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Using ClassDojo to promote positive behaviors and decrease negative behaviors in the classroom

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**USING CLASSDOJO TO PROMOTE POSITIVE BEHAVIORS AND DECREASE
UNDESIREDBEHAVIORS IN THE CLASSROOM**

by
Abigail M. Saeger

A Thesis

Submitted to the
Department of Interdisciplinary and Inclusive Education
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In partial fulfillment of the requirement
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Thesis Chair: Sydney Kuder, Ph.D.

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Abstract

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UNDESIRE BEHAVIORS IN THE CLASSROOM
2016-2017
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In this study, ClassDojo, a digital behavior management tool, was used in a classroom of second grade students. The purpose was to determine whether the application in conjunction with weekly goal setting could encourage students to display more positive behaviors and decrease the frequency of undesired behaviors. The participants in this study were 19 second grade students ranging from 7 years in age to 8 years in age, the mean age being 8 years old. Nine students were identified by their previous grade's teacher as low performing in literacy, math, or both, three were diagnosed with attention deficit hyperactivity disorder (ADHD), and one student was diagnosed with oppositional defiance disorder (ODD).

The experimental design of this study was a two phase pre-post group design. During the initial phase, ClassDojo was implemented classwide with all students and in the intervention phase, weekly goal setting was incorporated. Data was gathered and saved directly through the application. At the conclusion of the study, students showed an increase in positive behaviors and in the meantime their undesired behavior was reduced. In addition, students were asked their opinions about the application and their responses show students a positive viewpoint about ClassDojo and its use in the classroom.

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Chapter One

A New Behavior Management Tool: ClassDojo

Behavior management has long been a key component of running a successful and educationally enriching learning environment. Early in the school year, class rules, routines, and procedures should be established in order to help all students follow a structured schedule. Children begin to learn certain character traits and human behaviors that will be expected later in life for their success in society. Behaviors such as taking turns when speaking, respecting the rights and properties of others, being responsible for one's decisions, items, and progress, and meeting deadlines are all imperative to produce a reliable and productive member of the world. Therefore, by establishing rules and class norms that begin to build these traits is just as important as teaching academic material.

But how does one motivate children to begin to make these decisions and tailor their behavior to appropriate scenarios and environments without consistent redirection or instruction? Many educators implement positive reinforcement plans that not only reward children for making the right choice but serve as a source of feedback about what choices are the correct ones and which will be rewarded with a desired item or privilege. The goal is to build this decision making ability into an autonomous process that allows a child to behave appropriately in a variety of settings without the assistance of supervisory feedback or the constant need for reinforcement. However, for children with ADHD, it can not only be difficult to control one's behavior but it can also be quite difficult to discern the appropriate information from the teacher in regards to changing their behavior.

One behavior management tool that is new in its form but a classic in structure is ClassDojo. ClassDojo is an online application that can be accessed through a computer, tablet, or SmartPhone. It launched in August 2011 and now is in two out of three public schools in the United States of America (ClassDojo Fast Facts, 2016). Class Dojo digitally tracks each student's behavior through the addition and subtraction of points that fall in specific categories that can be designed by the teacher and/or children. The purpose is to reward or deduct points from students for the behaviors that they are displaying and the choices they are making. It provides positive feedback to the child while they are doing well by displaying the behavior for which they earned a point, their rising point total, and by playing a cheerful sounding "ding". It also provides informative feedback to the child if they make a poor choice by displaying the inappropriate behavior for which they lost a point, their decreased point total, and by playing a more striking negative tone.

This study examined the effectiveness of this digital behavior management tool applied in the classroom. The objective was to evaluate whether consistent use of this application would increase the positive points received for each student according to the standards and behaviors outlined in ClassDojo's positive and negative points system. The positive behaviors and their point totals were as follows: Following directions (2), Reading (3), Respect (3), Effort (2), Dependability (2), Growth Mindset (4), Positivity (2), Integrity (2), and Working Quietly in Seat (3). The negative behaviors, termed "Needs Work" on ClassDojo, and their point deductions were as follows: No Math Homework (-1), No Literacy Homework (-1), Talking During Independent Work Time (-1), Disrespect (-2), Talking out of Turn (-2), Not Following Directions (-1), and Out of

Seat (-1). With the information gathered from daily and monthly reports, I wanted to see whether students could learn self-regulation by reviewing past performance, setting attainable and reasonable behavior goals, and making choices along the way to ensure completion of their individual goals. I believe that students who are given decision making power, individualized goal setting power, and consistent feedback in regards to their behavior are more likely to be socially and emotionally more successful in a group setting. In addition, with the tool being digital, with game-like features, and friendly competition, the structure of ClassDojo is highly motivating to students.

The three research questions in this study are:

1. Will the use of the ClassDojo methods for self-monitoring of behavior lead to more positive behaviors such as following directions upon first request, showing effort during independent work time, being positive and respectful, and working quietly during independent work time and an improvement of the weekly positive behavior percentage of second grade students, including those with ADHD and those with low proficiency in math and literacy?

2. Can the consistent, daily use of a Digital Behavior Management Tool in conjunction with weekly goal setting sheets develop self-regulation to ultimately increase the percentage of positive behaviors?

3. How do students feel about the use of ClassDojo as reported on a reflection sheet about the use of ClassDojo to improve their behavior and decision making skills?

In this study, a group of second grade students tracked their behavioral progress using the classroom application, ClassDojo. ClassDojo is an online application that tracks students' behavior through the addition and subtraction of points that fall in specific

categories that can be designed by the teacher and/or children. The objectives were to determine whether use of the application would increase the number of students' positive points and encourage students to focus on the selected behaviors noted on the application in order to set a weekly point goal and achieve their point goal by the end of the week. Students also shared how they felt about using the application and whether they felt it benefited their behavioral progress. This study examined the effectiveness of this digital behavior management tool and discuss the implications for other classrooms.

Chapter Two

Literature Review

There has been minimal discussion and research conducted on the effectiveness or beneficial use of ClassDojo as a behavior management tool. This is due to its new entry into today's classrooms (the company launched in 2011). Therefore, it was necessary to break apart the components of this app and the aspects of this study to provide a comprehensive overview of what we already know, what components have evidence-based proof of success or failure, and what implications these may have on my study. The concepts of behavior management, goal setting and tracking, positive reinforcement, and punishment- all traditional philosophies researched and implemented in modern education- form the backbone of ClassDojo, yet its digital format offers a different and modernized approach. Throughout this literature review, the basic principles of ClassDojo will be discussed as well as behavior goal setting and self-monitoring.

Classroom Management of Students with Disabilities

In a research review conducted by Cumming (2016), five articles were reviewed that discussed using research-based strategies to identify and reform problem behaviors in schools. The selected articles emphasized the importance of screening students early for emotional and behavioral needs, conducting functional behavior assessments to identify triggers for challenging behaviors, using technology to collect and analyze behavioral data, offering feedback to students about behavior, and using supportive feedback in place of punishment for students' poor choices. These articles were selected

because they emphasized the importance of, as well as showed the success of, using evidence-based practices when dealing with the problematic or challenging behaviors of students with disabilities.

