly. In the remaining four training videos, the primary researcher made a variety of errors during the BST procedure. For a complete description of the primary researcher's implementation of the BST procedure in each training video, please see Appendix L.

The primary researcher used the training videos to teach research assistants how to collect treatment integrity data for the BST sessions in individual training sessions. During each individual training session, the primary researcher would randomly select one of the six videos

for the research assistant to watch on a computer screen. The primary researcher met individually with each research assistant, distributed the BST procedural steps and scoring definitions handout (see Appendix M), orally reviewed each BST procedural step and scoring definitions, and answered any questions he or she had. At this time, the research assistant would observe the primary researcher in the video and score his implementation of the BST procedure using a "2," "1," "0," scale on the BST treatment integrity data sheet (For complete scoring definitions, see Appendix M). At the conclusion of the video, the primary researcher would compare the research assistant's completed BST treatment integrity data sheet with the primary researcher's completed treatment integrity data sheet that he independently scored for that video. Training concluded after the research assistant had 90% or better agreement with the primary researcher across three consecutive randomly selected training videos.

Data collection and reliability instructional sessions. The primary researcher taught research assistants to conduct observations of detention day school participants on-task behavior by providing the research assistants with written definitions of on-task and off-task behaviors and verbally reviewing every definition. The primary researcher then reviewed the detention day school student participant data sheet (see Appendix N) and answered questions from each research assistant. Each research assistant then accompanied the primary researcher to the detention day school to participate in the data collection procedure for collecting detention day school student participant on-task data. During this time, the primary researcher and research assistant simultaneously collected data and discussed rationales for recording detention day school student participants as on- or off-task. Following this training session on data collection, the primary researcher and the research assistant compared the research assistant's data sheet with the primary researcher's data sheet. The primary researcher gave positive feedback

regarding the agreements and discussed all disagreements with the research assistant, and reliability was calculated by dividing the total number of agreements by the total number of agreements plus disagreements and multiplying by 100%. After this initial practice session with the primary researcher, the research assistant then accompanied the primary researcher for additional 45-min observations. During these observations, the primary researcher and research assistant collected data simultaneously and independently for the full 45-min observation. The primary researcher continued to collect data with the research assistant and gave positive and corrective feedback until reliability of 90% or greater was obtained for three consecutive 45-min observations. Once this was achieved, the research assistant was permitted to serve as a primary or reliability observer for data collection on the detention day school student participants' on-task behavior.

The primary researcher followed the above procedure for teaching research assistants in data collection of the JCO participants' implementation of the DRA token procedure. Once the research assistant achieved 90%, the research assistant was permitted to serve as a primary or reliability observer for data collection on the JCO participants' implementation of the DRA token procedure.

Collection of Detention Day School Student Participant Data. The primary researcher and research assistants collected data on detention day school student on-task behavior in classroom activities in-vivo using a 5-s momentary time sampling recording method during 45-min unannounced observations. The primary researcher or research assistant observed the first detention day school student participant at the end of a 5-s interval, cued by a MotivAider®. At that 5-s cue, the primary researcher or research assistant recorded the detention day school student participant as on- or off-task in classroom activities.

At the end of the next 5-s interval, cued by a MotivAider ®, the primary researcher or research assistant then observed the second detention day school student participant and recorded the detention day school student participant as on- or off-task in classroom activities. After concluding the observation with the second detention day school student participant, the primary researcher or the research assistant conducted the same observation with the third detention day school student participant, and so on. Once all detention day school student participants had been observed, the process started over beginning with the first detention day school student participant. This process continued until the end of the observation period which occurred during 45-min observations throughout the school day (See Appendix N). Observations were 45-min in duration because detention day school class periods were between 30 min and 70 min in duration. During the study, some detention day school student participants were not present for all observations. Absences were the result of a variety of reasons, such as missing the bus, being ill, participating in part-time transitions to public school, or having medical appointments. All detention day school student participants who were present in the detention day school during the time of observation were included in the observation. This number ranged from three to 10 detention day school student participants.

Collection of JCO Participant Data. The primary research or research assistant collected data on the JCO participants' implementation of the DRA token procedure using a 15-min whole-interval recording procedure during unannounced 45-min observations. These 45-min observations were always the same 45-min observations used to collect detention day school student on-task behavior. The 15-min observations were cued using a Motivaider®. The primary researcher or research assistant observing JCO participant behavior always maintained a copy of the daily DRA implementation schedule. During each 15-min interval, cued by a Motivaider®,

the primary researcher or research assistant would observe the JCO participant for the whole interval and record the DRA token procedural steps performed correctly and/or incorrectly for each detention day school participant eligible to receive tokens as specified on the daily DRA implementation schedule.

The primary researcher or research assistant determined which JCO participant to observe each day by referring to the JDC's post assignments. Each day, each JCO on the first shift was assigned to work on one of five different posts, the detention day school being one of them. The primary researcher or research assistant observed the JCO participant who was assigned to the detention day school post that day.

JCO percentage of DRA token procedural steps performed correctly was collected by the primary researcher or research assistants in-vivo through daily unannounced observations conducted by the primary researcher or research assistants.

Design

This study utilized a reversal design (Baer, Wolf, & Risley, 1968) with the conditions baseline, "tokens without exchange," "tokens with exchange I," return to baseline, "tokens with exchange II," and "no feedback."

Baseline. During baseline, the primary researcher or research assistants collected data in-vivo on the percentage of intervals the 10 detention day school student participants were on-task in classroom activities during a 45-min period using the 5-s momentary time sampling procedure. The percentage of intervals spent on-task in classroom activities was calculated by dividing the total number of 5-s intervals the detention day school student participants were on-task in appropriate classroom activities by the total number of intervals possible and multiplying by 100.

Additionally, the primary researcher or research assistant collected data in-vivo on the frequency JCO participants had positive interactions, negative interactions, and gave attention to detention day school student participants who were off-task or on a staff-instructed or voluntary cooldown.

Token Program without Exchange. At the start of the "token without exchange" phase, the primary researcher verbally stated to the detention day school students the definition of on-task behavior (defined above), provided them with the written definition of on-task behavior (see appendix G), and told them that they could earn tokens from JCOs for being on-task in classroom activities (see Appendix O). During this phase, candy was not be provided to the JCOs to distribute to the detention day school students and the JCOs were instructed not to exchange the tokens for back-up reinforcers.

Preference Survey. At the conclusion of the "token without exchange" phase, a survey was administered to detention day school students to determine the type of candy (e.g., Snickers, Twix, Skittles, M&M's) to include as the back-up reinforcers (see Appendix P).

Token Program with Exchange I. The "token program with exchange I" phase was identical to the "token program without exchange" phase with the exception that detention day school students were allowed to exchange their earned tokens for back-up reinforcers (see Appendix I). The JCOs were instructed to implement the same DRA procedure as they did during the token without exchange phase with the exception that detention day school students were allowed to exchange tokens for pieces of candy.

DRA Procedure. At the start of the "token with exchange I" phase, the primary researcher again verbally stated to the detention day school students the definition of on-task behavior (defined above), provided them with the written definition of on-task behavior (see

Appendix G), and told them that they could earn tokens from JCOs for being on-task in classroom activities and that those tokens could now be exchanged for candy. The primary researcher verbally described that tokens could be exchanged for candy at 10:30 am, 12:30 pm, and 2:30 pm, and that the exchange rate was one piece of candy for one token and a bonus of three pieces of candy could be earned at the final 2:30 pm exchange period if two or more tokens had been earned during each of the three earning periods (i.e., 8:30-10:30 am, 10:30 am-12:30 pm, 12:30-2:30 pm). Finally, the primary researcher verbally stated that if the detention day school students did not want to use their tokens to purchase candy at an exchange period, those tokens could be saved for a later exchange period in the day; however, any tokens not spent by the end of the day would be lost and not saved for a another day.

During the exchange period, the JCO participant had a basket containing a variety of candy, that was previously identified as preferred by the detention day school student participants on the preference surveys, that was used for the exchange of tokens. Token exchange occurred daily at 10:30 am, 12:30 pm, and 2:30 pm. One piece of candy was given for each token earned during each exchange period. At the 2:30 pm exchange period, if the detention day school student earned two or more tokens during each of the exchange periods, the detention day school student earned a bonus of three pieces of candy (See Appendix I). This bonus was given in addition to the pieces of candy purchased at the 2:30 pm token exchange time with tokens earned during the 12:30 pm-2:30 pm period. At these designated times, detention day school students gave their token sheets to the JCO. If a detention day school student earned tokens to purchase a piece of candy, the JCO used an ink pen to fill in the box of the spent tokens on the detention day school student's token sheet.

Return to Baseline. At the start of the "return to baseline" phase, the primary researcher verbally stated to the detention day school students, "Beginning Monday, we will no longer be awarding tokens for on-task behavior nor exchanging tokens for candy." The DRA token program was removed. The primary researcher no longer provided daily DRA implementation schedules to the JCOs and instructed the JCOs to no longer implement the DRA token procedure.

Token Program with Exchange II. Following a return to baseline, the token program with exchange was reintroduced using the previously described procedures. However, 38 students were attending the detention day school at the initiation of the "token program with exchange II" phase. Therefore, no detention day school students had the opportunity to earn three tokens in any of the three exchange periods and one detention day school student would only have the opportunity to earn one token in an exchange phase. To ensure all detention day school students would have an opportunity to earn two to three tokens during each of the three exchange periods and be eligible for the bonus, an additional detention day school student name was added to each 15-min interval on the DRA implementation schedule. Therefore, the primary researcher asked the JCOs to implement the token procedure with 10 (instead of nine) randomly assigned designated detention day school students during each of the 15-min intervals listed on the DRA implementation schedule. This modification is the only difference between the phases "token program with exchange I" and "token program with exchange II."

No Feedback. To determine if JCOs could continue to implement the DRA token procedure with high treatment integrity in the absence of feedback from the primary researcher, the primary researcher no longer gave positive or corrective feedback to the JCO participants following each 45-min observation. The "no feedback" phase was identical to the "token program with exchange II" phase with the exception that the primary researcher or research

assistants did not provide a copy of the data sheet containing the JCO's treatment integrity data for that observation to the JCO following each observation.

Reliability

The primary researcher or research assistants collected data on the percentage of intervals detention day school student participants were on-task in classroom activities during the observation periods, number of staff-instructed and voluntary cooldowns received or taken, number of day room restrictions received, and percentage of classroom assignments completed. For on-task data, an interval was scored as an agreement if both the primary and reliability observer marked the interval indicating the observed detention day school student participant was on-task or off-task. Inter-observer agreement was calculated by dividing the number of agreements by the total of agreements plus disagreements and multiplying by 100. Inter-observer agreement was calculated for 40.7% of observations of the detention day school student participants' on-task behavior. Overall reliability was 93.2% with a range of 81.1%-99.1%.

For staff-instructed or voluntary cooldowns and day room restriction, the primary and reliability observer independently reviewed the same staff-instructed cooldown, voluntary cooldown, and day room restriction logs for each day and counted the number of staff-instructed cooldowns, voluntary cooldowns, or day room restrictions. Reliability was calculated by dividing the number of agreements of staff-instructed cooldowns, voluntary cooldowns, or day room restrictions, by the number of agreements plus disagreements of counted staff-instructed cooldowns, voluntary cooldowns, or day room restrictions and multiplying by 100. For the percentage of classroom assignments completed, the primary and reliability observer independently counted the number of "Yeses" and "Nos" teachers recorded for each detention day school student participant. An agreement was scored if the primary and reliability observer

both independently marked the detention day school participant as having received a "Yes" or a "No" from each of the three teachers. Reliability was calculated by dividing the total number of agreements by the total number of agreements plus disagreements and multiplying by 100.

Additionally, the primary researcher or research assistants collected data on the percentage of DRA procedural steps performed correctly by the JCO participants. The research assistants recorded data simultaneously and independently with the primary researcher for at least 30% of the total in-vivo observations. Inter-observer agreement was calculated by dividing the total number of agreements by the total number of agreements plus disagreements and multiplying by 100%. For each DRA skill step, an agreement was scored if the primary researcher and reliability observer both marked the JCO participant as having performed or not performed the DRA skill step. The primary researcher's comments written to the JCO participant on the DRA treatment integrity data sheet were not included in reliability calculations.

For data collection, a minimum of two observers were present for all observations. At least one observer collected data on the detention day school student participants' on-task behavior while at least one observer simultaneously collected data on the JCO participants' implementation of the DRA procedure. For reliability, a third and fourth observer were present to collect reliability data for at least 30% of the total observations. Inter-observer agreement was calculated for 40.7% of observations of the JCO participants' implementation of the DRA token procedure. Overall reliability was 98.7% with a range of 53.3%-100%. For complete interobserver agreement scores, please see Table 3.

Procedural Fidelity

Independent reliability observers were trained on the implementation of the BST training procedure as described above. As the primary researcher conducted the BST training procedure

with each JCO participant, two reliability observers simultaneously, but independently, scored the primary researcher's BST training implementation using the BST treatment integrity data sheet (see Appendix M). For each step on the BST treatment integrity data sheet, the reliability observers gave a score of "2" if the primary researcher performed the BST step correctly, "1" if the primary researcher attempted but not perform the BST step correctly, and a score of "0" if the primary researcher omitted the BST step. (For complete scoring definitions, see Appendix M.) To calculate procedural fidelity, the smaller total score was divided by the larger total score and multiplied by 100%. Procedural fidelity was collected for 100% of the BST training sessions. Treatment integrity for each JCO participant's BST session ranged from 95%-100% with an overall average of 98.9% (see Table 4).

Consumer Satisfaction

A JCO participant satisfaction survey (see Appendix Q) was administered to JCO participants prior to and at the conclusion of the study. The JCO participant satisfaction survey administered prior to the study asked for his or her perception of the detention day school students' behavior. The JCO participant satisfaction survey administered at the conclusion of the study asked these same questions in addition to questions pertaining to his or her satisfaction with the BST training process and the DRA procedure.

A teacher satisfaction survey (see Appendix R) was administered to detention day school teachers prior to and at the conclusion of the study. The survey asked for the teacher's perception of the detention day school students' behavior. The teacher satisfaction survey administered at the conclusion of the study asked the same questions.

A detention day school participant satisfaction survey (see Appendix S) was administered to detention day school participants prior to and at the conclusion of the study. The detention day

school participant satisfaction survey administered prior to the study asked questions about the detention day school student participant's ability to stay on-task at school, complete schoolwork, and how often he or she takes voluntary cooldowns or receives staff-instructed cooldowns. The detention day school student satisfaction survey administered at the conclusion of the study asked the same questions in addition asking about his or her satisfaction with the DRA procedure.

Results

Figure 1 represents the **group average** of intervals detention day school student participants were on-task in classroom activities. Dates are displayed on the x-axis and percentage of intervals on-task is displayed on the y-axis. Detention day school student participants spent an average of 67.9% of the intervals on-task in classroom activities during baseline, 70.5% of the intervals in the tokens without exchange phase, 75.9% in the tokens with exchange I phase, 61.1% of the intervals in the return to baseline phase, 82.1% of the intervals in the tokens with exchange II phase, and 81.9% of the no feedback phase.

Figure 2 represents the individual detention day school student participant data of intervals on-task in classroom activities. Dates are displayed on the x-axis and percentage of intervals on-task is displayed on the y-axis.

On average, Detention Day School Student Participant 1 was on-task in classroom activities 70.5% of the intervals during baseline, 78.5%% of the intervals in the tokens without exchange phase, 75.6% of the intervals in the token with exchange I phase, 54.1% of the intervals in the return to baseline phase, 78.7% of the intervals in the token with exchange II phase, and 70.4% in the no feedback phase.

On average, Detention Day School Student Participant 2 was on-task in classroom activities 58.1% of the intervals during baseline, 48.1%% of the intervals in the tokens without exchange phase, and 56.6% of the intervals in the token with exchange I phase. Detention Day School Participant 2 completed his GED during the token with exchange I phase and stopped attending the detention day school. Therefore, data collection for Detention Day School Participant 2 ended during the token with exchange I phase.

On average, Detention Day School Student Participant 3 was on-task in classroom activities 51.9% of the intervals during baseline, 62.3%% of the intervals in the tokens without exchange phase, 66.9% of the intervals in the token with exchange I phase, 42.6% of the intervals in the return to baseline phase, 85.2% of the intervals in the token with exchange II phase, and 81.7% in the no feedback phase.

On average, Detention Day School Student Participant 4 was on-task in classroom activities 76.2% of the intervals during baseline, 72.1%% of the intervals in the tokens without exchange phase, 83% of the intervals in the token with exchange I phase, 77.8% of the intervals in the return to baseline phase, 84% of the intervals in the token with exchange II phase, and 94.4% in the no feedback phase.

On average, Detention Day School Student Participant 5 was on-task in classroom activities 66.9% of the intervals during baseline, 70.4%% of the intervals in the tokens without exchange phase, 79.4% of the intervals in the token with exchange I phase, 55.1% of the intervals in the return to baseline phase, 83.3% of the intervals in the token with exchange II phase, and 72.6% in the no feedback phase.

On average, Detention Day School Student Participant 6 was on-task in classroom activities 88.4% of the intervals during baseline, 85.5%% of the intervals in the tokens without exchange phase, 84.2% of the intervals in the token with exchange I phase, 73.2% of the intervals in the return to baseline phase, 83% of the intervals in the token with exchange II phase, and 93.3% in the no feedback phase.

On average, Detention Day School Student Participant 7 was on-task in classroom activities 73.3% of the intervals during baseline, 83.1% of the intervals in the token with exchange I phase, 67.2% of the intervals in the return to baseline phase, 86.9% of the intervals in the token with exchange II phase, and 83% in the no feedback phase. Detention Day School Student Participant 7 was not present in the detention day school for any observations during the token without exchange phase.

On average, Detention Day School Student Participant 8 was on-task in classroom activities 68.4% of the intervals during baseline, 80.6% of the intervals in the tokens without exchange phase, 84% of the intervals in the token with exchange I phase, 51% of the intervals in the return to baseline phase, 92.1% of the intervals in the token with exchange II phase, and 93.8% in the no feedback phase.

On average, Detention Day School Student Participant 9 was on-task in classroom activities 69.9% of the intervals during baseline, 73.3% of the intervals in the tokens without exchange phase, 84.1% of the intervals in the token with exchange I phase, 63.2% of the intervals in the return to baseline phase, 85.1% of the intervals in the token with exchange II phase, and 80.6% in the no feedback.

On average, Detention Day School Student Participant 10 was on-task in classroom activities 62.6% of the intervals during baseline, 57.7% of the intervals in the tokens without exchange phase, 53.6% of the intervals in the token with exchange I phase, 57% of the intervals in the return to baseline phase, 63.8% of the intervals in the token with exchange II phase, and 57.2% in the no feedback phase.

Figure 3 represents the **group average** frequency that detention day school student participants took voluntary cooldowns, received staff-instructed cooldowns, or received day room restrictions. Dates are displayed on the x-axis and frequency is displayed on the y-axis. On average, detention day school student participants took 2.1 voluntary cooldowns per day during baseline, 1.8 per day during the token without exchange phase, 2.8 per day during the token with exchange I phase, 2.8 during the return to baseline phase, 2.8 during the token with exchange II phase, and 1.5 during the no feedback phase. During baseline, detention day school student participants received an average of 3 staff-instructed cooldowns per day, 3 per day during the token without exchange phase, 2.3 during the token with exchange I phase, 2.5 during the return to baseline phase, 2.8 during the token with exchange II phase, and 1.5 during the no feedback phase. Detention day school participants received an average of .8 instances of day room restriction per day during baseline, .3 instances per day during the token without exchange phase, .7 during the token with exchange I phase, .5 during the return to baseline, .3 during the token with exchange II phase, and .3 during the no feedback phase.

Figure 4 represents the individual detention day school student participant averages for the number of voluntary cooldowns taken, staff-instructed cooldowns received, and instances of day room restriction per day during each phase of the study. Dates are displayed on the x-axis and frequency is displayed on the y-axis.

Detention Day School Student Participant 1 took an average of .1 voluntary cooldowns per day during baseline, zero per day during the token without exchange phase, .25 per day during the token with exchange I phase, zero during the return to baseline phase, .63 during the token with exchange II phase, and .75 during the no feedback phase. During baseline, Detention Day School Student Participant 1 received an average of zero staff-instructed cooldowns per day, .2 per day during the token without exchange phase, .3 during the token with exchange I phase, .5 during the return to baseline phase, .1 during the token with exchange II phase, and .8 during the no feedback phase. Detention Day School Student Participant 1 received an average of zero instances of day room restriction per day during baseline, zero instances per day during the token without exchange phase, .1 during the token with exchange I phase, zero during the return to baseline, zero during the token with exchange II phase, and .3 during the no feedback phase.

Detention Day School Student Participant 2 took an average of 1.1 voluntary cooldowns per day during baseline, .8 per day during the token without exchange phase, and 1.2 per day During baseline, Detention Day School Student Participant 2 received an average of 1.1 staff-instructed cooldowns per day, .7 per day during the token without exchange phase, and .8 during the token with exchange I phase. Detention Day School Student Participant 2 received an average of .1 instances of day room restriction per day during baseline, .2 instances per day during the token without exchange phase, and .3 during the token with exchange I phase.

Detention Day School Student Participant 3 took an average of zero voluntary cooldowns per day during baseline, zero per day during the token without exchange phase, .6 per day during the token with exchange I phase, .8 during the return to baseline phase, .1 during the token with exchange II phase, and .8 during the no feedback phase. During baseline, Detention Day School Student Participant 3 received an average of .5 staff-instructed cooldowns per day, zero per day

during the token without exchange phase, .3 during the token with exchange I phase, .8 during the return to baseline phase, .5 during the token with exchange II phase, and .3 during the no feedback phase. Detention Day School Student Participant 3 received an average of .1 instances of day room restriction per day during baseline, zero instances per day during the token without exchange phase, .1 during the token with exchange I phase, .5 during the return to baseline, .1 during the token with exchange II phase, and zero during the no feedback phase.

Detention Day School Student Participant 4 took an average of zero voluntary cooldowns per day during baseline, zero per day during the token without exchange phase, zero per day during the token with exchange I phase, zero during the return to baseline phase, zero during the token with exchange II phase, and zero during the no feedback phase. During baseline, Detention Day School Student Participant 4 received an average of zero staff-instructed cooldowns per day, zero per day during the token without exchange phase, .2 during the token with exchange I phase, zero during the return to baseline phase, zero during the token with exchange II phase, and zero during the no feedback phase. Detention Day School Student Participant 4 received an average of zero instances of day room restriction per day during baseline, zero instances per day during the token without exchange phase, zero during the token with exchange I phase, zero during the return to baseline, zero during the token with exchange II phase, and zero during the no feedback phase.

Detention Day School Student Participant 5 took an average of zero voluntary cooldowns per day during baseline, .2 per day during the token without exchange phase, .8 per day during the token with exchange I phase, one during the return to baseline phase, .3 during the token with exchange II phase, and .5 during the no feedback phase. During baseline, Detention Day School Student Participant 5 received an average of .2 staff-instructed cooldowns per day, zerp per day

during the token without exchange phase, .3 during the token with exchange I phase, .5 during the return to baseline phase, .1 during the token with exchange II phase, and zero during the no feedback phase. Detention Day School Student Participant 5 received an average of zero instances of day room restriction per day during baseline, zero instances per day during the token without exchange phase, .1 during the token with exchange I phase, zero during the return to baseline, zero during the token with exchange II phase, and zero during the no feedback phase.

Detention Day School Student Participant 6 took an average of zero voluntary cooldowns per day during baseline, .2 per day during the token without exchange phase, zero per day during the token with exchange I phase, zero during the return to baseline phase, .3 during the token with exchange II phase, and zero during the no feedback phase. During baseline, Detention Day School Student Participant 6 received an average of zero staff-instructed cooldowns per day, .2 per day during the token without exchange phase, .1 during the token with exchange I phase, zero during the return to baseline phase, .4 during the token with exchange II phase, and zero during the no feedback phase. Detention Day School Student Participant 6 received an average of zero instances of day room restriction per day during baseline, zero instances per day during the token without exchange phase, .1 during the token with exchange I phase, zero during the return to baseline, zero during the token with exchange II phase, and zero during the no feedback phase.

Detention Day School Student Participant 7 took an average of zero voluntary cooldowns per day during baseline, zero per day during the token without exchange phase, zero per day during the token with exchange I phase, zero during the return to baseline phase, zero during the token with exchange II phase, and zero during the no feedback phase. During baseline, Detention Day School Student Participant 7 received an average of zero staff-instructed cooldowns per day,

zero per day during the token without exchange phase, zero during the token with exchange I phase, zero during the return to baseline phase, zero during the token with exchange II phase, and .3 during the no feedback phase. Detention Day School Student Participant 7 received an average of zero instances of day room restriction per day during baseline, zero instances per day during the token without exchange phase, zero during the token with exchange I phase, zero during the return to baseline, zero during the token with exchange II phase, and zero during the no feedback phase.

Detention Day School Student Participant 8 took an average of zero voluntary cooldowns per day during baseline, zero per day during the token without exchange phase, zero per day during the token with exchange I phase, zero during the return to baseline phase, .1 during the token with exchange II phase, and zero during the no feedback phase. During baseline, Detention Day School Student Participant 8 received an average of .4 staff-instructed cooldowns per day, .3 per day during the token without exchange phase, .3 during the token with exchange I phase, zero during the return to baseline phase, .3 during the token with exchange II phase, and zero during the no feedback phase. Detention Day School Student Participant 8 received an average of zero instances of day room restriction per day during baseline, zero instances per day during the token without exchange phase, .2 during the token with exchange I phase, zero during the return to baseline, zero during the token with exchange II phase, and .3 during the no feedback phase.

Detention Day School Student Participant 9 took an average of .6 voluntary cooldowns per day during baseline, zero per day during the token without exchange phase, .1 per day during the token with exchange I phase, .3 during the return to baseline phase, zero during the token with exchange II phase, and zero during the no feedback phase. During baseline, Detention Day

School Student Participant 9 received an average of .6 staff-instructed cooldowns per day, .3 per day during the token without exchange phase, .1 during the token with exchange I phase, zero during the return to baseline phase, .3 during the token with exchange II phase, and zero during the no feedback phase. Detention Day School Student Participant 9 received an average of .2 instances of day room restriction per day during baseline, .2 instances per day during the token without exchange phase, zero during the token with exchange I phase, zero during the return to baseline, zero during the token with exchange II phase, and zero during the no feedback phase.

