

The Effect of Positive Behavior Intervention Support Systems
on
Positive Behaviors Shown in Middle School Students

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Abstract

The purpose of this study was to determine if the use of Positive Behavior Intervention and Supports system (PBIS) would impact the behavior of middle school students. This study used a modified pre-test, post-test design. Subjects (n=43) served as their own controls. Subjects were selected based on convenience as they were in the researcher's class during the data collection period. Dependent variable data was collected over the months of February to April of the 2018-2019 school year. There was a significant difference between the mean grand total of positive (Mean=183.6) and negative (Mean=47.7) behaviors. Implications are discussed including that training on research based classroom management would need to be provided to ensure success, and the need to conduct more research on a larger sample size to assess the effectiveness of the intervention.

CHAPTER I

INTRODUCTION

Overview

This study is designed to examine the impact of Positive Behavior Intervention Support system (PBIS) on the behavior of middle school students. Within this study, the behavior of sixth grade students who participated in PBIS was compared with the behavior of the same sixth grade students before participating in PBIS.

Student misbehavior is a growing concern for both parents and teachers. Teachers are spending meaningful instructional time redirecting and addressing student misbehavior. Additionally, parents of students in classrooms with these disruptions often share their concerns with school administration. The researcher, who has taught in Harford County Public Schools (HCPS) for four years, has witnessed the impact of this excessive disruptive behavior. These behaviors include disrespect of self or others, disrupting classroom instruction, bullying others physically or verbally, destruction of school or peer property, and insubordination. HCPS has a county-wide PBIS initiative which aims to have positive behavioral interventions used in all schools across the county. This study aims to find ways to improve classroom culture through the use of positive behavioral interventions.

Statement of the Problem

The purpose of this study was to determine the relationship between the use of PBIS systems and appropriate classroom behavior as measured by a recording system for positive and negative behaviors.

Hypothesis

There is no significant impact on the behavior of middle school students who are motivated by Positive Behavior Intervention Supports system (PBIS) implemented by a middle school music teacher as measured by a recording system of positive and negative behaviors.

Operational Definitions

The literature in this study encompasses the years 2008-2018 with all references used recorded on the reference pages.

Positive Behavior Intervention and Support system (PBIS) is a reward program that offers various interventions that can be used by educators to encourage positive classroom behaviors. Interventions can include a check in/check out program, mentoring programs, character education, restorative practices, and strong classroom management.

The system for recording positive and negative behaviors is an online behavior tracking system that will be used on the students in the study. It will involve using Class Dojo to track positive and negative behaviors that are exhibited for the duration of the study.

Positive and appropriate behaviors of the participating students will be observed by the researcher throughout the time spent in the researcher's class. These behaviors include raising their hand to ask a question instead of calling out, completing classwork when expected, participating fully in music rehearsals, and having the appropriate materials to participate fully in class. These are the specific positive behaviors that will be observed throughout the study and at the end of the study. Desirable results will be achieved if an increase in these positive behaviors is observed.

Negative and undesirable behaviors will also be observed by the researcher during the time spent in the researcher's class. These behaviors include disrespect of self or others, disrupting

classroom instruction, being unprepared for class, not completing classwork, not participating in music rehearsals, and insubordination. A decrease in negative behaviors at the end of the study would lead to desirable results.

CHAPTER II

REVIEW OF THE LITERATURE

This literature review examines the possible interventions related to improving behavior in a middle school. The first section identifies behavior problems and defines levels of behavioral support according to the tiered systems. It also explores how behavior problems are influenced by environmental factors. The rest of the review examines different interventions that could decrease behavior challenges. The remaining sections discuss the benefits of a check in/check out program, the effectiveness of mentoring programs, using tier two supports, implementing mindfulness and character education and restorative practices. Finally, this literature review will discuss how effective classroom management can improve student behavior.

Behavior

One of the biggest challenges teachers face is students who present challenging behavior. This behavior is often disruptive and interferes with the education of the student who is exhibiting the behavior and the other students in the classroom (Westling, 2010). Behavior challenges are present in many students, but most especially students who are exposed to poverty, social dissonance, and violence often in their lives. A study conducted by Cuervo, Quintana, Martínez, and Amezaga (2018) determined that students who are exposed to parental conflict and violence in their community are more likely to manifest behavior challenges such as bullying at school. A famous paper by Watson in 1913 proposed that behavior is a result of environmental conditioning and adaptations learned through the course of evolution (Aers & Inglis, 2008). Behavioral psychology suggests that by observing, testing hypotheses, and accumulating data, there can be a way to correct and control human behavior for the better.

According to a study by Dircks (2016), a system of merits and demerits were effective in helping to impact positive behavior in students. Positive behavior in that study included decision-making skills, social competence, and pro-social behavior.