This research review highlighted five important concepts for helping students with disabilities control their behavior and have both social and academic success. When educators and support staff are fully aware of students' behaviors and their causes, are able to reward or redirect appropriately, and provide informative feedback to the students about their choices, each interaction is a learning experience, allowing the student to make progress.

The findings of Cumming (2016) connects to the current study because each of these basic ideologies are interwoven within the framework of ClassDojo. Students are able to clearly see what behaviors are expected and which are prohibited and they are rewarded or redirected in a logical manner. In addition, the application continuously collects data, allowing staff and parents to further understand the types and frequency of behaviors that the students are displaying. I will be evaluating whether the use of this technology offers teachers, students, and parents the ability to track their behaviors easily to promote positive change and growth.

Sizak-Pinar and Guner-Yildiz (2013) conducted a study that sought to determine the impact of teacher approval and teacher disapproval of student behaviors. Their research questions focused on whether the use of teacher initiated approval and disapproval statements affected the behavior of students, whether this impact was affected by the fact that a student had a disability, and which approval and disapproval statements were used most often. The participants in the study were 43 elementary level

teachers from Balu, Indonesia who had students with and without disabilities in their classrooms. Data was collected in two forms- one being a survey that outlined the experience and demographics of the teachers, the other being a teacher observation form that was used while watching recorded videos of the teachers' instructional time periods. The observers defined and recorded the frequency of the approval and disapproval statements/behaviors exhibited by the teachers as well as determined whether the involved students had special needs or was deemed typically developing.

When evaluating the frequency of teachers' approval and disapproval behaviors towards the academic and social behaviors of students with and without special needs, the authors found that overall, teachers reacted less often to academic behaviors than to social behaviors (positive and negative) and furthermore, they reacted less often overall to behaviors from children with special needs than they did towards the behaviors of their typically developing peers. In addition, when responding to the behaviors of students with special needs, teachers showed disapproval behaviors towards student social behaviors more often than any other response. When evaluating the most frequently used approval and disapproval behaviors exhibited by the teachers, "yes" and nodding in approval were most commonly used to express approval and statements such as, "Don't talk", "Don't make noise", and "Be quiet" were most commonly used to express disapproval.

When contemplating the implications of these results for the current study, it is important to note that overall the authors found that although it is a common practice to express approval and disapproval over student behavior, there are many things that can interfere and therefore affect its impact and validity, such as the frequency purely based

upon whether the students had special needs or not. Teachers are responsible for building the foundation of social, emotional, behavioral, and academic abilities in students through their actions, statements, and feedback. In the current study, I will be evaluating whether expressing teacher approval and disapproval for both academic and social student behaviors will have a positive impact on student behavior. Positive classroom behaviors can be greatly impacted by time on task and teacher interactions (Ratcliff, Jones, Costner, Savage-Davis, Sheehan, & Hunt, 2010). In their study, Ratcliff et al (2010) wanted to identify the types of classroom management behaviors the teachers were implementing and what kind of impact they had on the learning environment for their students. Their research examined how teachers and students interacted with each other while teachers were managing behaviors, how time spent on behavior management affects instructional time, and how behavior management techniques impacted student time-on-task. The participants in this study were seventeen second grade teachers and seventeen fourth grade teachers from public elementary schools. The researchers collected data by conducting unannounced classroom observations, totaling 4 hours in each classroom throughout the 2008-2009 school year. Also, they did five time-on-task observational scans in which they would scan the room and note how many students were obviously on-task out of how many students were present that day. To record the data, they defined and categorized teacher behavior (teacher providing instruction, teacher redirecting student behavior, teacher manipulated reward system to change behavior, teacher using physical force, taking something away, or teacher failing to react to negative behavior) and student behavior (on-task behavior, student conformity to teacher's directions, and student rebellion against teacher's directions). The researchers found that the most

common teacher behavior was giving commands or redirecting student behavior, however the authors suggest that high numbers of commands or redirections does not automatically mean a classroom that is under control, instead it may suggest a less effective learning environment due to the interruptions in instruction. Perhaps one of the most interesting findings in this study was the relationship between time spent on instruction and the frequency of teacher commands or behavioral redirections. When there was an increase in teacher instructional behaviors (instructing, asking questions, and answering student questions), there was a clear decrease in the frequency of disruptive behaviors and the need to give behavioral commands. This conclusion of high amounts of time on task leads to less disruptive behavior was seen throughout most of the research as it had a direct impact on student reaction and student behavior.

This study extended the use of teacher responses and approaches to student behavior by evaluating its impact on student behavior and the overall learning environment. If students are busy, motivated, and being lead by an enthusiastic and engaging instructor, they will be less likely to display disruptive behaviors or interrupt classroom time by requiring the teacher to address their behavior. But it is important to contemplate the impact a teacher would have on their students if they were engaging their students in consistent and high-level thinking tasks while simultaneously praising them for their efforts and positive behavior. In the current study, I aim to discover whether consistent feedback (positive and negative) for my students' behavior (academic and social) will promote more positive behavior and therefore decrease negative behaviors. As proposed in the study discussed above, a decrease in negative behaviors would

decrease my need to address disruptive behaviors and would ultimately result in more time on-task and more positive student behaviors.

Effective praise and feedback on student behavior can vary greatly in its structure and its delivery, therefore it is imperative to provide specific and individualized feedback that will be clear to the student and allow them to easily determine which positive behaviors to continue and which negative behaviors are disruptive and should be stopped immediately. In a study conducted by Sutherland, Wehby, & Copeland, (2000) the researchers measured the effects of behavior-specific praise on the on-task behavior of students with emotional and behavioral disorders (EBD). Behavior specific praise is a statement that directly addresses and praises the behavior that is being exhibited, such as, “Mark, I like the way you are looking at me.” The participants in this study were one male teacher and nine students, ages ten to eleven, diagnosed with EBD and placed in a self-contained classroom. They were observed three times a week for 15 minutes at a time during a social-skills instructional period. They did an ABAB experimental design in which they took baseline data of how many times the teacher gave behavior-specific feedback, implemented the more consistent use of BSP, removed the intervention and took baseline data again, and once more implemented the consistent use of BSP.

The results from this study showed that as the teacher increased their rate of behavior-specific praise, the rate of student time on-task increased as well. This was seen twice due to the ABAB experimental design, therefore one can assume that there is a clear correlation between behavior-specific feedback and student reaction and behavior. In the current study, I incorporated the concept of behavior-specific praise as well as behavior-specific redirection through the behaviors noted on ClassDojo of which the

students will be rewarded or will lose. For example, instead of saying “good job” or “stop talking” the points on dojo will be rewarded based upon what specific positive behavior they are performing and what specific negative behavior they are performing and whether it is appropriate at the time. It is also important to note that, there was a difference between the aspects of this research and the current study because the feedback, although coming from the teacher, was provided by a third party digital format. It is clear that the points are being given and taken based upon the teacher’s interpretation and approval/disapproval of the behavior, however it takes away some of the direct interaction between the teacher and student.