Detention Day School Student Participant 10 took an average of .5 voluntary cooldowns per day during baseline, .7 per day during the token without exchange phase, .6 per day during the token with exchange I phase, .8 during the return to baseline phase, 1.1 during the token with exchange II phase, and one during the no feedback phase. During baseline, Detention Day School Student Participant 10 received an average of .3 staff-instructed cooldowns per day, 1.3 per day during the token without exchange phase, .4 during the token with exchange I phase, .8 during the return to baseline phase, 1.1 during the token with exchange II phase, and one during the no feedback phase. Detention Day School Student Participant 10 received an average of .7 instances of day room restriction per day during baseline, zero instances per day during the token without exchange phase, zero during the token with exchange I phase, zero during the return to baseline, .1 during the token with exchange II phase, and zero during the no feedback phase.

Figure 5 represents the detention day school student participants' **group percentage** of assignments completed each week during each phase of the study. Weeks are displayed on the x-axis and the percentage of classroom assignments completed is displayed on the y-axis. Detention day school student participants completed an average of 47.4% of classroom assignments per week during baseline, 63.3% during the tokens without exchange phase, 59.3%

during the tokens with exchange I phase, 33.3% during the return to baseline phase, 53.7% during the token with exchange II phase, and 63% during the no feedback phase.

Figure 6 displays individual detention day school student participant data for the percentage of classroom assignments completed during each phase of the study. Weeks are displayed on the x-axis and the percentage of classroom assignments completed is displayed on the y-axis.

Detention Day School Student Participant 1 completed an average of 16.7% of classroom assignments per week during baseline, 33.3% during the token without exchange phase, 55.6% during the token with exchange I phase, zero percent during the return to baseline phase, 16.7% during the token with exchange II phase, and zero percent during the no feedback phase.

Detention Day School Student Participant 2 completed an average of 33.3% of classroom assignments per week during baseline, 33.3% during the token without exchange phase, and 33.3% during the token with exchange I phase.

Detention Day School Student Participant 3 completed an average of 33.3% of classroom assignments per week during baseline, 50% during the token without exchange phase, 44.4% during the token with exchange I phase, 33.3 during the return to baseline phase, 16.7% during the token with exchange II phase, and 66.7% during the no feedback phase.

Detention Day School Student Participant 4 completed an average of 83.3% of classroom assignments per week during baseline, 100% during the token without exchange phase, 77.8% during the token with exchange I phase, zero percent during the return to baseline phase, 66.6% during the token with exchange II phase, and 33.3% during the no feedback phase.

Detention Day School Student Participant 5 completed an average of zero percent of classroom assignments per week during baseline, 50% during the token without exchange phase, 55.6% during the token with exchange I phase, zero percent during the return to baseline phase, 33.3% during the token with exchange II phase, and 66.7% during the no feedback phase.

Detention Day School Student Participant 6 completed an average of 66.7% of classroom assignments per week during baseline, 66.7% during the token without exchange phase, 55.6% during the token with exchange I phase, 33.3% during the return to baseline phase, 66.7% during the token with exchange II phase, and zero percent during the no feedback phase.

Detention Day School Student Participant 7 completed an average of 83.3% of classroom assignments per week during baseline, 50% during the token without exchange phase, 55.6% during the token with exchange I phase, 33.3% during the return to baseline phase, 50% during the token with exchange II phase, and 66.7% during the no feedback phase.

Detention Day School Student Participant 8 completed an average of 100% of classroom assignments per week during baseline, 100% during the token without exchange phase, 100% during the token with exchange I phase, 66.6% during the return to baseline phase, 100% during the token with exchange II phase, and 100% during the no feedback phase.

Detention Day School Student Participant 9 completed an average of 16.7% of classroom assignments per week during baseline, 66.7% during the token without exchange phase, 66.7% during the token with exchange I phase, 66.7% during the return to baseline phase, 66.7% during the token with exchange II phase, and 66.7% during the no feedback phase.

Detention Day School Student Participant 10 completed an average of 33.3% of classroom assignments per week during baseline, 83.3% during the token without exchange

phase, 33.3% during the token with exchange I phase, 66.7% during the return to baseline phase, 66.7% during the token with exchange II phase, and 66.7% during the no feedback phase.

Figure 7 displays the individual JCO data for the percentage of DRA token procedural steps performed correctly during each token phase of the study. Dates are displayed on the x-axis and the percentage of DRA token procedural steps performed correctly is displayed on the y-axis.

JCO Participant 1 implemented the DRA token procedural steps 100% correctly during the token without exchange phase, 100% during the token with exchange I phase, 100% during the token with exchange II phase, and 100% during the no feedback phase.

JCO Participant 2 implemented the DRA token procedural steps 100% correctly during the token without exchange phase, 100% during the token with exchange I phase, 100% during the token with exchange II phase, and 97.2% during the no feedback phase.

JCO Participant 3 implemented the DRA token procedural steps 100% correctly during the token without exchange phase, 96.7% during the token with exchange I phase, and 100% during the token with exchange II phase. JCO Participant 3 was not observed implementing the DRA token procedure during the no feedback phase.

JCO Participant 4 implemented the DRA token procedural steps 93.3% correctly during the token without exchange phase, 100% during the token with exchange I phase, 97.1% during the token with exchange II phase, and 100% during the no feedback phase.

JCO Participant 5 implemented the DRA token procedural steps 100% correctly during the token with exchange I phase and 100% during the token with exchange II phase. JCO

Participant 5 was not observed implementing the DRA token procedure during the token without exchange or the no feedback phases.

JCO Participant 6 implemented the DRA token procedural steps 96.7% correctly during the token with exchange I phase and 92% during the token with exchange II phase. JCO Participant 6 was not observed implementing the DRA token procedure during the token without exchange or the no feedback phases.

JCO Participant 7 was not observed implementing the DRA token procedure during any phase of the study.

JCO Participant 8 implemented the DRA token procedural steps 100% correctly during the token without exchange phase and 99% during the token with exchange I phase. JCO Participant 8 was not observed implementing the DRA token procedure during the token with exchange II or the no feedback phases.

JCO Participant 9 implemented the DRA token procedural steps 100% correctly during the token without exchange phase, 100% during the token with exchange I phase, and 100% during the token with exchange II phase. JCO Participant 9 was not observed implementing the DRA token procedure during the no feedback phase.

On average, JCO participants implemented the DRA token procedural steps 99.6% correctly during the token without exchange phase, 99.2% during the token with exchange I phase , 98.9% during the token with exchange II phase, and 98.3% during the no feedback phase.

Figure 8 displays the individual JCO participant data for the frequency of positive interactions made, negative interactions made, and attention given to detention day school

student participants off-task or on staff-instructed or voluntary cooldowns during each phase of the study. Dates are displayed on the x-axis and frequency is displayed on the y-axis.

JCO Participant 1 had an average of zero positive interactions, zero negative interactions, and zero instances of giving attention to detention day school student participants off-task or on a staff-instructed or voluntary cooldown per day during baseline; 4.3, zero, and zero respectively per day during the tokens without exchange phase; eight, zero, and zero per day respectively during the tokens with exchange I phase; six, zero, and zero respectively during the return to baseline phase; zero, zero, and zero respectively during the token with exchange II phase, and four, zero, and zero respectively during the no feedback phase.

JCO Participant 2 had an average of zero positive interactions, zero negative interactions, and zero instances of giving attention to detention day school student participants off-task or on a staff-instructed or voluntary cooldown per day during baseline; 3.5, zero, and zero respectively per day during the tokens without exchange phase; 3.5, zero, and zero per day respectively during the tokens with exchange I phase; zero, zero, and zero respectively during the return to baseline phase; zero, zero, and zero respectively during the token with exchange II phase, and four, zero, and zero respectively during the no feedback phase.

JCO Participant 3 had an average of five positive interactions, zero negative interactions, and zero instances of giving attention to detention day school student participants off-task or on a staff-instructed or voluntary cooldown per day during the tokens without exchange phase; three, zero, and zero per day respectively during the tokens with exchange I phase; zero, zero, and zero respectively during the return to baseline phase; and seven, zero, and zero respectively during the token with exchange II phase.

JCO Participant 4 had an average of zero positive interactions, zero negative interactions, and zero instances of giving attention to detention day school student participants off-task or on a staff-instructed or voluntary cooldown per day during baseline; two, zero, and zero respectively per day during the tokens without exchange phase; 3.5, zero, and zero per day respectively during the tokens with exchange I phase; zero, zero, and zero respectively during the return to baseline phase; 2.5, zero, and zero respectively during the token with exchange II phase, and three, zero, and zero respectively during the no feedback phase.

JCO Participant 5 had an average of zero positive interactions, zero negative interactions, and zero instances of giving attention to detention day school student participants off-task or on a staff-instructed or voluntary cooldown per day during baseline; 3.5, zero, and zero per day respectively during the tokens with exchange I phase; and two, zero, and zero respectively during the token with exchange II phase.

JCO Participant 6 had an average of zero positive interactions, one negative interaction, and zero instances of giving attention to detention day school student participants off-task or on a staff-instructed or voluntary cooldown per day during baseline; 4.7, zero, and zero per day respectively during the tokens with exchange I phase; and two, zero, and zero respectively during the token with exchange II phase.

JCO Participant 7 was not observed during any phase of the study.

JCO Participant 8 had an average of one positive interaction, one negative interaction, and zero instances of giving attention to detention day school student participants off-task or on a staff-instructed or voluntary cooldown per day during baseline; five, zero, and zero respectively

per day during the tokens without exchange phase; and five, zero, and zero per day respectively during the tokens with exchange I phase.

JCO Participant 9 had an average of one positive interaction, one negative interaction, and zero instances of giving attention to detention day school student participants off-task or on a staff-instructed or voluntary cooldown per day during baseline; one, zero, and zero respectively per day during the tokens without exchange phase; five, zero, and zero per day respectively during the tokens with exchange I phase; zero, zero, and zero respectively during the return to baseline phase; and two, zero, and zero respectively during the token with exchange II phase.

On average, JCO participants made .3 positive interactions, .4 negative interactions, and zero instances of giving attention to detention day school student participants off-task or on a staff-instructed or voluntary cooldown per day during baseline, 3.7, zero, and zero respectively per day during the token without exchange phase; 4.3, zero, and zero respectively during the token with exchange I phase, one, zero, and zero respectively per day during the return to baseline phase, and 2.7, zero, and zero respectively per day during the token with exchange II phase, and 3.7, zero, and zero respectively per day during the no feedback phase.

Consumer Satisfaction

Figure 9 represents the JCO participant **group average** satisfaction data collected from a 7-point Likert type survey completed by JCO participants. The x-axis represents the eight areas (i.e., satisfaction with the detention day school students' on-task behavior, satisfaction with the amount of schoolwork completed, acceptability of the frequency detention day school students remain after school for schoolwork, acceptability of the frequency detention day school students remain after school for behavior, acceptability of the frequency of voluntary cooldowns,

acceptability of the frequency of staff-instructed cooldowns, satisfaction of the current procedures to address detention day school student behavior, and the effectiveness of the current procedures to address detention day school student behavior) on the JCO participant satisfaction survey. The y-axis represents the average score that the JCO participants indicated on the survey. The blue bars indicate scores received prior to beginning the study. The orange bars indicate scores received at the conclusion of the study. The JCO participants' group average score of satisfaction of the detention day school students' on-task behavior increased from 3.1 to 4.8, satisfaction with the amount of schoolwork completed remained unchanged from 4.1, acceptability of the frequency detention day school students remain after school for schoolwork increased from 4 to 4.8, acceptability of the frequency detention day school students remain after school for behavior decreased from 4.8 to 4.2, acceptability of the frequency of voluntary cooldowns increased from 2.7 to 2.9, acceptability of the frequency of staff-instructed cooldowns increased from 4 to 4.1, satisfaction of the current procedures to address detention day school student behavior increased from 3.7 to 4.6, and effectiveness of the current procedures to address detention day school student behavior increased from 3.8 to 4.6.

Figure 10 represents the teacher **group average** satisfaction data collected from a 7-point Likert type survey completed by detention day school student participants. The x-axis represents the eight areas (i.e., satisfaction with the detention day school students' on-task behavior, satisfaction of the amount of schoolwork he or she completed, satisfaction with the quantity of voluntary cooldowns taken by detention day school students, acceptability of the quantity of voluntary cooldowns taken by detention day school students, acceptability of the number of staff-instructed cooldowns detention day school students receive each day, satisfaction with the number of course credits detention day school students recover, satisfaction of detention day

school students' progress toward weekly goals, and the acceptability of the overall quantity of disruptive behavior displayed by detention day school students) on the teacher satisfaction survey. The y-axis represents the average score that the teachers indicated on the survey. The blue bars indicate scores received prior to beginning the study. The orange bars indicate scores received at the conclusion of the study. The teachers' group average of the satisfaction with detention day school students' on-task behavior increased from 2.7 to 5, satisfaction with the amount of schoolwork completed increased from 3.3 to 4.3, satisfaction with the quantity of voluntary cooldowns taken by detention day school students remained unchanged from 3.3, acceptability of the quantity of voluntary cooldowns taken by detention day school students increased from 3.3 to 3.7, acceptability of the quantity of staff-instructed cooldowns received by detention day school students increased from 3.7 to 5, satisfaction with the number of course credits detention day school students recovered increased from 4 to 5.7, satisfaction of the detention day school students' progress toward weekly goals increased from 3.3 to 4.7, and acceptability of the overall quantity of disruptive behavior displayed by detention day school students increased from 1.3 to 4.

Figure 11 represents the detention day school student participants' **group average** satisfaction data collected from a 7-point Likert type survey completed by the detention day school student participants. The x-axis represents the eight areas (i.e., satisfaction with his or her ability to be on-task during the school day, satisfaction with the quantity of schoolwork he or she completes each week, frequency he or she must stay after school due to school work, frequency he or she must stay after school for behavior, frequency he or she takes voluntary cooldowns, frequency he or she received staff-instructed cooldowns, satisfaction with the current procedures in the detention day school to manage student behavior, and effectiveness of the current

procedures in the detention day school for helping students behave appropriately) on the detention day school student participant satisfaction survey. The y-axis represents the average score that the detention day school students indicated on the survey. The blue bars indicate scores received prior to beginning the study. The orange bars indicate scores received at the conclusion of the study. On average, detention day school student participants' satisfaction ratings increased from prior to the DRA token procedure to after final implementation of the DRA token procedure. Post- satisfaction surveys were not collected for Detention Day School Participant 2, Detention Day School Participant 6, and Detention Day School Participant 9. Detention Day School Participant 2 completed his GED and stopped attending the detention day school during the token with exchange I phase. Detention Day School Participant 6 graduated from high school and stopped attending the detention day school during the last week of the study. Detention Day School Participant 9 was absent from school each of the three days that the post- satisfactions surveys were administered. Because post- satisfaction surveys could not be collected for Detention Day School Student Participant 2, Detention Day School Student Participant 6, and Detention Day School Student Participant 9, these participants' pre-satisfaction surveys were excluded from the detention day school student participant consumer satisfaction analysis. The detention day school student participants' group average satisfaction with their ability to remain on-task increased from 3.8 to 4.6, satisfaction with the quantity of schoolwork completed increased from 3.4 to 4.9, the frequency the detention day school student participants had to remain afterschool for schoolwork increased from 4.2 to 5.7, the frequency the detention day school student participants had to stay after school for behavior increased from 4.1 to 5.4, the frequency the detention day school student participants took voluntary cooldowns increased from 4.1 to 5.7, the frequency the detention day school student participants received

staff-instructed cooldowns increased from 3.8 to 4.9, the detention day school student participants' satisfaction with the current procedures used to manage detention day school student behavior decreased from 2.6 to 3.4, and the detention day school students' perceived effectiveness of the current procedures used to manage detention day school student behavior increased from 2.4 to 3.6.

Cost Analysis

Table 11 depicts a cost analysis that was done to determine the estimated cost to implement the DRA token procedure throughout the study. This cost analysis does not include the cost of printing. The estimated unit price for the token sheets was $0.07 per student. This was calculated by dividing the cost of a ream of cardstock paper and dividing by the total pieces of paper in the ream. The number of students attending the detention day school during the study varied from 31 to 39. At the end of each day, the token sheets were collected from the detention day school students and given to the primary researcher. The total cost of the DRA token sheets per day was calculated by multiplying the unit cost of paper (i.e., $0.07) by the total number of students enrolled in the detention day school that day. The estimated total cost of the DRA token sheets for the study was $70.91. The estimated unit price for each piece of candy was $0.06. This was calculated by dividing the cost of a bag of candy by the total pieces of candy in the bag. The total cost of the candy per day was calculated by multiplying the total number of bonuses earned by three and adding this number to the total number of tokens earned. The bonuses were multiplied by three because each bonus equated to three pieces of candy. This number was then multiplied by the estimated unit cost of the candy (i.e., $0.06) to calculate the estimated total price of candy per day. The estimated total price of candy per day was added to the estimated total cost of the token sheets per day to determine the total cost of the DRA token procedure per

day. The estimated total cost of the candy for the study was $219.78. The estimated total cost of the DRA token procedure for the study was $290.69.

Discussion

The primary purpose of the study was to evaluate the effects of a DRA token program, implemented by juvenile correctional officers (JCOs), on the on-task behavior of detention day school student participants. The results demonstrate that the DRA token procedure, with the exchange for back-up reinforcers, was successful in increasing the detention day school student participants' on-task behavior. Additionally, the primary researcher successfully taught JCO participants how to implement the DRA token procedure using BST.

The introduction of the DRA token program without the exchange for back-up reinforcers had little to no effect on the detention day school student participants' on-task behavior. Therefore, it is unlikely that the tokens alone served as reinforcers prior to being paired with the back-up reinforcers in the "token with exchange I phase." After the introduction of the "token with exchange I phase," the percentage of intervals the detention day school student participants' were on-task in classroom activities increased. The detention day school student participants' on-task behavior immediately decreased to below baseline levels when the DRA token procedure was removed. After reintroducing the DRA token procedure, the detention day school student participants' on-task behavior immediately increased. This level of on-task behavior was maintained when the primary researcher and research assistants stopped providing performance feedback to the JCOs in the "no feedback" phase. Additionally, the DRA token procedure produced minor increases in the detention day school student participants' average assignments completed each week. Although the DRA token procedure was successful in increasing on-task

behavior, it had no effect on voluntary cooldowns, staff-instructed cooldowns, or day room restrictions.

With the exception of JCO Participant 6, all JCO participants were able to achieve mastery criteria for the implementation of the DRA token procedure in the first three role-play attempts during BST training. Additionally, JCO participants implemented the DRA token procedural steps at 90% or greater fidelity throughout the study, and, therefore, no additional training sessions were needed. All JCO participants had extensive experience working in the field and at this JDC. Further, JDC staff implement a Positive Behavioral Support program and a token economy program as part of the daily programming. Each of the JCO participants had extensive training and experience implementing these programs prior to the study. It is possible that this experience may have made implementation of the DRA token procedure relatively easy. Further, the primary researcher had worked with the JDC for 9 years and had long-standing relationships with many of the JDC staff and JCO participants. It is possible that the JCO participants were motivated to implement the DRA token procedure with high procedural integrity due to his or her rapport with the primary researcher.

Despite what is often seen in JDCs or correctional facilities, the JCO participants were rarely observed making negative comments towards the detention day school student participants. However, JCOs were also rarely seen making positive comments that were specific to an individual detention day school student's behavior. Receiving BST and the implementation of the DRA token procedure increased the frequency JCO participants made positive comments to the detention day school students and decreased the frequency of negative comments toward the detention day school student participants to zero.

A unique aspect of this study is that social validity data were collected across all three relevant populations (i.e., JCO participants, detention day school student participants, and teachers) in the detention day school setting. Satisfaction surveys were distributed to JCO participants, detention day school student participants, and teachers pre- and post-intervention, and similar positive effects were seen across all three populations.

This study adds to the literature by demonstrating an application of a DRA token procedure, implemented by juvenile correctional officers, to increase the on-task behavior of students attending a detention day school. Additionally, this study demonstrates that BST can be used to teach juvenile correctional officers how to implement a DRA token procedure in a detention day school.

The current study has several limitations worth mentioning. First, video recording of the detention day school student participants' and the JCO participants' behavior for research purposes was not approved by the university's human subjects committee. Therefore, data had to be collected during in-vivo observations. To decrease the likelihood of reactivity, observations were unannounced, and the primary researcher attempted to schedule observations as randomly as possible. However, scheduling constraints made opportunities limited in order to ensure that two to four observers were present in the detention day school simultaneously. Additionally, the daily classroom rotation schedule was changed daily and was often unpredictable. Therefore, although observations were unannounced, they occurred at fairly routine times. There is the possibility that the primary researcher or research assistants' presence during in-vivo observations may have served as a discriminative stimulus. The JCO participants may have been more likely to implement the DRA token procedure with high integrity in the presence of the primary researcher or research assistants. Future research should aim to include less obtrusive

data collection procedures. Further, the JCO participants walking throughout the detention day school may have served as a discriminative stimulus, increasing the likelihood that the day school students would increase their on-task behavior in that moment. Future research should teach the JCO participants to walk throughout the detention day school more frequently, sometimes giving out tokens and sometimes not. Therefore, not every instance of the JCO participant walking throughout the detention day school would be paired with token delivery, and, therefore, the detention day school students may be more likely to engage in on-task behavior at times when the JCO participant is not walking throughout the detention day school. Additionally, the JCO participants could observe and record the on-task behavior of the detention day school students from the JCO's desk. Instead of walking throughout the detention day school to deliver tokens, the JCO participants could record the number of tokens each detention day school student earns from the JCO's desk and then could deliver the tokens between class rotations while the detention day school students are on a break.

Second, this study utilized a momentary-time sampling data collection procedure. Because the on-task behavior was only observed momentarily at the end of an interval (opposed to throughout the interval), it is possible that this data collection procedure either over- or under-estimated the detention day school student participants' on-task behavior. However, the intervals used (i.e., 5-s) were short in duration further reducing the likelihood of this issue.

Third, the physical environment of the detention day school made data collection difficult. The primary researcher or research assistants stood in classroom A when observing the detention day school student participants' on-task behavior so that observations could be made of students in classrooms A, B, and C (see Appendix E). Due to the glass separating classroom A from classrooms B and C, the primary researcher or research assistant was unable to hear

conversations that were occurring in classrooms B and C. Therefore, all conversations detention day school student participants had with teachers or JCOs were recorded as on-task (even if they may have been off-task) and all conversations detention day school student participants had with peers were recorded as off-task (even if they may have been on-task). When collecting data on the JCO participant's implementation of the DRA token procedure, the primary researcher or research assistant followed the JCO participant throughout the detention day school so that positive or negative comments made by the JCO participant to the detention day school student participants could be heard.

Fourth, the enrollment of the detention day school gradually increased throughout the study. As the detention day school population increased, there were fewer opportunities for detention day school students to earn tokens, and, therefore, this may have reduced the effectiveness of the DRA token program on the on-task behavior of the detention day school participants. The enrollment was large enough following the return to baseline phase, that a tenth detention day school student had to be added to each of the 15-min periods on the daily DRA implementation schedule to ensure that all detention day school students earned enough tokens to be eligible for a bonus at the end of the school day. Additionally, the number of students enrolled in the detention day school exceeded the capacity of the classrooms. The JDC then created a fourth classroom outside of the detention day school in the JDC day room. This classroom became a regular classroom rotation, and the primary researcher and research assistants were unable to conduct observations of a detention day school student participant if he or she was in the fourth classroom during the time of observation. Further, as the population increased, the JCO participants reported that the DRA token procedure became more difficult to implement while also conducting their other work responsibilities.

Fifth, the detention day school student participants' attendance varied; therefore, not all detention day school student participants were present for each observation. Detention day school student participants were absent from observations for a variety of reasons such as arriving late to school, leaving early for appointments, refusing to attend school, or being taken to other areas in the JDC.

Sixth, a variety of candy was chosen to include in the study as back-up reinforcers. As mentioned above, some JCO participants disapproved of the amount of candy delivered to the detention day school students. At the highest level of performance, detention day school students could earn between nine to 12 pieces of candy per day. The candy included in the study were "fun" or "mini" sizes. Future research should consider minimizing the amount of candy that can be earned in a day, use healthier edible reinforcers, or use reinforcers that are naturally available in the environment.

Future Research and Recommendations

The current study has implications for future research. An evaluation should be done of the maximum number of detention day school students that the JCOs can implement the token program with in each 15-min interval. If the JCOs can implement the program with more students in each 15-min interval, then this creates a denser reinforcement schedule for the students. However, this makes the DRA token procedure more difficult for the JCOs to implement and may give other students more notice as to when tokens are available so they can "perform" on-task to earn tokens and still be off-task at times when tokens are not being delivered. One recommendation is to have the teachers implement the DRA token procedure in each of their classrooms. This would allow the DRA token procedure to be implemented in smaller groups and, therefore, the DRA implementation schedule may no longer be needed. This

may address the issue of the JCO participants serving as a discriminative stimulus when they are distributing tokens in the detention day school across three classrooms. Further, if there are enough JCOs to be stationed in every classroom, then each JCO could implement the DRA token procedure in each classroom and the teachers could continue their efforts to teach.

Once the DRA token procedure is used to establish a high level of on-task responding, future research may include a fading method to gradually remove the DRA token procedure from the classroom. If the DRA token procedure can be faded, this may help the detention day school students maintain high rates of on-task behavior in the absence of a DRA token procedure and in other environments (e.g., public school, work settings). This could be done in several ways. The number of back-up reinforcer exchange periods could be gradually reduced throughout the day; the frequency that tokens are delivered could be gradually reduced; or the price to purchase back-up reinforcer with tokens could be gradually increased.

This study should be replicated utilizing JCOs to implement the DRA token procedure with juvenile offenders residing in residential juvenile detention center. Juvenile detention facilities often are viewed as punitive. Introducing this DRA token procedure into residential detention facilities may bring more positive reinforcement into these settings and further teach JCOs how to improve on-task behavior through positive means rather than aversive control. Further, all of the JCOs who participated in this study had experience implementing a token economy and Positive Behavioral Support programs and had many years of service in the field. This study should be replicated with JCOs who do not have this same level of experience. This could further evaluate BST as an effective method for training JCOs how to implement the DRA token procedure with JCOs with little experience. This study should also be replicated with teachers implementing the DRA token procedure in a detention day school or school located

within a residential juvenile detention center. Many detention day schools or schools located within residential juvenile detention centers may not be structured so that a JCO would be able to implement the DRA token procedure in multiple classrooms. Therefore, it may be more practical if teachers could implement the DRA token procedure in each of their classrooms.