Check In/Check Out Program

The Check In/Check Out (CICO) program is used in schools across the country to provide extra support to at risk students. The program's goal is to reduce problem behaviors by connecting the feedback given at school to a home component (Andrews, Houchins, & Varjas, 2017). Students involved in this type of program would check in and out daily with an assigned or chosen mentor. That mentor would be responsible for tracking the student's progress based on set criteria. A study conducted by Feldman (2013) found that students involved in the CICO program had more days with satisfactory behavior than before they were involved in the intervention. Another study by Maynard, Kjellstrand, and Thompson (2014) studied the effects of the CICO program on attendance, behavior, and academics. This study was performed with high school students who were at a high risk for dropping out. It was determined in this case that schools can implement a CICO program and expect to improve outcomes for at-risk students.

Mentoring Program

Mentoring programs are used in schools with similar demographics of students and similar behavior goals as the check in/check out program. Some mentoring styles are cross age mentoring and peer mentoring. Cross age mentoring has been used to help older students with their leadership skills, while also benefitting the younger students they are mentoring. The younger students are able to build their confidence with the help of the older students, which has been shown to positively affect their behavior and academic achievement (Glee, 2015). Students in another mentoring program were instructed on seven habits described in books by Covey.

These habits were reinforced through various methods and positive reinforcements. Results from this study conducted by Ford (2013) showed consistent academic achievement for the students involved in the mentoring program.

Tier Two Supports

Tier two supports are implemented with PBIS for students who need more support to be successful. Studies show that while tier one interventions are successful in transforming the behavior and culture of the general population of the school, there can be limitations in changing the behavior of students who are chronically disruptive. Tier two interventions are generally used on a case by case basis and are more effective as they are designed with the specific student in mind (Aue, 2014). Many students who consistently display problem behavior are doing so in order to avoid instructional activities. For a student who displays escape or avoidance behavior, a tier 2 intervention like Breaks are Better can be effective. A study by Boyd and Anderson (2013) showed a dramatic decrease in problem behavior when the Breaks are Better program was implemented for select students. Schools should invest in practices, like Breaks are Better, that are evidence-based in order to effectively implement tier two interventions and support at-risk students.

Mindfulness/Character Education

Character education and mindfulness practice are two tier 1 interventions that can be implemented school-wide. Creating a classroom environment that is productive is a challenge for all teachers. While teachers can create effective behavior management procedures for their students, it can be more difficult to instill the character and values needed to limit disruptive behavior and help educate the whole child. Implementing character education is a way that teachers can teach skills and strategies to students in order to help them manage their own

behavior in and out of the classroom. While character education programs do not always affect academic achievement, the improvement in school climate and student behavior in general will help students to be more successful academically as they will not be dealing with as many in-class disruptions (Frey, 2013). Mindfulness is another practice that can be implemented in all classrooms to help teach students more effective self-regulated behavior management. A study by Harpin, Rossi, Kim, and Swanson (2016) studied the effectiveness of a ten-week mindfulness program in a 4th grade classroom. The students involved in the intervention program saw an increase in social competency, and were able to use their mindfulness skills in various parts of their life. Students used their skills before tests, when they felt anger, and when they were upset; the teacher in the study reported that she believed the students were able to settle down better, showed more impulse control, paid attention more in class, and could relate to one another better than before the intervention.

Restorative Practices

Restorative practices are derived from the concept of restorative justice, which is “built on the belief that we are all connected through a web of relationships and when a wrongdoing has occurred, the web becomes torn” (Kline, 2016, p. 97). Restorative practices are a preventative approach and a collection of tools that teachers can use to establish positive relationships between teachers and students and from student to student as well. Restorative practices also look to reduce the reliance on suspensions and to eliminate the racial discipline gap. A study completed by Gregory, Clawson, Davis, and Gerewitz (2016) aimed to determine the student experience related to restorative practices. Two questions were asked in the study: one question asked for feedback on student-reported teacher respect and the other asked about discipline referrals. The study concluded that implementation of restorative practices were

beneficial in improving teacher-student relationships and in limiting the number of discipline referrals.