From the studies discussed above, one can gather that there is a lot of research that supports the concept that students respond and change their behavior based upon information they are interpreting from their environment. If students receive feedback from their teachers, positive or negative, they react and tend to make a change based upon a motivator or positive reinforcement. The current study will test this same concept but with the additional component of goal setting and goal tracking.

Token Economies for Classroom Management

In a study conducted by Maggin, Chafouleas, Goddard, and Johnson (2011), researchers evaluated the success and effectiveness of token economy systems with students with disabilities in a variety of educational settings by reviewing 24 studies. In order for a study to be included in this review, it had to be conducted with school aged children in a school setting after 1960. The students had to display problematic behaviors and a disability (not including severe cognitive impairments), and it had to involve

behaviors related to academic engagement and disruption of learning. Finally, the study had to involve the use of a token economy system where the students earned tokens to be used to “purchase” rewards or privileges. In addition there were other validity and methodology criteria that the studies needed to meet.

Overall, the researchers found that token economy systems are effective in a school setting in regards to decreasing negative behaviors and increasing positive behaviors. However the researchers were quick to point out that a lot of the studies showed poor methodological quality. The most common downfall was the lack of systematic data collection. The current study aims to prove that token economy systems are successful just as Maggin et. al, however proper data collection and analysis need to be a priority. ClassDojo has an immediate, standardized and structured data collection system that continuously logs points, creates pie charts, and allows you to access data from any time period. With these components in place, I will be able to accurately determine the success of this type of intervention.

In a study conducted by Shogren, Russell, Machalicek, Rispoli, and O’Reilly (2011), researchers aimed to determine whether students with Asperger's Syndrome could follow pre-established rules during center activities with a token economy and self-monitoring system in place. The participants in this study were two five year old students diagnosed with Asperger’s Syndrome in a kindergarten class of eight students in a small, urban elementary school in Texas. At the time of the study, the selected participants were struggling to follow the three classroom rules (Stay in your space; Keep your hands to yourself; Do what the teacher says) during center time and transitions (a 45 minute period

split into three 15 minute center activities). Therefore, the teacher and researchers wanted to develop and implement a program that would improve the students' behaviors.

An ABACABAC design was used which involved a baseline phase, implementation of a token economy system, and eventually the implementation of a self-monitoring phase. During baseline, not only were the students' natural behaviors observed and noted via video footage, but the video footage of both correct and incorrect behaviors were used to teach the students proper center behavior. During the first intervention phase, the students were shown a chart which reflected each of the three centers, all three classroom rules, and a space to earn a smiley face for appropriate behaviors or an X for inappropriate behaviors. If they earned three smiley faces, they received a self-selected reinforcer. During the self-monitoring phase, the students were given more responsibility meaning they had to carry the chart on a clipboard, monitor their own behavior during center time, and determine whether they earned a smiley or an X upon completion. If there was a disagreement between teacher and student, the teacher would discuss their observations. The second half of the study was considered a maintenance phase.

The results of this study showed that the two students showed improvements in their behavior in both the token economy and self-monitoring phase. During phase B, the students, on average showed appropriate behavior during 95% of center time, which was similar to their classroom peers. During phase C, the students showed appropriate behaviors slightly more than 95% of center time. Upon further examination of all three sets of data (baseline, token economy, and self-monitoring) there were clear improvements between phase A and phases B and C, and slight improvements between

phases B and C. Therefore, one can assume that the implementation of a token economy system was a clear motivator for the students and the self-monitoring served more as a way to learn responsibility and self regulation versus a motivator.

In the current study, the incorporation of self-monitoring was very important. Students were responsible for monitoring their daily and weekly progress towards their self-selected goals and determining whether they met the goal for the week. A stark difference between the research study discussed above and the current study is the students' ability to set their own goals that they felt was obtainable. Shogren et al (2011) designed their study so that during each center activity the students had to follow the same three rules and work towards the same goal (three smileys). Perhaps it was developmentally appropriate for the kindergarten students, or perhaps the design worked best for the specific activities or desired behaviors, however I believe there to be more student buy-in, if they have a direct influence on what they're working on and what they're working towards.

Self-Monitoring of Behavior

The term self-monitoring is used with studies that include students monitoring their behaviors at the end of a work period, as described in the study above, as well as throughout a work period. In a study conducted by Amato-Zech, Hoff, & Doepke (2006), researchers aimed to determine if a tactile-based self-monitoring prompt would increase on-task behaviors of three elementary-aged students in a special education classroom. The participants in this study were two fifth grade boys diagnosed with speech and language impairments and specific learning disabilities and one fifth grade girl diagnosed

with an emotional/behavioral disturbance and a speech and language impairment. All three students were in a self-contained special education classroom and they were selected due to their consistent low levels of time-on-task.

The study had a ABAB reversal design. During the baseline phase, data was gathered in regards to student time-on-task and the students were trained extensively to monitor their time-on-task. The students wore a device called the MotivAider as well as were instructed in the SLANT acronym which stood for character traits or behaviors that needed to be shown throughout instructional periods. The MotivAider emitted a low sound every three minutes that prompted the students to assess whether they were on task and to record the result on a form. The results were very positive with an average increase from 55% of time on task during the baseline phase to 90% of time on task during the intervention phase. The authors go on to explain that not only was this particular method easy to implement and monitor, but its success with students with learning and behavioral disabilities further improved its effectiveness.

In this study, the researchers were evaluating whether students would be able to self-monitor and regulate their behavior continuously throughout an instructional period. The students received auditory prompting to assess whether they were on task as well as had the benefit of short 3-minute time frames. The students in the current study will be working under a slightly different structure. They will not have scheduled or consistent prompting to assess whether they are behaving appropriately, instead the gaining and losing of points will serve as a prompt to either continue appropriate behavior or to redirect inappropriate behavior.

In contrast, other studies have been conducted where students evaluate their success during a lesson at the end of each instructional period. In a study conducted by Bruhn, Vogelgesang, Schabillon, Waller, and Fernando, they aimed to determine whether students could self-monitor their behavior using a digital application. The study took place in a middle school and followed two students, Don, a student diagnosed with ADHD, who was in a class of 12 students co taught by a general education and a special education teacher, and Jess, a student with an IEP in a class of 5 students. Both struggled to control their disruptive behaviors in class and remain engaged in classroom activities. Their teacher implemented SCORE IT, a digital application that required them to score themselves on a scale from 0 to 4 (0 being at a low rate and 4 being at a high rate) on being responsible, being ready, and being respectful- all characteristics of great importance within the school culture. The teacher would also rate them and at the end of the day, both would evaluate their overall success by looking at the application-created bar graph. The bar graph displays their rate of on task behaviors (according to the teacher and student's opinions) compared to their goal of on task behaviors. If the students met their goal they earned a reward and were given specific praise and feedback. If the students did not meet their goal, they were given redirection and informative feedback to make smarter choices throughout the next period.

