The Effect of Behavior Modification Programs
on the Behaviors of High School Students

by

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Abstract

The purpose of the study was to determine whether behavior modification programs would affect the behaviors of high school students. The null hypothesis was supported, indicating that the use of the behavior modification program in this study did not impact the behaviors of the students in the sample. The behavior modification program used in this study was based off of the positive behavior supports model, using a reward system. The study was organized in a quasiexperimental design and used convenience sampling. The sample included 24 students in a standard American Government course at a middle class, Baltimore area, suburban high school. The treatment took the form of a positive behavior rewards system. Treatment was administered to the subjects over a three-week period. Data was collected three times during the treatment using a qualitative data collection tool. Data was then analyzed using a chi square statistic. The results of the research suggest that further research should be conducted in varying demographic settings to evaluate the effectiveness of positive behavior rewards system
CHAPTER I

INTRODUCTION

Overview

In the field of education today, there is a commonly accepted relationship between student behavior and learning. In an effort to improve classroom behavior and ultimately improve the retention of content, schools nationwide implement a variety of behavior modification programs to make a permanent positive impact on student behavior. Since the time of B.F. Skinner, operant conditioning, or conditioning based on positive and negative reinforcement, has played a large role in education. Teachers continually struggle with the appropriate balance between positive reinforcement, negative reinforcement, and punishment in their efforts to have a positive impact on student learning.

There is a growing concern among many educational professionals that negative behaviors are increasing in school, and that these behaviors are impacting the learning of students. These negative behaviors can fall into five categories: aggressive behavior, physically disruptive behavior, socially disruptive behavior, authority challenging behavior, and self-disruptive behavior (Berk, 2007). Student behavior can be influenced by a number of factors including socioeconomics, parenting, bullying, and special needs. The problem is pervasive across all socioeconomic and demographic groups; however, research has shown that African Americans are more likely to receive negative consequences than their white peers for similar behaviors (Vincent & Tobin, 2011).
Although there is an undeniable correlation between the presence that a teacher commands in the classroom and students’ content learning, there is much contention over the validity of prescribed, mandated behavior programs. Teachers have always been evaluated based on their ability to produce retention of material in their students. Not until recently have school systems begun to hold teachers accountable for qualitative test results. With many school systems mandating standardized testing as well as behavior modification programs, educational professionals have an increasing concern over the effectiveness of such programs and the reflection that those programs will have on the teacher. As our country continues to become more diverse and school systems trend toward tying teacher evaluations to student test performance, the impact of classroom behavior on student learning is becoming a major focus of many school systems.

Statement of Problem

The purpose of the study was to determine whether behavior modification programs would affect the behaviors of high school students.

Hypothesis

The use of behavior modification programs in high school will have no effect on the behaviors of high school students.

Operational Definitions

Behavior modification programs: Any actions taken which are designed to have an effect on the behaviors of a person or group. In this study, the behavior modification program used was
a positive behavior support. The students were given a unit of token currency to reinforce specific positive behaviors.

_**Behavior:**_ The way in which one acts or conducts oneself. In this study, the behaviors targeted included student/teacher interaction with hand raised, student/teacher interaction involving calling out, student disruptive behavior requiring redirection, and student request for repetition of directions.
CHAPTER II

REVIEW OF THE LITERATURE

This literature review will examine material related to the effects of behavior modification programs on the behaviors of high school students. The first section will focus on the importance and relevance of the topic. Section two will address the characteristics of positive behaviors. Section three will examine the extent of the problem, and, finally, section four will review previously tested strategies for modifying behavior.

Introduction to Basic Concepts

According to Landrum and McDuffie (2008), the fundamental idea behind behavioral theory is that behavior is controlled by positive and negative consequences. These consequences are often administered via behavior modification programs through student/teacher interaction. Three general behavioral operations are traditionally implemented when applying behavioral theory to educational practice. These operations include positive reinforcement, negative reinforcement, and punishment. Reinforcement of any kind is observed when a behavior is made more likely to occur through the actions of an authority figure. When examining the effectiveness of reinforcement, it is important to note that true effects of reinforcement can only be measured if the reinforcer provided by the teacher is consistently contingent on the behavior that is being targeted. For example, if a teacher distributes “school cash” as a reward for beginning the drill at the beginning of the class period, then this reinforcer must occur consistently, at the beginning of every class period, to every student who has met the
requirement of beginning the drill on time. If the teacher deviates from the practice, the reinforcer will lose value.