The results of this study should be compared with normative data obtained from typical classrooms in public schools. Many of the detention day school students were previously unsuccessful in the public school setting. A comparison should be made of the detention day school students' on-task behavior and academic performance in the detention day school as compared to the public classroom setting.

Future replications should attempt to randomize observations and/or consider recording JCO treatment integrity data remotely through security cameras or other unobtrusive means. This may address the limitation of the primary researcher or research assistants serving as a discriminative stimulus for the JCO participants to perform the DRA token procedure with high treatment integrity in the primary researcher's or research assistants' presence.

Future research should implement the DRA token procedure for a longer duration in the detention day school. The current study only implemented the DRA token procedure for approximately two months. Implementing the DRA token procedure for a longer duration would help determine if there is an improvement in the detention day school student participants' schoolwork and course completion.

Finally, in this study, the JCO participants were not provided tangible positive reinforcement for implementing the DRA token procedure with high treatment integrity, so it is interesting that their treatment integrity was so high. It is possible that one reason the JCO

participants may have implemented the DRA token procedure with such high integrity was partially due to the long standing relationship that the primary researcher had with the JCO participants. It may be important to ensure that whenever a researcher or program supervisor works with staff and asks them to implement a new program, the researcher or program supervisor takes the time to get to know staff and develops a relationship with them. Additionally, for those who do not have an established relationship with the JCO participants, but wish to replicate this study, it may be helpful to begin with relationship development and then provide tangible positive reinforcement (e.g., money) contingent on the JCO participants' treatment integrity of the DRA token procedure. The magnitude of positive reinforcement could be directly linked to the level of treatment integrity of the DRA token procedure. For example, a JCO participant could earn $10 following observations of 100% treatment integrity, $5 for observations above 90% treatment integrity, $2 for observations above 80% treatment integrity, and no money for observations below 80% treatment integrity.

References

Allen, K., Hart, B., Buell, J., Harris, F., & Wolf, M. (1964). Effects of social reinforcement on isolate behavior of a nursery school child. *Child Development, 35.2*, 511-518.

Auld, R., Belfiore, P., & Scheeler, M. C. (2010). Increasing pre-service teachers' use of differential reinforcement: effects of performance feedback on consequences for student behavior. *Journal of Behavioral Education, 19.2*, 169-183.

Austin, J., & Bevan, D. (2011). Using differential reinforcement of low rates to reduce children's requests for teacher attention. *Journal of Applied Behavior Analysis, 44.3*, 451-461.

Ayllon, T., & Azrin, N. (1965). The measurement and reinforcement of behavior of psychotics. *Journal of the Experimental Analysis of Behavior, 8.6*, 357-385.

Ayllon, T., & Azrin, N. (1968). *The token economy: A motivational system for therapy and rehabilitation.* New York, New York: Appleton-Century-Crofts.

Baer, D., Wolf, M., & Risley, T. (1968). Some Current Dimensions of Applied Behavior Analysis. *Journal of Applied Behavior Analysis. 1.1*, 91-97.

Barkley, R., Hastings, J., Tousel, R., & Tousel, S. (1976). Evaluation of a token system for juvenile delinquents in a residential setting. *Journal of Behavior Therapy and Experimental Psychiatry*. 7. 227-230.

Bassett, J. & Blanchard, E. (1977). The effect of the absence of close supervision on the use of response cost in a prison token economy. *Journal of Applied Behavior Analysis,* 10(3), 375-379.

Bassett, J., Blanchard, E., & Koshland E. (1975). Applied behavior analysis in a penal setting: targeting "free world" behaviors. *Behavior Therapy*, 6, 639-648.

Becraft, J., Borrero, J., Mendres-Smith, A., & Castillo, M. (2017). Decreasing excessive bids for attention in a simulated early education classroom. *Journal of Behavioral Education, 26.4*, 371-393.

Bednar, R., Zelhart, P., Greathouse, L., & Weinberg, S. (1970). Operant conditioning principles in the treatment of learning and behavior problems with delinquent boys. *Journal of Counseling Psychology, 17.6*, 492-497.

Blomberg, T., Pesta, G., & Valentine, C. (2008). *The juvenile Justine no child left behind collaboration project: A national effort to improve education for incarcerated youth,* Florida State University: Center for Criminology and Public Policy Research.

Boe, E. E. (1964). Extinction as a function of intensity of punishment, amount of training, and reinforcement of a competing response. *Canadian Journal of Psychology, 18*, 328-342.

Boren, J., & Colman, A. (1970). Some experiments on reinforcement principles within a psychiatric ward for delinquent soldiers. *Journal of Applied Behavior Analysis, 3.1*, 29-37.

Boundy, K. B. & Karger, J. (2011). The right to a quality education for children and youth in the juvenile justice system. *Juvenile Justice: Advancing Research, Policy, and Practice*. 1, 286-309.

Brogan, K., Rapp, J., Niedfeld, A,. Coon, J., Everhart Newman, J., & Burkhart, B. (2017). Increasing quiet compliance by detained male adolescents. *Behavior Modification, 41.6*, 788-807.

Burrell, S., & Warboys, L. (2000). *Special education and the juvenile justice system.* Washington, DC. Office of Juvenile Justice and Delinquency Prevention.

Caldwell, S., & Joseph, L. (2012). Helping female juveniles improve their on-task behavior and academic performance using a self-management procedure in a correctional facility. *Contemporary School Psychology, 16*, 61-74.

Champagne, J., Ike, E., McLaughlin, T., & Williams, R. (1990). Use of differential reinforcement of lower rates of behavior and self-monitoring with a delinquent adolescent in a residential setting. *Journal of Instructional Psychology, 17.3*, 123-132.

Cohen, R., Florin, I., Grusche, A., Meyer-Osterkamp, S., & Sell, H. (1972). The introduction of a token economy in a psychiatric ward with extremely withdrawn chronic schizophrenics. *Behaviour Research and Therapy*, 10(1), 69-74.

Conyers, C., et al. (2004). A comparison of response cost and differential reinforcement of other behavior to reduce disruptive behavior in a preschool classroom. *Journal of Applied Behavior Analysis, 37.3*, 411-415.

Cooper, J., Heron, T., & Heward, W. (2007). *Applied Behavior Analysis* (2nd ed.). Upper Saddle River, NJ. Pearson Education.

Courtemanche, A., Sheldon, J., Sherman, J., Schroeder, S., & Bell, A. (2014). Assessing the effects of a staff training package on the treatment integrity of an intervention for self-injurious behavior. *Journal of Developmental and Physical Disabilities, 26.4*, 371-389.

Daddario, R., Anhalt, K., & Barton, L. (2007). Differential reinforcement of other behavior applied classwide in a child care setting. *International Journal of Behavioral Consultation and Therapy, 3.3*, 342-348.

De La Rosa, D. A. (1998). Why alternative education works. *The High School Journal, 81.4*, 268-272.

De Lange, J. M., Lanham, S. L., & Barton, J. A. (1980). Social skills training for juvenile delinquents: Behavioral skills training and cognitive techniques. In *Behavioral Group Therapy, 1981: An annual review*, Champaign, IL: Research Press Company

Deitz, S., & Repp, A (1973). Decreasing classroom misbehavior through the use of DRL schedules of reinforcement. *Journal of Applied Behavior Analysis, 6.3*, 457-463.

Deitz, S., & Repp, A. (1974). Differentially reinforcing low rates of misbehavior with normal elementary school children. *Journal of Applied Behavior Analysis, 7.4*, 622.

Drabman, R., Spitalnik, R., & Spitalnik, K. (1974). Sociometric and disruptive behavior as a function of four types of token reinforcement programs. *Journal of Applied Behavior Analysis, 7.1*, 93-101.

Eccles, C., & Pitchford, M. (1997). A functional approach to behaviour problems. *Educational Psychology in Practice, 2*, 115-121.

Elementary and Secondary Education Act, No Child Left Behind Act, Title I, 20 U.S.C. 6311 (h)(6)(A)(iii) (2010).

Ferguson, B., & Shapiro, S. (2016). Using a naturalistic sport context to train social skills in children. *Child and Family Behavior Therapy, 38.1*, 47-68.

Ferster, C.B., & Skinner, B.F. (1957). *Schedules of Reinforcement.* Cambridge, MA, Prentice-Hall, Inc.

Fineman, K. R. (1968). An operant conditioning program in a juvenile detention facility. *Psychological Reports*, 22(3). 1119-1120.

Flynn, S., & Lo, Y. (2016). Teacher implementation of trial-based functional analysis and differential reinforcement of alternative behavior for students with challenging behavior. *Journal of Behavioral Education, 25.1*, 1-31.

Frazer, L., & Baenen, N. (1988). *An alternative for high-risk students: The school-community guidance center evaluation, 1987-88.* Austin, TX, Austin Independent School District.

Gambrill, E. (1976). The use of behavioral methods in a short-term detention setting. *Correctional Psychology,* 3(1), 53-66.

Gershone, J.R., Errickson, E.A., Mitchell, J.E., & Paulson, D.A. (1977). Behavioral comparison of a token economy and a standard psychiatric treatment ward. *Journal of Behavior Therapy and Experimental Psychiatry*, 8(4), 381-385.

Goetz,E., Holmberg, M., & LeBlanc, J. (1975). Differential reinforcement of other behavior and noncontingent reinforcement as control procedures during the modification of a preschooler's compliance. *Journal of Applied Behavior Analysis, 8.1*, 77-82.

Greer, R., & Polirstok, S. (1982). Collateral gains and short-term maintenance in reading and on-task responses by inner-city adolescents as a function of their use of social reinforcement while tutoring. *Journal of Applied Behavior Analysis, 15.1*, 123-139.

Hackenberg, T. (2018). Token reinforcement: translational research and application. *Journal of Applied Behvior Analysis, 51.2*, 393-435.

Hayden, T., Osborne, A., Hall, S., & Hall R. (1974). Behavioral effects of price changes in a token economy. *Journal of Abnormal Psychology*, 83(4), 432-439.

Hazel, S., Schumaker, J., Sherman, J., & Sheldon-Wildgen, J. (1982). Group training for social skills: A program for court-adjudicated, probationary youths. *Criminal Justice and Behavior, 9.1*, 35-53.

Hazel, S., Schumaker, J., Sherman, J., & Sheldon-Wildgen, J. (1982). Social skills training with court-adjudicated youths. *Child and Youth Services, 5.3-4*, 117-137.

Hazel, S., Schumaker, J., Sherman, J., & Sheldon-Wildgen, J. (1995). *Asset: A social skills program for adolescents* (2nd ed.). Champaign, IL, Research Press.

Heering, P., & Wilder, D. (2006). The use of dependent group contingencies to increase on-task behavior in two general education classrooms. *Education and Treatment of Children, 29.3*, 459-468.

Hobbs, T. & Holt, M. (1976). The effects of token reinforcement on the behavior of delinquents in cottage settings. *Journal of Applied Behavior Analysis*, 9(2), 189-198.

Hollin, C., Huff, G., Clarkson, F., & Edmondson, A. 1986. Social skills training with young offenders in a borstal: An evaluative study. *Journal of Community Psychology, 14.3*, 289-299.

Holt, M., & Hobbs, T. (1979). The effects of token reinforcement, feedback and response cost on standardized test performance. *Behaviour Research and Therapy, 17.1*, 81-83.

Houchins, D. E., Puckett-Patterson, D., Crosby, S., Shippen, M. E., & Jolivette, K. (2009). Barriers and facilitators to providing incarcerated youth with a quality education. *Preventing School Failure, 53*(3), 159-166.

Houvouras, A., & Harvey, M. (2014). Establishing fire safety skills using behavioral skills training. *Journal of Applied Behavior Analysis, 47.2*, 420-424.

Individuals with Disabilities Education Act, 20 U.S.C. §1401 et seq (1990).

Ingersoll, S., & LeBoeuf, D. (1997). *Reaching out to youth out of the education mainstream*. Washington, DC, Office of Juvenile Justice and Delinquency Prevention.

Johnson, B., et al. (2006). A preliminary evaluation of two behavioral skills training procedures for teaching abduction-prevention skills to schoolchildren. *Journal of Applied Behavior Analysis, 39.1*, 25-34.

Jones, R. & Kazdin, A. (1980). Teaching children how and when to make emergency telephone calls. *Behavior Therapy, 11*, 509-521.

Jones, R., Kazdin, A., & Haney, J. (1981). Social validation and training of emergency fire safety skills for potential injury prevention and life saving. *Journal of Applied Behavior Analysis, 14.3*, 249-260.

Kamps, D., et al. (2011). Class-wide function-related intervention teams: Effects of group contingency programs in urban classrooms. *Journal of Positive Behavior Interventions, 13.3*, 154-167.

Kansas Bill of Rights. art. XI, §1.

Kaufman, K., & O'Leary, K. (1972). Reward, cost, and self-evaluation procedures for disruptive adolescents in a psychiatric hospital school. *Journal of Applied Behavior Analysis, 5.3*, 293-309.

Keith, J. M., & McCray, A. D. (2002). Juvenile offenders with special needs: Critical issues and bleak outcomes. *Qualitative Studies in Education, 15*(6), 691-710.

Kelly, M., & Bushell, D. (1987). Student achievement and differential reinforcement of incompatible behavior: Hand raising. *Psychology in the Schools, 24.3*, 273-281.

Kelso, P., Milternberger, R., Waters, M., Egemo-Helm, K., & Bagne, A. (2007). Teaching skills to second and third grade children to prevent gun play: A comparison of procedures. *Education and Treatment of Children, 30.3*, 29-48.

Kershaw, C. A., & Blank, M. A. (1993, April). *Student and educator perceptions of the impact of an alternative school structure.* Paper presented at the annual meeting of The American Educational Research Association, Atlanta, GA.

Kifer, R., Lewis, M., Green, D., & Phillips, E. (1974). Training predelinquent youths and their parents to negotiate conflict situations. *Journal of Applied Behavior Analysis, 7.3*, 357-364.

Kleiner, B., Porch, R., & Farris, E. (2002). Public alternative schools and programs for students at risk of education failure: 2000-01. *Education Statistics Quarterly, 4.3*, 42-47.

Lagana-Riordan, C., et al. (2011). At risk students' perceptions of traditional schools and a solution focused public alternative school. *Preventing School Failure: Alternative Education for Children and Youth, 55.3*, 105-114.

Lange, C. (1998). Characteristics of alternative schools and programs serving at-risk students. *The High School Journal, 81.4*, 183-198.

Lawson, R., Greene, R., Richardson, S., McClure, G., & Padina, R. (1971). Token economy program in a maximum security correctional hospital. *Journal of Nervous and Mental Disease, 152.3*, 199-205.

Lee, K., Penrod, B., & Price, J. N. (2017). A comparison of cost and reward procedures with interdependent group contingencies. *Behavior Modification, 41.1*, 21-44.

LeGray, M., Dufrene, B., Mercer, S., Olmi, D., & Sterling, H. (2013). Differential reinforcement of alternative behavior in center-based classrooms: Evaluation of pre-teaching the alternative behavior. *Journal of Behavioral Education, 22.2*, 85-102.

LeGray, M., Dufrene, B., Sterling-Turner, H., Olmi, J., & Bellone, K. (2010). A comparison of function-based differential reinforcement interventions for children engaging in disruptive classroom behavior. *Behavioral Education, 19.3*, 185-204.

Lehr, C. A., Tan, C. S., & Ysseldyke, J. (2009). Alternative schools: A synthesis of state-level policy and research. *Remedial and Special Education, 30.1*, 19-32.

Leone, P. E. (1994). Education services for youth with disabilities in a state-operated juvenile correctional system: Case study and analysis. *Journal of Special Education, 28*(1), 43-58.

Leone, P. E., & Cutting, C. A. (2004). Appropriate education, juvenile corrections, and No Child Left Behind. *Behavioral Disorders, 29*(3), 260-265.

Leone, P. E., Krezmien, M., Mason L., & Meisel, S. M. (2005). Organizing and delivering empirically based literacy instruction to incarcerated youth. *Exceptionality, 13*(2), 89-102.

Leone, P., Meisel, S. M., & Drakeford, W. (2002). Special education programs for youth with disabilities in juvenile corrections. *Journal of Correctional Education, 53*(2), 46-50.

Lo, Y., & Cartledge, G. (2006). FBA and BIP: Increasing the behavior adjustment of African American boys in schools. *Behavioral Disorders, 31.1*, 147-161.

Long, S., & Sherer, M. (1984). Social skills training with juvenile offenders. *Child and Family Behavior Therapy, 6.4*, 1-11.

Luiselli, J. (1996). Functional assessment and treatment of aggressive and destructive behaviors in a child victim of physical abuse. *Journal of Behavior Therapy and Experimental Psychiatry, 27.1*, 41-49.

Maloney, D., Phillips, E., Fixsen, D., & Wolf, M. (1975). Training techniques for staff in group homes for juvenile offenders: An analysis. *Criminal Justice and Behavior, 2.3*, 195-216.

Mathur, S., & Rutherford, R. (1994). Teaching conversational social skills to delinquent youth. *Behavioral Disorders, 19.4*, 294-305.

Mears, D., & Travis, J. (2004). Youth Development and Reentry. *Youth Violence and Juvenile Justice, 12.1*, 3-20.

Mendham, R., & Thorne, M. (1984). A description and evaluation of a "Levelled Token Economy" operating within the school day in a residential school for junior maladjusted boys. *Behavioural Psychotherapy, 12.2*, 151-162.

Milan, M. & McKee, J. (1976). The cellblock token economy: token reinforcement procedures in a maximum security correctional institution for adult male felons. *Journal of Applied Behavior Analysis*, 2(1), 3-13.

Miller, R., Cosgrove, J., & Doke, L. (1990). Motivating adolescents to reduce their fines in a token economy. *Adolescence, 25.97*, 97-104.

Miltenberger, R. (2016). *Behavior Modification*: *principles and procedure* (6th ed.) Boston, MA. Cengage Learning.

Miltenberger, R., Flessner, C., Gatheridge, B., Johnson, B., Satterlund, M., & Egemo, K. (2004). Evaluation of behavioral skills training to prevent gun play in children. *Journal of Applied Behavior Analysis, 37.4*, 513-516.

Miltenberger, R., & Thiesse-Duffy, E. (1988). Evaluation of home-based programs for teaching personal safety skills to children. *Journal of Applied Behavior Analysis, 21.1*, 81-87.

Minkin, N., et al. (1981). Analysis, validation, and training of peer-criticism skills with delinquent girls. In *Behavioral Group Therapy, 1981*, 153-166. Chapgain, IL: Research Press.

Ollendick, T., & Hersen, M. (1979). Social skills training for juvenile delinquents. *Behaviour Research and Therapy, 17.6*, 547-554.

Parker, E. (2016). *Constitutional obligations for public education.* Denver, CO: Education Commission of the States.

Parrino, J., George, L., & Daniels, A. (1971). Token control of pill-taking behavior in a psychiatric ward. *Journal of Behavior Therapy and Experimental Psychiatry*, 2(3), 181-185.

Peterson, R. F., & Peterson, L. R. (1968). The use of positive reinforcement in the control of self-destructive behavior in a retarded boy. *Journal of Experimental Child Psychology, 6*, 351-360.

Phillips, E. (1968). Achievement place: token reinforcement procedures in a home-style rehabilitation setting for "pre-delinquent" boys. *Journal of Applied Behavior Analysis*, 1(3), 215-223.

Phillips, E., Phillips, E., Fixsen, D., & Wolf, M. (1971). Achievement place: modification of the behaviors of pre-delinquent boys within a token economy. *Journal of Applied Behavior Analysis*, 491), 45-59.

Quinn, M. M., Poirier, J., Faller, S., Gable, R., & Tonelson, S. (2006). An examination of school climate effective alternative programs. *Preventing School Failure: Alternative Education for Children and Youth, 51.3*, 11-17.

Quinsey, V.L. & Sarbit, B (1975). Behavioural changes associated with the introduction of a token economy in a maximum security psychiatric institution. *Canadian Journal of Criminology and Corrections,* 17(2), 177-182.

Raywid, M. A. (1994). Alternative schools. The state of the art. *Education Leadership, 52.1*, 26-31.

Raywid, M. A. (1999). History and issues of alternative schools. *The Education Digest, 64.9*, 47-51.

Reimer, M., & Cash, T. (2003). *Alternative schools: Best practices for development and evaluation. Effective strategies for school improvement. Alternative schooling*. Clemson, SC: National Dropout Prevention Center.

Reynolds, G. (1961). Behavioral Contrast. *Journal of the Experimental Analysis of Behavior, 4.1*, 57-71.

Rosenbaum, M., Creedon, D., & Drabman, R. (1981). Training preschool children to identify emergency situations and make emergency phone calls. *Behavior Therapy, 12.3*, 425-435.

Rowbury, T., Baer, A., & Baer, D. (1976). Interactions between teacher guidance and contingent access to play in developing preacademic skills of deviant preschool children. *Journal of Applied Behavior Analysis, 9.1*, 85-104.

San Antonio Independent School District v. Rodriguez Supreme Court, 411 U.S. 1 (1973).

Sarason, I., & Ganzer, V. (1973). Modeling and group discussion in the rehabilitation of juvenile delinquents. *Journal of Counseling Psychology, 20.5*, 442-449.

Saunders, J., & Saunders, E. (2002). Alternative school students' perceptions of past [traditional] and current [alternative] school environments. *The High School Journal, 85.2*, 12-23.

Sawyer, W. (2018). Youth Confinement: The Whole Pie. Retrieved from http://prisonpolicy.org/reports/youth2018.html

Serna, L., Schumaker, J., Hazel, S., & Sheldon, J. (1986). Teaching reciprocal social skills to parents and their delinquent adolescents. *Journal of Clinical Child Psychology, 15.1*, 64-77.

Serna, L., Schumaker, J., Sherman, J., & Sheldon, J. (1991). In-home generalization of social interactions in families of adolescents with behavior problems. *Journal of Applied Behavior Analysis, 24.4*, 733-746.

Seymour, F., & Sanson-Fisher, R. (1975). Effects of teacher attention on the classroom behaviour of two delinquent girls with a token programme. *New Zealand Journal of Educational Studies, 10.2*, 111-119.

Shumate, E., & Wills, H. (2010). Classroom-based functional analysis and intervention for disruptive and off-task behaviors. *Education and Treatment of Children, 33.1*, 23-48.

Siegel, L. J. & Welsh B. C. (2018). *Juvenile Delinquency: Theory, Practice, and Law* (13th ed.). Boston, MA: Cengage.

Skinner, B. F. (1933). The rate of establishment of a discrimination. *Journal of General Psychology, 9*, 302-350.

Skinner, B. F. (1938). *The Behavior of Organisms*. Cambridge, MA: B. F. Skinner Foundation.

Spence, S., & Marzillier, J. (1979). Social skills training with adolescent male offenders: I. Short-term effects. *Behaviour Research and Therapy, 17.1*, 7-16.

Spence, S., & Marillier, J. (1981). Social skills training with adolescent male offenders: II. Short-term, long-term and generalized effects. *Behaviour Research and Therapy, 19.4*, 349-368.

Spence, A., & Spence, S. (1980). Cognitive changes associated with social skills training. *Behaviour Research and Therapy, 18.4*, 265-272.

Stacey, N. (1998). Social benefits of education. *The Annals of the American Academy of Political and Social Science*. 509(1). 54-63.

Stephens, R., & Arnette, L. (2000). *From the courthouse to the schoolhouse: Making successful transitions.* Washington, DC, Office of Juvenile Justice and Delinquency Prevention.

Surratt, P., Ulrich, R., & Hawkins, R. (1969). An elementary student as a behavioral engineer. *Journal of Applied Behavior Analysis, 2.2*, 85-92.

Sutton, J. (2008). San Antonio Independent School District V. Rodriguez and its aftermath. *Virginia Law Review, 94.8*, 1963-1986.

The Council of State Governments Justice Center, Locked Out: Improving Educational and Vocational Outcomes for Incarcerated Youth (New York: The Council of State Governments Justice Center, 2015).

Thomas, D., Nielsen, L., Kuypers, D., & Becker, W. (1968). Social reinforcement and remedial instruction in elimination of a classroom behavior problem. *The Journal of Special Education, 2.3*, 291-306.

Tyler, V. (1967). Application of operant token reinforcement to academic performance of an institutionalized delinquent. *Psychological Reports*, 21(1), 249-260.

Tyler, V. & Brown, D. (1968). Token reinforcement of academic performance with institutionalized delinquent boys. *Journal of Educational Psychology*, 59(8), 164-168.

United States Department of Education (2018). Correctional education in juvenile justice facilities. Retrieved from https://www2.ed.gov/policy/gen/guid/correctional-education/index.html

Vance, M., Gresham, F., & Dart, E. (2012). Relative effectiveness of DRO and self-monitoring in a general education classroom. *Journal of Applied School Psychology, 28.1*, 89-109.

Vanselow, N., & Hanley, G. (2014). An evaluation of computerized behavioral skills training to teach safety skills to young children. *Journal of Applied Behavior Analysis, 47.1*, 51-69.

Werner, J., Minkin, N., Minkin, B., Fixsen, D., Phillips, E., & Wolf, M. (1975). "Intervention package": An analysis to prepare juvenile delinquents for encounters with police officers. *Criminal Justice and Behavior, 2.1*, 55-84.

Wheatley, R., West, R., Charlton, C., Sanders, R., Smith, T., & Taylor, M. (2009). Improving behavior through differential reinforcement: A praise note system for elementary school students. *Education and Treatment of Children, 32.4*, 551-571.

Williams, H. (2012). Fair pairs and three part praise-developing the sustained use of differential reinforcement of alternative behaviour. *Education Psychology in Practice, 12.3*, 299-313.

Wolfe, J. B. (1936). Effectiveness of token rewards for chimpanzees. *Comparative Psychology Monographs, 12*, 72.

Wood, R. & Flynn, J. (1978). A self-evaluation token system versus an external evaluation token system alone in a residential setting with predelinquent youth. *Journal of Applied Behavior Analysis*, 11(4), 503-512.

Wright-Gallo, G., Higbee, T., Reagon, K., & Davey, B. (2006). Classroom-based functional analysis and intervention for students with emotional/behavioral disorders. *Education and Treatment of Children, 29.3*, 421-436.

Zimmerman, E., & Zimmerman, J. (1962). The alteration of behavior in a special classroom situation. *Journal of the Experimental Analysis of Behavior, 5.1*, 59-60.