Overall, the students showed higher levels of academic engagement during the intervention phase as well as displayed less disruptive behavior. This showed, that the students were able to better self-monitor their behavior during instructional periods when they knew they were going to be responsible for reflecting on their behavior and recording it on the application. When there was accountability, informative feedback, and

independent responsibility, the students were able to make smarter choices and keep their behaviors in check. These components, self-monitoring and informative feedback are quite important in the current study. It will be important to see whether the students can interpret the consistent yet sporadic feedback appropriately to continue positive behaviors and to decrease or eliminate negative behaviors during all instructional periods.

Using ClassDojo for Classroom Management

As stated previously, there has been minimal research and discussion about the effectiveness of ClassDojo, however as it gains popularity and is approaching becoming commonplace in today's classrooms, there is research into its use and how it can positively impact a classroom in a general sense. In a study conducted by Robacker, Rivera, and Warren (2016), the researchers discuss how the application can be easily implemented and its general benefits. The study took place in a rural special education classroom of students with emotional and behavioral disabilities. The teacher was having difficulty with the students' behaviors during literacy lessons, therefore she implemented ClassDojo as a digital behavior program. ClassDojo was also tied to a token economy system. Accounts were created for each of the students and target behaviors were selected based upon what the teachers felt needed to improve. The students earned and lost points throughout the whole day and they were able to exchange their points for items from a choice board. After a two week period, the researchers reported that there was a drop in noncompliant behaviors during literacy activities.

The researchers also noted the features and benefits of the application. They addressed the fact that teachers can choose from the pre-selected behaviors that

ClassDojo suggests to reward or deduct points for or they can create their own behaviors. The versatility and personalization allows any user to make the application work best for any type of classroom. They also noted that the application tracks short term and long term data. This allows parents, teachers, and students to see progress over short and long periods of time. In addition, the researchers discussed the benefit of student and parent connectivity. This encourages both students and their parents to track progress and successes from their personal devices, as well as serves as a motivator to the students to see their point status.

One aspect of this study that I think is important to discuss is its tie to a token economy system. As students earned points, they were able to exchange them for something of their choosing from a choice board. The researchers felt that for students to feel motivated and encouraged to earn points, the points must be tied to something of value. Therefore, beforehand, all students filled out a preference assessment that allowed researchers to see what types of items or activities would be highly motivating to the students. In the beginning of the study, students were permitted to exchange their points everyday, however overtime, that number decreased to a few times a week. Although I feel that student buy-in is incredibly important, I do not feel that the ClassDojo points need to be tied to tangible items or a token economy system. Ultimately the goal of the current study is to build self-monitoring and self-regulation skills within the students so that they are better able to control their behaviors. This will hopefully result in the intrinsic motivation to make smart choices, recover from redirections appropriately, and to think before acting. That intrinsic motivation cannot be built organically if students are working towards tangible items or additional rewards.

Additionally, this study did not provide quantitative data or evidence that proved its benefit or effectiveness in regards to improving the behavior of students with learning and behavioral disabilities. The researchers said that there was a drop in noncompliant behaviors, however there is no mention of how they measured or gathered baseline data and how that compared to the data they were evaluating after the implementation of the intervention. This study suggests that ClassDojo has the potential to improve student behavior but there is not enough research to truly measure its effectiveness. The current study has data gathering, measuring, and monitoring techniques that will provide more quantitative information about this application.

Although the basic principles of ClassDojo- managing classroom behaviors, rewarding and redirecting students for appropriate and inappropriate behaviors, goal-setting and tracking, and self-monitoring and self-regulation- have been incorporated and implemented in many classrooms for many years, there is yet to be much research on this modern application. Research has shown that with behavior plans in place, students tend to show an improvement in behavior. Therefore, the current study will assess the effectiveness of ClassDojo in regards to behavior improvement, decreasing negative behaviors, and self-monitoring and goal tracking.

Chapter Three

Methods and Procedures

Subjects

The participants in this study were 19 second grade students ranging from 7 years in age to 8 years in age, the mean age being 8 years old. Eighteen of the 19 second grade students spent all of their instructional time in the regular education second grade classroom. Nine students identified as African American, (3 males and 6 females), three students identified as Latino (female), one student identified as Indian (male), three students identified as Caucasian (2 male and 1 female), and three identified as multiracial (2 male and 1 female). Of the 19 students, 17 were eligible for free and reduced lunch, therefore have reported their annual earnings to be near or below the line of poverty for their family size. In addition, four students went to after school care that was completely subsidized due to their family's low annual income.

Nine students were identified by their previous grade's teacher as low performing in literacy, math, or both, therefore they received academic support twice daily based upon what subjects made them eligible. Three students were diagnosed with attention deficit hyperactivity disorder. One was prescribed medication to help with focus while the others were not. In addition, one student was diagnosed with oppositional defiance disorder (ODD), during this study and was issued an out-of-district placement within the second week.

Setting

This study took place at a small suburban elementary school in southern New Jersey. Throughout the school district, there are three elementary schools, one junior high school, and one high school. There were approximately 285 students in the school that housed the study, breaking down into about 40 students per grade level from PreK to 5th grade. Seventy-eight percent of the school population was eligible for free and reduced lunch. The immediate surrounding area has three subsidized housing communities from which a majority of the students come.

The classroom was a regular education classroom that serves the educational needs of up to 19 students throughout the day. There was one lead teacher who was in the classroom 100% of the instructional periods, an instructional assistant who was in the classroom 50% of the instructional periods, and an academic support teacher who was in the classroom 20% of the instructional periods. All adults had at least a bachelor's degree in education, and the lead teacher was pursuing their master's degree. The classroom was equipped with a SmartBoard and a chromebook for every student. The ClassDojo home screen was displayed on the SmartBoard throughout most of the day unless there was something instructional that needs to be shown. When that happened, ClassDojo points were given through the classroom iPad, or the teacher's phone which both had the application. There were two main instructional areas in the classroom- one being the circle carpet that all students could sit on while facing the dry-erase board for instruction, and the other being at their desks which were all facing the SmartBoard.

Materials and Instruments

ClassDojo is an online application that can be accessed through a computer, tablet, or SmartPhone. It launched in August 2011 and now is in two out of three public schools in the United States of America. Class Dojo digitally tracks each student's behavior through the addition and subtraction of points that fall in specific categories that can be designed by the teacher and/or children. The purpose is to reward or deduct points from students for the behaviors that they are displaying and the choices they are making. It provides positive feedback to the child while they are doing well by displaying the behavior for which they earned a point, their rising point total, and by playing a cheerful sounding "ding". It also provides informative feedback to the child if they make a poor choice by displaying the inappropriate behavior for which they lost a point, their decreased point total, and by playing a more striking negative tone. It was crucial that there was a way to display the Dojo board for all students to see and that it was connected to sound so that the students could hear the sound effects associated with losing and gaining a point. The application itself served as a data collector because it housed daily, weekly, monthly, and yearly information on each student in regards to the total points earned, what types of points were earned, and the percentage of positive versus negative points earned.