Positive reinforcement and negative reinforcement are often misunderstood due to preconceptions based on their names. Positive reinforcement merely refers to the action of applying a desired reinforcer to a specific behavior. The outcome of positive reinforcement itself is not always positive in nature. Often, students seek negative attention from authority figures by demonstrating inappropriate behaviors. If a student is consistently late to class and the teacher consistently responds with loud, verbal reprimands, then the teacher may inadvertently be providing the student with the positive reinforcement that the student is seeking, which will make the undesirable behavior more likely to occur.

Negative reinforcement uses the opposite method to adjust behavior. The practice of negative reinforcement requires that something desirable must be taken away in order to adjust behavior. With both positive and negative reinforcement, the teacher must be careful to reinforce only the desired behaviors and to avoid inadvertently reinforcing negative behaviors (Landrum & McDuffie, 2008).

Punishment in education is conducted in two fashions. The lesser used form of punishment is referred to as response cost punishment. This form of punishment is used in conjunction with positive reinforcement. The theory is that when a negative behavior is observed, the teacher will remove a “point” or some other means of positive reinforcement that has been established. This form of punishment is considered to be effective due to the fact that it addresses negative behavior while also giving validity to the positive reinforcement system. The second form of punishment, more widely used by parents and teachers and much more controversial, is aversive punishment. The goal of aversive punishment is to apply physical or
emotional discomfort in an effort to deter negative behaviors. This system is often criticized based on the fact that it does not model the appropriate behavior for the student and could teach the student to avoid the person inflicting the punishment rather than the negative behavior that is being punished, thereby causing a breakdown in the relationship between the teacher and the student. Due to these criticisms, aversive punishment is often frowned upon as a legitimate means of behavior modification in the field of education when compared to positive and negative reinforcement (Landrum & McDuffie (2008).

**Importance and Relevance**

Before applying the behavioral theory methods discussed above, it is important to identify the target behaviors which need to be addressed as well the level of the students in question. High school students are in the adolescent stage of development. Students in this stage of development undergo the construction of identity where they focus on defining what they value as well as choosing a direction for their life (Berk, 2007). During the construction of identity, school-age children go through many emotional changes as they struggle to assert their independence. These emotional changes are often exhibited through the student’s interaction with peers and teachers.

According to Ruttleidge and Petrides (2012), young people often engage in disruptive behaviors as a means to derive control in their changing lives when that control is not adequately provided by teachers or other authority figures. In school, students with disruptive behaviors are often identified as having social/emotional needs. Students exhibiting serious emotional issues sometimes receive special education services in the area of emotional disturbance. School data has shown that students with emotional issues are more likely to engage in disruptive behavior than students without them. Ruttleidge and Petrides define this disruptive behavior as “any
behavior which appears problematic, inappropriate, or disturbing to teachers” (p. 224). Recent studies have shown that one in six students engage in disruptive behavior and that this behavior can disrupt learning and create a climate in which more serious problems can occur. Disruptive behavior in the classroom falls into five categories: aggressive behavior, physically disruptive behavior, socially disruptive behavior, authority challenging behavior, and self disruptive behavior. These behaviors can range from daydreaming to screaming to hitting. Negative behaviors of this type develop during adolescence as a result of poor cognitive and social problem-solving skills (Berk, 2007). Behavior modification techniques based on behavioral theory can be used to address these deficiencies in problem solving skills and produce positive behavior changes.

**Characteristics of Positive Behaviors**

When choosing the appropriate behavioral strategies to reinforce positive behaviors, it is important to define characteristics of positive behaviors and have an understanding of the ideal behavior that is desired. Research suggests that the focus of this effort should be on the reinforcement of positive character traits. Bulach (2002) defines a character trait as “an intrinsic attitude or belief that determines a person’s behavior in relation to other people and in relation to self” (p. 79). Examples of characteristics that would be observable in relation to other people include sportsmanship, generosity, courtesy, and empathy. Internal characteristics could include persistence, motivation, and self respect.