Table 1

JCO Participant Demographics Table

	Age	Ethnicity	Gender	Education	Years in the Field	Years at the JDC
JCO Participant 1	44	Caucasian	Female	Some College	21	21
JCO Participant 2	46	Caucasian	Female	Some College	14.5	14.5
JCO Participant 3	23	Caucasian	Male	High School	3	3
JCO Participant 4	27	Caucasian	Male	Some College	3.5	2
JCO Participant 5	39	Hispanic	Male	Some College	16	16
JCO Participant 6	41	Caucasian	Male	Some College	13	13
JCO Participant 7	26	Caucasian	Male	Bachelor Degree	3	3
JCO Participant 8	46	Hispanic/ White	Male	Associate Degree	10	5
JCO Participant 9	27	Caucasian	Female	Bachelor Degree	6.5	6.5

Table 2

Detention Day School Student Participant Demographics

	Age	Ethnicity	Gender	JO/CINC	Charges
Detention Day School Student Participant 1	15	Caucasian	Male	JO	Drug Felony Class A Non-Person Misdemeanor
Detention Day School Student Participant 2	17	Caucasian	Male	JO/CINC	Theft Felony Burglary of a Motor Vehicle Felony Three Counts of Battery Possession of Drug Paraphernalia Truancy
Detention Day School Student Participant 3	15	Caucasian	Female	CINC	Truancy
Detention Day School Student Participant 4	17	Caucasian	Male	CINC	Truancy
Detention Day School Student Participant 5	15	Caucasian	Male/Female	CINC	Truancy
Detention Day School Student Participant 6	17	Caucasian	Male	JO	Aggravated Burglary Felony Theft Misdemeanor
Detention Day School Student Participant 7	15	Caucasian	Female	CINC	Truancy
Detention Day School Student Participant 8	15	Caucasian	Female	CINC	Truancy
Detention Day School Student Participant 9	15	Caucasian	Female	CINC	Truancy
Detention Day School Student Participant 10	17	Caucasian	Male	JO/CINC	Possession of Marijuana CINC for Unreported Circumstances

Table 3

Inter-Observer Agreement Results

	Baseline	Token Without Exchange	Token With Exchange I	Return To Baseline	Token With Exchange II	Without Feedback to JCOs
Youth On-Task Sessions Scored	37.5%	44.4%	43.8%	60%	30%	50%
On-Task Percent Agreement Range	92.2%-97.2%	81.1%-96.7%	83.3%-99.1%	86.5-96.5%	91.7-94.4%	93-96.7%
On-Task Overall Percent Agreement	**94.6%**	**90.4%**	**94.1%**	**91.5%**	**93.5%**	**94.9%**
JCO Token Procedure Sessions Scored	37.5%	44.4%	37.5%	60%	30%	50%
JCO Token Procedure Percent Agreement Range	98.8%-100%	88.9%-100%	71.4%-100%	100%	100%	53.3-100%
JCO Token Procedure Overall Percent Agreement	**99.5%**	**95.8%**	**92.1%**	**100%**	**100%**	**89.2%**
Youth Assignment Completion Weeks Scored	100%	100%	100%	100%	100%	100%
Youth Assignment Completion Percent Agreement Range	100%	90%-100%	100%	100%	96.3-100%	100%
Youth Assignment Completion Overall Percent Agreement	**100%**	**95%**	**100%**	**100%**	**98.1%**	**100%**
Youth Cooldowns Weeks Scored	100%	100%	100%	100%	100%	100%
Youth Cooldowns Percent Agreement Range	100%	100%	100%	100%	100%	100%
Youth Cooldowns Percent Agreement	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**
Youth Day Room Restriction Weeks Scored	100%	100%	100%	100%	100%	100%
Youth Day Room Restrictions Percent Agreement Range	100%	100%	100%	100%	100%	100%
Youth Detention Day Room Restrictions Percent Agreement	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Table 4

Treatment Integrity Results

	JCO Participant 1	JCO Participant 2	JCO Participant 3	JCO Participant 4	JCO Participant 5	JCO Participant 6	JCO Participant 7	JCO Participant 8	JCO Participant 9	Total
BST Treatment Integrity Percentage	100%	100%	100%	100%	100%	95%	100%	95%	100%	**98.9%**
BST Treatment Integrity Reliability Percent Agreement	100%	100%	100%	100%	100%	95%	100%	95%	100%	**98.9%**
Role Play Attempts to Criterion	3	3	3	3	3	6	3	3	3	**30**

Table 5

Detention Day School Student Participants Group Results

	Baseline	Token Without Exchange	Token With Exchange I	Return To Baseline	Token With Exchange II	No feedback
Percentage of Intervals On-Task	67.9%	70.5%	75.9%	61.1%	82.1%	81.9%
Percentage of Assignments Completed	47.4%	63.3%	59.3%	33.3%	53.7%	63%
Average Voluntary Cooldowns Per Day	2.1	1.8	2.8	2.8	2.8	2.3
Average Staff-Instructed Cooldowns Per Day	3	3	2.3	2.5	2.8	1.5
Average Day Room Restrictions Per Day	0.8	0.3	0.7	0.5	0.3	0.3

Table 6

Individual Detention Day School Student Participant On-Task Results

	Detention Day School Participant 1	Detention Day School Participant 2	Detention Day School Participant 3	Detention Day School Participant 4	Detention Day School Participant 5	Detention Day School Participant 6	Detention Day School Participant 7	Detention Day School Participant 8	Detention Day School Participant 9	Detention Day School Participant 10
Baseline	70.5%	58.1%	51.9%	76.2%	66.9%	88.4%	73.3%	68.4%	69.9%	62.6%
Token Without Exchange	78.5%	48.1%	62.3%	72.1%	70.4%	85.5%	N/A	80.6%	73.3%	57.7%
Token With Exchange I	75.6%	56.6%	66.9%	83%	79.4%	84.2%	83.1%	84%	84.1%	53.6%
Return To Baseline	54.1%	N/A	42.6%	77.8%	55.1%	73.2%	67.2%	51%	63.2%	57.0%
Token With Exchange II	78.7%	N/A	85.2%	84%	83.3%	83%	86.9%	92.1%	85.1%	63.8%
No feedback	70.4%	N/A	81.7%	94.4%	72.6%	93.3%	83%	93.8%	80.6%	57.2%

Table 7

Individual Detention Day School Student Participant Assignment Completion Results

	Detention Day School Participant 1	Detention Day School Participant 2	Detention Day School Participant 3	Detention Day School Participant 4	Detention Day School Participant 5	Detention Day School Participant 6	Detention Day School Participant 7	Detention Day School Participant 8	Detention Day School Participant 9	Detention Day School Participant 10
Baseline	16.7%	33.3%	33.3%	83.3%	0%	66.7%	83.3%	100%	16.7%	33.3%
Token Without Exchange	33.3%	33.3%	50%	100%	50%	66.7%	50%	100%	66.7%	83.3%
Token With Exchange I	55.6%	33.3%	44.4%	77.8%	55.6%	55.6%	55.6%	100%	66.7%	33.3%
Return To Baseline	0%	N/A	33.3%	0%	0%	33.3%	33.3%	66.6%	66.7%	66.7%
Token With Exchange II	16.7%	N/A	16.7%	66.6%	33.3%	66.7%	50%	100%	66.7%	66.7%
No feedback	0.0%	N/A	66.7%	33.3%	66.7%	100.0%	66.7%	100%	66.7%	66.7%

Table 8

Individual Detention Day School Student Participant Voluntary Cooldown Results

	Detention Day School Participant 1	Detention Day School Participant 2	Detention Day School Participant 3	Detention Day School Participant 4	Detention Day School Participant 5	Detention Day School Participant 6	Detention Day School Participant 7	Detention Day School Participant 8	Detention Day School Participant 9	Detention Day School Participant 10
Baseline	0.1	1.1	0	0	0	0	0	0	0.6	0.5
Token Without Exchange	0	0.8	0	0	0.2	0.2	0	0	0	0.7
Token With Exchange I	0.3	1.2	0.6	0	0.8	0	0	0	0.1	0.6
Return To Baseline	0	N/A	0.8	0	1	0	0	0	0.3	0.8
Token With Exchange II	0.6	N/A	0.1	0	0.3	0.3	0	0.1	0	1.1
No feedback	0.8	N/A	0.8	0	0.5	0	0	0	0	1

Table 9

Individual Detention Day School Student Participant Staff-Instructed Cooldown Results

	Detention Day School Participant 1	Detention Day School Participant 2	Detention Day School Participant 3	Detention Day School Participant 4	Detention Day School Participant 5	Detention Day School Participant 6	Detention Day School Participant 7	Detention Day School Participant 8	Detention Day School Participant 9	Detention Day School Participant 10
Baseline	0	1.1	0.5	0	0.2	0	0	0.4	0.6	0.3
Token Without Exchange	0.2	0.7	0	0	0	0.2	0	0.3	0.3	1.3
Token With Exchange I	0.3	0.8	0.3	0.2	0.3	0.1	0	0.3	0.1	0.4
Return To Baseline	0.5	N/A	0.8	0	0.5	0	0	0	0	0.8
Token With Exchange II	0.1	N/A	0.5	0	0.1	0.4	0	0.3	0.3	1.1
No feedback	0.8	N/A	0.3	0	0	0	0.3	0	0	1

Table 10

Individual Detention Day School Student Participant Day Room Restriction Results

	Detention Day School Participant 1	Detention Day School Participant 2	Detention Day School Participant 3	Detention Day School Participant 4	Detention Day School Participant 5	Detention Day School Participant 6	Detention Day School Participant 7	Detention Day School Participant 8	Detention Day School Participant 9	Detention Day School Participant 10
Baseline	0	0.1	0.1	0	0	0	0	0	0.2	0.7
Token Without Exchange	0	0.2	0	0	0	0	0	0	0.2	0
Token With Exchange I	0.1	0.3	0.1	0	0.1	0.1	0	0.2	0	0
Return To Baseline	0	N/A	0.5	0	0	0	0	0	0	0
Token With Exchange II	0	N/A	0.1	0	0	0	0	0	0	0.1
No feedback	0.3	N/A	0	0	0	0	0	0	0	0

Table 11

Cost Analysis

Date	Number of Students	Estimated Price of Token Sheets Per Student	Estimated Total Price of Token Sheets Per Day	Estimated Price of Candy Per Piece	Total Number of Tokens Earned	Bonuses Received	Estimated Total Price of Candy Per Day	Estimated Total Daily Cost
20-Mar	31	$0.07	$2.17	N/A	N/A	N/A	N/A	$2.17
21-Mar	31	$0.07	$2.17	N/A	N/A	N/A	N/A	$2.17
25-Mar	31	$0.07	$2.17	N/A	N/A	N/A	N/A	$2.17
26-Mar	31	$0.07	$2.17	N/A	N/A	N/A	N/A	$2.17
27-Mar	31	$0.07	$2.17	N/A	N/A	N/A	N/A	$2.17
28-Mar	32	$0.07	$2.24	N/A	N/A	N/A	N/A	$2.24
2-Apr	33	$0.07	$2.31	$0.06	118	3	$7.98	$10.29
3-Apr	33	$0.07	$2.31	$0.06	123	5	$8.28	$10.59
4-Apr	33	$0.07	$2.31	$0.06	140	5	$9.30	$11.61
8-Apr	32	$0.07	$2.24	$0.06	120	7	$8.46	$10.70
9-Apr	32	$0.07	$2.24	$0.06	147	9	$10.44	$12.68
10-Apr	31	$0.07	$2.17	$0.06	99	0	$5.94	$8.11
11-Apr	32	$0.07	$2.24	$0.06	143	10	$10.38	$12.62
15-Apr	33	$0.07	$2.31	$0.06	141	5	$9.36	$11.67
16-Apr	35	$0.07	$2.45	$0.06	146	10	$10.56	$13.01
17-Apr	36	$0.07	$2.52	$0.06	102	0	$6.12	$8.64
18-Apr	36	$0.07	$2.52	$0.06	108	3	$7.38	$9.90
29-Apr	38	$0.07	$2.66	$0.06	168	8	$11.52	$14.18
30-Apr	38	$0.07	$2.66	$0.06	112	1	$6.90	$9.56
1-May	38	$0.07	$2.66	$0.06	169	10	$11.94	$14.60
2-May	38	$0.07	$2.66	$0.06	182	14	$13.44	$16.10
6-May	38	$0.07	$2.66	$0.06	169	7	$11.40	$14.06
7-May	37	$0.07	$2.59	$0.06	137	6	$9.30	$11.89
8-May	38	$0.07	$2.66	$0.06	160	8	$11.04	$13.70
9-May	39	$0.07	$2.73	$0.06	137	6	$9.30	$12.03
13-May	39	$0.07	$2.73	$0.06	184	19	$14.46	$17.19
14-May	39	$0.07	$2.73	$0.06	130	2	$8.16	$10.89
15-May	39	$0.07	$2.73	$0.06	160	10	$11.40	$14.13
16-May	39	$0.07	$2.73	$0.06	112	0	$6.72	$9.45
								$290.69

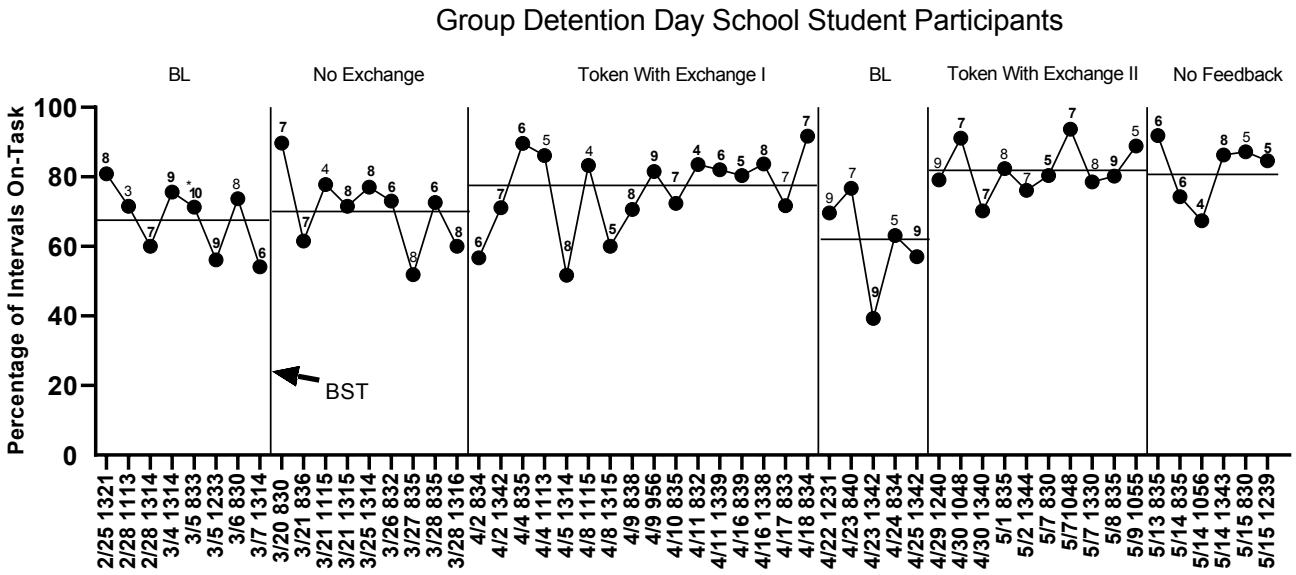

Figure 1. Detention day school student participant group average intervals on-task in classroom activities.

Note. The Number above each data point represents the number of consented youth present during that observation. Bolded numbers depict observations where the primary observer was present.

* The date that Detention Day School Student Participant 10 began the study.

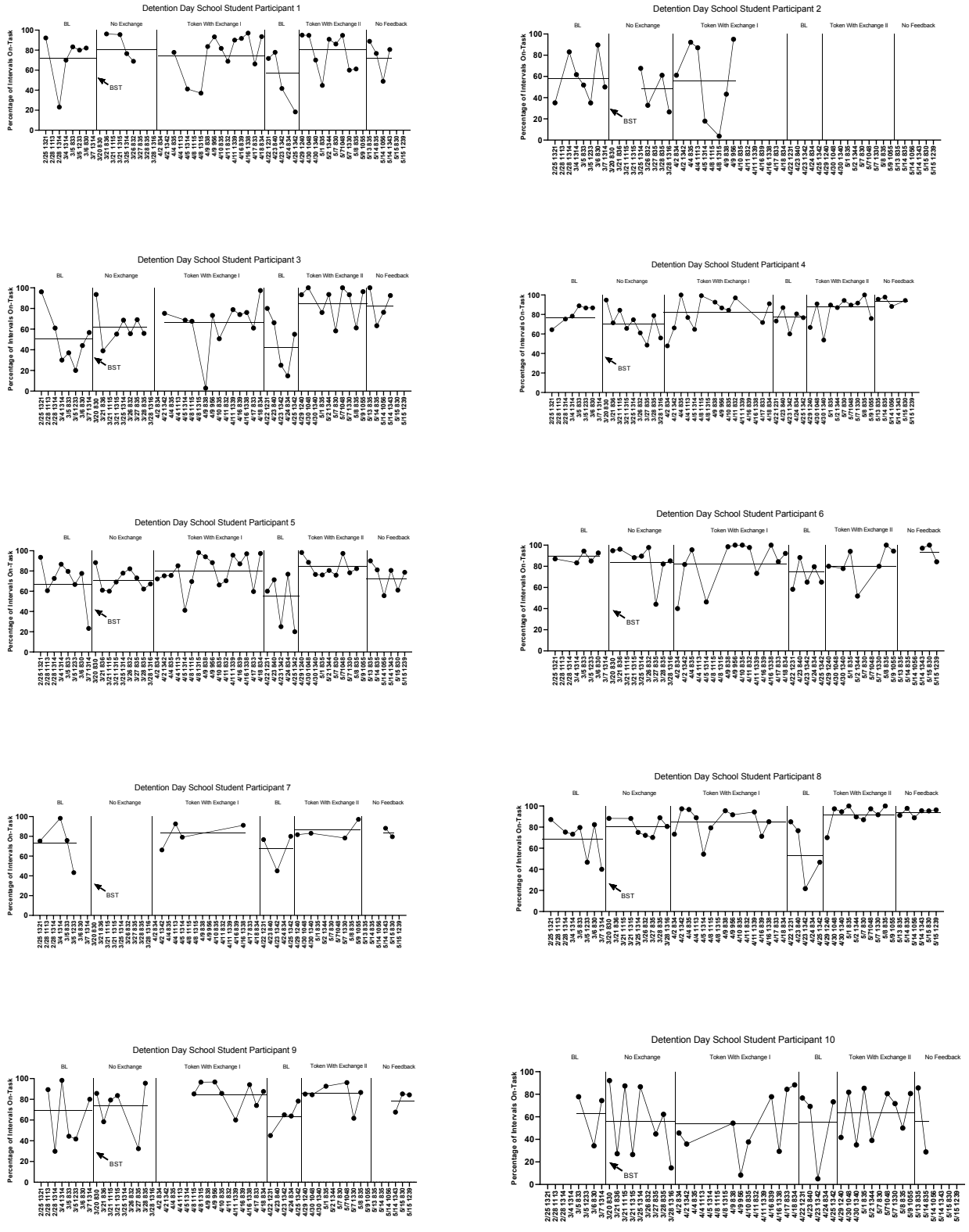

Figure 2. Detention day school student participant average intervals on-task in classroom activities.

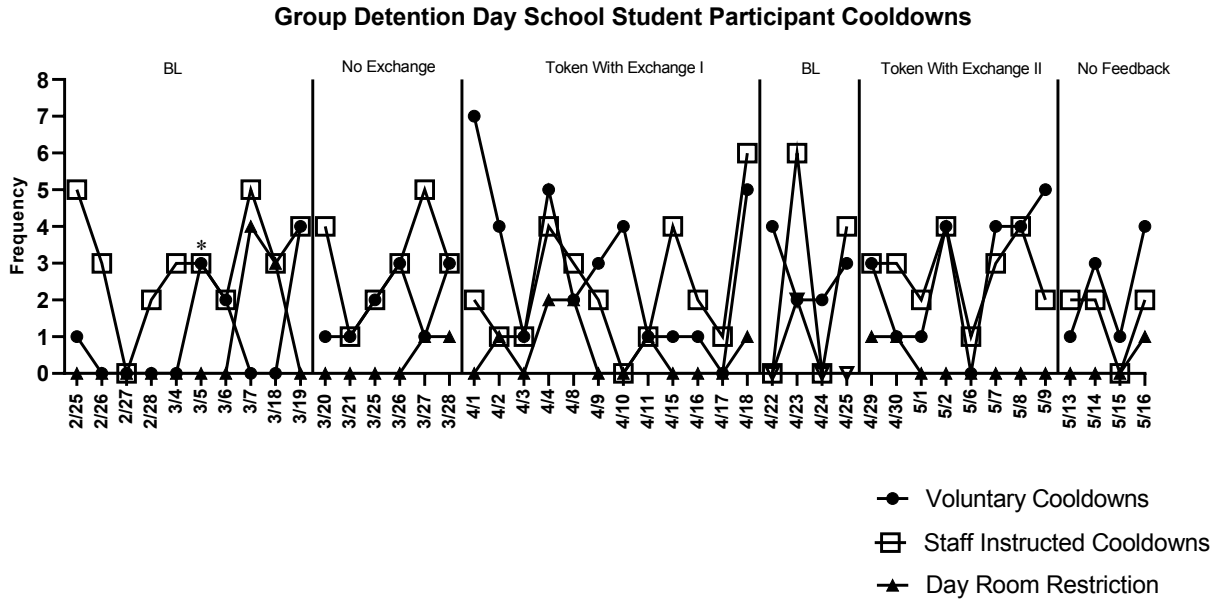

Figure 3. Detention day school student participant group average voluntary cooldowns, staff-instructed cooldowns, and day room restriction.

* The date that Detention Day School Student Participant 10 began the study.

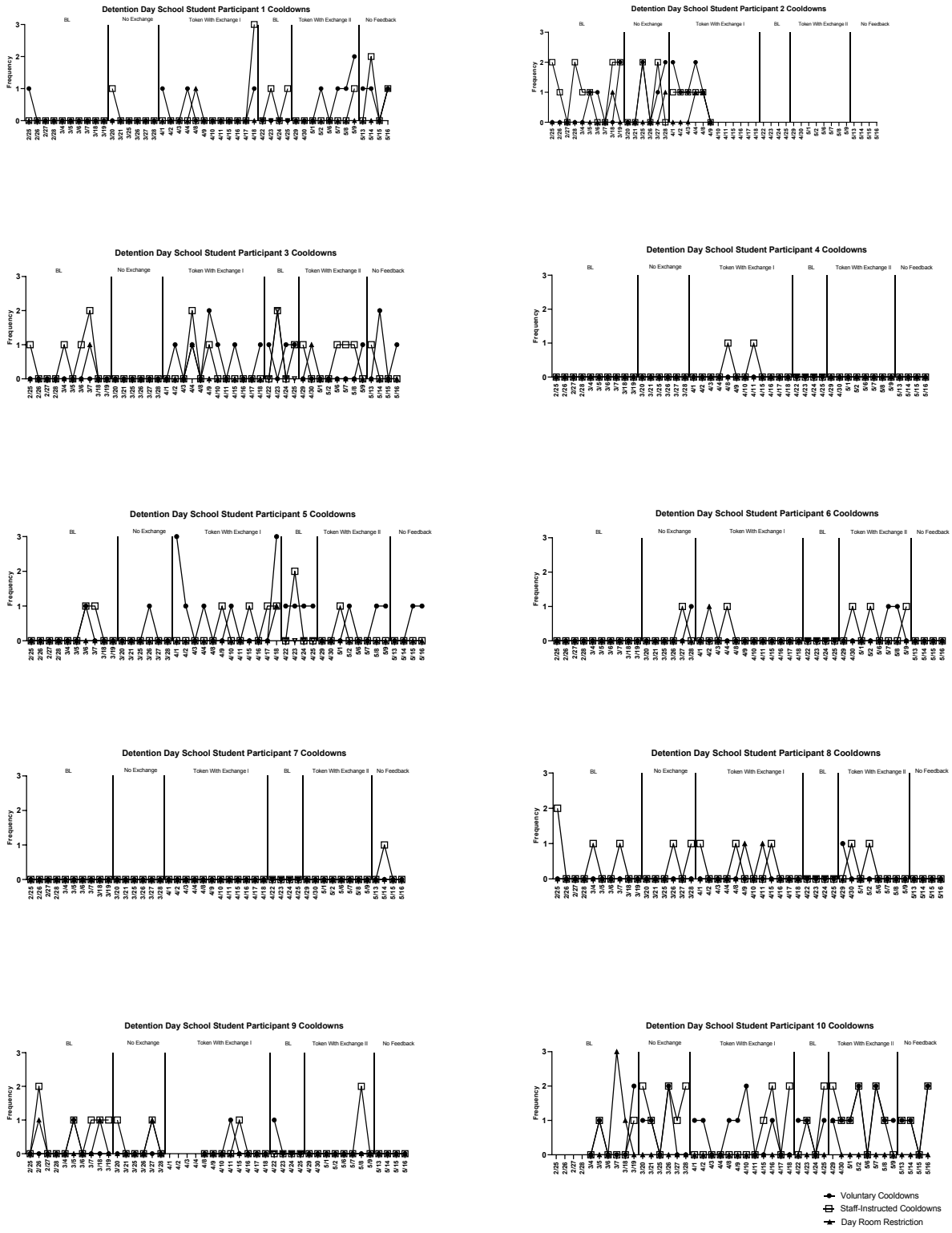

Figure 4. Detention day school student participant average voluntary cooldowns, staff-instructed cooldowns, and day room restriction.

