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Increasing Student Perceptions of Teacher Caring Using Class Dojo

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Increasing Student Perceptions of Teacher Caring Using Class Dojo

Chloe Elliott

Thesis Submitted in Partial Fulfillment of the Requirements for the
Degree of Master of Arts in Education

California State University, Monterey Bay

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INCREASING STUDENT PERCEPTIONS OF TEACHER CARING

Increasing Student Perceptions of Teacher Caring Using Class Dojo

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INCREASING STUDENT PERCEPTIONS OF TEACHER CARING

Abstract

Research has demonstrated there is a connection between students' perceptions of their teachers and overall success in school. This study explored the effect of positive behavior recognition on the perception of teacher caring through the use of a free online application (i.e., Class Dojo). This study used a quasi-experimental quantitative design with a treatment and control group ($n = 56$). The treatment group received positive behavior recognition through the use of Class Dojo, while the control group received regular instruction. The study was conducted over a one-month period in a middle school setting. Independent and paired samples t-tests were conducted. The data yielded no significant differences between the two groups. Future studies should begin this research at the start of the school year before relationships with the teacher are developed to see if such an intervention truly has an impact and should also consider a longer implementation time using more purposeful sampling methods to target those who need this kind of intervention most.

Keywords: Class Dojo, positive behavior recognition, students' perception, teacher caring

INCREASING STUDENT PERCEPTIONS OF TEACHER CARING

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Increasing Student Perceptions of Teacher Caring Using Class Dojo

Literature review

Research has demonstrated there is a connection between students' perceptions of their teachers and overall student success in school (Guess & Bowling, 2014; Teven, 2007). The affective component to student learning (i.e., emotion/feeling) is concerned with the impact students' perceptions of their teacher as caring has on student development (Guess & Bowling, 2014). Past research has shown that there is a connection between teacher caring and student success, and between caring teachers and their ability to achieve positive student perceptions and a more positive classroom atmosphere (Baird, 1973; McKeachie, Lin & Mann, 1971). Such findings have since been confirmed through further research into the topic of teacher caring and the effects perceptions can have on student success (Banfield, Richmond, & McCroskey, 2006; Guess & Bowling, 2014; Paciotti, 2010; Teven & McCroskey, 1997).

Teacher Caring

Teacher caring is defined as paying close attention to students' experiences and responding to them in a sensitive manner (Power & Makogon, 1996). Perceived caring can be viewed as an interpretation of another persons' behavior when communicating (Teven, 2007). If teachers are not perceived as caring by their students, then students will not care about or appreciate the class, and in turn will not be as successful (Guess & Bowling, 2014; McArther, 2005; Paciotti, 2010; Teven, 2007; Teven & McCroskey, 1997).

Upon exploring how students' perceive their teachers as caring versus non-caring, Teven (2001) found that an important aspect in a students' perception of teacher caring is

the teacher's ability to convey assertiveness and responsiveness in the classroom.

According to Teven (2001) assertiveness can be identified as speaking up for one's goals in the classroom. For example, reminding a student they should not be talking while pointing to class expectations, to hold them accountable for their behavior in class.

Additionally, when a teacher is assertive in the classroom he/she can ensure students are productive and active members of the classroom community. Teachers are tasked with the responsibility to also assure they are responsive in the classroom. Responsive teachers express warmth and friendliness in their interactions with students (Kearney, 1984; McArther, 2005; Paciotti, 2010; Teven, 2001; Teven, 2007). For example, responding to student questions and concerns in an understanding way that shows the students the teacher values student input.

In conjunction with this line of research, Teven (2001) conducted a study on teacher responsiveness and assertiveness to see if a teacher actively practicing responsiveness and assertiveness in the classroom had an effect on student perceptions of their teacher as caring. Teven (2001) administered a 10 part survey to 249 undergraduate students assessed how assertive and responsive their teachers were. The findings of this research indicate a relationship between a teacher's ability to be assertive and responsive, and their students' perceptions of them as caring. According to Teven (2001) these findings demonstrate that a teacher's ability to be perceived as caring by displaying assertiveness and responsiveness encourages students to care about the subject by attending class and being active participants in their education; thus, said teachers can expect more positive outcomes for students' academic success.