In a study related to special education students, Agran, Blanchard, Wehmeyer, and Hughes (2001) propose that students need to become self-determined learners and employ self regulation or other self-directed learning strategies. In a specific research study, students were taught to provide themselves with a sticker when setting goals for themselves and monitoring
their performance. The stickers could then be traded in for tangible rewards from the teacher (Agran et al., 2001). Students who were part of this study decreased disruptive behaviors and increased academic performance, proving that self regulation is an important component of establishing positive behaviors. Although the research done by Argan et al. involved only students with disabilities, his theories on the importance of student ownership of learning can apply to all learners.

The Extent of the Problem

In the section of this review on importance, disruptive behavior was presented in an organizational structure consisting of five categories: aggressive behavior, physically disruptive behavior, socially disruptive behavior, authority challenging behavior, and self-disruptive behavior (Berk, 2007). In order to develop programs to effectively modify the behaviors of students, teachers must not only understand the behaviors that students engage in, but must also ascertain the motivating factors behind those behaviors. Bulach (2002) suggests that bullying is a major contributing factor to negative behaviors of school-age children. The school shootings at Columbine High School and at a middle school in Paducah County, Kentucky were both instigated by teasing and bullying behaviors. Research suggests that bullying increases in society and school are sometimes attributed to character development that is reinforced by authority figures outside of the school setting. To address this situation, many school systems have instituted character education curriculums to fill the moral vacuum left by a lack of character education at home.

When examining student motivation for engaging in negative behaviors, it is important to take into consideration values and behaviors based on cultural differences. Research has proven that African American students are excluded from school at an increased rate, for less severe
behaviors, than their white peers (Vincent & Tobin, 2011). Vincent and Tobin (2011) cite data from an unnamed school district where 142 schools were studied: while only 12% of White male students were suspended, 26% of African American male students were suspended. Additionally, the violations that resulted in suspension differed between the groups. African American students were generally suspended for less serious issues such as disruption, fighting, or tobacco possession, while White students were suspended for weapon and alcohol possession. Minority students are not the only group which consistently receives higher incidents of discipline. Discipline data nationwide reveals that students with disabilities receive discipline referrals at a similar rate to minority groups. Considering the disparity between data for different ethnic groups, effective behavior modification programs may need to focus on cultural differences as well as on the disparities themselves—why they occur and how to remedy the situation.

Effective Strategies for Behavior Modification

After uncovering the motivation for negative behaviors, educators can begin to make decisions about how to move forward in transforming the negatives to positives. Before selecting or designing a behavior modification program, school systems should have a grasp of the behavior modification methods that have historically proven to be ineffective. In the field of education, punishment is generally accepted to be an ineffective means of changing student behavior, for the reasons laid out in the introduction to this review. Marchant, Christensen, Womack, Conley, and Fisher (2010) identify the zero-tolerance policies used in many school systems as one such punitive measure which does not change behavior and ultimately removes the student from the academic setting, thereby hindering the student’s learning even further.

In research conducted in the United Kingdom, Kavanagh, Oakley, Harden, Trouton, and Powell (2011) critique other methods of behavior modification that they deem ineffective. In the
study conducted by Kavanagh et al., research was done to assess the impact of monetary incentives on health and educational behaviors. The results showed that financial incentives are ineffective in producing increased performance or effort on final exams and other assessments. A similar study which focused on at-risk teenage girls showed that monetary incentives and social-worker devised strategies did not improve their attendance rate.

Conversely, there are several methods of behavior modification that are considered to be acceptable and effective in present day education. Of these methods, positive behavior support, or PBS, is widely used and recognized nationwide. It was originally created as an intervention for use with students with disabilities but has since been adapted for school wide programs. PBS focuses on the ideas of person-centered planning, improving the quality of life, and creating a supportive environment (Marchant et al., 2010).

The PBS system consists of three tiers. Tier one focuses on proactive teaching and establishing a positive classroom environment. Tier two targets the school population that is at risk for developing chronic behavior disruptions. Tier three attends to the smallest population of the school which already has chronic behavior disruptions. The PBS program focuses on establishing clearly defined rules, teaching and rehearsing expected behavior, and providing rewards and recognition, otherwise known as positive reinforcement (Marchant et al., 2010).

