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Taking the Response Cost Out of the Good Behavior Game

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Running Head: CLASSROOM BEHAVIOR MANAGEMENT

Taking the Response Cost Out of the Good Behavior Game

An Ed.S. Field Project

Presented to the

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and the

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Abstract

The classroom behaviors of remaining seated and seeking permission before speaking were shaped with the use of the original and a revision of the Good Behavior Game. After baseline rates were obtained, the class was divided into two teams. During each three min interval of the revised game, a point was awarded for the non-occurrence of the target behaviors. The original game utilized response cost procedures involving negative points when undesired behaviors occurred. When a team reached the criterion, points were exchanged for special privileges and rewards. The experiment utilized a multielement reversal design which included the classroom playing the original game and then the revision for 10 day time periods. The original response cost protocol appeared less effective than the revision. However, both were effective in lowering the rates of the targeted behaviors when compared to the baseline condition.

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Taking the Response Cost Out of the

Good Behavior Game

Classroom behavior management has become a priority for many regular and special education teachers. Addressing classroom behavior problems has become an important component of contemporary school psychology practice (Cooper, Heron, & Heward, 1987). Much research has been completed on various classroom behavior management programs (Cooper et al., 1987). Many of these programs have been tailored to address specific student needs (Ellet, 1993). Because teachers spend so much time dealing with behavior problems, it has become vitally important to develop and identify effective classroom behavior management techniques.

Typically, classroom teachers receive little formal training in classroom behavior management. Moreover, in a recent survey, half of teachers believe that they spend too much time dealing with disruptive behaviors in the classroom. (Wheldall, 1991). A fundamental principle of operant conditioning states that a behavior which is followed by a reinforcing event is likely to occur again. The principle of reinforcement certainly applies when teachers are attempting to reduce the number of undesirable behaviors and increase the number of acceptable behaviors.

Yet many teachers find it difficult to apply reinforcement procedures in the classroom. A teacher's typical response to inappropriate behavior tends to be negative but attentive, while a teacher's usual response to desirable behavior is either neutral or non-existent (Wheldall, 1991). Paradoxically, teachers often focus on behaviors which are disrupting the educational process and provide negative attention to those students when it would be more effective to attend to appropriate responses (Skinner, 1984). If appropriate behavior goes unnoticed while disruptions receive attention, it can be

expected that the reinforced undesirable responses will increase (Hergenhahn & Olson, 1993).

Group behavior contingency programs consist of three types: independent, interdependent, and dependent (Salend, 1987). Independent and interdependent involve rewarding the entire group based on their performance as a whole; independent when the targeted child meets the criterion; and interdependent when the entire group achieves the expected behavioral levels. A dependent system is used when one child's behavior is reinforced by the other students (Salend, 1987). Dependent systems are most closely related to teaching effective social skills. Examples of interdependent systems using reinforcers which are contingent on the group's behavior include response cost, the good behavior game, and possibly the time-out ribbon. An example of a dependent system is the hero method in which one student earns a reward for all members of the group (Salend, 1987).

Classroom behavior managers have tried many unique and creative ideas to maintain a classroom learning environment. Programs developed include reciprocal peer tutoring and group contingency programs (Fantuzzo, Polite, & Grayson, 1990). Many behavior management strategies have been found to be effective (Fantuzzo & Rohrbeck, 1992). Verbal, non-verbal, and other techniques have also been examined (Grubaugh, 1989). Verbal behavior management techniques always use language to reinforce desired behaviors. Non-verbal techniques make use of body language and gestures. A technique known as mastery learning has been used to improve reading achievement and decrease depressive behaviors (Dolan, Kellam, Brown, Werthamer-Larsson, Rebok, Mayer, Laudoff, Turkkan, Ford, & Wheeler, 1993). Mastery learning is a teaching strategy which uses repetition and clearly defined learning objectives. Another effective group management strategy requires students to rate their team's behavior and agree with the

teacher's appraisal in order to receive the reward (Salend, Whittaker, and Reeder, 1992). Often self-monitoring techniques which are tied to interdependent reward contingencies have been effective in the classroom (Fantuzzo & Rohrbeck, 1992).

Teachers often have little time for the individual treatment of student behavioral difficulties. Teachers can best utilize their time by using procedures which are applicable to all students in the classroom. Indeed, group and individual rewards have been shown to be equally effective in reducing disruptive classroom behavior (Grandy, Madsen, & DeMesseman, 1973). Group contingency programs have not always been rated favorably by students; nevertheless, they have been shown to be effective when students' input is part of the program (Turco & Elliott, 1990). Teachers themselves have been found to prefer interventions which involve the entire class and require little extra time (Ellet,1993).