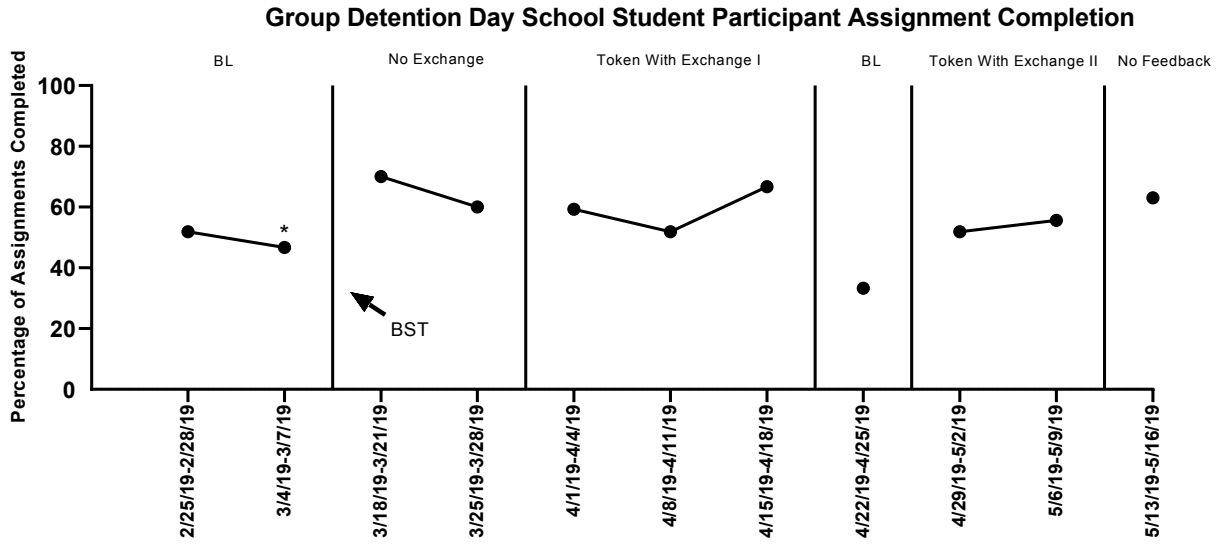

Figure 5. Detention day school student participant group average percentage of weekly assignments completed.

*The week that Detention Day School Student Participant 10 began the study.

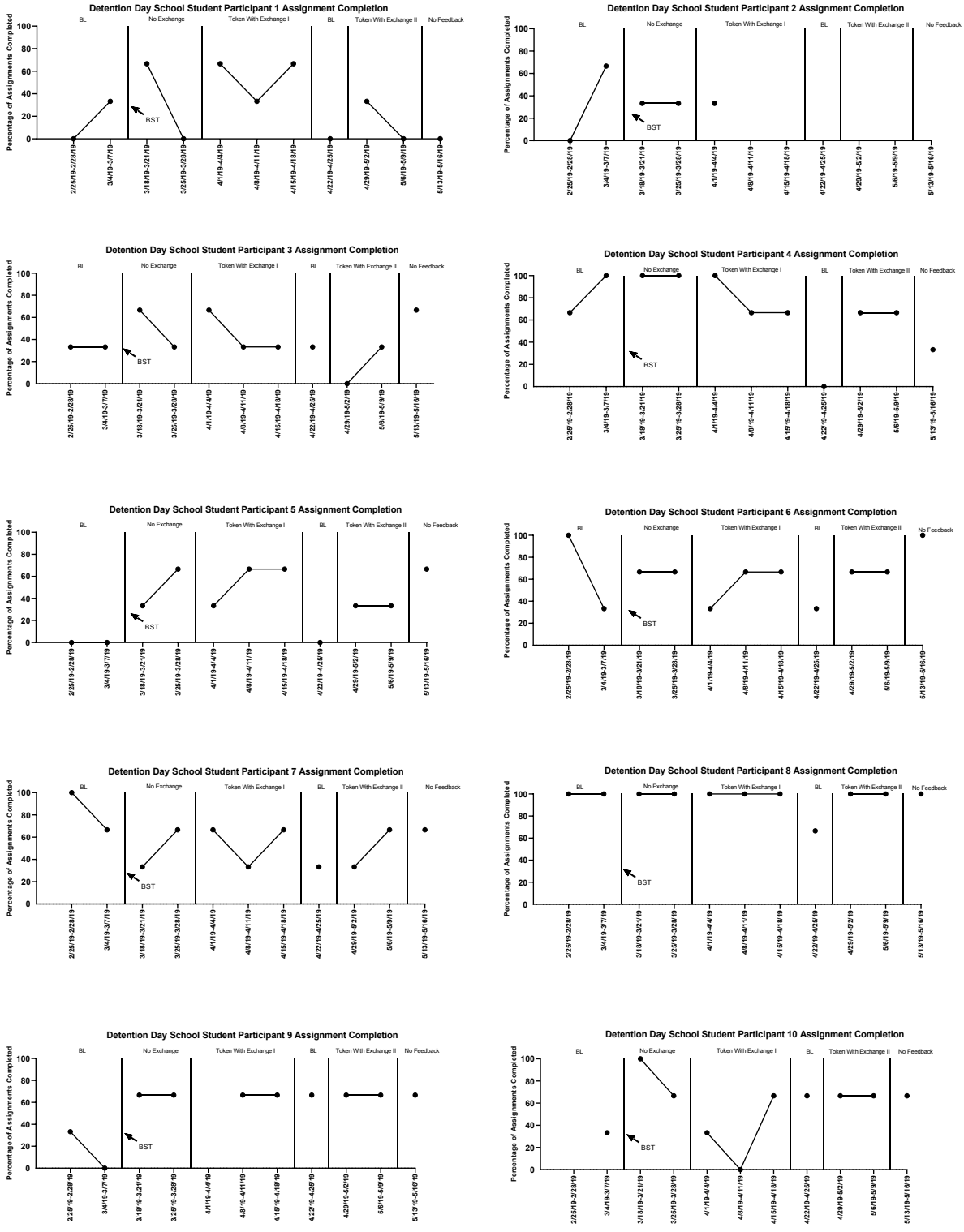

Figure 6. Detention day school student participants average percentage of weekly assignments completed.

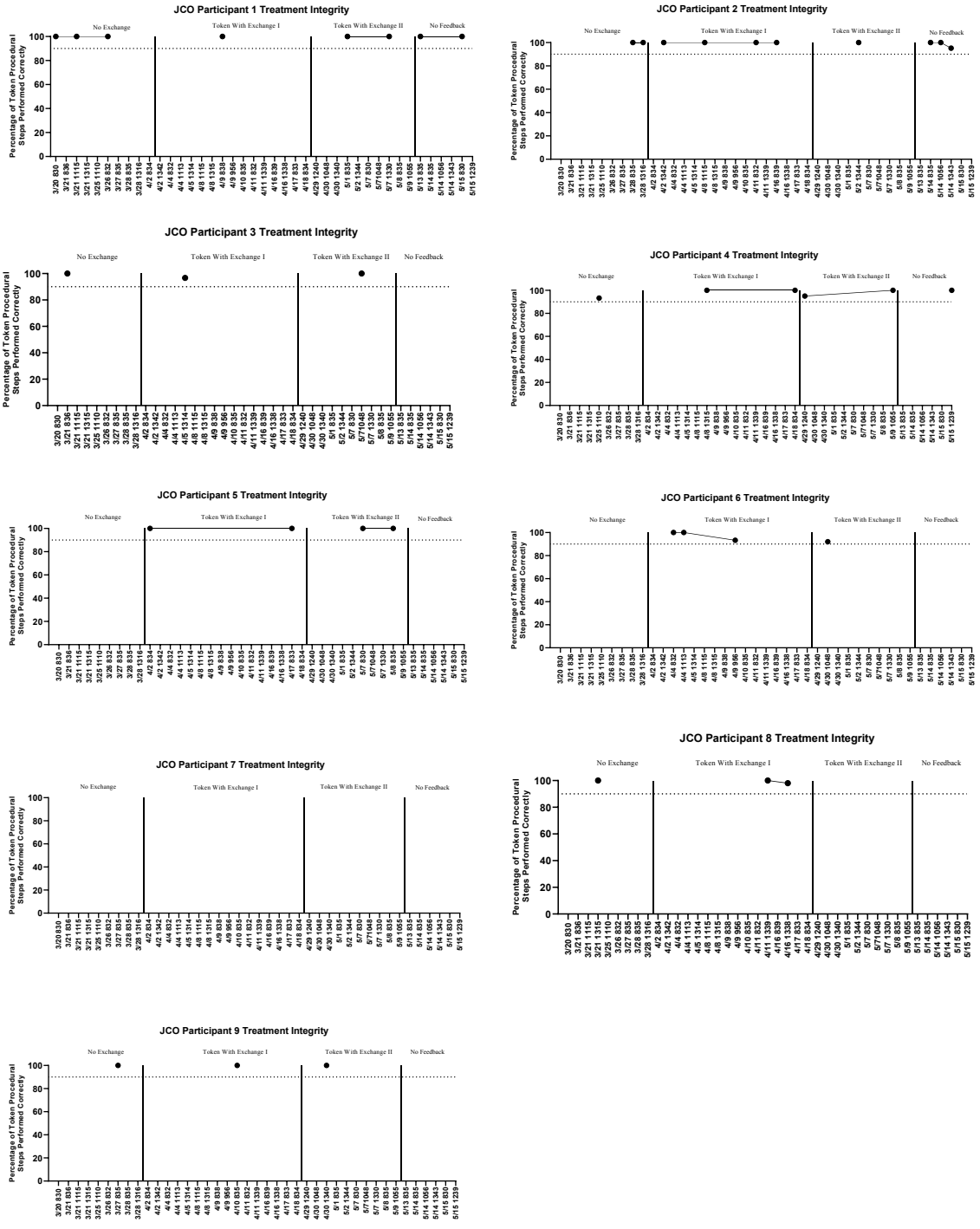

Figure 7. JCO participant DRA token procedure treatment integrity data.

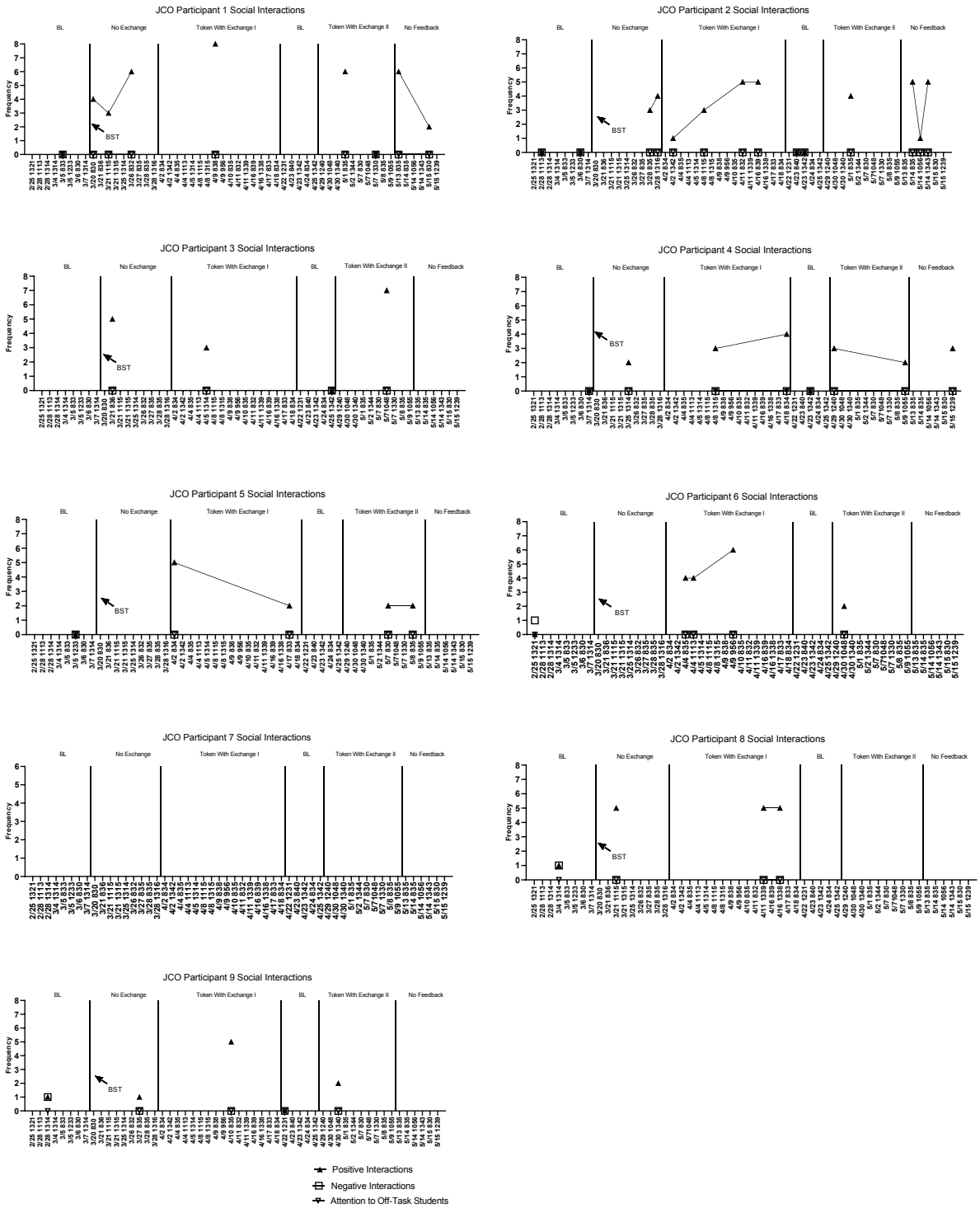

Figure 8. JCO participant social interaction data.

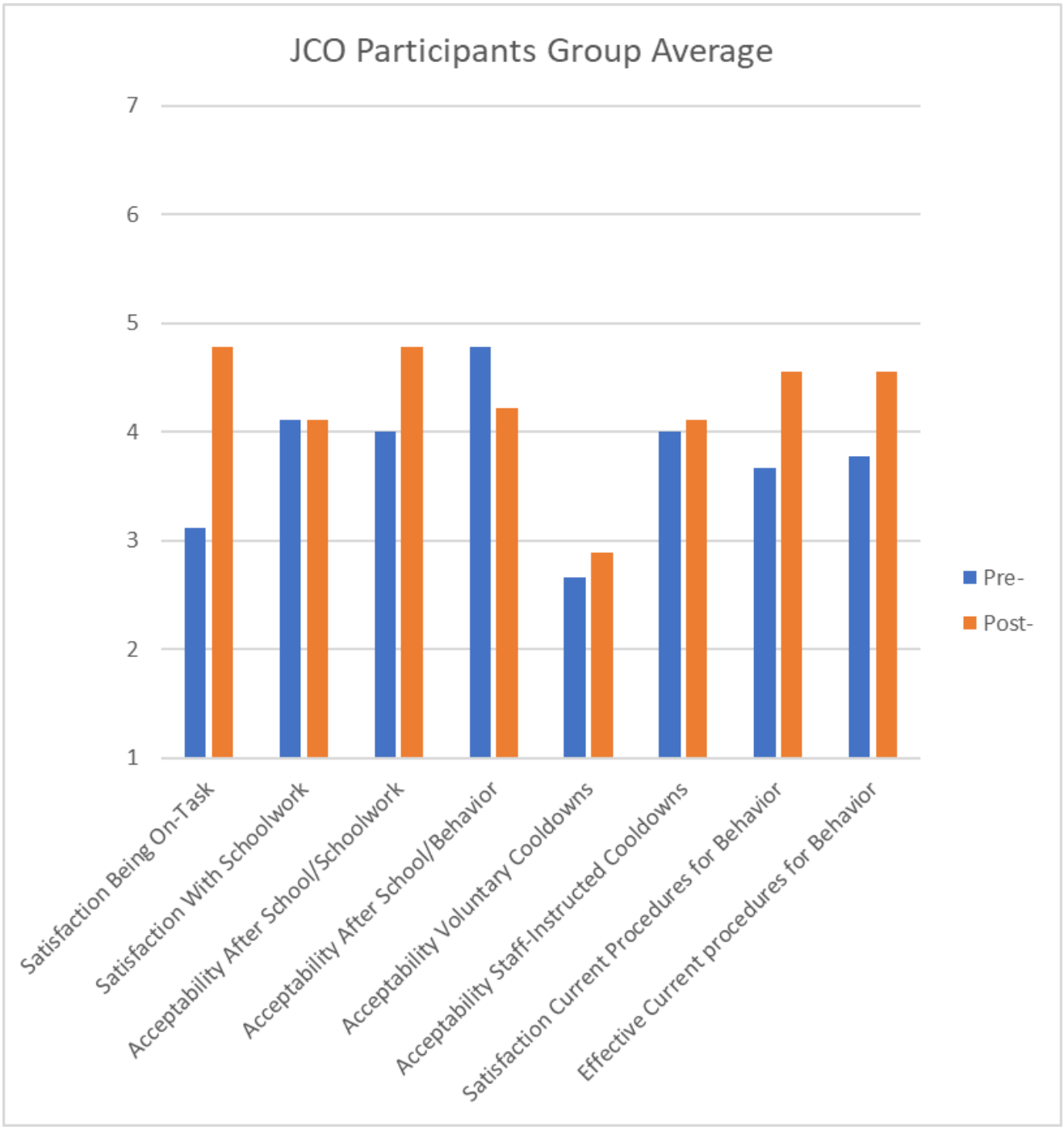

Figure 9. JCO participant group satisfaction data.

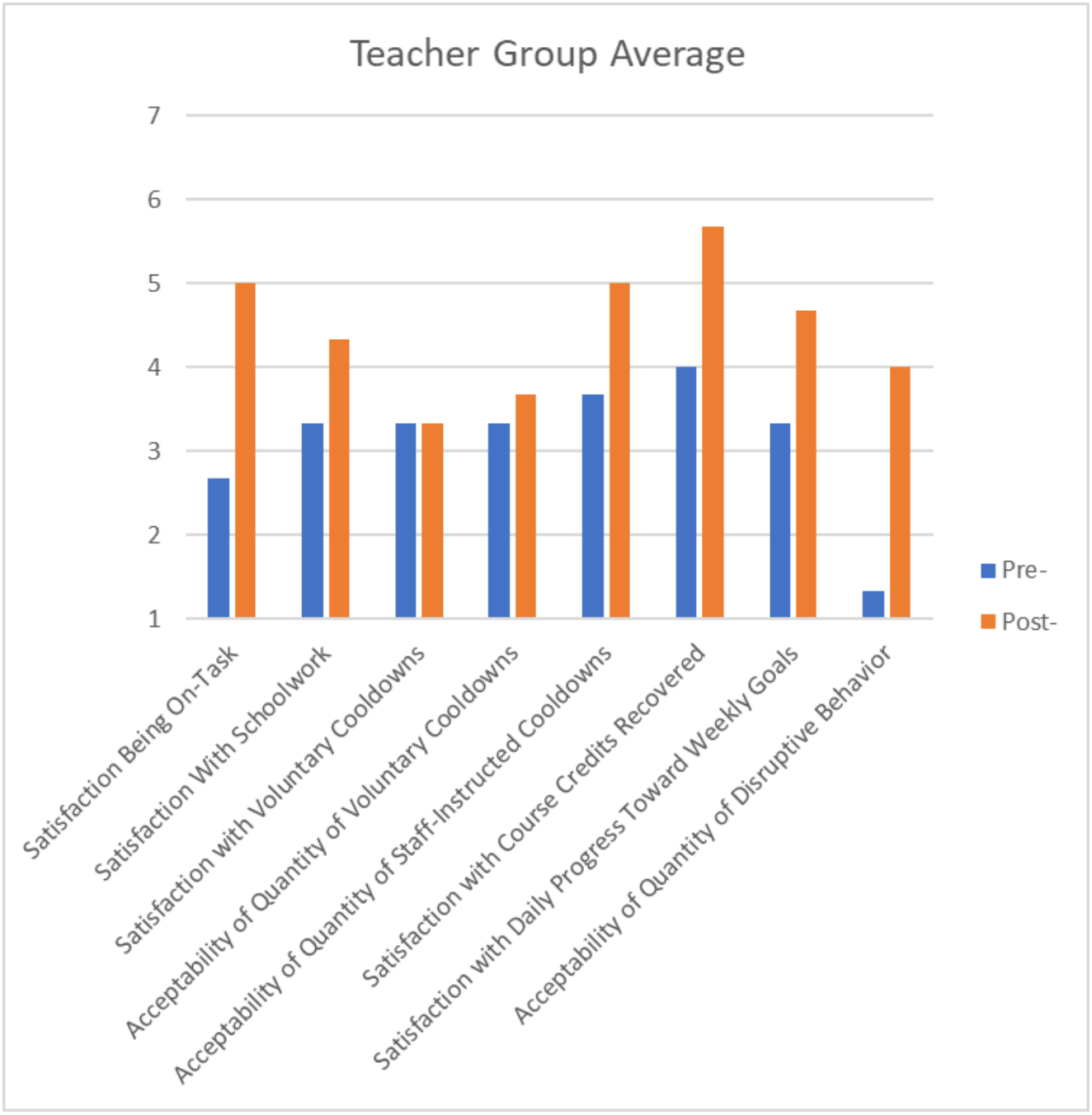

Figure 10. Teacher group satisfaction data.

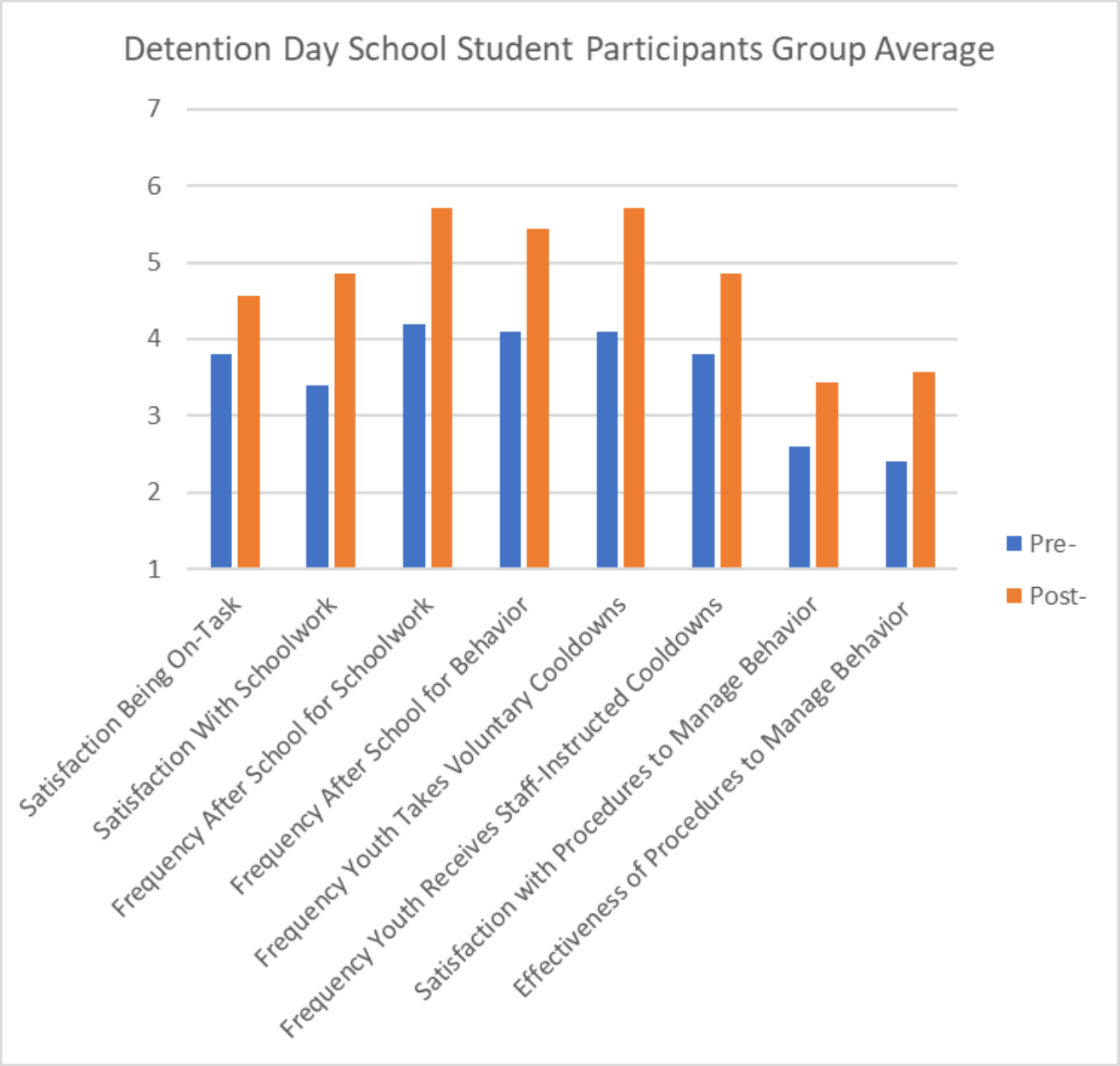

Figure 11. Detention day school student participant group satisfaction data.

Appendix A

Title

Using Behavioral Skills Training (BST) to teach Juvenile Correctional Officers (JCOs) how to increase student engagement in a Detention Day School in a Juvenile Detention Center (JDC)

INTRODUCTION

The Department of Applied Behavioral Science at the University of Kansas supports the practice of protection for human subjects participating in research. The following information is provided for you to decide whether you wish to participate in the present study. You may refuse to sign this form and not participate in this study. You should be aware that even if you agree to participate, you are free to withdraw at any time. If you do decide to participate or withdraw from this study, it will not affect your relationship with Douglas County Youth Services or the University of Kansas.

PURPOSE OF THE STUDY

The purpose of this research is to evaluate the effects of a token procedure, implemented by juvenile correctional officers (JCOs), to increase student classroom engagement of youth attending the Detention Day School. It is anticipated that Detention Day School students will increase the amount of time spent engaging in classroom activities and decrease the amount of time spent off-task. This may lead to increases in classroom productivity, improved interactions between students and staff members, and improvements in schoolwork completion. We are also interested in determining whether learning BST affects the JCOs' everyday interactions with youth in the Detention Day School.

PROCEDURES

During the study, you will be asked to attend a brief training session with the primary researcher. This training session is expected to last no longer than 30 min. During the training session, the primary researcher will teach you how to use a procedure to increase student engagement in classroom activities in the Detention Day School. Following the training, you will be asked to use the procedure with Detention Day School students. The procedure will include you giving tokens to groups of Detention Day School students during 15 min periods if the students are engaged in classroom activities. As Detention Day School students earn tokens, they will be able to purchase small rewards (i.e., candy) from a reward menu. Throughout the course of the study, live observations will be conducted to gather information and data on your implementation of the procedure, the students' engagement in classroom activities, and your everyday interactions with youth in the Day Detention School. It is anticipated that the duration of the study will last between 3-4 months. Additionally, you will be asked to complete a consumer satisfaction survey during various phases of the study. This survey will ask you to rate your satisfaction with the training process and your perception of improvements made with social skill performance. These surveys will take approximately 5 minutes to complete.