The findings by Teven are consistent with studies that explore teacher caring and student learning in the college setting (Christophel, 1990; Frymier, 1994; McArther, 2005; Teven & McCroskey, 1997; Tinto, 1987; Wanzer & McCroskey, 1998; Witt & Wheelless, 2001). Tinto (1987) suggests that a vital element in building student engagement is interaction with members of the academic community (e.g., teachers). McArther (2005) argues that such interactions must be positive. If students are exposed to a teacher they perceive as caring, student retention improves significantly. Further exploration into student perceptions of teacher caring and the effect it has on student retention rates in non-college settings is necessary (McArther, 2005) for effective as well as perceived learning in the classroom (Guess & Bowling, 2014; Teven & McCroskey, 1997). Such associations suggest that students' perceptions of their teachers play a major role in motivation and success in school.

Teacher caring and middle school settings. Many teachers consider caring about students to be a motivation in their decision to teach, but minimal research exists on how caring relationships are created and maintained (Adler, 2003; Paciotti, 2010). There is a major need for this kind of research in the middle school setting. Research has indicated there can be profound effects on students' success and retention in schools if students perceive their teachers as caring (Adler, 2003; Guess & Bowling, 2014; McArther, 2005; Paciotti, 2010; Teven & McCroskey, 1997; Teven, 2007).

Further, it is difficult for teachers to develop positive caring relationships with students that foster positive student perceptions of teacher caring (Adler, 2003; Guess & Bowling, 2014). Due to the abundance of responsibilities teachers have, a focus on positive relationships is not always considered in lesson planning. Teachers are under

extreme pressure to ensure their students meet proficiency requirements such as those set by the No Child Left Behind Act (NCLB, 2002; Paciotti, 2010). Considering middle school is preparation for success in both high school and college (Adler, 2003), research must focus on the types of interventions teachers can use in their classrooms to improve student perceptions.

Positive reinforcement and teacher caring. Research examining interventions to increase perceived teacher caring include the use of affinity-seeking techniques in the classroom (Frymeir & Thompson, 1992). The concept of affinity was introduced as an interpersonal communication construct and is defined as a positive attitude toward another person (McCroskey & Wheelless, 1976). Frymeir and Thompson (1992) found that the use of affinity-seeking strategies (e.g., complimenting students on their positive contributions and acknowledging they have done something right) improved students' perceptions of their teacher. There is a link between positive reinforcement (e.g., affinity-seeking techniques) in the classroom and more positive perceptions of teacher caring, and continuing to explore the use of such a strategy is worthwhile (Haydon & Musti-Rao, 2011; Paciotti, 2010).

For example, Paciotti (2010) argues that teachers can use caring behavior management (CBM; a form of behavior-specific praise) to shape student behavior and allow teachers to visibly demonstrate care for students (Paciotti, 2010; Paciotti & Covington, 2007). There is a link between positive reinforcement (e.g., affinity-seeking techniques) in the classroom and more positive perceptions of teacher caring, and continuing to explore the use of such a strategy is worthwhile (Haydon & Musti-Rao, 2011; Paciotti, 2010). For example, Paciotti (2010) argues that teachers can use caring

behavior management (CBM; a form of behavior-specific praise) to shape student behavior and allow teachers to visibly demonstrate care for students (Paciotti, 2010; Paciotti & Covington, 2007).

CBM seeks to show students that teachers are eager to celebrate their positive contributions. For CBM to work, reinforcement of desired behaviors (e.g., working hard, being respectful, and helping others) must be given frequently and continuously each time a desired behavior occurs (Haydon & Musti-Rao, 2011; Paciotti, 2010; Weber, 2005). Consistent application of positive reinforcement creates a positive caring atmosphere for students. Another major factor in successfully implementing CBM is ensuring that reinforcers are attainable for all (Paciotti, 2010; Paciotti & Covington, 2007). Teachers must reward desired behaviors exhibited by all students, including those that may not be able to sustain the behavior over long periods of time (Paciotti, 2010). CBM must incorporate visual representations of progress (e.g., stickers or tickets that represent individual achievement) to involve all students in the process of monitoring their own behavior (Paciotti, 2010).