There are many subtle advantages to the use of group reinforcement programs for both students and school staff. For example, they increase cooperative behavior between students, create group cohesiveness, teach a sense of responsibility, demand less teacher time, and are flexible in their application (Williamson, Williamson, Watkins, & Hughes, 1992). Teachers are able to use their limited time to maintain better classroom behavior, as well as help their students learn valuable life skills.

The Good Behavior Game possesses many of the advantages of group procedures. It is a classroom behavior management strategy which involves dividing the students into two teams who compete against each other by exhibiting the fewest number of unacceptable behaviors. Each unacceptable behavior is recorded as a point to the team whose member committed the infraction. The winning team has the fewest points at the end of the game. Both teams win if their scores exceed the criterion level (Barrish, Saunders, & Wolf, 1969). The Good Behavior Game joins other strategies for managing classroom behavior that have been found to reduce disruptive behaviors (Harris &

Sherman, 1973; Skinner, 1984). Negative attention procedures involve teachers correcting students when they misbehave and engage in disruptive behaviors. However, the Good Behavior Game reduced significantly more inappropriate behaviors and was preferred (Warner, Miller, & Cohen, 1977).

While participating in the Good Behavior Game, emotionally disturbed adolescents have modified behaviors such as inappropriate noises, touching, negative verbalizations, cursing, and drumming (Salend, Reynolds,& Coyle, 1989). Success with the Game has been reported in a non-American culture like Sudan (Saigh & Umar, 1983). It has also been successfully modified and used in quasi-classroom settings such as the library (Fishbein & Wasik, 1981). Modifications of the Good Behavior Game have included incorporating a token system which awards merits for behaviors such as assignment completion. Merits could be traded for removal of previously acquired points (Darveaux, 1984). The Game has also been successful in reducing both aggressive and shy behaviors (Dolan et al., 1993).

The present Ed. S. project sought to add to the growing literature on the Good Behavior Game and classroom behavior management. The current study compared the effectiveness of a modified Good Behavior Game that used compliance with the classroom rules for the awarding of positive points with the original response cost procedure. The goal of the revised Good Behavior Game was to reduce the number of disruptive behaviors in the classroom thereby increasing the desired behaviors following the principle of positive reinforcement. It was expected that both games would be effective behavior management techniques. Additionally, it was believed that the revision of the Game would be more effective because it focuses on appropriate behaviors, rather than administering a response cost for behavioral disruptions.

Method

<u>Participants</u>

A classroom of 21 second grade students was recruited to participate in this study. The classroom was selected for intervention because of excessive disruptive behaviors as determined by the principal and teacher. The classroom was from an urban area of a large Midwestern city.

<u>Materials</u>

A three min egg timer with colored sand was used by the teacher to time 3 min intervals in the revised game. The classroom rules were posted in the front of the class. For both games a poster was made which consisted of 22-in by 28-in white poster board with large, black, printed lettering. The rules read: 1) stay in your seat and 2) raise your hand before speaking. The poster included a happy face to denote that positive points were being awarded during the revised game and an unhappy face during the original procedure. The face was changed by turning it around and securing it with a paper clip. Teams were chosen with the use of a coffee can and red and blue poker chips.

<u>Procedure</u>

Each game was played for ten days on a rotating basis following a multielement design.

For both games, the teacher made a brief introduction of the rules to the class. On consecutive game sessions, the teacher announced that it was time to play the good behavior game. During this instructional period, the teacher explained to the students that they would be expected to follow the rules: raise your hand before speaking and stay in your seat. Also the teacher announced any change in the game.

The dependent variable tallied by the experimenter was the frequency of targeted behaviors which occurred during the 45 min game period. Frequencies were recorded by

30 sec intervals. The game was played each morning during reading and math instruction. The teacher marked all points on the chalkboard under the headings red team and blue team.

The teams. The classroom was divided into two approximately equal teams. The teams were formed randomly and changed every five days. Teams were determined by each child selecting a red or blue chip from a coffee can. The color of the chip determined which team the child was on.

Rewards. Rewards included items and activities which were decided by the students to capitalize on their incentive value. The reinforcers included stickers, erasers, pencils, and games. Rewards were given on a daily basis based on the number of points obtained.

Definitions of target behaviors. Two behaviors were targeted during the experiment. The behaviors were remaining seated and seeking permission before speaking. Remaining seated violations were defined as a student breaking contact with their desk chair at anytime without first raising their hand, asking permission of the teacher and being allowed to get up. Violations of the speaking rule were counted when any vocalizations or noises occur without students raising their hands and being granted permission to speak.