RISKS

Your employment at Douglas County Youth Services will not be affected by your participation or performance in this study. Because the signed consent form will be returned to the primary researcher through mail, there is a small risk that the consent form could be lost in the mail or delivered to the wrong address.

KU Lawrence IRB # STUDY00140764 | Approval Period 12/17/2018 – 8/2/2019

BENEFITS

As juvenile correctional officers begin to learn the procedure, it will provide them with a procedure for increasing student engagement with youth in facility in the future. It is anticipated that Detention Day School students will increase the amount of time spent engaging in classroom activities and decrease the amount time spent off-task. This may lead to increases in classroom productivity, improved interactions between students and staff members, and improvements in schoolwork completion. Due to improvements in student engagement, it is hypothesized that juvenile correctional officers will directly benefit from the study in that the study will help create an easier work environment with fewer negative school-related interactions with the students.

PAYMENT TO PARTICIPANTS

Participants will not receive any form of payment for participating in this study.

PARTICIPANT CONFIDENTIALITY

Your name will not be associated in any publication or presentation with the information collected about you or with the research findings from this study. Instead, the researcher(s) will use a study number or a pseudonym rather than your name. Your identifiable information will not be shared unless (a) it is required by law or university policy, or (b) you give written permission. Permission granted on this date to use and disclose your information remains in effect indefinitely. By signing this form, you give permission for the use and disclosure of your information for purposes of this study at any time in the future. Although every effort will be made to maintain your confidentiality, it cannot be fully guaranteed.

REFUSAL TO SIGN CONSENT AND AUTHORIZATION

You are not required to sign this Consent and Authorization form and you may refuse to do so without affecting your right to any services you are receiving or may receive from the University of Kansas or Douglas County Youth Services, or to participate in any programs or events of the University of Kansas or Douglas County Youth Services. However, if you refuse to sign, you cannot participate in this study.

CANCELLING THIS CONSENT AND AUTHORIZATION

You may withdraw your consent to participate in this study at any time. You also have the right to cancel your permission to use and disclose further information collected about you, in writing, at any time, by sending your written request to: Austin O'Neal, Department of Applied Behavioral Science, University of Kansas, 1000 Sunnyside Ave Rm. 4001, Lawrence, Kansas 66045.

If you cancel permission to use your information, the researchers will stop collecting additional information about you. However, the research team may use and disclose information that was gathered before they received your cancellation, as described above.

KU Lawrence IRB # STUDY00140764 | Approval Period 12/17/2018 – 8/2/2019

QUESTIONS ABOUT PARTICIPATION

Questions about procedures should be directed to the researcher(s) listed at the end of this consent form.

PARTICIPANT CERTIFICATION:

I have read this Consent and Authorization form. I have had the opportunity to ask, and I have received answers to, any questions I had regarding the study. I understand that if I have any additional questions about my rights as a research participant, I may call (785) 864-7429 or (785) 864-7385, write the Human Research Protection Program (HRPP) at the University of Kansas, 2385 Irving Hill Road, Lawrence, Kansas 66045-7568, or email kures@ku.edu

I agree to take part in this study as a research participant. By my signature, I affirm that I am at least 18 years old and that I have received a copy of this Consent and Authorization form.

_____ _____

Type/Print Participant's Name Date

_____

Participant's Signature

Researcher Contact Information

Austin O'Neal
Primary Researcher
Department of Applied Behavioral Science
1000 Sunnyside Ave. Rm. 4001
University of Kansas
Lawrence, KS 66045
620-200-1269

Jan Sheldon, Ph.D., J.D
Faculty Supervisor
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University of Kansas
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785-864-4840

KU Lawrence IRB # STUDY00140764 | Approval Period 12/17/2018 – 8/2/2019

Appendix B

Title

Using Behavioral Skills Training (BST) to teach Juvenile Correctional Officers (JCOs) how to increase student engagement in a Detention Day School in a Juvenile Detention Center (JDC)

INTRODUCTION

The Department of Applied Behavioral Science at the University of Kansas supports the practice of protection for human subjects participating in research. The following information is provided for you to decide whether you wish to allow your child or youth who is in your guardianship to participate in the present study. You may refuse to sign this form and restrict your child or youth who is in your guardianship from participating in this study. You should be aware that even if you agree to allow your child or youth who is in your guardianship to participate, you are free to withdraw his/her participation at any time. If you do decide for your child or youth who is in your guardianship to participate or withdraw from this study, it will not affect his/her relationship with Douglas County Youth Services, the services it may provide to him/her, or his/her relationship with the University of Kansas. The only requirement for your child or the youth who is in your guardianship to participate is that he/she is currently enrolled in the Detention Day School.

PURPOSE OF THE STUDY

The purpose of this research is to evaluate the effects of a token procedure, implemented by juvenile correctional officers (JCOs), to increase student classroom engagement of youth attending the Detention Day School. It is anticipated that Detention Day School students will increase the amount of time spent engaging in classroom activities and decrease the amount of time spent off-task. This may lead to increases in classroom productivity, improved interactions between students and staff members, and improvements in schoolwork completion. We are also interested in determining whether learning BST affects the JCOs' every day interactions with youth in the Day Detention School.

PROCEDURES

During the study, JCOs will be asked to attend brief training sessions with the primary researcher. During this training, the JCOs will learn how to use procedure to increase student engagement in classroom activities. After they have attended this training, they will be asked to use this procedure with **all detention day school students.** The procedure will include the JCOs giving a token to Detention Day School students during 15-min time intervals if the students are engaged in classroom activities. As Detention Day School students earn tokens, they will be able to purchase pieces of candy from a variety of candy options. Throughout the study, the primary researcher will conduct live observations to gather information on the JCOs' implementation of the procedure, the students' engagement in classroom activities, and the JCOs' every day interactions with youth in the Detention Day School. It is anticipated that the duration of the study will last between 3-4 months. Additionally, your child or the youth who is in your guardianship will be asked to complete a consumer satisfaction survey during various phases of the study. This survey will ask your child or youth who is in your guardianship to rate his or her satisfaction with the training process and his or her perception of improvements made with classroom engagement. These surveys will take approximately 5 minutes to complete.

RISKS

Because the signed consent form will be returned to the primary researcher through mail, there is a small risk that the consent form could be lost in the mail or delivered to the wrong address.

BENEFITS

As JCOs begin to learn the use the procedure, it will provide them with a procedure for increasing student engagement with youth in the facility in the future. It is anticipated that Detention Day School students will increase the amount of time spent engaging in classroom activities and decrease the amount time spent off-task. This may lead to increases in classroom productivity, improved interactions between students and staff members, and improvements in schoolwork completion. Additionally, JCOs will benefit from the study in that the study will create an easier, safer, and more productive work environment.

PAYMENT TO PARTICIPANTS

Participants will not receive any form of payment for participating in this study.

PARTICIPANT CONFIDENTIALITY

The name of your child or youth who is in your guardianship will not be associated in any publication or presentation with the information collected about him/her or with the research findings from this study. Instead, the researcher(s) will use a study number or a pseudonym rather than the youth's name. Identifiable information of the youth will not be shared unless (a) it is required by law or university policy, or (b) you give written permission. Permission granted on this date to use and disclose your non-identifiable information remains in effect indefinitely. By signing this form, you give permission for the use and disclosure of your information for purposes of this study at any time in the future.

REFUSAL TO SIGN CONSENT AND AUTHORIZATION

You are not required to sign this Consent and Authorization form, and you may refuse to do so without affecting the right of your child or youth who is in your guardianship to any services he/she is receiving or may receive from the University of Kansas or Douglas County Youth Services, or to participate in any programs or events of the University of Kansas or Douglas County Youth Services. If you refuse to sign, your child or the youth who is in your guardianship cannot participate in this study.

CANCELLING THIS CONSENT AND AUTHORIZATION

You may withdraw your consent for your child or the youth who is in your guardianship to participate in this study at any time. You also have the right to cancel your permission to use and disclose further information collected about your child or youth who is in your guardianship, in writing, at any time, by sending your written request to: Austin O'Neal, Department of Applied Behavioral Science, University of Kansas, 1000 Sunnyside Ave Rm. 4001, Lawrence, Kansas 66045.

If you cancel permission to use the information of your youth or youth who is in your guardianship, the researchers will stop collecting additional information about him/her. However, the research team may

KU Lawrence IRB # STUDY00140764 | Approval Period 12/17/2018 – 8/2/2019

use and disclose information that was gathered before they received your cancellation, as described above.

QUESTIONS ABOUT PARTICIPATION

Questions about procedures should be directed to the researcher(s) listed at the end of this consent form.

PARTICIPANT CERTIFICATION:

I have read this Consent and Authorization form. I have had the opportunity to ask, and I have received answers to, any questions I had regarding the study. I understand that if I have any additional questions about the rights of my youth as a research participant, I may call (785) 864-7429 or (785) 864-7385, write the Human Research Protection Program (HRPP) at the University of Kansas, 2385 Irving Hill Road, Lawrence, Kansas 66045-7568, or email kures@ku.edu

I agree to allow my child or youth who is in my guardianship to take part in this study as a research participant. By my signature, I affirm that I am at least 18 years old and that I have received a copy of this Consent and Authorization form.

_____ _____

Type/Print Parent/Guardian Name Date

_____ _____

Guardian's Signature Student's Name

I decline to allow my child or youth who is in my guardianship to take part in this study as a research participant. By my signature, I affirm that I am at least 18 years old and that I have received a copy of this Consent and Authorization form.

_____ _____

Type/Print Parent/Guardian Name Date

_____ _____

Guardian's Signature Student's Name

KU Lawrence IRB # STUDY00140764 | Approval Period 12/17/2018 – 8/2/2019

Food Allergies and Dietary Restrictions: The primary researcher will provide candy to the youth who attend the social skills classes. Please list any food allergies or dietary restrictions of the youth who is in your guardianship.

Researcher Contact Information

Austin O'Neal
Primary Researcher
Department of Applied Behavioral Science
1000 Sunnyside Ave. Rm. 4001
University of Kansas
Lawrence, KS 66045
620-200-1269

Jan Sheldon, Ph.D., J.D
Faculty Supervisor
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1000 Sunnyside Ave. Rm. 4001
University of Kansas
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785-864-4840

KU Lawrence IRB # STUDY00140764 | Approval Period 12/17/2018 – 8/2/2019

Appendix C

KU THE UNIVERSITY OF KANSAS
College of Liberal Arts & Sciences
Applied Behavioral Science

Dear Parents and Guardians,

My name is Austin O'Neal and I am a graduate student at the University of Kansas in the Department of Applied Behavioral Science. I began my relationship with Douglas County Youth Services (DCYS) in 2011, and I have worked closely with DCYS in conducting research and teaching social skills to youth. In the following pages, you will find a consent form for a study that involves rewarding students for staying on-task and completing classroom assignments that I will be conducting at DCYS. **This procedure is being put in place for all youth who attend the Detention Day School. Signing this consent form will allow me to collect data on the amount of time your student spends on-task completing classroom assignments.** After reading the enclosed form, if you agree to allow your Day School student(s) to participate, please sign the third page of the consent form under the label "I agree to allow my child or youth who is in my guardianship to take part in this study as a research participant," write the name of your Detention Day School student(s), and include any food allergies of your student(s). If you decline to allow your Detention Day School student(s) to participate, please sign the third page of the consent form under the label "I decline to allow my child or youth who is in my guardianship to take part in this study as a research participant." Once signed, please seal the consent form in the enclosed envelope and have your Day School student return it to his or her Day School teacher.

Thank you for your support and participation. If you have any questions, please feel free to contact me at aoneal@ku.edu or 620-200-1269.

Austin O'Neal, MA
Graduate Teaching Assistant
Department of Applied Behavioral Science
4001 Dole Human Development Center
1000 Sunnyside Avenue
Lawrence, KS 66045-7555

Appendix D

My name is Austin O'Neal and I am interested in learning about how to increase the time youth spend on-task with schoolwork in the Detention Day School and to help you become more successful in school. If you would like, you can be in our study. During the study, a juvenile correctional officer will provide you with tokens for staying on-task with schoolwork during certain times during the day. As you continue to earn tokens throughout the day, you will have the opportunity to spend the tokens on rewards such as candy. During the study, we would like to observe how well you stay on-task during the school day over the next three to four months. These observations will be kept private and will only be used for the purpose of our study.

We do not anticipate that there are any risks to your participation in our study. We believe that this study will help you be more productive during the school day.

The only requirement for you to participate is that you are currently enrolled in the Detention Day School. If you choose to participate in our study, this will not impact any court cases in any way. Additionally, if you do not want to participate, nothing negative will happen; you will not receive any punishment.

When I tell other people about my research, I will not use your name, so no one can tell whom I am talking about.

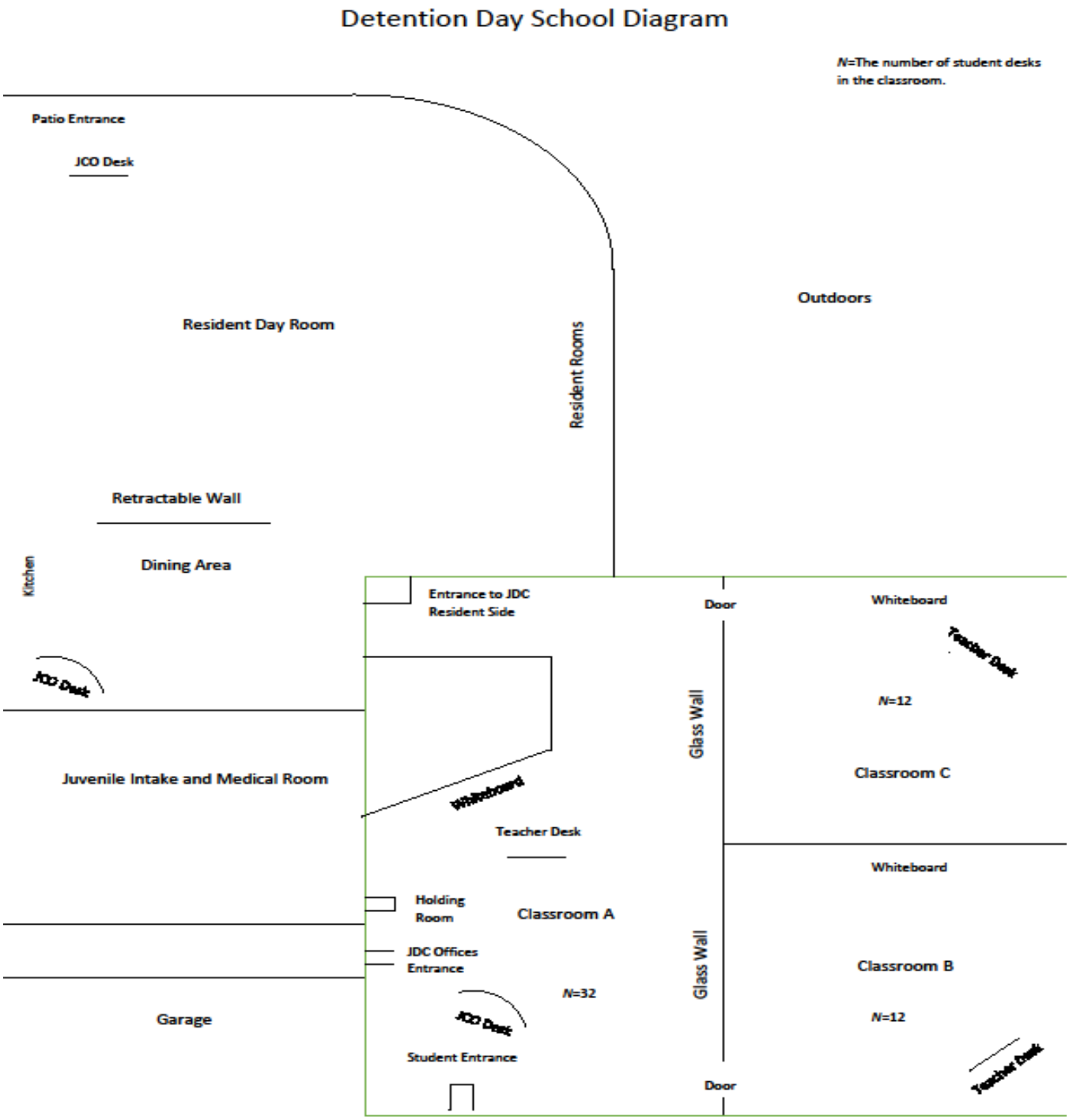
If you do not want to be in the study, no one will be mad at you. If you want to be in the study now and change your mind later, that's OK. You can stop at any time.

I will be happy to answer any questions you may have now or when we are talking together. Do you want to take part in this project?

X	X
Type/Print Participant's Name	Date

KU Lawrence IRB # STUDY00140764 | Approval Period 12/17/2018 – 8/2/2019

Appendix E


Detention Day School Diagram
N=The number of student desks in the classroom.
Patio Entrance
JCO Desk
Resident Day Room
Resident Rooms
Outdoors
Retractable Wall
Dining Area
Kitchen
Entrance to JDC Resident Side
Door
Whiteboard
Teacher Desk
JCO Desk
N=12
Glass Wall
Juvenile Intake and Medical Room
Whiteboard
Classroom C
Teacher Desk
Whiteboard
Holding Room
Classroom A
JDC Offices Entrance
N=32
Glass Wall
Classroom B
Garage
JCO Desk
N=12
Student Entrance
Teacher Desk
Door

Appendix F

Observer's Initials Date Time Primary Reliability (Circle One) Observed Staff's Initials	Time Period 1										Time Period 2									
Token Procedure Skill Steps	Youth 1 (Y/N)	Youth 2 (Y/N)	Youth 3 (Y/N)	Youth 4 (Y/N)	Youth 5 (Y/N)	Youth 6 (Y/N)	Youth 7 (Y/N)	Youth 8 (Y/N)	Youth 9 (Y/N)	Youth 10 (Y/N)	Youth 1 (Y/N)	Youth 2 (Y/N)	Youth 3 (Y/N)	Youth 4 (Y/N)	Youth 5 (Y/N)	Youth 6 (Y/N)	Youth 7 (Y/N)	Youth 8 (Y/N)	Youth 9 (Y/N)	Youth 10 (Y/N)
1. Within the specified time period, the JCO delivers one token to the designated detention day school student participants who are on-task and in class (i.e., not on a cooldown or removed from class).																				
2. The JCO refrains from delivering a *token* to detention day school student participants who are off-task and/or on a cooldown or removed from class at the time of observation.																				
3. The JCO allows detention day school student participants to purchase backup reinforcers with earned tokens at the designated token exchange time (i.e., 10:30 am, 12:30 pm, 2:30 pm)																				
4. The JCO correctly exchanges tokens for back-up reinforcers.																				
5. The JCO refrains from delivering *attention* to detention day school student participants who are off-task and/or on a cooldown or removed from class at the time of observation (Y/N). Additionally, tally how frequently the JCO delivered attention to detention day school participants who are off-task and/or on a cooldown during the 15-min interval.																				
6. The JCO engages in appropriate social behaviors (i.e., faces the detention day school participant, makes eye contact, uses a pleasant facial expression, makes a positive gesture) when interacting with the detention day school student participant (Y/N). Additionally, tally how frequently the JCO engages in appropriate social behaviors when interacting with the detention day school student participant during the 15-min interval.																				
7. The JCO refrains from making negative comments (e.g., sarcastic positive statements, use of profanity, name calling) to the detention day school student participant (Y/N). Additionally, tally how frequently the JCO makes negative comments to the detention day school student participant during the 15-min interval.																				

Observer's Initials Date Time Primary Reliability (Circle One) Observed Staff's Initials	Time Period 3 _____									
Token Procedure Skill Steps	Youth 1 (Y/N)	Youth 2 (Y/N)	Youth 3 (Y/N)	Youth 4 (Y/N)	Youth 5 (Y/N)	Youth 6 (Y/N)	Youth 7 (Y/N)	Youth 8 (Y/N)	Youth 9 (Y/N)	Youth 10 (Y/N)
1. Within the specified time period, the JCO delivers one token to the designated detention day school student participants who are on-task and in class (i.e., not on a cooldown or removed from class).										
2. The JCO refrains from delivering a *token* to detention day school student participants who are off-task and/or on a cooldown or removed from class at the time of observation.										
3. The JCO allows detention day school student participants to purchase backup reinforcers with earned tokens at the designated token exchange time (i.e., 10:30 am, 12:30 pm, 2:30 pm)										
4. The JCO correctly exchanges tokens for back-up reinforcers.										
5. The JCO refrains from delivering *attention* to detention day school student participants who are off-task and/or on a cooldown or removed from class at the time of observation (Y/N). Additionally, tally how frequently the JCO delivered attention to detention day school participants who are off-task and/or on a cooldown during the 15-min interval.										
6. The JCO engages in appropriate social behaviors (i.e., faces the detention day school participant, makes eye contact, uses a pleasant facial expression, makes a positive gesture) when interacting with the detention day school student participant (Y/N). Additionally, tally how frequently the JCO engages in appropriate social behaviors when interacting with the detention day school student participant during the 15-min interval.										
7. The JCO refrains from making negative comments (e.g., sarcastic positive statements, use of profanity, name calling) to the detention day school student participant (Y/N). Additionally, tally how frequently the JCO makes negative comments to the detention day school student participant during the 15-min interval.										
JCO Performance Feedback:						**Correct Performance Percentage**				

Definitions of Correct Performance:

1) **Within the specified time period, the JCO delivers one token to the designated detention day school student participants who are on-task and in class (i.e., not on a cooldown or removed from class).**
   During the specified time period, the JCO participant awards one token to the designated detention day school participants who are on task at the time of observation.

2) **The JCO refrains from delivering *tokens* to off-task day school student participants or those who are on a cooldown or removed from class:**
   The JCO participant does not give tokens to any detention day school student who is off-task, on a cooldown, removed from class, or not in the token phase of the study at the time of observation.

3) **The JCO allowed designated detention day school students to use tokens to purchase backup reinforcers with earned tokens at the designated token exchange time (i.e., 10:30 am, 12:30 pm, 2:30 pm).**
   At 10:30 am, 12:30 pm, and 2:30 pm, the JCO participant will allow all detention day school participants to exchange their accumulated tokens for backup reinforcers.
   - Note: Step 6 is only scored at the times stated on the daily DRA time schedule that include 10:30 am, 12:30 pm, or 2:30 pm. For times on the daily DRA time schedule that do not include 10:30 am, 12:30 pm, or 2:30 pm, step 6 will be scored as N/A.

4) **The JCO correctly exchanges tokens for back-up reinforcers:**
   At 10:30 am, 12:30 pm, and 2:30 pm, the JCO participant gives one piece of candy to the detention day school participant(s) in exchange for each token the designated detention day school students have earned during that exchange period (e.g., if a youth earns 2 tokens between the hours of 8:30 am and 10:30 am, then at 10:30 am the JCO exchanges two pieces of candy for the two tokens earned). At 2:30 pm, the JCO participant gives a bonus of three pieces of candy to those students who have earned two or more tokens during each exchange period throughout the day. Note: Step 7 is only scored at the times stated on the daily DRA time schedule that include 10:30 am, 12:30 pm, and 2:30 pm. For times on the daily DRA time schedule that do not include 10:30 am, 12:30 pm, or 2:30 pm, step 6 will be scored as N/A.

5) **The JCO refrains from delivering *attention* to off-task day school student participants or those who are on a cooldown or removed from class:**
   When distributing tokens to the designated detention day school participant who is on task and not on a cooldown or removed from class at the time of observation, the JCO participant will not provide attention to the detention day school participants who are off-task. Giving attention is defined as a JCO speaking to a detention day school student participant. If a detention day school student participant tries to get the JCO participant's attention at this time, the JCO participant is to briefly respond "I will be with you in a moment" and wait at least 1-min before interacting with that detention day school participant.

6) **The JCO engages in appropriate social behaviors (i.e., faces the detention day school participant, makes eye contact, uses a pleasant facial expression, makes a positive gesture) when interacting with the detention day school student participant.**

   a) **The JCO faces the designated detention day school student participant(s) during the specified time period:**
   When delivering a token or interacting with detention day school participants who are on-task, the JCO participant will have his or her body positioned in a way that his or her torso is oriented in the direction of the designated detention day school participant.

   b) **The JCO makes eye contact with the designated detention day school student participant during the specified time period:**
   When delivering a token or interacting with designated detention day school participants who are on-task, the JCO participant will have his or her eyes directed at the face of the detention day school participant.

   c) **The JCO uses a pleasant facial expression with the designated detention day school student participants(s) during the specified time period:**
   When the JCO participant is delivering a token or interacting with designated detention day school student participants, he or she will have a pleasant a facial expression as indicated by smiling or refraining from frowning.

   d) **The JCO makes a positive gesture to the detention day school student participants during the specified time periods:**
   When delivering tokens or interacting with detention day school participants who are on-task, the JCO participant makes positive gestures (e.g., a silent thumbs up, a gentle pat on the shoulder, a statement of good job staying on-task, a statement of nice job working, a statement of great job working, a statement of keep up the great work).

7) **The JCO refrains from making negative comments (e.g., sarcastic positive statements, use of profanity, name calling) to the detention day school student participant.**
   When the JCO participant is delivering a token or interacting with designated detention day school student participants, he or she will refrain from making negative comments or statements (e.g., making a statement of good work using a sarcastic voice tone, giving a compliment with a sarcastic voice tone, using any form of profanity).

Appendix G

On-task appropriate classroom activities include sitting in his or her chair with his or her head off of the desk and keeping his or her eyes open, along with any of the following:

- speaking to teachers or JCOs;
- looking toward the teacher or JCO when the teacher or JCO is speaking or giving instruction;
- sitting in his or her chair and looking toward the computer monitor when completing computer assignments;
- looking toward the paper and using a writing utensil to write answers to the questions on the paper when completing written assignments;
- looking toward a book or paper when completing reading assignments;
- or turning in an assignment, writing on the whiteboard, sharpening a pencil, or picking up or putting away a book or computer at the time of observation.

Examples of **off-task behavior** include the following:

- talking to other classmates;
- using the drinking fountain or restroom during class time instead of during breaks;
- leaving his or her seat for reasons other than turning in an assignment, writing on the whiteboard, or speaking to a teacher or JCO;
- serving a staff-instructed or voluntary cooldown;
- yelling, fighting, or throwing objects;
- closing eyes for more than 2-s;
- and laying his or her head down on the desk.

A **staff-instructed cooldown** is defined as an instance when a JCO or teacher requires a detention day school student participant to go to an unlocked resident room in the JDC or designated classroom desk in one of the classrooms with the desk separated from other students' desks and remain in this room or at this desk for a 15-min period. Staff-instructed cooldowns can be given for a variety of reasons such as not following instructions, being disruptive in the classroom, or arguing with teaching staff, JCOs, or peers.