Behavior-specific praise is beneficial for many age groups, but has been more recently explored in the middle school setting (Haydon & Musti-Rao, 2011). Haydon and Musti-Rao (2011) found that the consistent use of verbal praise to reward positive student behaviors (e.g., staying on task, taking out appropriate materials, and following directions) reduced the rates of disruptive behavior and created a more positive learning environment. The researcher indicates that an increase in behavior-specific praise results in more positive student teacher exchanges (Haydon & Musti-Rao, 2011). Positive

student teacher exchanges can improve students' perceptions of their teachers as caring (Paciotti, 2010).

What is missing from the literature is effective tools for providing effective and immediate feedback to students. Given the changing technological landscape of the classroom it is appropriate to examine a technological intervention strategy as a method for affinity-seeking strategies (e.g., behavior-specific praise). Considering the abundance of applications and other technologies available to teachers exploring the use of one of those applications, Class Dojo, is worthwhile; currently it is used by approximately 200,200 teachers in the United States (Colao, 2012). If there are potential new benefits to using Class Dojo, then this kind of research is beneficial.

Class Dojo as an intervention to improve student perceptions. Class Dojo is a free behavioral management software program that allows teachers to provide behavior-specific praise digitally to students in real-time. As such, Class Dojo may be a reasonable intervention for teachers who want to improve their students' perceptions of them as caring. This free application, which can be easily accessed through computers and mobile devices, was created as a way to help teachers manage both positive and negative student behaviors (Colao, 2012). Although research using Class Dojo is limited, Chiarelli, Szabo, and Williams (2015) used Class Dojo as a tool to enable students to recognize and ultimately self-monitor their behavior during guided reading time. The researchers found that Class Dojo had a positive impact on their students' behaviors (Chiarelli et al., 2015). Thus, more studies should utilize Class Dojo in an attempt to further explore its benefits with the classroom.

Although this application has many features (i.e., attendance, response frequency, etc.), the feature most relevant to affinity-seeking behaviors is the monitoring student behavior function in which students are provided live-time behavior-specific praise for their in-class behavior (Robacker, Rivera, & Warren, 2016). According to Florell (2015) both individual students and the whole class can be awarded points for positive behaviors (e.g., working hard, being respectful, and helping others) which aligns with the effective use of behavior-specific (Haydon & Musti-Rao, 2011). Furthermore, Chiarelli and colleagues (2015) recommend creating a cute monster avatar for each student, which helps to develop a caring and supportive relationship with the teacher. The ability to do so is a feature provided for free by Class Dojo.

In the classroom setting a teacher could simply click on a student's avatar, select the observed positive behavior and award that student a point. The student would immediately receive notification of the point awarded and what behavior they conveyed to earn that point. Through the use of Class Dojo the teacher is able to practice affinity-seeking strategies by providing students behavior-specific praise digitally throughout the day's lesson. They accomplish this by acknowledging and tracking when students do something right, and reaching out to let them know they have seen and acknowledge what they have done. Such actions align with the concepts of assertiveness and responsiveness mentioned previously.

In previous research, the use of Class Dojo has been found to improve behavioral outcomes for elementary (Chiarelli et al., 2015; Macklean-Blevins & Muilenberg, 2013) and middle school students (O'Brien & Aguinaga, 2014). In light of the research on positive reinforcement and teacher caring, it is hypothesized that teachers will be able to

use the positive behavior reinforcement function of this application to demonstrate affinity towards their students and in turn improve their students' perceptions of them as caring (Chiarelli et al., 2015; Macklean-Blevins & Muilenberg, 2013; O'Brien & Aguinaga, 2014). The use of immediate behavior-specific praise, via the use of the application Class Dojo, may convey the teacher's ability to practice assertiveness and responsiveness in the classroom (Haydon & Musti-Rao, 2011).