Observation procedures and interobserver reliability. Observers sat to the side and back of the classroom and performed observations that were recorded on forms with 30 sec intervals. If an undesired target behavior occurred during the interval a square was marked. If these two behaviors occurred at any time during the 30 sec interval a single notation was made. The code included OS for out of seat without permission behavior and TO for talking without permission. Inter-observer reliability was analyzed on the fifth day of each phase of the study by having a second observer present in the classroom. The

second rater's observations occurred simultaneously and independently. The level of agreement between the two observers was calculated using the formula [agreements / (agreements + disagreements)] x 100. Agreement and disagreement tallies occurred for each interval and behavior. The agreement calculations served to demonstrate reliability in the measure of the dependent variables.

The Original Good Behavior Game

The response cost nature of the original game is obvious. Violations of either of the rules resulted in the team whose member committed the infraction receiving a point. During the Original Game, the winning team was the group with the fewest points. Also if both teams earned less than five points, everyone won (Barrish et. al., 1969).

The Revised Good Behavior Game

The Revised Game was played using the same procedures as described above except for the awarding of points. In the revised procedure, the teams were given points when they did not engage in the targeted behaviors.

The teams received reward points following each 3 min interval in which they had complied with the classroom rules. At the end of the Game, the team with the most points won. Also, if both teams earned eight or more points then, everyone won.

Once points were awarded they could not be taken away from a team. Also during the game, the behaviors of talking out and getting out of one's seat were ignored except for not awarding points to the team whose members violate the rules. In such a manner, all negative attention was eliminated from the behavior management situation.

Baseline. After an initial two week baseline period, a multielement reversal experimental design was used to assess the effectiveness of the interventions in the classroom. The experimenter collected data during 10, 45 min observation periods for the baseline. Then the interventions began for a period of 45 min each day for twelve weeks.

Initially the original Good Behavior Game was played, then following a ten day time period the revision was introduced. Each game was played for three, ten day periods.

Results

The independent variable was which game was played. The dependent variable consisted of two classroom behaviors involving talking and out-of-seat behavior. Interrater reliability was measured on six occasions during the intervention phase of the study. For out-of-seat behaviors, the percent agreement ranged from 94% to 100%, with a mean of approximately 97%. For talking behaviors, the percent agreement was approximately 93%, with a range from 87% to 97%. The overall percent agreement between the two raters was 89% and ranged from 86% to 98%. The interrater reliability were sufficient to warrant further examination of the dependent variables.

Figure 1 presents the percent occurrence of talking and out-of-seat behavior for the original good behavior game. A dramatic decline in maladaptive behaviors occurred after the intervention was initiated. The number of intervals in which talking occurred was reduced by 63.3% and out-of-seat behaviors by 68.8% when compared to the baseline condition. Specifically, during the intervention out of seat and talking behaviors occurred in only 16.6% and 26.6% of the intervals, respectively. It is apparent that the maladaptive classroom behaviors decreased during the original procedure thereby replicating the efficacy of the good behavior game in controlling classroom behavior (Barrish et. al., 1969).

Figure 2 presents the percent occurrence of talking and out-of-seat during the revised good behavior game. Like the Original Game, the revised game was effective in controlling students' behaviors. Overall, the number of intervals in which talking occurred was reduced by 69.7% and out-of-seat behaviors declined by 72.5%. On the

average, out of seat behaviors occurred in 12.9% of the intervals, whereas talking occurred in 20.2% of the intervals.

Figure 3 presents the percent occurrence of talking and out-of-seat behavior for both games. A visual inspection of Figure 3 reveals frequent occurrences of both maladaptive behaviors during the baseline condition. Talking and out-of-seat behavior dramatically decreased when the interventions were initiated. During the initial baseline phase, students engaged in out of seat behavior in 85.4% and talking in 89.9% of the 30 sec intervals. In contrast, the intervention phase of the study yielded means of 14.8% and 23.4% out-of-seat and talking behavior; respectively, for each 30 sec interval. Such a significant drop in maladaptive behaviors suggest that both interventions were effective in reducing their frequency. In fact, talking was reduced by 66.5% and out-of-seat behavior declined 70.4% from the baseline condition.