A **voluntary cooldown** is defined as any instance a detention day school student asks a JCO or teaching staff member for a break from academic demands. Voluntary cooldowns are 15 min in duration and occur at the detention day school student's desk or other designated seat. During this break, the detention day school student is permitted to silently lay his or her head on the desk, but they are not permitted to engage in activities such as using the internet on a laptop or have conversations with the peers around them. Voluntary cooldowns often result from detention day school students being upset with a JCO, teacher, or peer, or from being frustrated with schoolwork.

Appendix H

Daily DRA Token Schedule

May 8, 2019

8:30

- Youth 2
- Youth 19
- Youth 4
- Youth 31
- Youth 14
- Youth 10
- Youth 23
- Youth 8
- Youth 24

8:45

- Youth 32
- Youth 15
- Youth 2
- Youth 33
- Youth 20
- Youth 17
- Youth 34
- Youth 18
- Youth 12

9:00

- Youth 1
- Youth 27
- Youth 7
- Youth 25
- Youth 16
- Youth 11
- Youth 3
- Youth 5
- Youth 30

9:15

- Youth 28
- Youth 29
- Youth 35
- Youth 21
- Youth 22
- Youth 9
- Youth 26
- Youth 13
- Youth 6

9:30

- Youth 6
- Youth 35
- Youth 17
- Youth 2
- Youth 20
- Youth 15
- Youth 24
- Youth 26
- Youth 28

9:45

- Youth 11
- Youth 21
- Youth 14
- Youth 34
- Youth 22
- Youth 3
- Youth 31
- Youth 23
- Youth 25

10:00

- Youth 12
- Youth 1
- Youth 18
- Youth 5
- Youth 10
- Youth 2
- Youth 32
- Youth 30
- Youth 27

10:15

- Youth 7
- Youth 33
- Youth 19
- Youth 9
- Youth 8
- Youth 16
- Youth 13
- Youth 4
- Youth 29

10:30 (Candy Exchange w/ Everyone)

- Youth 11
- Youth 1
- Youth 16
- Youth 24
- Youth 6
- Youth 22
- Youth 29
- Youth 18
- Youth 26

10:45

- Youth 27
- Youth 34
- Youth 33
- Youth 10
- Youth 2
- Youth 35
- Youth 25
- Youth 15
- Youth 21

11:00

- Youth 30
- Youth 23
- Youth 17
- Youth 31
- Youth 3
- Youth 13
- Youth 20
- Youth 5
- Youth 4

11:15

- Youth 9
- Youth 14
- Youth 12
- Youth 32
- Youth 7
- Youth 19
- Youth 8
- Youth 2
- Youth 28

11:30

- Youth 27
- Youth 30
- Youth 23
- Youth 33
- Youth 7
- Youth 10
- Youth 8
- Youth 2
- Youth 2

11:45

- Youth 17
- Youth 25
- Youth 13
- Youth 26
- Youth 3
- Youth 18
- Youth 24
- Youth 11
- Youth 6

12:00

- Youth 32
- Youth 16
- Youth 29
- Youth 28
- Youth 1
- Youth 21
- Youth 34
- Youth 9
- Youth 5

12:15

- Youth 4
- Youth 14
- Youth 15
- Youth 31
- Youth 12
- Youth 20
- Youth 22
- Youth 19
- Youth 35

12:30 (Candy Exchange w/ Everyone)

- Youth 24
- Youth 29
- Youth 2
- Youth 16
- Youth 5
- Youth 20
- Youth 4
- Youth 15
- Youth 8

12:45

- Youth 35
- Youth 2
- Youth 9
- Youth 12
- Youth 19
- Youth 25
- Youth 11
- Youth 30
- Youth 23

1:00

- Youth 21
- Youth 27
- Youth 1
- Youth 33
- Youth 28
- Youth 26
- Youth 6
- Youth 22
- Youth 14

1:15

- Youth 13
- Youth 7
- Youth 10
- Youth 3
- Youth 18
- Youth 34
- Youth 32
- Youth 17
- Youth 31

1:30

- Youth 31
- Youth 1
- Youth 13
- Youth 11
- Youth 22
- Youth 18
- Youth 28
- Youth 25
- Youth 29

1:45

- Youth 15
- Youth 35
- Youth 16
- Youth 20
- Youth 2
- Youth 21
- Youth 5
- Youth 3
- Youth 30

2:00

- Youth 34
- Youth 8
- Youth 14
- Youth 7
- Youth 32
- Youth 12
- Youth 6
- Youth 24
- Youth 33

2:15

- Youth 19
- Youth 10
- Youth 27
- Youth 2
- Youth 17
- Youth 23
- Youth 4
- Youth 26
- Youth 9

2:30 (Candy Exchange + Bonus)

Appendix I

John's Token Sheet
November 8, 2018

Morning (8:30-10:30)

Token 1	Token 2	Token 3	Token 4	Token 5

Late Morning (10:30-12:30)

Token 1	Token 2	Token 3	Token 4	Token 5

Afternoon (12:30-2:30)

Token 1	Token 2	Token 3	Token 4	Token 5

- One piece of candy costs one token.
- If two or more tokens are earned in each time period, then a bonus of three pieces of candy will be awarded at the 2:30 pm token exchange time.

Appendix J

Observer's Initials Date Time Primary Reliability (Circle One) Observed Staff's Initials										
Token Procedure Skill Steps (BST Training Session)	Role-Play Attempt #1	Role-Play Attempt #2	Role-Play Attempt #3	Role-Play Attempt #4	Role-Play Attempt #5	Role-Play Attempt #6	Role-Play Attempt #7	Role-Play Attempt #8	Role-Play Attempt #9	Role-Play Attempt #10
1. Within the specified time period, the JCO delivers one token to the designated detention day school students who are on-task and in class (i.e., not on a cooldown or removed from class).										
2. The JCO refrains from delivering a token to detention day school students who are off-task and/or on a cooldown or removed from class at the time of observation.										
3. The JCO allows detention day school students to purchase backup reinforcers with earned tokens at the designated token exchange time (i.e., 10:30 am, 12:30 pm, 2:30 pm).										
4. The JCO correctly exchanges tokens for backup reinforcers.										
5. The JCO refrains from delivering attention to detention day school students who are off-task and/or on a cooldown or removed from class at the time of observation.										
6. The JCO engages in appropriate social behaviors (e.g., faces the detention day school student participant, makes eye contact, uses a pleasant facial expression, makes a positive gesture) when interacting with the detention day school students.										
7. The JCO refrains from making negative comments (e.g., sarcastic positive statements, use of profanity, name calling) to the detention day school students.										

Appendix K

Random Numbers Generator

8:30

- Random Youth 1
- Random Youth 2
- Random Youth 3
- Random Youth 4
- Random Youth 5
- Random Youth 6
- Random Youth 7
- Random Youth 8
- Random Youth 9

8:45

- Random Youth 10
- Random Youth 11
- Random Youth 12
- Random Youth 13
- Random Youth 14
- Random Youth 15
- Random Youth 16
- Random Youth 17
- Random Youth 18

9:00

- Random Youth 19
- Random Youth 20
- Random Youth 21
- Random Youth 22
- Random Youth 23
- Random Youth 24
- Random Youth 25
- Random Youth 26
- Random Youth 27

Random Numbers Generator

9:15

- Random Youth 1
- Random Youth 2
- Random Youth 3
- Random Youth 4
- Random Youth 5
- Random Youth 6
- Random Youth 7
- Random Youth 8
- Random Youth 9

9:30

- Random Youth 10
- Random Youth 11
- Random Youth 12
- Random Youth 13
- Random Youth 14
- Random Youth 15
- Random Youth 16
- Random Youth 17
- Random Youth 18

9:45

- Random Youth 19
- Random Youth 20
- Random Youth 21
- Random Youth 22
- Random Youth 23
- Random Youth 24
- Random Youth 25
- Random Youth 26
- Random Youth 27

Random Numbers Generator

10:00

- Random Youth 1
- Random Youth 2
- Random Youth 3
- Random Youth 4
- Random Youth 5
- Random Youth 6
- Random Youth 7
- Random Youth 8
- Random Youth 9

10:15

- Random Youth 10
- Random Youth 11
- Random Youth 12
- Random Youth 13
- Random Youth 14
- Random Youth 15
- Random Youth 16
- Random Youth 17
- Random Youth 18

Random Numbers Generator

10:30

- Random Youth 1
- Random Youth 2
- Random Youth 3
- Random Youth 4
- Random Youth 5
- Random Youth 6
- Random Youth 7
- Random Youth 8
- Random Youth 9

10:45

- Random Youth 10
- Random Youth 11
- Random Youth 12
- Random Youth 13
- Random Youth 14
- Random Youth 15
- Random Youth 16
- Random Youth 17
- Random Youth 18

11:00

- Random Youth 19
- Random Youth 20
- Random Youth 21
- Random Youth 22
- Random Youth 23
- Random Youth 24
- Random Youth 25
- Random Youth 26
- Random Youth 27

Random Numbers Generator

11:15

- Random Youth 1
- Random Youth 2
- Random Youth 3
- Random Youth 4
- Random Youth 5
- Random Youth 6
- Random Youth 7
- Random Youth 8
- Random Youth 9

11:30

- Random Youth 10
- Random Youth 11
- Random Youth 12
- Random Youth 13
- Random Youth 14
- Random Youth 15
- Random Youth 16
- Random Youth 17
- Random Youth 18

11:45

- Random Youth 19
- Random Youth 20
- Random Youth 21
- Random Youth 22
- Random Youth 23
- Random Youth 24
- Random Youth 25
- Random Youth 26
- Random Youth 27

Random Numbers Generator

12:00

- Random Youth 1
- Random Youth 2
- Random Youth 3
- Random Youth 4
- Random Youth 5
- Random Youth 6
- Random Youth 7
- Random Youth 8
- Random Youth 9

12:15

- Random Youth 10
- Random Youth 11
- Random Youth 12
- Random Youth 13
- Random Youth 14
- Random Youth 15
- Random Youth 16
- Random Youth 17
- Random Youth 18

Random Numbers Generator

12:30

- Random Youth 1
- Random Youth 2
- Random Youth 3
- Random Youth 4
- Random Youth 5
- Random Youth 6
- Random Youth 7
- Random Youth 8
- Random Youth 9

12:45

- Random Youth 10
- Random Youth 11
- Random Youth 12
- Random Youth 13
- Random Youth 14
- Random Youth 15
- Random Youth 16
- Random Youth 17
- Random Youth 18

1:00

- Random Youth 19
- Random Youth 20
- Random Youth 21
- Random Youth 22
- Random Youth 23
- Random Youth 24
- Random Youth 25
- Random Youth 26
- Random Youth 27

Random Numbers Generator

1:15

- Random Youth 1
- Random Youth 2
- Random Youth 3
- Random Youth 4
- Random Youth 5
- Random Youth 6
- Random Youth 7
- Random Youth 8
- Random Youth 9

1:30

- Random Youth 10
- Random Youth 11
- Random Youth 12
- Random Youth 13
- Random Youth 14
- Random Youth 15
- Random Youth 16
- Random Youth 17
- Random Youth 18

1:45

- Random Youth 19
- Random Youth 20
- Random Youth 21
- Random Youth 22
- Random Youth 23
- Random Youth 24
- Random Youth 25
- Random Youth 26
- Random Youth 27

Random Numbers Generator

2:00

- Random Youth 1
- Random Youth 2
- Random Youth 3
- Random Youth 4
- Random Youth 5
- Random Youth 6
- Random Youth 7
- Random Youth 8
- Random Youth 9

2:15

- Random Youth 10
- Random Youth 11
- Random Youth 12
- Random Youth 13
- Random Youth 14
- Random Youth 15
- Random Youth 16
- Random Youth 17
- Random Youth 18

Appendix L

RESEARCHER SCRIPT

VIDEO ONE

Conduct the following steps of the BST procedure:

- Define the token procedure
- Provide rationales for learning the token procedure
- Provide definitions for on-task and off-task behaviors
- Provide the skills steps necessary for completing the token procedure
- **OMIT VERBAL REHEARSAL**
- Model the token procedure
- Behavioral rehearsal
- Behavioral feedback
- Criterion Performance

VIDEO TWO

Do the BST training procedure 100% correctly. Conduct the following steps of the BST procedure:

- Define the token procedure
- Provide rationales for learning the token procedure
- Provide definitions for on-task and off-task behaviors
- Provide the skills steps necessary for completing the token procedure
- Verbal rehearsal
- Model the token procedure
- Behavioral rehearsal
- Behavioral feedback
- Criterion Performance

VIDEO THREE

Conduct the following steps of the BST procedure:

- Define the token procedure
- Provide rationales for learning the token procedure
- Provide definitions for on-task and off-task behaviors
- Provide the skills steps necessary for completing the token procedure
- Verbal rehearsal
- Model the token procedure
- Behavioral rehearsal
- Behavioral feedback
    - **The JCO role play participant will make an error on the first role play session. Give them positive and corrective feedback.**
- Criterion Performance

- **Stop after the third role play session even though the JCO role play participant made an error during the first role play session.**

VIDEO FOUR

Conduct the following steps of the BST procedure:

- Define the token procedure
- Provide rationales for learning the token procedure
- Provide definitions for on-task and off-task behaviors
- Provide the skills steps necessary for completing the token procedure
- Verbal rehearsal
  - **Require the JCO role play participant to read the token procedure skill steps from the skill sheet but do not require them to do it from memory.**
- Model the token procedure
  - **Only model the token procedure once. Do it correctly the first time.**
- Behavioral rehearsal
- Behavioral feedback
  - **The JCO role play participant will make an error on the first role play session. Give them positive and corrective feedback.**
- Criterion Performance
  - **Require the JCO role play participant to role play an additional three correct attempts after making the JCO role play participant makes an error during the first role play.**

VIDEO FIVE

Do the BST training procedure 100% correctly. Conduct the following steps of the BST procedure:

- Define the token procedure
- Provide rationales for learning the token procedure
- Provide definitions for on-task and off-task behaviors
- Provide the skills steps necessary for completing the token procedure
- Verbal rehearsal
- Model the token procedure
- Behavioral rehearsal
- Behavioral feedback
- Criterion Performance

VIDEO SIX

Do the BST training procedure 100% correctly. Conduct the following steps of the BST procedure:

- Define the token procedure

- **OMIT RATIONALES**
- Provide definitions for on-task and off-task behaviors
- Provide the skills steps necessary for completing the token procedure
- Verbal rehearsal
- Model the token procedure
- Behavioral rehearsal
- Behavioral feedback
    - **The JCO role play participant will make an error in the third role play session. Give them positive and corrective feedback.**
- Criterion Performance
    - **The JCO role play participant will make an error in the third role play session. Do not require them to continue practicing the skill after the third role play session.**

Boy 1 SCRIPT

VIDEO ONE

- You are playing a youth attending the detention day school. The primary researcher will be using behavioral skills training to teach a token procedure to a juvenile correctional officer. During the behavioral skills training session, please do the following:
    - Primary researcher modeling: The primary researcher will model how to implement the token procedure for the juvenile correctional officer **twice**. When this is done, you will play the role of a day school student who is reading a book. With the book open and in your hands, please silently orient your eyes to the pages as if you are reading.
    - JCO practice: The JCO will practice implementing the token procedure **three** times. For each practice opportunity, please do the following:
        - JCO Practice One: You will play the role of a day school student who is reading a book. With the book open and in your hands, please silently orient your eyes to the pages as if you are reading.
        - JCO Practice Two: Off Task. You will play the role of a day school student who is off-task with a book in your hands. With a book open in your hands (as if you had been reading), silently look around the room. Refrain from making eye contact with the pages of the book.
        - JCO Practice Three: Off-Task. Repeat the steps for JCO Practice One

VIDEO TWO

- You will not be included in video two.

VIDEO THREE

- You are playing a youth attending the detention day school. The primary researcher will be using behavioral skills training to teach a token procedure to a juvenile correctional officer. During the behavioral skills training session, please do the following:
    - Primary researcher modeling: The primary researcher will model how to implement the token procedure for the juvenile correctional officer **twice**. When this is done, you should play the role of a day school student who is looking around the room. With your written assignments on the desk in front of you, please silently look around the room, refraining from making eye contact with the written assignments.
    - JCO practice: The JCO will practice implementing the token procedure **three** times. For each practice opportunity, please do the following:
        - JCO Practice One: On Task. You should play the role of a day school student who is working on written assignments. Please sit up straight, make eye contact with the paper, and use a pencil to write on the paper.
        - JCO Practice Two: Repeat the steps for JCO Practice One.
        - JCO Practice Three: Off-Task. You will be playing the part of a youth who is off-task and on a voluntary cooldown. Once the researcher tells the correctional officer to begin practicing the token procedure. Raise your hand and once called on, tell the JCO that you are taking a voluntary cooldown. Then sit silently and read a book.

VIDEO FOUR

- You will not be included in video four.

VIDEO FIVE

- You will not be included in video five.

VIDEO SIX

- You are playing a youth attending the detention day school. The primary researcher will be using behavioral skills training to teach a token procedure to a juvenile correctional officer. During the behavioral skills training session, please do the following:
    - Primary researcher modeling: The primary researcher will model how to implement the token procedure for the juvenile correctional officer **twice**. When this is done, you should play the role of a day school student working silently on a computer. Please make eye contact with the computer screen and pretend to be typing while remaining silent.
    - JCO practice: The JCO will practice implementing the token procedure **three** times. For each practice opportunity, please do the following:
        - JCO Practice One: You will play the part of a youth who is off-task. The computer will be placed open in front of you. Please sit up straight and silently look around the room, refraining from making eye contact with the computer.
        - JCO Practice Two: You will be playing the part of a youth who is off-task and on a voluntary cooldown. Once the researcher tells the correctional officer to begin practicing the token procedure. Raise your hand and once called on, tell the JCO that you are taking a voluntary cooldown. Then silently lay your head down on the desk in front of you.
        - JCO Practice Three: You should play the role of a day school student working silently on a computer. Please make eye contact with the computer screen and pretend to be typing while remaining silent.

Boy 2 SCRIPT

VIDEO ONE

- You are playing a youth attending the detention day school. The primary researcher will be using behavioral skills training to teach a token procedure to a juvenile correctional officer. During the behavioral skills training session, please do the following:
    - Primary researcher modeling: The primary researcher will model how to implement the token procedure for the juvenile correctional officer **twice**. When this is done, you should play the role of a day school student who is looking around the room. With your written assignments on the desk in front of you, please silently look around the room, refraining from making eye contact with the written assignments.
    - JCO Practice: The JCO will practice implementing the token procedure **three** times. For each practice opportunity, please do the following:
        - JCO Practice One: Off-Task. Please play the role of a day school student who is looking around the room. With your written assignments on the desk in front of you, please silently look around the room, refraining from making eye contact with the written assignments.
        - JCO Practice Two: Off-Task. You should play the role of a day school student who is sleeping. Please silently lay your head on the desk in front of you and close your eyes.
        - JCO Practice Three: On Task. You should play the role of a day school student who is working on written assignments. Please sit up straight, make eye contact with the paper, and use a pencil to write on the paper.

VIDEO TWO

- You will not be included in video two.

VIDEO THREE

- You will not be included in video three.

VIDEO FOUR

- You are playing a youth attending the detention day school. The primary researcher will be using behavioral skills training to teach a token procedure to a juvenile correctional officer. During the behavioral skills training session, please do the following:
    - Primary researcher modeling: The primary researcher will model how to implement the token procedure for the juvenile correctional officer **once**. When this is done, you will play the role of a day school student who is reading a book. With the book open and in your hands, please silently orient your eyes to the pages as if you are reading.
    - JCO practice: The JCO will practice implementing the token procedure **four** times. For each practice opportunity, please do the following:
        - JCO Practice One: On-task. You will play the role of a day school student who is reading a book. With the book open and in your hands, please silently orient your eyes to the pages as if you are reading.
        - JCO Practice Two: Please repeat the steps of JCO Practice One.

        - JCO Practice Three: Please repeat the steps of JCO Practice One and JCO Practice Two.
        - JCO Practice Four: Off Task. You will play the role of a day school student who is off-task with a book in your hands. With a book open in your hands (as if you had been reading), silently look around the room. Refrain from making eye contact with the pages of the book.

VIDEO FIVE

- You are playing a youth attending the detention day school. The primary researcher will be using behavioral skills training to teach a token procedure to a juvenile correctional officer. During the behavioral skills training session, please do the following:
    - Primary researcher modeling: The primary researcher will model how to implement the token procedure for the juvenile correctional officer **twice**. When this is done, you will play the role of a day school student who is reading a book. With the book open and in your hands, please silently orient your eyes to the pages as if you are reading.
    - JCO practice: The JCO will practice implementing the token procedure **three** times. For each practice opportunity, please do the following:
        - JCO Practice One: On-task. You will play the role of a day school student who is reading a book. With the book open and in your hands, please silently orient your eyes to the pages as if you are reading.
        - JCO Practice Two: Off Task. You will play the role of a day school student who is off-task with a book in your hands. With a book open in your hands (as if you had been reading), silently look around the room. Refrain from making eye contact with the pages of the book.
        - JCO Practice Three: Please repeat the steps of JCO Practice One.

VIDEO SIX

- You will not be included in video six.

GIRL 1 SCRIPT

VIDEO ONE

- You will not be included in video one.

VIDEO TWO

- You are playing a youth attending the detention day school. The primary researcher will be using behavioral skills training to teach a token procedure to a juvenile correctional officer. During the behavioral skills training session, please do the following:
    - Primary researcher modeling: The primary researcher will model how to implement the token procedure for the juvenile correctional officer **twice**. When this is done, you should play the role of a day school student working silently on a computer. Please make eye contact with the computer screen and pretend to be typing while remaining silent.
    - JCO practice: The JCO will practice implementing the token procedure **five** times. For each practice opportunity, please do the following:
        - JCO Practice One: On-Task. You should play the role of a day school student working silently on a computer. Please make eye contact with the computer screen and pretend to be typing while remaining silent.
        - JCO Practice Two: On Task. Repeat the steps for JCO practice one.
        - JCO Practice Three: Off-Task. You will play the part of a youth who is off-task. The computer will be placed open in front of you. Please sit up straight and silently look around the room, refraining from making eye contact with the computer.
        - JCO Practice Four: Off-Task. Repeat the steps for JCO practice three.
        - JCO Practice Five: On-Task. Repeat the steps for JCO practice one and two.

VIDEO THREE

- You are playing a youth attending the detention day school. The primary researcher will be using behavioral skills training to teach a token procedure to a juvenile correctional officer. During the behavioral skills training session, please do the following:
    - Primary researcher modeling: The primary researcher will model how to implement the token procedure for the juvenile correctional officer **twice**. When this is done, you should play the role of a day school student working silently on written assignments. Please sit up straight, make eye contact with the paper, and use a pencil to write on the paper.
    - JCO practice: The JCO will practice implementing the token procedure **three** times. For each practice opportunity, please do the following:
        - JCO Practice One: Off-task. Please silently place your head on the desk and close your eyes.

        - JCO Practice Two: On-task. Repeat the steps of the primary researcher modeling session. Please pretend to work on written assignments by sitting up straight, making eye contact with the paper, and use a pencil to write on the paper.
        - JCO Practice Three: On-task. Repeat the steps of JCO Practice Two.

VIDEO FOUR

- You will not be included in video four.

VIDEO FIVE

- You are playing a youth attending the detention day school. The primary researcher will be using behavioral skills training to teach a token procedure to a juvenile correctional officer. During the behavioral skills training session, please do the following:
    - Primary researcher modeling: The primary researcher will model how to implement the token procedure for the juvenile correctional officer **twice**. When this is done, you should play the role of a day school student who is sleeping in class. Please silently lay your head on the desk with your eyes closed.
    - JCO practice: The JCO will practice implementing the token procedure **three** times. For each practice opportunity, please do the following:
        - JCO Practice One: Off-task. You will be playing the part of a youth who is off-task and on a voluntary cooldown. Once the researcher tells the correctional officer to begin practicing the token procedure. Raise your hand and once called on, tell the JCO that you are taking a voluntary cooldown. Then sit silently in your seat with your head off of the desk.
        - JCO Practice Two: On-task. You should play the role of a day school student working silently on a computer. Please make eye contact with the computer screen and pretend to be typing while remaining silent.
        - JCO Practice Three: On-task. Repeat the steps of JCO Practice Two.

VIDEO SIX

- You will not be included in video six.

- JCO Practice One: Off-task. You will be playing the part of a youth who is off-task and on a voluntary cooldown. Once the researcher tells the correctional officer to begin practicing the token procedure. Raise your hand and once called on, tell the JCO that you are taking a voluntary cooldown. Then sit silently in your seat with your head off of the desk.
- JCO Practice Two: On-task. You should play the role of a day school student working silently on a computer. Please make eye contact with the computer screen and pretend to be typing while remaining silent.
- JCO Practice Three: You will play the part of a youth who is off-task. The computer will be placed open in front of you. Please sit up straight and silently look around the room, refraining from making eye contact with the computer.
- JCO Practice Four: On-Task. Repeat the steps of JCO Practice Two.

VIDEO FIVE

- You will not be included in video five.

VIDEO SIX

- You are playing a youth attending the detention day school. The primary researcher will be using behavioral skills training to teach a token procedure to a juvenile correctional officer. During the behavioral skills training session, please do the following:
  - Primary researcher modeling: The primary researcher will model how to implement the token procedure for the juvenile correctional officer **twice**. When this is done, you should play the role of a day school student who is looking around the room. With your written assignments on the desk in front of you, please silently look around the room, refraining from making eye contact with the written assignments.
  - JCO practice: The JCO will practice implementing the token procedure **three** times. For each practice opportunity, please do the following:
    - JCO Practice One: On Task. You should play the role of a day school student who is working on written assignments. Please sit up straight, make eye contact with the paper, and use a pencil to write on the paper.
    - JCO Practice Two: Repeat the steps of JCO Practice One
    - JCO Practice Three: On-Task. You will play the role of a day school student who is reading a book. With the book open and in your hands, please silently orient your eyes to the pages as if you are reading.