Purpose for the Current Study

There is a major gap in research when it comes to feasible interventions teachers can use in their classrooms to improve student perceptions of teacher caring; particularly in the middle school setting. The use of assertiveness and responsiveness in the classroom can improve students' perceptions of their teacher as caring (Haydon & Musti-Rao, 2011). Also, the use of positive behavior reinforcement via the use of Class Dojo can improve behavioral outcomes for students (Chiarelli et al., 2015; Macklean-Blevins & Muilenberg, 2013; O'Brien & Aguinaga, 2014). But what is not known is what teachers can easily implement in their classroom to convey assertiveness and responsiveness and in turn improve students' perceptions of teacher caring. Based on the research, this study seeks to explore the use of behavior-specific praise in the classroom setting, via the use of Class Dojo, to see if middle school students' perceptions of their teacher as caring will improve. The purpose of this study is to determine if the use of Class Dojo as an intervention to improve teacher caring impacts students' perceptions of teacher caring within the middle school setting.

Methods

Research Question

Does the use of daily positive behavior recognition (Class Dojo) lead to more positive perceptions of teacher caring from middle school students?

Research Design

This study used a quasi-experimental quantitative design. In this study there was one control group and one treatment group. The students in the treatment group and control group took a pre- and post-test, created by The Center for Teacher Innovation (Appendix A), to assess students' perceptions (Riverside County Office of Education, 2015). The control group received regular instruction (i.e., teacher continued their regular practice of providing verbal feedback on both positive and negative student behavior) and the experimental group received regular instruction and behavior-specific praise (Class Dojo). This study lasted one month.

Independent variable. The independent variable in this study was the use of Class Dojo to provide immediate behavior-specific praise in the middle school setting to improve student perceptions of teacher caring. Class Dojo has a positive behavior tracking feature that has been used in recent research and was be utilized in this study as a means of providing students more positive feedback on their behavior (Rivera & Warren, 2016).

Dependent variable. The dependent variable in this study was student perceptions of their teachers as caring. In the context of teaching, caring is defined as sensitively responding to students (Power & Makogon, 1996). An important aspect in a student's perception of their teacher as caring is the teacher's ability to convey

assertiveness and responsiveness in the classroom (Teven, 2001). Such perceptions were measured by a “Student Perception” survey created by The Center for Teacher Innovation, which is an organization to oversee the induction of new teachers in California (www.centerforteacherinnovation.org, 2015).

Setting & Participants

This study took place in a 7th grade English classroom at a central valley middle school in California. There were 1,152 enrolled students and the student population included 83%Hispanic, 4% identified as Asian, 1% identified as African American, and 12% identified as Caucasian. There was a roughly equal distribution of genders at this school site with 51% female and 49% male students. At the time of this study, a typical school in California consisted of roughly 48.5% female and 51.5% male students. Compared to the rest of the state, this school had a comparable gender distribution (public-schools.startclass.com, 2016). The total number of participants in this study was 56 middle school students, specifically 7th grade students. Participants for this study were selected using convenience sampling. Participants were already organized into classes by the school, the researcher was not involved in the placement of participants.

Treatment group. The treatment group consisted of 25 students. There were 15 female students and 14 male students. This group was randomly assigned to be the treatment group. There was no specific process used to decide which would be the treatment group and which would be the control group.

Control group. The control group consisted of 27 students. There were 12 female students and 15 male students.

Measures

Participant perceptions of teacher caring and credibility were measured through the use of a “Student Perceptions” survey (Riverside County Office of Education, 2015). The pre- and post-test survey questions were developed by The Center for Teacher Innovation, which is operated by the Riverside County Office of Education in California (Appendix A). The measure had not been used in prior research, but was used in California new teacher induction programs as a means of assisting new teachers in recognizing the perceptions their students have of them as caring. An induction program is a two-year program new teachers must complete in order to receive a cleared credential in California. The measure consisted of 21 questions and required students to respond to statements on a Likert scale, from strongly agree to strongly disagree. Statements addressed issues related to caring. Statement examples included: “My teacher in this class makes me feel like s/he really cares about me” and “In this class, we learn a lot almost every day.”