Procedure

The experimental design of this study was a two phase pre-post group design. During the initial phase, ClassDojo was implemented classwide with all students in the same manner. All students had a personalized account on ClassDojo and were rewarded or deducted points for the same behaviors. The positive behaviors and their point values

were as follows: Following directions (2), Reading during Independent Reading Time (3), Awesome Recess (5), Respect (3), Effort (2), Dependability (2), Growth Mindset (4), Positivity (2), Integrity (2), Working Together (2), and Working Quietly in Seat (3). The negative behaviors and their point values were as follows: No Math Homework (-1), No Literacy Homework (-1), Talking During Independent Work Time (-1), Disrespect (-2), Calling Out (-3), Talking out of Turn (-2), Not Following Directions (-1), Out of Seat (-1). It is important to note that positivity, integrity, respect, dependability, growth mindset, and respect were all behaviors that were apart of the schoolwide behavior improvement program entitled PRIDE. Each letter stood for a character trait- Positivity, Respect, Integrity, Dependability, and Effort- that was rewarded and instilled in the students through social/emotional programming. These characteristics were discussed daily and clear examples were given over the loudspeaker, therefore although these behaviors could be difficult for a child to understand how to exemplify, the school's program served to make it very clear.

The ClassDojo home screen showed all of the students' avatars. The monster themed avatars were designed by ClassDojo and randomly matched to each student's account. If desired, students had the power to change their monster avatar by logging into their student account. The application was displayed on the Smartboard in view of all students and classroom staff. Each time that a student gained or lost points, a sound effect (a bell sound for positive points, a buzzer sound for negative points) played aloud as well as a banner message appeared displaying the name of the child and the type of behavior that was recognized. Next to each child's avatar was their running weekly total. The four week baseline phase gathered data from the daily, consistent use of ClassDojo with all

selected students. Points were earned Monday through Friday and were reset every Sunday evening. Eighteen of the 19 children had at least one family member that was connected to their account and monitored their child's progress on a daily basis. That meant that the parent had access to their daily report of all recognized behaviors, their weekly and monthly pie charts of positive versus negative behaviors, and text messaging capabilities with the child's teacher. The one parent who was not able to connect to ClassDojo did not respond to written or verbal contact inviting them to participate.

Points were given and deducted through purposeful or random selection. All classroom staff members who came in contact with the class were able to give and deduct points from all students- classroom teacher, Academic Support team member, classroom instructional assistant, specials teachers, and recess and lunch teachers. When students were showing appropriate behaviors, the teachers gave and deducted points at an approximate rate of about 1.9 points per minute. In addition, teachers also utilized the "random" feature on ClassDojo which was a button in the lower corner of the home screen that randomly selected a student. The teacher then was able to give or deduct a point depending upon whether the child was showing the appropriate behavior at the time.

During the four week intervention phase, goal setting and tracking was introduced in addition to the daily, consistent implementation of ClassDojo. In the beginning of each week, the students would reflect upon the previous week by noting the total number of positive points and total number of negative points. Then they selected a specific positive behavior that they wanted to work on, set a specific point goal for that behavior, and then noted strategies, behavioral characteristics, or steps that they felt was necessary to

achieve that goal. Every Friday afternoon, the students assessed whether they had met their weekly goal and began brainstorming a goal they would set for the following week. If they met their goal, their goal sheet was marked with a “Met Goal” message and placed in a folder entitled “Goals Achieved” and they were encouraged to set an increased goal. If they did not meet their goal, their sheet was placed in a folder entitled, “Still Working” and they were encouraged to set a more obtainable goal and discuss strategies for success. Students did this each week for the duration of the study. In addition, during the last week of the study, students were given a seven question survey that assessed their general like or dislike of the application, how they felt about receiving points, and if they thought ClassDojo had an impact on their ability to set and obtain a weekly behavior goal.

Data Analysis

The data from this study was gathered and interpreted in two ways- throughout the duration of the study and upon completion of the study. Throughout the duration of the study, the students recorded their weekly total of positive points as well as determined if they met their goal for the week. Upon completion of the study, the students’ positive points versus negative points (P.P. vs. N.P.) pie chart was analyzed and compared to their baseline P.P. vs. N.P. pie chart. Researchers were looking for quantitative data in regards to any increases in positive points and decreases in negative points. In addition, the survey that the students took during the latter half of the study was analyzed and interpreted as qualitative data. Researchers were looking to gain the students’

perspectives and opinions about the use of the application as part of their educational experience.

Chapter Four

Results

The experimental design of this study was a two phase pre-post group design. During the initial phase, ClassDojo was implemented classwide with all students. However, during the intervention phase, goal setting and tracking was introduced in addition to the daily, consistent implementation of ClassDojo. In the beginning of each week, the students would reflect upon the previous week by noting the total number of positive points and total number of negative points. Then they selected a specific positive behavior that they wanted to work on, set a specific point goal for that behavior, and then noted strategies, behavioral characteristics, or steps that they felt was necessary to achieve that goal. At the end of each week, the students reflected upon if they had met their goal and what strategies they may need to implement or eliminate the following week to be successful.

The data from this study was gathered in two ways- throughout the duration of the study and upon completion of the study. Throughout the duration of the study, the students recorded their weekly total of positive points as well as determined if they met their goal for the week. Upon completion of the study, the students' positive points versus negative points (P.P. vs. N.P.) pie chart was analyzed and compared to their baseline positive points and negative points.. In addition, the survey that the students took during the latter half of the study was analyzed and interpreted. The researcher was looking to gain the students' perspectives and opinions about the use of the application as part of their educational experience.

Baseline data throughout the four week period showed that students collectively earned a total of 4,730 positive points for positive behaviors and lost a total of 459 points for negative behaviors (see figure 1). Figure 2 shows the class wide percentage of positive versus negative points for that time period.