Another method of behavior modification that has proven to be effective under certain conditions is the use a character education curriculum. Character education curriculums can be implemented school wide or on a class-by-class basis. Lickona (1998) proposes that character education should be taught naturally through the course content in each individual class. For example, in science, when discussing the biological difference between animals, it would be possible to weave in a discussion of the moral rights and wrongs of animal treatment. Although
character education in the classroom can be a strong factor in changing the mindset of adolescents when it comes to distinguishing right from wrong, it may not be enough alone. Lickona suggests that there are six elements of moral culture that must be present in the school to support positive behavior and moral thinking: moral leadership from the principal, school wide discipline that supports values, a democratic student government to support those values, a moral atmosphere of respect, and elevating the importance of morality by spending school time on moral issues. This model of character education tends to be more time consuming than other behavior modification methods due to its requirement to allocate school time to values education; however, many districts have experienced positive behavior results using character education curriculums.

As with many programs in many different fields, the effectiveness of behavior modification strategies is dependent upon the professional development given to the faculty who must implement those strategies. Marchant et al. (2010) specify that many of the behavior modification strategies that are found to be effective today require a shift in thinking from traditional practices to systematic implementation. School systems require professional development to make the transition to this new mindset. In general, professional development must involve a school team, must be supported by the faculty, and must involve a system of data monitoring. Glickman, Gordon, and Ross-Gordon (2004) suggest that, although nearly all school systems have expanded to the point where teachers have a specific set of responsibilities, many teachers continue to exist in isolation. When planning for professional development, the school must involve the entire faculty in the buy in and implementation of behavior modification strategies to ensure lasting results.
Summary

Classroom behavior is a major factor in the academic success of students in any school. Understanding stages of development and student motivation can be a strong starting point for creating effective behavior intervention strategies; however, educators still struggle with the task of finding effective methods of managing disruptive behavior. Although there are many methods that are considered to be unproductive and many methods that have proven to produce positive behavior change, there still exists controversy over the “most” effective method of transforming negative student behavior into positive behavior.
CHAPTER III

METHODS

Design

This study used a quasieperimental design. This design and sample associated with it were selected for the study as a matter of convenience. The subjects of the study included the entire student population of a single, standard level, ninth grade Government class. This sampling method did not include randomization, and is therefore classified as quasieperimental rather than experimental. The independent variable was the behavior modification program, in this case, the token currency and reward system. The dependent variable was the behaviors of the students in each of the four areas targeted in this study. The study was designed using the time series method with positive behavior treatment administered over a three-week period.

Participants

A midsize high school in the western part of Baltimore County, Maryland served as the study site. The school enrollment is approximately 1800 students. The majority of the students at the school are Caucasian, constituting 59% of the total population. The largest minority is African American at 29%. The school has a relatively low mobility rate, at 7.5%, which allowed for a stable population during the study. The specific class selected for the study was comprised of 24 students in standard American Government. American Government is an academic course required for graduation as well as a subject area tested by the Maryland State High School Assessment tests, which are also required for graduation. Of the 24 students, 13 were African American, two were Asian, and nine were Caucasian. None of the students have Individualized Education Plans or 504 documentation for special education services.
**Instrument**

The students were assessed using a quantitative data collection tool. The tool was not normed, nor was it evaluated for validity and reliability. Data was collected to assess change in the independent variable, student behavior. The subjects were recorded during class via a digital video recorder. The video was then reviewed for data collection. During review, data was tallied in each area of interest. Data was collected in the following areas: student questions without the raising of the hand, total questions asked by students, teacher redirection of student talking during instructional time, and student requests for repetition of directions. See the data collection tool below in figure 1.

Figure 1

*Data Collection Tool*

<table>
<thead>
<tr>
<th>Date: __________</th>
<th>Time: __________</th>
<th>Location: __________</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Observable Behavior</strong></td>
<td><strong>Tally</strong></td>
<td></td>
</tr>
<tr>
<td>Student / Teacher Interaction - Hand Raised</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student / Teacher Interaction - Called Out</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teacher Redirection of Students</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student Requests for Repetition of Directions</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Procedure

The study was conducted over a three-week period after the administration of the pretest. During this three-week period, a treatment was administered using a class token currency. The students were given a unit of the token currency upon successfully meeting certain criteria: raising hand before speaking, repeating directions for peers who were not focused the first time directions were given, and maintaining focus on independent work for a period of five minutes. On the final school day of each week, students were able to spend their token currency on doughnuts or five points of extra credit at the beginning of class. After the three-week treatment period, the posttest was administered to the subjects. The results of the pretest and posttest were compared to determine the effectiveness of the independent variable, positive behavior intervention.