Validity. The measure used in this study was developed by The Center for Teacher Innovation (Riverside County Office of Education, 2015). Due to the fact that this study was assessing a population of students at a middle school that was representative of the gender demographics of the average school in California, the external validity of this study was high (public-schools.Startclass.com, 2016). The measure did not focus on a particular student demographic but rather middle school students as a whole. This particular survey has generally been used to measure sixth through twelfth grade student perceptions.

Reliability. The “student perceptions” survey was used as both the pre- and post-test (Riverside County Office of Education, 2015). The exact same survey was administered to both the control group and treatment group at the beginning and end of the three-week study. Due to the fact that the same survey was administered both at the beginning and end of the study, the test-retest reliability of this measure was high (Muijis, 2010). Reliability when scoring was ensured through the use of an Internet based survey that automatically saved student responses, required no researcher involvement, and was thus reliable. This survey employed a scale developed by Likert (1932) which used a fixed choice format for responses and was designed to measure attitudes or opinions. The Likert scale is the most widely used scale to measure attitudes or opinions in research studies (Bowling, 1997; Burns & Grove, 1997).

Intervention

This study sought to improve student perceptions of teacher caring through the use of positive behavior recognition via the use of Class Dojo. Though this application has many functions, the only one that was used in this research was the “positive behavior” function. To use this function, the teacher created an avatar for every student in the treatment group and had a screen displaying the avatars on their desk top at all times during the month long study. Students in the treatment group received instruction on how to use Class Dojo and also had it open on the chrome books on their desks at all times during the study.

When a student displayed a positive behavior, as defined previously, the teacher simply clicked the student's avatar, chose a specific positive behavior (Appendix B), and awarded that student a point. The student immediately received notification that they had

earned a point for positive behavior and saw exactly which behavior was exhibited that earned them the point. Research indicated that teachers who employ affinity-seeking strategies in the classroom, such as assertiveness and responsiveness, were more likely to achieve positive student perceptions of caring and credibility (Teven, 2001; Teven & McCroskey, 1997). The teacher was practicing both assertiveness (e.g., reacting quickly to student behavior), and responsiveness (e.g., expressing warmth and friendliness by acknowledging students who are exhibiting positive behaviors).

Procedures/Data collection

The study took place over a month long period and involved a control group and a treatment group. Neither group was informed they were participating in a study. Both groups were given the survey as a pre-test on the first day of the study, and then again on the last day of the study as a post-test. In the control group, the teacher did not change how they organize lessons or engage with students. The treatment group was given a lesson on how to sign into their Class Dojo account and were instructed to immediately log into Class Dojo at the beginning of every class period and leave their chrome books open with the application open at all times during class so that they could view their notifications.

The teacher also remained logged in and immediately clicked on the avatar of the student displaying positive behavior and provided them immediate feedback, as done in a previous study (Robacker et al., 2016). The students and the teacher in the treatment group utilized Class Dojo daily for the entirety of the three week study to provide students with positive behavior reinforcement as a means of improving student perceptions of teacher caring.

The survey was taken on the first and last day of the three-week study. The survey used was a 21 item “Student Perceptions” survey administered via google forms on the student chrome books (Riverside County Office of Education, 2015). Both the control group and the treatment group were administered the survey on the same days of the three-week study. They were instructed to log into their google classroom accounts where the teacher created the “Survey” assignment for them. Once all students logged into this account they were informed that this survey was 100% anonymous and would not count towards their grade in the course. The teacher described the scale system of the survey by providing students a think-aloud model of the process. Once all students had been given directions they silently began the survey and submitted it to Google classroom once they finished. The information gathered was stored and saved onto Google drive for both the treatment and control group.

Fidelity. To ensure fidelity an independent observer was present for 20% of the study (Appendix C). The observer was present in both the control and treatment groups. They were there to ensure the intervention was only being administered to the treatment group. This observer signed in and out each time they came to observe and were present during the beginning, middle, and end of the study.