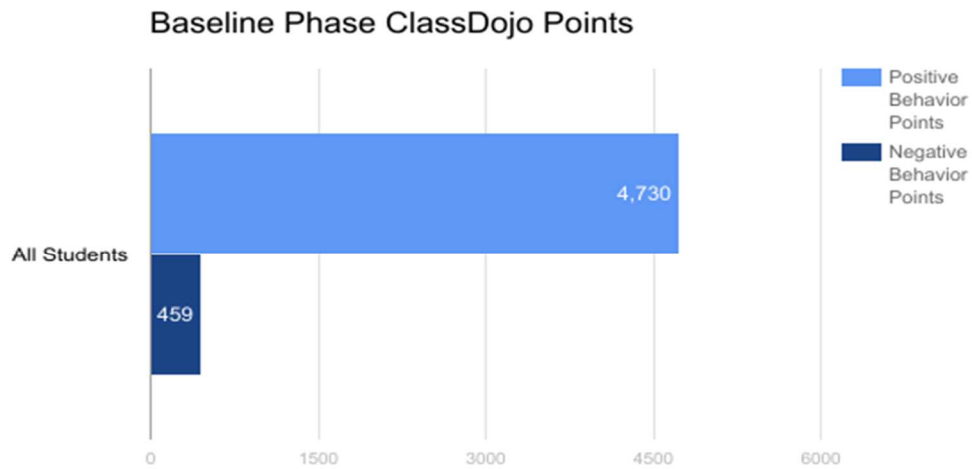


Figure 1. ClassDojo Points of the Baseline (Phase 1)

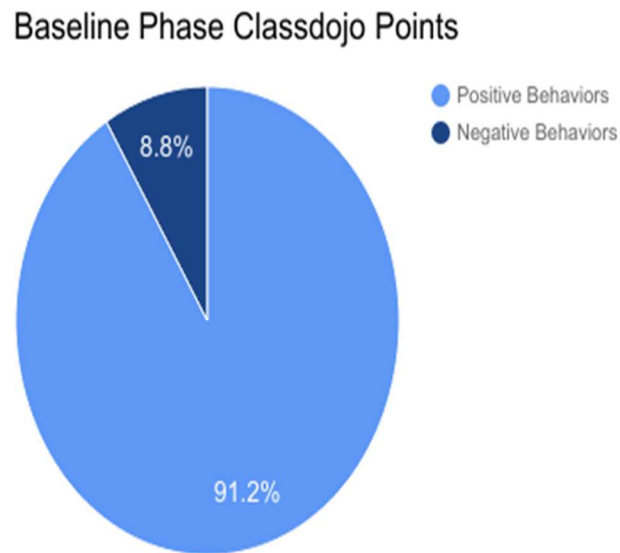


Figure 2. Percentage of Baseline Phase ClassDojo Points

During the four week intervention phase, the students collectively earned 6,379 positive behavior points and lost a total of 323 points for negative behaviors (see figure 3). Figure 4 shows the class wide percentage of positive versus negative points during the intervention phase.

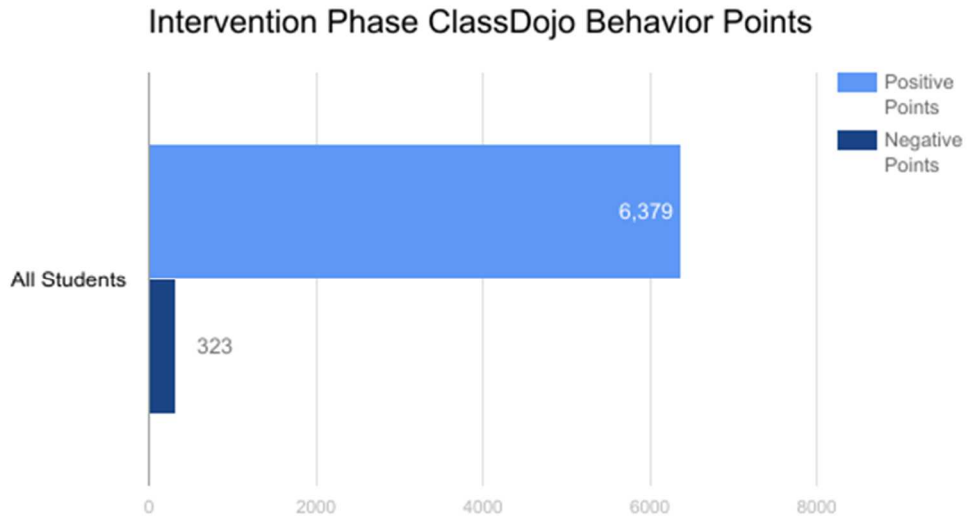


Figure 3. ClassDojo Points of Intervention (Phase 2)

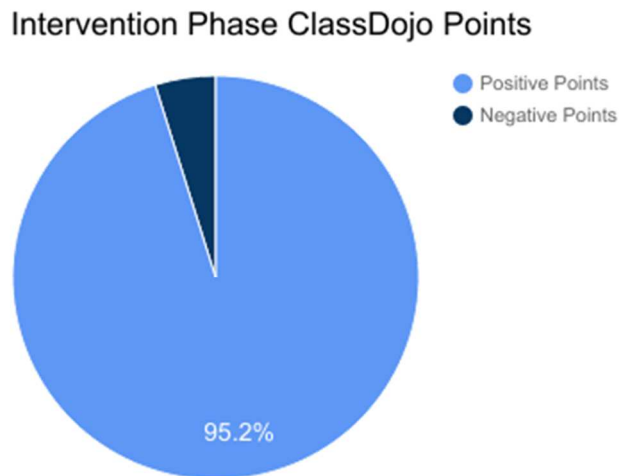


Figure 4. Percentage of ClassDojo Points in Intervention

Weekly data during both the baseline and the intervention phases were compared to see if there was a weekly increase in positive behaviors and a weekly decrease in negative behaviors. In the first baseline week, there were 2,161 positive behavior points and 195 negative behavior points. In the second baseline week, there were 577 positive behavior points and 108 negative behavior points. In the third baseline week, there were 636 positive behavior points and 49 negative behavior points. In the fourth baseline week, there were 1,356 positive behavior points and 107 negative behavior points (see figure 5)

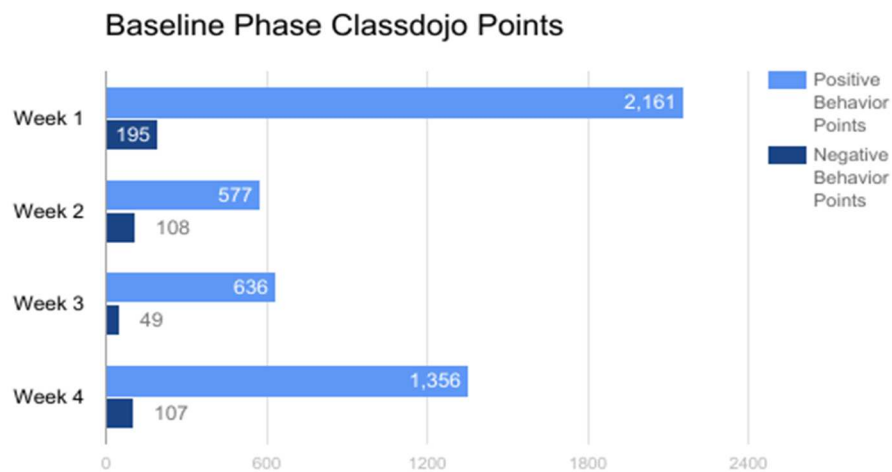


Figure 5. Weekly ClassDojo Points of the Baseline

During the first intervention week, there were 1,078 positive points and 128 negative behavior points. In the second intervention week, there were 802 positive points and 55 negative behavior points. In the third intervention week, there were 2,132 positive

behavior points and 47 negative behavior points. In the fourth and final intervention week, there were 2,367 positive behavior points and 93 negative behavior points.