Classroom Management

Creating a positive classroom environment is crucial in supporting student success. Murphy and Van Brunt (2018) recommend a three-pronged approach to help teachers prevent or de-escalate students when they are in crisis in the classroom. Prong one is setting expectations about appropriate behaviors and how to deal with negative feelings in order to create a safe classroom environment. Prong two encourages teachers to have a plan for de-escalation if a student displays destructive or dangerous behavior. Some techniques for de-escalation include patience and calm in the face of chaos, having one-on-one conversations with the student displaying the dangerous behavior, and using techniques that focus on the solution, not the current behavior or problem. Prong three focuses on teamwork. Interventions, especially interventions related to dangerous behavior, should be reported to a behavior intervention team and the school psychologist as possible. While managing dangerous and destructive behavior is important, it is not a large majority of many teachers' daily schedules. Having sound classroom management for the normal, day-to-day behaviors is crucial in ensuring that students are getting their greatest chance of being successful. Gage, Scott, Hirn, and MacSuga-Gage (2018) looked at evidence-based classroom management practices such as active instruction and supervision of students, opportunities for students to respond, and feedback to students. These classroom management practices showed greater student engagement, with significantly fewer disruptions than the classroom with no classroom management practices in place.

Summary

Improving behavior in school is crucial to ensuring student success. A school that focuses on evidence-based practices in classroom management, as well as using tier one and two interventions can help ensure that the school environment is conducive to learning for all students. Using interventions such as the check in/check out program and mentoring programs can also be used to help support students' behavioral success. As education and best practices continue to grow and change, research should continue to evaluate the effectiveness of various strategies to support student success.

CHAPTER III

Methods

The purpose of this study was to examine the effectiveness of the Positive Behavior Intervention and Supports system (PBIS) in decreasing the negative and undesirable behaviors of sixth grade students.

Design

This study utilized a quasi-experimental design to determine the impact of PBIS on positive student behavior. The study used a modified pre-test, post-test design with a group of 43 sixth grade students. The behavioral data collected during the month of February of the 2018-2019 school year acted as a pre-test. The full group of students were then introduced to the PBIS interventions and incentives. The behavioral data collected from March through April of the 2018-2019 school year acted as a post-test. Behavioral data was collected and analyzed to determine the effectiveness of the PBIS interventions and incentives for these students. This group of students was considered a convenience sample due to the researcher's position as a sixth, seventh, and eighth-grade teacher at a public middle school in Harford County. The dependent variables in this study were the behavioral data as measured by a recording system for positive and negative behaviors. The researcher kept track of positive and negative behaviors for each student during the one-hour class period using Class Dojo, an online behavior tracking system. The independent variables were the PBIS treatment and positive reinforcements, such as tangible rewards, positive praise, and non-verbal praise as a means of recognizing positive behaviors.

Participants

The study's convenience sample included one group of sixth grade students with similar characteristics, demographics, academic achievement levels, and socio-economic statuses. The group attended a public middle school in Harford County. The group spent 60 minutes in the researcher's class. The age of students in both groups varied from 11 to 12 years old. Of the group identified, 16 (18%) of students receive special education services, three (3%) are identified as English Language Learners, and five (6%) are identified as being gifted and talented.

The group consisted of 43 male and female students in sixth grade. The class size is 43 students. The school's demographics as reported on the Maryland Report Card are: 37% African American, 37% Caucasian, 12% Two or more races, 9% Hispanic or Latino, and 4% Asian. Of the 43 students included in this study, 19 (44%) are African American, 11 (26%) are Caucasian, seven (16%) are two or more races, five (11%) are Hispanic or Latino, and one (2%) is Asian.

Instrument

The instrument used for this study was a recording system for positive and negative behaviors used by the researcher to track the positive and negative behaviors exhibited by the participants during the time of study. The researcher used Class Dojo to keep track of points for each student in both classes with categories for positive behaviors (participating, being prepared for class, raising hand to speak, being on task during rehearsal) and negative behaviors (not participating, not having appropriate materials for class, talking out of turn, being off task during rehearsal).

Procedure

The study was completed over a three-month period during the 2018-2019 school year. For the first month, data was collected on positive and negative behaviors of sixth grade students before receiving interventions and incentives through PBIS. During the last two months, PBIS interventions and incentives were implemented, and data was collected on positive and negative behaviors.

The PBIS system is a program designed to motivate students' positive behavior and decrease negative behavior. The positive and negative behaviors were tracked through Class Dojo, an online communication app that can be used to track behaviors and communicate with parents and guardians. These points are a way for students to earn physical rewards such as pencils, erasers, and candy. Points may also be used to upgrade the student's avatar on the website. Incentives may also include lunch bunch where students can enjoy their lunch in a more relaxed environment, "sit where you want day" which allows the student to choose their seat for class, or a classwork pass, which allows students to miss an assignment without penalty. In addition to the Class Dojo point system, students received regular verbal and non-verbal feedback from the teacher based on their positive and negative behaviors exhibited in class. The average number of positive and negative points given during the first three months was compared to the average from the last three months to determine the effectiveness of the PBIS system.