Ethical Considerations

No aspect of this study was harmful to students or anyone else involved. All students’ responses were completely anonymous because the survey was completed in Google classroom in their individual accounts. The teacher was able to see they submitted the survey, but was not be able to identify the students’ individual responses. This was done by ensuring that the survey did not collect individual student emails and

thus did not track the exact responses of individual students. There were no threats of bodily injury and the entirety of the study took place on the middle school campus. This study did not require students to travel to any other location.

Validity threats. Despite the fact that students were not directly told they would be participating in a study, they were still informed that they were not to talk to the control group about Class Dojo. Though this study utilized convenience sampling, entire classes were used for both groups and thus sampling bias was avoided. Even though entire classes were used for this study, it was taken into consideration that the control and treatment groups matched one another as closely as possible in characteristics of age, gender, and class size. There were five classes to choose from, and these two were chosen due to their similarities. Another validity threat that was present was the potential for researcher bias as the researcher was also the teacher in both classes.

Data Analysis

All data were entered into the Statistical Package for the Social Sciences® (SPSS®) for Windows, version 24.0.0 (SPSS, 2016). No names or identifying information were included in the data analysis. Before analyses were conducted all data were cleaned to ensure no outliers were present (Dimitrov, 2012). After cleaning the data, the final sample size was 26 participants for the treatment group and 27 participants for the control group. Independent (control and treatment groups) and paired (pre-test and post-test) sample t-tests were conducted to determine the difference in student perceptions of teacher caring on the “Student Perceptions” survey (Riverside County Office of Education, 2015). Further, before interpreting the analytical output, Levene’s Homogeneity of Variance was examined to see if the assumption of equivalence had been

violated (Levene, 1960). If Levene's Homogeneity of Variance was not violated (i.e., the variances were equal across groups), data were interpreted for the assumption of equivalence; however, if the variances were not equal across groups the corrected output was used for interpretation.

Results

Two independent samples t-tests were conducted on the whole sample ($n = 53$) for both the pre- and post- assessment scores. Results for the pre-test were: Levene's Homogeneity of Variance was not violated ($p > .05$), meaning the variance between groups was not statistically different and no correction was needed, and the t-test showed non-significant differences between the mean scores on the pre-tests between the two groups $t(53) = .31, p > .05$. Therefore, the means on the pre-test were not statistically different between the two groups and thus comparisons were deemed acceptable (see Table 1).

Results for the post-test were: Levene's Homogeneity of Variance was not violated ($p > .05$), meaning the variance between groups was not statistically different and no correction was needed, and the t-test showed non-significant differences between the mean scores on the post-tests between the two groups $t(53) = 1.3, p > .05$. Therefore, both groups scored statistically similar on the post-test (see Table 1). These findings contradict the original hypothesis that using Class Dojo would lead to the treatment group students' having higher perceptions of teacher caring than the control group.

Table 1

Results of Independent Samples T-Tests

	Mean	SD
Pre Test		
Treatment	2.90	.27
Control	2.90	.25
Post Test		
Treatment	3.00	.31
Control	2.80	.42

Note. SD = Standard Deviation.

After determining the differences between pre- and post- assessment scores between groups, two paired t-tests were run for both groups (i.e., treatment and control) to determine if participants mean scores from pre- to post- were significantly different within each group (see Table 2). Results for each group were as follows: treatment group, $t(25) = -1.0, p > .05$; control group, $t(27) = .60, p > .05$. There was no statistically significant difference between pre- and post-test for both groups. Additionally, even though there were no significant difference, the negative t-value for the treatment group indicates an increase in scores from pre- to post-test (see Table 2). Although there was a very small increase from the pre- to post- test for the treatment group, these findings do not support the original hypothesis as the increase was not statistically meaningful.

Table 2

Results of Paired T-Tests

	Mean	SD
Treatment Group		
Pre	2.90	.27
Post	3.00	.31
Control Group		
Pre	2.90	.25
Post	2.80	.41

Note. SD = Standard Deviation.