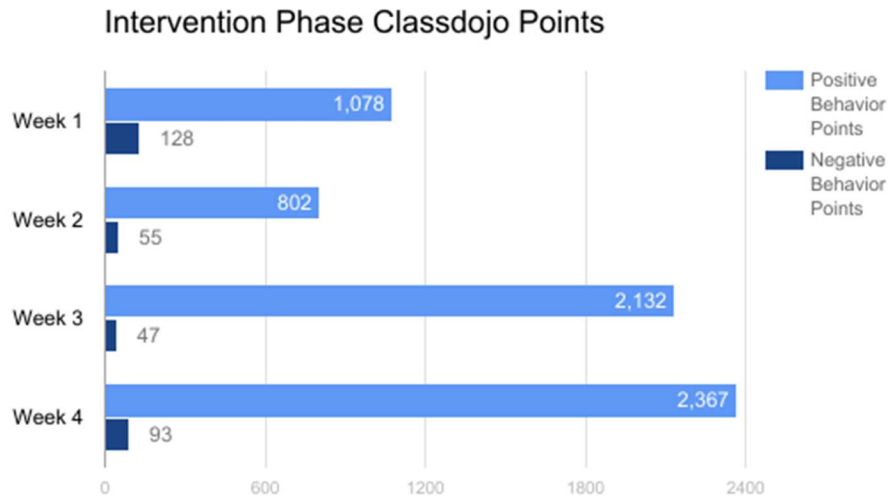


Figure 6. Weekly ClassDojo Points of Intervention

In the third week of the intervention phase, the students took a seven question survey. They were asked to rate on a scale from one to five (one- strongly disagree, two- disagree, three- can't decide, four- agree, five-strongly agree) how much they agreed with certain statements about ClassDojo. If the students answered with the response “Strongly Agree” or “Agree” it was recorded as a favorable response towards ClassDojo or the consistent use of ClassDojo. If the students answered with the responses, “Can’t Decide”, “Disagree”, or “Strongly Disagree”, it was recorded as undecided or a negative response towards ClassDojo. The first statement was, “I feel happy when I earn a positive Dojo point.” Fifteen students said that they strongly agreed with the statement, one student said that they agreed with the statement, two students said they could not decide, and one

student said they disagreed with the statement. Therefore sixteen out of the nineteen students, or 84.2%, recorded a favorable response about ClassDojo.

The second statement was, “I want to earn Dojo points every day.” Sixteen students said that they strongly agreed with the statement, two students said that they agreed with the statement, and one student said they could not decide. Therefore seventeen out of the nineteen students, or 89.5%, recorded a favorable response about ClassDojo. The third statement was, “Earning Dojo points is important to me.” Eleven students said that they strongly agreed with the statement, three students said that they agreed with the statement, three students said that they could not decide, and two students said that they disagreed with the statement. Therefore, fourteen out of nineteen students, or 73.7%, recorded a favorable response about ClassDojo. The fourth statement was, “When I lose a Dojo point, I want to change my behavior to earn it back.” Sixteen students said that they strongly agreed with the statement, two students said that they agreed with the statement, and one student said that they could not decide. Therefore, eighteen out of the nineteen students, or 94.7%, recorded a favorable response about ClassDojo. The fifth statement was, “I feel that the teachers notice when I deserve a Dojo point.” Ten students said that they strongly agreed with the statement, five students said that they agreed with the statement, and four students said they could not decide. Therefore, fifteen out of the nineteen students, or 78.9%, recorded a favorable response about ClassDojo.

The sixth statement was “Setting a weekly Dojo goal will help me earn more positive points.” Thirteen students said that they strongly agreed with the statement, two students said that they agreed with the statement, one student said that they could not

decide, two students said that they disagreed, and one student said that they strongly disagreed with the statement. Therefore, fifteen out of the nineteen students, or 78.9%, recorded a favorable response about ClassDojo. The seventh statement was, “Because my teacher uses ClassDojo I feel like I can better control my behavior.” Thirteen students said that they strongly agreed with the statement, five students said that they could not decide, and one student disagreed with the statement. Therefore, thirteen out of the nineteen students, or 68.4%, recorded a favorable response about ClassDojo (see figure 7).

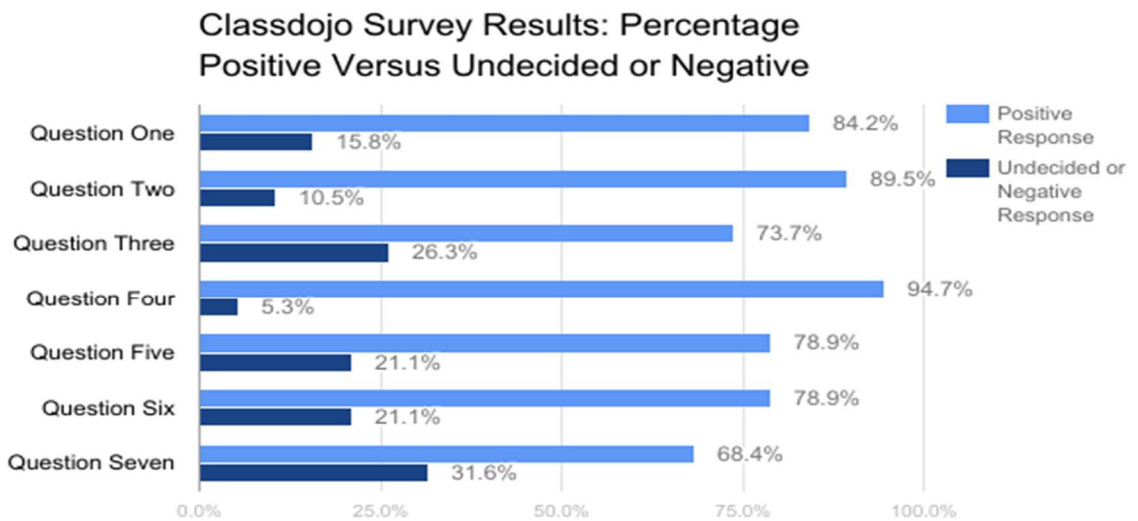


Figure 7. Survey Results

Chapter 5

Discussion

This study examined the effectiveness of a digital behavior management tool called Classdojo. The objective was to see whether consistent use of this application would increase the positive points received for each student as well as decrease the negative points according to the standards and behaviors outlined in ClassDojo's positive and negative points system. In addition, students set weekly goals as a motivator and to build self-monitoring skills. The participants in this study were 19 second grade students ranging from 7 years in age to 8 years in age, the mean age being 8 years old. Nine students were identified by their previous grade's teacher as low performing in literacy, math, or both, therefore they received academic support twice daily based upon what subjects made them eligible. Three students were diagnosed with attention deficit hyperactivity disorder. One was prescribed medication to help with focus while the others were not. Lastly, one student was diagnosed with oppositional defiance disorder (ODD), during this study and was issued an out-of-district placement within the second week.