Data was collected at three points during the study. Initially, data was collected when the study began on 2/26/2013, before the positive behavior treatment was administered. Following this, the treatment was administered from 2/26/2013 through the second data collection on 3/8/2013. The treatment continued for the final segment from 3/9/2013 through 3/15/2013, at which point data was collected for the third and final time.
CHAPTER IV

RESULTS

This study examined the effect of a positive behavior intervention system on the behaviors of high school students. In particular, the behaviors of 24 students in standard American Government—an academic course required for graduation as well as a subject area tested by the Maryland State High School Assessment Tests, which are also required for graduation—were examined. The behaviors of interest were: student questions without the raising of the hand, total questions asked by students calling out, teacher redirection of student talking during instructional time, and student requests for repetition of directions.

Data were entered into SPSS and analyzed utilizing the chi square statistic. No statistically significant differences were found. Table 1 shows the data for students interacting with teacher by raising hands. Table 2 shows the data for students interacting with teacher by calling out. Table 3 shows the data for teacher redirection of student talking during instructional time. Finally, Table 4 shows the data for student requests for repetition of directions.

Results in each area support the hypothesis that the behavior modification program used in this study did not significantly impact the behaviors of the students. The null hypothesis is therefore upheld.
Table 1

*Students Interacting with Teacher by Hands Raised*

<table>
<thead>
<tr>
<th>ObsTimePeriod</th>
<th>Student</th>
<th>TeacherHandRaised</th>
<th>40.00</th>
<th>41.00</th>
<th>52.00</th>
<th>Total</th>
</tr>
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<tbody>
<tr>
<td>2/26/2013</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>3/8/2013</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>3/15/2013</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td>3</td>
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</table>

Chi-Square Test

<table>
<thead>
<tr>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>6.000</td>
<td>4</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

Table 2

*Students Interacting with Teacher by Calling Out*

<table>
<thead>
<tr>
<th>ObsTimePeriod</th>
<th>Student</th>
<th>TeacherCalledOut</th>
<th>20.00</th>
<th>23.00</th>
<th>29.00</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2/26/2013</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>3/8/2013</td>
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<td>0</td>
<td>1</td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>3/15/2013</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

Chi-Square Test

<table>
<thead>
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<th>Asymp. Sig. (2-sided)</th>
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</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>6.000</td>
<td>4</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>
Table 3

**Teacher Redirection of Student Talking During Instructional Time**

<table>
<thead>
<tr>
<th>ObsTimePeriod</th>
<th>Teacher Redirection of Students</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2/26/2013</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>3/8/2013</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3/15/2013</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

Chi-Square Test

<table>
<thead>
<tr>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>6.000&lt;sup&gt;a&lt;/sup&gt;</td>
<td>4</td>
</tr>
</tbody>
</table>

Table 4

**Student Requests for Repetition of Directions**

<table>
<thead>
<tr>
<th>ObsTimePeriod</th>
<th>Student Request for Repetition of Directions</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2/26/2013</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3/8/2013</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>3/15/2013</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
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Chi-Square Test

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<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>6.000&lt;sup&gt;a&lt;/sup&gt;</td>
<td>4</td>
</tr>
</tbody>
</table>

N of Valid Cases 3
CHAPTER V
DISCUSSION

The purpose of the study was to determine whether behavior modification programs would affect the behaviors of high school students. The results indicate that the null hypothesis was supported. The behavior modification program implemented for this study did not affect the behaviors of the students in the sample.

Implications

The results of the study reinforce a perception regarding behavior modification that is held by many high school teachers across the country that positive behavior supports are not always effective in the high school environment. It is important not to overgeneralize the results and make the assumption that under no circumstances could a positive behavior support system have the desired impact on student behavior. To the contrary, it is quite possible that a similar system to the one used in this study could produce positive results with a different age group or demographic of students. The fact stands, however, that with the middle class high school sample used in this study, there was no discernible benefit gained from the use of a positive behavior support program.