CHAPTER IV

RESULTS

The results of the data rejected the null hypothesis that PBIS systems would not have a positive impact upon appropriate classroom behavior as measured by a recording system for positive and negative behaviors. According to the results, the p-value, or sig. (2-tailed) was .000, which indicates extreme significance of the data. Classroom behaviors were monitored from February 2019 until April 2019. Both positive and negative behaviors were recorded. There was a significant difference between the mean grand total of positive behaviors (183.6) and the mean grand total of negative behaviors (47.7).

Data were entered into Excel and all positive behaviors were totaled as were all negative behaviors. The data were gathered on the same students and thus the dependent or paired t test was used for analysis. Note that the dependent and paired are the same test but referred to in the literature in either way. Grand totals for positive and negative behaviors were totaled and are depicted in Table 1. Significance testing is depicted in Table 2.

Table 1

Measures of Central Tendency

	Mean	N	Std. Deviation	Std. Error Mean
Grand Total Positive Behaviors	183.6	43	54.4	8.3
Grand Total Negative Behaviors	47.7	43	73.1	11.1

Table 2

Significance Testing

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Grand Total Positive Behaviors Grand Total Negative Behaviors	135.9	127.0	19.4	96.8	175.0	7.0	42	.000

CHAPTER V

DISCUSSION

The purpose of this study was to examine the impact of Positive Behavior Intervention Support systems (PBIS) on the appropriate classroom behavior of sixth grade students as measured by a recording system for positive and negative behaviors. The null hypothesis stated that there will be no significant impact on appropriate behavior as measured by a recording system for positive and negative behaviors. The results of the experiment rejected the null hypothesis as the mean number of recorded positive behaviors was significantly more than the mean number of recorded negative behaviors.

Threats to Validity

All research studies have threats to external and internal validity. One concern that would affect the internal validity to the study would be that there may have been errors in the recording of the positive and negative data. A student was in charge of entering the data into ClassDojo when the teacher provided the direction to do so. The student could have entered the point to the wrong name, or added points without the teacher's knowledge.

Another factor that influenced the validity of the results was the consistency of the implementation of the interventions. The time frame that this study covered was during state testing, so students often missed the researcher's class or had the class inconsistently. It is possible that the positive behaviors could have showed a larger increase if the students had the researcher's class more consistently.

An additional concern is the consistency across teachers and classrooms. Different teachers vary in their level of tolerance for inappropriate behavior, and some of the behaviors

that would be considered negative in the researcher's class may have been tolerated in other classrooms.

Comparison to Prior Research

The classroom challenges observed in this study are all common challenges that teachers deal with every day. Students who are exposed to poverty, violence, and social dissonance manifest these behaviors on a much larger scale. Classroom management is an extremely important way that teachers can help to mitigate these behaviors. Positive Behavior Interventions and Supports (PBIS) are one effective way to manage behaviors. This study successfully used PBIS techniques to help decrease negative behaviors and increase positive behaviors. Similarly, a study by Boyd and Anderson (2013) showed a dramatic decrease in problem behaviors in students after implementing a targeted program for students. Additionally, evidence-based classroom management practices (such as PBIS) have been successful in decreasing negative behaviors, according to Gage, et al. (2018).

This study differs from the Check In/Check Out study by Andrews, et al. (2017) as this study focused only on giving positive rewards for positive behavior, while the check in/check out program focuses on having a school component and home component. Both studies, however, showed success.

Directions for Future Research

Since conducting this experiment, the researcher has gained a clearer understanding of the different motivators of student behavior and the educator's role in modifying behavior. Educators do not want negative behaviors to continue to occur in their classrooms, but many lack the understanding of what evidence-based practices may work best in their classrooms. The data from the study yielded statistically significant results, and the trends in the data imply that PBIS

systems are an effective means to modify student behavior. Additional research should be conducted to provide validation to these claims.

In the future, studies should be conducted with a larger sample size to increase statistical power. With a larger sample size, a researcher would have a greater likelihood of rejecting the null hypothesis.

In future research, classrooms on academic teams could be assigned to use the PBIS systems or continue with regular classroom management so that the same student behavior could be compared during the same timeframe in different environments. Random assignments to these groups would also increase the external validity of the study.

Summary

This study yielded statistically significant evidence that the implementation of PBIS supports increased positive behaviors and decreased negative behaviors in sixth grade students. Observations and data trends suggest that increasing the use of PBIS in classrooms will help to decrease negative behaviors in students over time. Practical implications include the need to provide appropriate training for all educators implementing the program, as well as to conduct more research to determine the overall effectiveness of the intervention. The investment in positive behavioral interventions will hopefully prove to be an effective and lasting tool to help educators increase positive behaviors and decrease classroom disruptions due to negative behaviors.

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