JCO 1 SCRIPT

VIDEO ONE

- You are playing a JCO working in a detention day school. You will be participating in a training to learn how to implement a token procedure to increase day school students' engagement in classroom activities. During the training, the primary researcher will teach you how to implement the token procedure using the following steps:
    - Define the token procedure
    - Provide rationales for learning the token procedure
    - Provide definitions for on-task and off-task behaviors
    - Provide the skill steps necessary for completing the token procedure
    - Model the token procedure skill steps
    - Behavioral rehearsal
    - Behavioral feedback
    - Criterion performance

  During the behavioral rehearsal period of the training, you will be asked to implement the token procedure with two research assistants who are playing the part of day school students who are either on-task or off-task with classroom activities. In this video, you will be asked to implement the token procedure **three** times consecutively. The implementation of the token procedure should be as follows:
    - First Role Play: Give a token and attention to Boy 1 and refrain from giving a token or attention to Boy 2.
    - Second Role Play: Refrain from giving a token or attention to Boy 1 and refrain from giving a token or attention to Boy 2.
    - Third Role Play: Give a token and attention to Boy 1 and Boy 2.

VIDEO TWO

- You are playing a JCO working in a detention day school. You will be participating in a training to learn how to implement a token procedure to increase day school students' engagement in classroom activities. During the training, the primary researcher will teach you how to implement the token procedure using the following steps:
    - Define the token procedure
    - Provide rationales for learning the token procedure
    - Provide definitions for on-task and off-task behaviors
    - Provide the skill steps necessary for completing the token procedure
    - Verbal rehearsal
    - Model the token procedure skill steps
    - Behavioral rehearsal
    - Behavioral feedback
    - Criterion performance

  During the behavioral rehearsal period of the training, you will be asked to implement the token procedure with two research assistants who are playing the part of day school students who are either on-task or off-task with classroom activities. In this video, you will be asked to implement

the token procedure **five** times consecutively. The implementation of the token procedure should be as follows:

- First Role Play: Give a token and attention to Girl 1 and refrain from giving a token or attention to Girl 2.
- Second Role Play: Refrain from giving a token to Girl 1 (even though she is on-task) and give a token and attention to Girl 2.
- Third Role Play: Refrain from giving a token and attention to Girl 1 and Give a token and attention to Girl 2.
- Fourth Role Play: Refrain from giving a token and attention to both Girl 1 and Girl 2.
- Fifth Role Play: Give a token and attention to Girl 1 and refrain from giving a token and attention to Girl 2.

VIDEO THREE

- You are playing a JCO working in a detention day school. You will be participating in a training to learn how to implement a token procedure to increase day school students' engagement in classroom activities. During the training, the primary researcher will teach you how to implement the token procedure using the following steps:
  - Define the token procedure
  - Provide rationales for learning the token procedure
  - Provide definitions for on-task and off-task behaviors
  - Provide the skill steps necessary for completing the token procedure
  - Verbal rehearsal
  - Model the token procedure skill steps
  - Behavioral rehearsal
  - Behavioral feedback

  During the behavioral rehearsal period of the training, you will be asked to implement the token procedure with two research assistants who are playing the part of day school students who are either on-task or off-task with classroom activities. In this video, you will be asked to correctly implement the token procedure **three** times consecutively. The implementation of the token procedure should be as follows:
  - First Role Play: Give a token to Boy 1 but do not give him attention. Refrain from giving a token or attention to Girl 1.
  - Second Role Play: Give a token and attention to Boy 1 and Girl 2.
  - Third Role Play: Refrain from giving a token and attention to Boy 1 and give a token and attention to Girl 2.

VIDEO FOUR

- You are playing a JCO working in a detention day school. You will be participating in a training to learn how to implement a token procedure to increase day school students' engagement in classroom activities. During the training, the primary researcher will teach you how to implement the token procedure using the following steps:

- Define the token procedure
- Provide rationales for learning the token procedure
- Provide definitions for on-task and off-task behaviors
- Provide the skill steps necessary for completing the token procedure
- Verbal rehearsal
- Model the token procedure skill steps
- Behavioral rehearsal
- Behavioral feedback
- Criterion performance

During the behavioral rehearsal period of the training, you will be asked to implement the token procedure with two research assistants who are playing the part of day school students who are either on-task or off-task with classroom activities. In this video, you will be asked to implement the token procedure **four** times consecutively. The implementation of the token procedure should be as follows:

- First Role Play: Give a token and attention to Girl 2 (even though she is on a voluntary cooldown) and Boy 2.
- Second Role Play: Give a token and attention to Girl 2 and Boy 2.
- Third Role Play: Refrain from giving a token or attention to Girl 2 and Give a token and attention to Boy 2.
- Fourth Role Play: Give a token and attention to Girl 2 but refrain from giving a token or attention to Boy 2.

VIDEO FIVE

- You are playing a JCO working in a detention day school. You will be participating in a training to learn how to implement a token procedure to increase day school students' engagement in classroom activities. During the training, the primary researcher will teach you how to implement the token procedure using the following steps:
  - Define the token procedure
  - Provide rationales for learning the token procedure
  - Provide definitions for on-task and off-task behaviors
  - Provide the skill steps necessary for completing the token procedure
  - Verbal rehearsal
  - Model the token procedure skill steps
  - Behavioral rehearsal
  - Behavioral feedback
  - Criterion performance

During the behavioral rehearsal period of the training, you will be asked to implement the token procedure with two research assistants who are playing the part of day school students who are either on-task or off-task with classroom activities. In this video, you will be asked to implement the token procedure **three** times consecutively. The implementation of the token procedure should be as follows:

- First Role Play: Refrain from giving a token or attention to Girl 1 but give a token and attention to Boy 2.

- Second Role Play: Give a token and attention to Girl 1 but refrain from giving a token or attention to Boy 2.
- Third Role Play: Give a token and attention to both Girl 1 and Boy 2.

VIDEO SIX

- You are playing a JCO working in a detention day school. You will be participating in a training to learn how to implement a token procedure to increase day school students' engagement in classroom activities. During the training, the primary researcher will teach you how to implement the token procedure using the following steps:
  - Define the token procedure
  - Provide definitions for on-task and off-task behaviors
  - Provide the skill steps necessary for completing the token procedure
  - Verbal rehearsal
  - Model the token procedure skill steps
  - Behavioral rehearsal
  - Behavioral feedback

  During the behavioral rehearsal period of the training, you will be asked to implement the token procedure with two research assistants who are playing the part of day school students who are either on-task or off-task with classroom activities. In this video, you will be asked to correctly implement the token procedure **three** times consecutively. The implementation of the token procedure should be as follows:
  - First Role Play: Refrain from giving a token or attention to Boy 1 and give a token and attention to Girl 2.
  - Second Role Play: Refrain from giving a token or attention to Boy 1 and give a token and attention to Girl 2.
  - Third Role Play: Give a token and attention to Boy 1 and give a token to Girl 2 but do not give her attention.

corrective feedback for the DRA skill steps the JCO omitted or could show improvement.

- The primary researcher will earn one point if he gives general (not skill specific) praise, gives skill specific praise but no corrective feedback when necessary, or gives corrective feedback but no skill specific praise.
- The primary researcher will earn zero points if he does not give any behavioral feedback.

9. **Criterion Performance**: The primary researcher will require the JCO to continue to role play all DRA skill steps until the JCO is able to perform all token procedure skill steps 100% correctly for three consecutive attempts. The primary researcher will provide corrective feedback following role play attempts that are less that 100% correct.
    - The primary researcher will earn two points if he requires the JCO to continue to role play all token procedure skill steps until the JCO can perform all token procedure skills steps 100% correctly for three consecutive attempts.
    - The primary researcher will earn one point if he requires the JCO to re-practice all token procedure skill steps at least once following the delivery of corrective feedback, but allows the JCO to end role playing before he or she performs all token procedure skill steps 100% correctly;

      or

      the JCO correctly performs all token procedure steps 100% correctly and the primary researcher does not require the JCO to perform the token procedure 100% correctly for three consecutive attempts.
    - The primary researcher will earn zero points if he does not require the JCO to re-practice all token procedure skill steps following the delivery of corrective feedback.

10. **Return to step 6 if the JCO is unable to perform the token procedure skill steps with 100% integrity by the third role play attempt**: At the conclusion of the third role play attempt if the JCO has not performed all token procedure steps 100% correctly at least once, the primary researcher will repeat steps 6-10.
    - The primary researcher will earn two points if he repeats steps 6-10 following the JCO's third role-play attempt in which he or she did not perform all token procedure skill steps correctly at least once.
    - The primary researcher will earn one point if he repeats step 6-10 following the JCO's fourth (or more) role-play attempt in which he or she did not perform all token procedure skill steps correctly at least once.
    - The primary researcher will earn zero points if the JCO does not perform all token procedure skill steps correctly at least once following three or more attempts and the primary researcher does not repeat steps 6-10.

Appendix M

Observer's Initials: Treatment Integrity Session #
Primary Reliability (Circle One) Observed Staff's Initials:

BST TREATMENT INTEGRITY DATA SHEET

1. Define the token procedure. _____

2. Provide rationales for learning the token procedure. _____

3. Provide definitions for on-task and off-task behaviors. _____

    a. On-task includes sitting in his or her chair with his or her head off of the desk and keeping his or her eyes open, along with any of the following behaviors:
        i. Speaking to teachers or JCOs;
        ii. Looking towards the teacher or juvenile correctional officer when speaking or giving instructions;
        iii. Sitting in his or her chair and looking toward the computer monitor when completing computer assignments;
        iv. Looking toward the paper and using a writing utensil to write answers to the questions on the paper when completing written assignments;
        v. Looking toward the book or paper with his or her head off the desk when completing reading assignments;
        vi. Turning in an assignment, writing on the whiteboard, sharpening a pencil, or picking up or putting away a book or computer at the time of observation.
    b. Off-task includes the following behaviors:
        i. Talking to other classmates;
        ii. Using the drinking fountain or restroom during class time instead of during breaks;
        iii. Leaving his or her seat for reasons other than turning in an assignment, writing on the whiteboard, or speaking to a teacher or JCO;
        iv. Serving a staff-instructed or voluntary cooldown;
        v. Yelling, fighting, or throwing objects;
        vi. Closing eyes for more than 2-s;
        vii. Laying his or her head down on the desk.

4. Provide the skill steps necessary for completing the token procedure. _____

    a. Within the specified time period, the JCO delivers one token to the designated detention day school student participants who are on-task and in class (i.e., not on a cooldown or removed from class).

b. The JCO refrains from delivering a token to detention day school student participants who are off-task and/or on a cooldown or removed from class at the time of observation.
c. The JCO allows detention day school student participants to purchase backup reinforcers with earned tokens at the designated token exchange times (i.e., 10:30 am, 12:30 pm, 2:30 pm).
d. The JCO correctly exchanges tokens for back-up reinforcers.
e. The JCO refrains from delivering attention to detention day school student participants who are off-task and/or on a cooldown or removed from class at the time of observation.
    i. In the event that a detention day school student who is off-task tries to gain the attention of the JCO participant, the JCO participant will respond with the statement "I will be with you in a moment." The JCO participant will then wait at least 1 min before providing attention to that detention day school participant.
f. The JCO engages in appropriate social behaviors (i.e., faces the detention day school student participant, makes eye contact, uses a pleasant facial expression, makes a positive gesture) when interacting with the detention day school student participant.
g. The JCO refrains from making negative comments (e.g., sarcastic positive statements, use of profanity, name calling) to the detention day school student participant.

5. Verbal rehearsal _____

6. Model the token procedure skill steps. _____

7. Behavioral rehearsal (role-play) _____

8. Behavioral feedback (gives skill step specific feedback) _____

9. Criterion Performance (continue practicing until 100% performance is achieved for three consecutive attempts). _____

10. Return to step 6 if the JCO is unable to perform the token procedure skill steps with 100% integrity by the third role play attempt. _____

Total Score _____

Observer's Initials: Treatment Integrity Session #
Primary Reliability (Circle One) Observed Staff's Initials:

Definitions of Correct Performance:

1. **Define the token procedure:** The primary researcher will state that the token procedure will be used to increase the amount of time detention day school students are on-task in classroom activities. The token procedure will include rewarding detention day school students who are on-task with tokens, and withholding tokens from detention day school students who are not on-task. Tokens will be traded in at the end of each class period for candy.
    - The primary researcher earns 2 points if he states the above definition.
    - The primary researcher earns 1 point if he states a portion of the above definition.
    - The primary researcher earns 0 points if he does not state the above definition.
2. **Provide rationales for learning the token procedure**: The rationale for learning the token procedure is that it may increase the time students spend on-task leading to improvements in academic performance and reductions in disruptions and cooldowns in the day school classroom.
    - The primary researcher earns 2 points he states the above rationale.
    - The primary researcher earns 1 point if he states part of the above rationale.
    - The primary researcher earns 0 points if he does not state the above rationale.
3. **Provide the definitions of on-task and off-task behaviors**: The primary researcher will provide the JCO participant with a list of definitions for on-task and off-task behaviors. The primary researcher will orally review each item on this list.
    i. On-task includes sitting in his or her chair with his or her head off of the desk and keeping his or her eyes open, along with any of the following behaviors:
        1. Speaking to teachers or JCOs;
        2. Looking towards the teacher or juvenile correctional officer when speaking or giving instructions;
        3. Sitting in his or her chair and looking toward the computer monitor when completing computer assignments;
        4. Looking toward the paper and using a writing utensil to write answers to the questions on the paper when completing written assignments;
        5. Sitting in a chair and looking toward the book or paper when completing reading assignments;
        6. Turning in an assignment, writing on the whiteboard, sharpening a pencil, or picking up or putting away a book or computer at the time of observation.
    ii. Off-task includes the following behaviors:
        1. Talking to other classmates;
        2. Using the drinking fountain or restroom during class time instead of during breaks;
        3. Leaving his or her seat for reasons other than turning in an assignment, writing on the whiteboard, or speaking to a teacher or JCO;
        4. Serving a staff-instructed or voluntary cooldown;
        5. Yelling, fighting, or throwing objects;
        6. Closing eyes for more than 2-s;

7. Laying his or her head down on the desk.

- The primary researcher earns 2 points if he orally reviews every item on the list.
- The primary researcher earns 1 point if he orally reviews more than 50% but less that 100% of the items on the list.
- The primary researcher earns 0 points if he does not present the list of definitions or if he orally reviews 50% or less of the list of definitions.

4. **Provide the skill steps necessary for completing the token procedure**: The token procedure skill steps include the following:
    a. Within the specified time period, the JCO delivers one token to the designated detention day school student participants who are on-task and in class (i.e., not on a cooldown or removed from class).
    b. The JCO refrains from delivering a token to detention day school student participants who are off-task and/or on a cooldown or removed from class at the time of observation.
    c. The JCO allows detention day school student participants to purchase backup reinforcers with earned tokens at the designated token exchange times (i.e., 10:30 am, 12:30 pm, 2:30 pm).
    d. The JCO correctly exchanges tokens for back-up reinforcers.
    e. The JCO refrains from delivering attention to detention day school student participants who are off-task and/or on a cooldown or removed from class at the time of observation.
        i. In the event that a detention day school student who is off-task tries to gain the attention of the JCO participant, the JCO participant will respond with the statement "I will be with you in a moment." The JCO participant will then wait at least 1 min before providing attention to that detention day school participant.
    f. The JCO engages in appropriate social behaviors (i.e., faces the detention day school student participant, makes eye contact, uses a pleasant facial expression, makes a positive gesture) when interacting with the detention day school student participant.
    g. The JCO refrains from making negative comments (e.g., sarcastic positive statements, use of profanity, name calling) to the detention day school student participant.

    - The primary researcher earns 2 points if he states all the above token procedure skill steps completely and in the order listed.
    - The primary researcher earns 1 point if he states all the above token procedure skill steps but in the incorrect order; or if he states at more than 50% or less than 100% of the token procedure steps.
    - The primary researcher earns 0 points if he states 50% or less of the token procedure steps.

5. **Verbal rehearsal**: The primary researcher will require the JCO participant to verbally recite all token procedure skill steps in the correct order. The JCO participant may refer to a list of the token procedure skill steps while he or she is committing the token procedure skill steps to memory. The primary researcher will not conclude verbal rehearsal until the JCO participant can verbally recite all token procedure skill steps, in the correct order, from memory.

- The primary researcher earns 2 points if he follows the above procedure exactly.
- The primary researcher earns 1 point if he initiates verbal rehearsal but moves to the modeling portion of the BST training before the JCO participant can verbally recite all the token procedure skill steps, in the correct order, from memory.
- The primary researcher earns 0 points if he omits verbal rehearsal.

6. **Model the token procedure skill steps**: The primary researcher will model each token procedure skill step using two research assistants. The primary researcher will play the role of the juvenile correctional officer, one research assistant will play the role of a day school student participant on-task, and the remaining research assistant will play the role of a day school student participant off-task. The primary researcher will first model the token procedure while leaving out the token procedure skill steps:
    - make eye contact with the designated detention day school student participant during the specified time period,
    - use a pleasant or happy voice tone with the designated detention day school student participants during the specified time period,
    - refrain from delivering a *token* to youth who are off-task and/or on a cooldown,
    - refrain from delivering *attention* to youth who are off-task and/or on a cooldown or removed from class at the time of observation.

    After the first modeling session, the primary researcher will ask the JCO to identify the skill steps the primary researcher performed correctly and those he omitted. The primary researcher will then model the token procedure again, performing each token skill step correctly.

    - The primary researcher will earn two points if he models the token procedure skill steps exactly as stated above.
    - The primary researcher will earn one point if he models the token procedure skill steps but not as stated above.
    - The primary researcher will earn zero points if he does not model the token procedure skill steps.
7. **Behavioral rehearsal (role-play)**: The researcher will now ask the JCO participant to role play the token skill steps with the two research assistants who will play the role of detention day school student participants.
    - The primary researcher will earn two points if he requires the JCO participant to role play the DRA skill steps with the two research assistants playing the role of detention day school student participants.
    - The primary researcher will earn zero points if he does not require the JCO participant to role play the DRA skill steps with the two research assistants playing the role of detention day school student participants.

8. **Behavioral feedback**: At the conclusion of the JCO participants role play of the DRA skill steps, the primary researcher will give skill step specific praise for the skill steps the JCO performed well and provide corrective feedback for skill steps the JCO omitted or could show improvement.

- The primary researcher will earn two points if he gives DRA skill step specific praise to the JCO participant for skill steps the JCO performed well and corrective feedback for the DRA skill steps the JCO omitted or could show improvement.
- The primary researcher will earn one point if he gives general (not skill specific) praise, gives skill specific praise but no corrective feedback when necessary, or gives corrective feedback but no skill specific praise.
- The primary researcher will earn zero points if he does not give any behavioral feedback.

9. **Criterion Performance**: The primary researcher will require the JCO to continue to role play all DRA skill steps until the JCO is able to perform all token procedure skill steps 100% correctly for three consecutive attempts. The primary researcher will provide corrective feedback following role play attempts that are less that 100% correct.
    - The primary researcher will earn two points if he requires the JCO to continue to role play all token procedure skill steps until the JCO can perform all token procedure skills steps 100% correctly for three consecutive attempts.
    - The primary researcher will earn one point if he requires the JCO to re-practice all token procedure skill steps at least once following the delivery of corrective feedback, but allows the JCO to end role playing before he or she performs all token procedure skill steps 100% correctly;

      or

      the JCO correctly performs all token procedure steps 100% correctly and the primary researcher does not require the JCO to perform the token procedure 100% correctly for three consecutive attempts.
    - The primary researcher will earn zero points if he does not require the JCO to re-practice all token procedure skill steps following the delivery of corrective feedback.

10. **Return to step 6 if the JCO is unable to perform the token procedure skill steps with 100% integrity by the third role play attempt**: At the conclusion of the third role play attempt if the JCO has not performed all token procedure steps 100% correctly at least once, the primary researcher will repeat steps 6-10.
    - The primary researcher will earn two points if he repeats steps 6-10 following the JCO's third role-play attempt in which he or she did not perform all token procedure skill steps correctly at least once.
    - The primary researcher will earn one point if he repeats step 6-10 following the JCO's fourth (or more) role-play attempt in which he or she did not perform all token procedure skill steps correctly at least once.
    - The primary researcher will earn zero points if the JCO does not perform all token procedure skill steps correctly at least once following three or more attempts and the primary researcher does not repeat steps 6-10.

Appendix N

Observer's Initials: Date: Session #

Primary Reliability (Circle One) Time:

O=On-Task

X=Off-Task

5-s Intervals										
1										
2										
3										
4										
5										
6										
7										
8										
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33										
34										

Comments

Observer's Initials: Date: Session #

Primary Reliability (Circle One) Time:

O=On-Task

X=Off-Task

5-s Intervals										
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55 **(10)**										
56										
57										
58										
59										
60										
61 **(9)**										
62										
63										
64										
65										
66										
67										
68						**8**				

Comments

Observer's Initials: Date: Session #

Primary Reliability (Circle One) Time:

O=On-Task

X=Off-Task

5-s Intervals										
69										
70										
71										
72										
73										
74										
75										
76										
77										
78		**7**								
79										
80										
81										
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85										
86										
87										
88										
89										
90										
91 **(6)**										
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98										
99										
100										
101										
102										

Comments

Observer's Initials: Date: Session #

Primary Reliability (Circle One) Time:

O=On-Task

X=Off-Task

5-s Intervals										
103										
104										
105										
106										
107										
108										
109 **(5)**										
110										
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112										
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133										
134										
135										
136 **(4)**										

Comments

Appendix O

John's Token Sheet
November 8, 2018

Morning (8:30-10:30)

Token 1	Token 2	Token 3	Token 4	Token 5

Late Morning (10:30-12:30)

Token 1	Token 2	Token 3	Token 4	Token 5

Afternoon (12:30-2:30)

Token 1	Token 2	Token 3	Token 4	Token 5

Appendix P

Reward Preference Survey

Name:

Date:

Please rank the following candies from most preferred to least preferred (number 1 being your highest preferred and number 10 being your least preferred).

- Skittles
- Starburst
- Tootsie Rolls
- Tootsie Pops
- Nerds
- Milky Way
- Twix
- Three Musketeers
- Snickers
- Milk Way Dark

1._____ 2._____

3._____ 4._____

5._____ 6._____

7._____ 8._____

9._____ 10._____

Appendix Q

Juvenile Correctional Officer Satisfaction Form

Name of JCO:
Date:

Please rate the following:

How **satisfied** are you with the Day School students' on-task behavior during the school day?

1----------2----------3----------4----------5----------6----------7
Very Dissatisfied — Neutral — Very Satisfied

How **satisfied** are you with the quantity of schoolwork Day School students complete each week?

1----------2----------3----------4----------5----------6----------7
Very Dissatisfied — Neutral — Very Satisfied

How **acceptable** is the frequency that Day School students must stay after school due to school work?

1----------2----------3----------4----------5----------6----------7
Very Unacceptable — Neutral — Very Acceptable

How **acceptable** is the frequency that Day School students must stay after school due to behavioral issues?

1----------2----------3----------4----------5----------6----------7
Very Unacceptable — Neutral — Very Acceptable

How **acceptable** are the quantity of voluntary cooldowns taken by Day School students each day?

1----------2----------3----------4----------5----------6----------7
Very Unacceptable — Neutral — Very Acceptable

How **acceptable** is the amount of staff-instructed cooldowns issued to Day School students each day?

1----------2----------3----------4----------5----------6----------7

Very Unacceptable — Neutral — Very Acceptable

How **satisfied** are you with the current procedures in the Day School to manage student behavior?

1----------2----------3----------4----------5----------6----------7

Not Satisfied — Neutral — Very Satisfied

How **effective** do you think the current procedures in the Day School are in helping students behave appropriately?

1----------2----------3----------4----------5----------6----------7

Very Ineffective — Neutral — Very Effective

Additional Comments:

Appendix R

Teacher Satisfaction Form

Name of Teacher:
Date:

Please rate the following:

How **satisfied** are you with the Day School students' on-task behavior during the school day?

1----------2----------3----------4----------5----------6----------7
Very Dissatisfied — Neutral — Very Satisfied

How **satisfied** are you with the quantity of schoolwork Day School students complete each week?

1----------2----------3----------4----------5----------6----------7
Very Dissatisfied — Neutral — Very Satisfied

How **satisfied** are you with the quantity of voluntary cooldowns taken by Day School students each day?

1----------2----------3----------4----------5----------6----------7
Very Dissatisfied — Neutral — Very Satisfied

How **acceptable** is the quantity of voluntary cooldowns taken by Day School students each day?

1----------2----------3----------4----------5----------6----------7
Very Unacceptable — Neutral — Very Acceptable

How **acceptable** is the number of staff-instructed cooldowns Day School students receive each day?

1----------2----------3----------4----------5----------6----------7
Very Unacceptable — Neutral — Very Acceptable

How **satisfied** are you with the number of course credits Day School students are recovering?

1----------2----------3----------4----------5----------6----------7
Very Dissatisfied — Neutral — Very Satisfied

How **satisfied** are you with the Day School students' daily progress toward weekly goals?

1----------2----------3----------4----------5----------6----------7
Very Dissatisfied — Neutral — Very Satisfied

How **acceptable** is the overall quantity of disruptive behavior displayed by Day School students?

1----------2----------3----------4----------5----------6----------7
Very Unacceptable — Neutral — Very Acceptable

Additional Comments:

_____
_____
_____
_____
_____
_____
_____
_____

Appendix S

Day School Student Satisfaction Form

Name of student:
Date:

Please rate the following:

How **satisfied** are you with your ability to be on-task during the school day?

1----------2----------3----------4----------5----------6----------7
Very Dissatisfied — Neutral — Very Satisfied

How **satisfied** are you with the quantity of schoolwork you complete each week?

1----------2----------3----------4----------5----------6----------7
Very Dissatisfied — Neutral — Very Satisfied

How **often** must you stay after school due to school work?

1----------2----------3----------4----------5----------6----------7
Very Often — Neutral — Not Often

How **often** must you stay after school due to behavioral issues?

1----------2----------3----------4----------5----------6----------7
Very Often — Neutral — Not Often

How **often do you take** voluntary cooldowns each day?

1----------2----------3----------4----------5----------6----------7
Very Often — Neutral — Not Often

How **often do you receive** staff instructed cooldowns each day?

1----------2----------3----------4----------5----------6----------7
Very Often — Neutral — Not Often

How s**atisfied** are you with the current procedures in the Day School to manage student behavior?

1----------2----------3----------4----------5----------6----------7

Not Satisfied — Neutral — Very Satisfied

How **effective** do you think the current procedures in the Day School are in helping students behave appropriately?

1----------2----------3----------4----------5----------6----------7

Very Ineffective — Neutral — Very Effective

Additional Comments:

_____
_____
_____
_____
_____
_____
_____
_____