Besides demonstrating the efficacy of the original and revised good behavior game in controlling classroom behavior, Figure 3 allows for a visual comparison of both games. In the original game, on the average disruptive behaviors occurred in 21.6% of the 30 sec intervals, while in the revised game 16.5% of intervals on the average included the targeted behaviors. Hence, the inspection indicates that in the three phases of the revised good behavior game talking and out-of-seat behaviors occurred in 3.7% and 6.4% fewer 30 sec intervals, respectively, than the original game. Considering both dependent variables together, the revised game was more effective in controlling classroom behaviors since the average number of intervals including disruptive behaviors was lower by 6.1% when compared to the original.

Figure 4 illustrates the means for each behavior during all phases of the experiment. It is included because it most clearly shows the downward trend in maladaptive behaviors across the three phases for each game.

Discussion

The original good behavior game and the revision were both successful in reducing the amount of talking and out-of-seat behavior in the classroom. They provided students with feedback about their behavior and allowed for modifications of their actions. Students were motivated to change their behavior because of incentives that were in place to reward desired classroom behaviors. The consistent and predictable structure of the intervention provided students with a framework in which to improve their behavior and be rewarded.

The original game resulted in a decrease in disruptive behaviors. It focused on misbehaviors and provided students ongoing feedback about undesirable behaviors in the classroom. The use of a response cost procedures in a dependent group behavior contingency program utilized feedback from other students about their misbehavior (Salend, 1987). The problem with the response cost procedure is that it does not specify appropriate behaviors. Hergenhahn and Olson (1993) have remarked on the importance of teaching students what behaviors are expected, in addition to correcting those that are undesired.

The revised game also showed a decrease in disruptive behavior. It focused on desired classroom behaviors and used the principle of reinforcement and reward training. The revised procedure provided students with feedback about what behaviors were desired in the classroom, while ignoring undesired actions. Skinner (1984) found that teachers often unintentionally provide attention to disruptions in the classroom while ignoring desired behaviors. This negative attention then reinforced the disruptions. Additionally, he reported that a more productive procedure to reduce maladaptive behaviors should focus on positive attention and reinforcing desired behaviors (Skinner, 1984).

The revision of the Good Behavior Game relied directly on the principle of positive reinforcement. Hence, the revised game was slightly more effective at controlling maladaptive behaviors in the classroom by providing reinforcement following appropriate classroom behavior than the response cost procedure of the Original Game. Also, by ignoring undesired behaviors the focus and reinforcing value is placed entirely on the appropriate behaviors. Desired behaviors begin to occur more frequently because reinforced behaviors are more likely to occur again, following the well-documented tenet of instrumental learning.

The revised game created a rewarding atmosphere in the classroom. Because the students were reinforced for engaging in appropriate behaviors, their self-esteem about their school behavior may have been increased. Students also improved their cooperation skills by working together on teams. These procedures also teach students a sense of responsibility to the group and are convenient for teachers to use (Williamson et al. 1992). This study showed that it was slightly more effective to provide a positive response for prosocial behaviors than to administer negative admonition following maladaptive behaviors.

The revised Good Behavior Game adds to the growing literature on classroom behavior management. Much time is spent by teachers in controlling classroom behavior; many believe too much time (Wheldall, 1991). The games provide structure in the classroom that allows teachers to spend more time teaching and less time dealing with behavior. As classrooms continue to become more and more disruptive and teachers are spending increasing amounts of instructional time on discipline a growing need for behavior management interventions becomes apparent (Wheldall, 1991). It is becoming essential for teachers to be experts in the field of behavior management for individual students and entire classrooms (Ellet, 1993). By preparing teachers to address these

discipline concerns in teacher training programs, they will have more time to teach and work with students rather than be disrupted by undesired behaviors.

This research provides teachers with an additional tool they can effectively implement in their classrooms to address maladaptive behaviors. The more resources teachers have available to them, the more options they will have available to help reduce disruptive classroom behaviors. These techniques such as the Good Behavior Game have been shown to be effective in the regular education classrooms as well as special education programs. Continued research and development of new ideas for classroom behavior management, along with an additional emphasis of these skills in teacher training programs, will ensure that students are optimizing their educational experiences.

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Author Note

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Figure Captions

Figure 1. Percentage of intervals in which talking and out of seat behavior occurred during the Revised Game

Figure 2. Percentage of intervals in which talking and out of seat behavior occurred during the Original Game

Figure 3. Percentage of intervals in which talking and out of seat behavior occurred during the Original and the Revised Games

Figure 4. Means of intervals in which talking and out of seat behavior occurred during the Original and Revised Games

Phases of Experiment

% of Occurance

Phases of Experiment

% of Occurance

Out of Seat--B   Talking Out--B   Out of Seat--O
Out of Seat--R   Talking Out--O   Talking Out --R