Discussion

This study sought to improve students’ perceptions of their teacher as caring through the use of positive behavior recognition (i.e., Class Dojo). This study had a total of 52 participants from a central California middle school. There was a treatment and control group that both took a pre- and post-test that assessed students' perceptions of their teacher as caring. The pre- and post-test were the same 21 question survey developed by the Center for Teacher Innovation and measured students' opinions on Likert scale (from strongly agree to strongly disagree). The intervention was one month long in which the control group received regular instruction (i.e., no change) and the treatment group was given Class Dojo and access to a Chromebook to view their accounts throughout every class period.

The researcher hypothesized that the use of daily positive behavior recognition (i.e., Class Dojo) would improve such perceptions. The researcher had hoped to emulate the findings of previous research which found that the use of caring behavior management (CBM), which is a form of positive behavior recognition, created a more positive learning environment and created more positive student-teacher exchanges

(Haydon & Musti-Rao, 2011; Paciotti, 2010; Weber, 2005). The researcher believed that creating a more positive learning environment and increasing the amount of positive student-teacher exchanges would also improve students' perceptions of their teacher as caring.

Unfortunately, this study did not yield any statistically significant results indicating the use of positive behavior recognition (i.e., Class Dojo) improved such perceptions. This may indicate that Class Dojo was not an effective resource in trying to change students' perceptions of their teacher as caring. Class Dojo was not designed as a tool to improve students' perceptions of their teacher as caring. In previous studies, Class Dojo was used as a tool to help students self-monitor their behavior during teacher directed guided reading time (Chiarelli et al., 2015). One particular study found that Class Dojo did have a positive impact on first grade students' behaviors and helped those students become more cognizant of their own behavioral choices (Chiarelli et al., 2015). In the study done by Chiarelli and colleagues the researchers used both the positive and negative feedback functions to help students monitor their positive and negative behaviors (2015). In this study the researcher used only the positive behavior function to give students immediate positive feedback and hypothesized that this positive recognition would improve students' perceptions of their teacher as caring. The researcher in this study was the first to explore Class Dojo as a tool to improve students' perceptions and there were some limitations in the current study which may be another reason why there were not statistically significant findings.

Limitations

The lack of sufficient evidence to support the use of positive behavior recognition (i.e., Class Dojo) as a means of improving students' perceptions of their teacher as caring may result from limitations identified throughout the study. The first limitation of the study was technological restraints experienced by both the students and teacher. The teacher in this study was not aware that students would need to get parent permission via email to make a Class Dojo account. Such a requirement created an issue for the teacher that took extra time and effort to remedy.

Additionally, students also struggled to remember their log in and password and thus created another obstacle for the teacher which, again, took extra time and effort to remedy. The teacher provided specific windows of time each class period for students to check their Class Dojo accounts, but quickly found she had to actively monitor students to ensure they were not engaging in unrelated activities on the chrome book. Prior to the study, the students in the treatment group only used the chrome books to work on occasional activities, and were not used to using it on a daily basis. Given this extra opportunity to use chrome books students would become distracted and off task (i.e., checking their emails and playing typing games). Due to the novelty of using the chrome books students did not always check their Class Dojo account which may have affected the results of this study. Therefore, future researchers who use chrome books should ensure students are used to using them daily and are aware of standard procedures when using the Chrome Books so as to avoid some of the issues represented in this study.

Another limitation of this study was the sampling method and sampling size. This study utilized convenience sampling, which is not the most effective sampling method.

More purposeful sampling (i.e., looking specifically for students who have a poor relationship with their teacher) may yield better results. The sampling size for this study ($n = 53$) was quite small and the overall sample did not have much variability (i.e., scoring high on the pre-test did not leave much opportunity for growth). Had the sample size been larger and had it included a wide variety of teachers who do not yet have established relationships with students (e.g., at the beginning of a school year) then there may have been more statistically significant findings.