Even though positive behavior reinforcement programs may not have an impact on the behaviors of high school students, the underlying relationship between student behavior and academic success cannot be denied. Therefore, the results of the study underscore the importance of expanding the repertoire of behavior management techniques available in public education today. Positive behavior reinforcement has been the integral focus of high school behavior modification for the last 100 years. As the cultural values of our society continue to change over time, so must the methods by which we manage and adjust student behaviors. Students in school
continue to have a growing sense of independence and authority over their destiny. As such, schools must cultivate a sense of independence and authority that instills in them the belief that their respect is deserved rather than earned. Positive behavior rewards will have no impact on the behaviors of students who do not have respect for the system delivering those rewards.

**Theoretical Consequences**

If the implications of this study are to be considered seriously, then there would need to be a reallocation of funding to develop effective behavior modification programs. The mission and "blueprint for progress" of many schools would need to be changed to put a focus on changing the cultural view of education to one that supports the development of appropriate behaviors. It is possible that new alternative programs would need to be created in an effort to address the behaviors and meet the needs of at-risk students who do not respond to the conventional positive reward systems used in suburban high school environments today.

**Threats to Validity**

This study contains threats in both internal and external validity. History is the largest threat to internal validity in this study. Since students spent only 1.5 hours of each weekday with the teacher administering the treatment, it is possible that their behaviors could be impacted by events or people outside of the realm of the study. With this in mind, theoretically, the treatment could have had some impact that was not observed due to some unknown event negatively impacting the behaviors of the students and bringing them back to pretreatment levels.

The use of convenience sampling inherently causes an external validity threat in the area of selection treatment interaction. The generalizability of the study is limited by the fact that the students were selected nonrandomly from a specific class, of a specific ability level, in a middle-
to-high class neighborhood. Students varying demographically or by location or socioeconomic status may respond different to the treatment that was administered.

In the area of external validity, experimenter effects may have also impacted the study. The treatment was administered by a classroom teacher during normal instruction over the course of three weeks. Every classroom teacher has specific behaviors and methods of developing a positive learning environment. Therefore, one teacher may not be able to effectively implement the treatment used in this study as well as another.

**Connections to Previous Research**

This study was designed using theory supported by many different experts in the area of educational behavior modification. It used a system related to the Positive Behavior Supports, or PBS model presented by Marchant et al. (2010) and was centered on what Marchant calls tier 1, which focuses on proactive teaching and establishing a positive classroom environment. During the study, clearly defined rules were established, expected behavior was taught, and positive rewards and recognition were applied per the PBS model. Marchant et al. and Glickman et al. (2004) agree on the importance of professional development in the use of the behavior modification techniques that will be applied. The teacher who administered the treatment in this study has had previous professional workshop experience and coursework on developing and implementing PBS systems. Furthermore, the teacher had implemented such systems previously in the alternative education environment. Additionally, the study was conducted without the use of punishment as a behavior modification technique. It is a commonly accepted principle that the use of punishment in the academic environment not only has no positive impact but also results in less academic success due to instructional time lost as a consequence.
Implications for Future Research

Future research could be conducted using a variety of positive behavior rewards systems with varying demographic groups. Schools across America are very diverse based on regional traditions, socioeconomic status, age, and other demographic factors. It is conceivable that a PBS system similar to the one used in this study could be effective with a different sample of students. It is also recommended that research be done in the area of alternative behavior modification techniques including alternative curriculums designed to teach behavior rather than academics. The effectiveness of PBS systems should be evaluated in comparison to other behavior modification programs.

Conclusion

This study was developed using reviewed literature and accepted theories on positive behavior supports. Although the study does suffer from threats to validity as most studies tend to, it does, nonetheless, support a commonly held belief that current practices based on positive behavior theory are ineffective. Perhaps the implications of the study are as simple as this: in order to have the respect of students, America’s public education system must command and demand respect. It is time to switch the focus from rewarding positive behaviors to acknowledging and addressing areas of concern. It is crucial to rebuild the culture of American education and establish clear expectations and a respect for America’s public schools.
References