This study met the goals discussed above by achieving both an increase in positive behaviors and a decrease in negative behaviors. Throughout the intervention phase, the students earned 1,649 more positive points and decreased their negative points by 136 compared to results during the baseline phase. When analyzing the data week by week, the students increased their positive points in weeks two, three, and four by at least 225 points compared to the baseline weekly point totals. The weekly goal sheets allowed students to isolate behaviors that they wanted to improve upon and better control their

behaviors. The students became more motivated to meet and surpass their goals as the weeks went on, therefore their highest point achievement, occurring in intervention week four, was 2,367.

When analyzing the survey data, a majority of students showed that they had a positive outlook or viewpoint of ClassDojo and its use in their classroom. Most interesting was the way that students answered statement number four. The statement said, “When I lose a Dojo point, I want to change my behavior to earn it back.” Sixteen students said that they strongly agreed with the statement, two students said that they agreed with the statement, and one student said that they could not decide. Therefore, 94.7% of the responses were positive and in favor of the application. This shows that students felt ClassDojo helped them build their self-control and self-monitoring skills. If they lost a point for a negative behavior, the application declared what behavior they needed to work on, they made corrective choices and actions, and were motivated to earn a positive point. This proves that ClassDojo can not only serve as a source of encouraging and supportive praise but also as an informative and behaviorally educational tool.

Past research about behavior management and building self-control skills shows that praise, teacher feedback, and promotion of self-monitoring has been successful in increasing positive behaviors in the classroom. In a study conducted by Sutherland, Wehby, & Copeland, (2000) the researchers found that behavior-specific feedback allowed students with emotional and behavioral disorders (EBD) to better control their behavior and resulted in more time on task. The current study further proved that result, however the teacher did not have to stop instructing to give the feedback, instead was able to award and deduct the points while the learning activities continued. This is an

added benefit because in a study conducted by Ratcliff, Jones, Costner, Savage-Davis, Sheehan, & Hunt (2010), researchers found that the more time teachers were instructing and keeping students engaged in learning activities, the less off-task behaviors occurred. The current study illustrated the same result showing that more positive behaviors and less negative behaviors occurred while students had an individualized goal in mind and were receiving consistent feedback about their behavior. They were able to stay engaged in the learning activities and continue to earn more positive points.

Limitations

Although the study yielded positive results and one can determine that ClassDojo can have a positive impact on classroom behavior, there are some things to consider when reviewing the results. The total number of points given per week, throughout the baseline phase seemed to vary greatly. To be more specific, between weeks one and two of the baseline phase, there was a difference of 1,584 points given. This gap is due to multiple snow days and an unexpected power outage that resulted in the students being sent home early. In addition, there were two minor incidences of technical difficulties during this time period. One being that the school did not have access to the internet for a period of four hours which did not allow teachers access to the application, therefore no points were given to students during this time. Also, the light bulb in the SmartBoard projector went out during week three of the baseline phase and again in week two of the intervention phase which did not allow students to see the points that they were earning. This did not interfere with the use of the application, however without students being able to see what behaviors they were gaining and losing points for, they were unable to tailor their behavior based upon teacher feedback.

Practical Implications

The participants in this study were exposed to a modern version of a traditional teaching and classroom tactic- behavior management. By offering students digital, informative, and immediate feedback about their behavior in a motivating and encouraging format, they were better able to control their behavior to decrease their negative behaviors and increase their positive behaviors. This shows that students with various disorders and disabilities (Attention Deficit Hyperactivity Disorder and Oppositional Defiance Disorder) that greatly affect their ability to control their behaviors and actions were able to be successful with the use of ClassDojo. If an application, such as ClassDojo, is used for an extended amount of time with students who display challenging behaviors, research implies that the students may continue to learn about desired and undesired classroom behaviors and may eventually eliminate negative behaviors that were once deemed “out of their control”. Although it may be more difficult for them versus typically developing children, this study showed that they are still able to learn from their environment and make the necessary changes.

Future Studies

Future research should be conducted on this topic because applications and digital tools are becoming more and more prevalent in today’s classrooms. However, the frequency and easy access to these tools should not determine their effectiveness- evidence based research and studies should. Other research studies should use the ClassDojo application with a variety of ages, ability levels, socioeconomic status, and ethnic backgrounds. Future research should determine how students who are emergent

readers can still benefit from the behavior being posted on the screen to either praise smart choices or to redirect poor choices. In addition, future research should aim to determine whether student-selected goals or teacher selected goals will raise or lower the number of positive and negative points. Lastly, other studies involving ClassDojo should determine whether a tangible reinforcer upon goal achievement would further increase the number of positive points that students are earning.

Conclusion

The purpose of this study was to determine the answers to the following questions- Will the use of the Classdojo methods for self-monitoring of behavior lead to more positive behaviors such as following directions upon first request, showing effort during independent work time, being positive and respectful, and working quietly during independent work time and an improvement of the weekly positive behavior percentage of second grade students, including those with ADHD and those with low proficiency in math and literacy? Can the consistent, daily use of a Digital Behavior Management Tool in conjunction with weekly goal setting sheets develop self regulation to ultimately increase the percentage of positive behaviors? How do students feel about the use of ClassDojo as reported on a reflection sheet about the use of ClassDojo to improve their behavior and decision making skills?

The data gathered throughout this study shows that the application was an effective tool for increasing positive behaviors and decreasing negative behaviors. With the implementation of weekly goal setting, students were able to isolate positive behaviors that they wanted to work on and ultimately earn more points. This showed that

the students developed better self-monitoring skills and were better able to control their behavior. In addition the students took a survey about their opinion on ClassDojo and its use in their classroom. Overall, a majority of students had positive responses in favor of the application. Therefore, not only was ClassDojo an effective tool in promoting self-monitoring and positive behaviors but it was also perceived positively amongst the participants.

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Appendix A

Weekly Goal Sheet

Name: _____ Date: _____

My Weekly Dojo Goal



1. My number of positive points last week: _____
2. My number of negative points last week: _____
3. I want to work towards this positive behavior:
4. I would like to earn _____ points of this positive behavior.
5. I would like to earn _____ total positive points.
6. To do that, I need to: _____

Appendix B


ClassDojo Survey

Name: _____ Date: _____

ClassDojo Survey



Directions: Read each question and rate on a scale from 1-5 how much you agree with the statement.

 <u>Statement</u>	<u>How much do you agree?</u>				
	Strongly Disagree- 1 Disagree- 2 Can't Decide- 3 Agree- 4 Strongly Agree- 5				
I feel happy when I earn a positive Dojo point.	1	2	3	4	5
I want to earn Dojo points every day.	1	2	3	4	5
Earning Dojo points is important to me.	1	2	3	4	5
When I lose a Dojo point, I want to change my behavior to earn it back.	1	2	3	4	5
I feel that the teachers notice when I deserve a Dojo point.	1	2	3	4	5
Setting a weekly Dojo goal will help me earn more positive points.	1	2	3	4	5
Because my teacher uses ClassDojo, I feel like I can better control my behavior.	1	2	3	4	5