The single greatest limitation, however, was that on the pre-test both the treatment and control groups indicated that students' perceptions of their teacher as caring were already quite high. Due to this fact, there was not much room for growth and thus the study did not yield any quantifiable support that the use of Class Dojo improves students' perceptions of their teacher as caring. Future studies should start at the beginning of the school year so students do not have any conceptions of their teacher as caring or not. Moreover, Class Dojo was not created with the intention of improving students' perceptions, but was instead created as a classroom management tool for teachers. The researcher hypothesized that the positive feedback function of Class Dojo might improve such perceptions, but because the app was not designed with that purpose in mind that may also be a reason there were no significant findings.

Suggestions for Future Research

In order to fully understand what effect positive behavior recognition (Class Dojo) can have on students' perceptions of their teacher as caring, it is vital that future studies begin at the beginning of the school year. In the beginning of the school year students are less likely to fully perceive their teacher as caring about them because they

have not yet had a chance to form a relationship. Starting the study at the beginning of the year may allow researchers a better opportunity to measure growth in such perceptions. Future researchers should also familiarize themselves with the Class Dojo app and how to set up student accounts prior to beginning the study. In doing so, they may avoid unnecessary time loss and frustration. The researcher should integrate technology and/or have guidelines for the use of tech to avoid off task behavior by students. In providing technology integration before the study and guidelines for the use of technology the researcher may avoid many of the off task behaviors by students exhibited in this study. Another suggestion for future researchers is to advise the teacher to keep a list of student log in and passwords on them at all times during the study to, again, avoid any unnecessary time loss and frustration. The last suggestion for future research is to not use large random sampling for this kind of research. The researcher may yield more statistically significant results if they use more purposeful sampling in which they target students who do not have positive perceptions of teacher caring, as they may see a change in the students' perceptions.

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Appendix A

6th-12th Grade Student Perception Survey

My teacher in this class makes me feel s/he really cares about me.

- Strongly Disagree
- Disagree
- Agree
- Strongly Agree

My teacher seems to know if something is bothering me.

- Strongly Disagree
- Disagree
- Agree
- Strongly Agree

My teacher really tries to understand how students feel about things.

- Strongly Disagree
- Disagree
- Agree
- Strongly Agree

Student behavior in this class is under control.

- Strongly Disagree
- Disagree
- Agree
- Strongly Agree

I hate the way that students behave in this class.

- Strongly Disagree
- Disagree
- Agree
- Strongly Agree

Student behavior in this class makes the teacher angry.

- Strongly Disagree
- Disagree
- Agree
- Strongly Agree

Student behavior in this class is a problem.

- Strongly Disagree
- Disagree
- Agree
- Strongly Agree

My classmates behave the way my teacher wants them to.

- Strongly Disagree
- Disagree
- Agree
- Strongly Agree

Students in this class treat the teacher with respect.

- Strongly Disagree
- Disagree
- Agree

- Strongly Agree

Our class stays busy and doesn't waste time.

- Strongly Disagree
- Disagree
- Agree
- Strongly Agree

My teacher asks questions to be sure we are following along when s/he is teaching

- Strongly Disagree
- Disagree
- Agree
- Strongly Agree

My teacher asks students to explain more about the answers they give.

- Strongly Disagree
- Disagree
- Agree
- Strongly Agree

In this class, my teacher accepts nothing less than our full effort.

- Strongly Disagree
- Disagree
- Agree
- Strongly Agree

My teacher doesn't let people give up when the work gets hard.

- Strongly Disagree

- Disagree
- Agree
- Strongly Agree

My teacher wants me to explain my answers—why I think what I think.

- Strongly Disagree
- Disagree
- Agree
- Strongly Agree

In this class, we learn a lot almost every day.

- Strongly Disagree
- Disagree
- Agree
- Strongly Agree

In this class, we learn to correct our mistakes.

- Strongly Disagree
- Disagree
- Agree
- Strongly Agree

This class does not keep my attention—I get bored.

- Strongly Disagree
- Disagree
- Agree
- Strongly Agree

My teacher makes learning enjoyable.

- Strongly Disagree
- Disagree
- Agree
- Strongly Agree

My teacher makes lessons interesting.

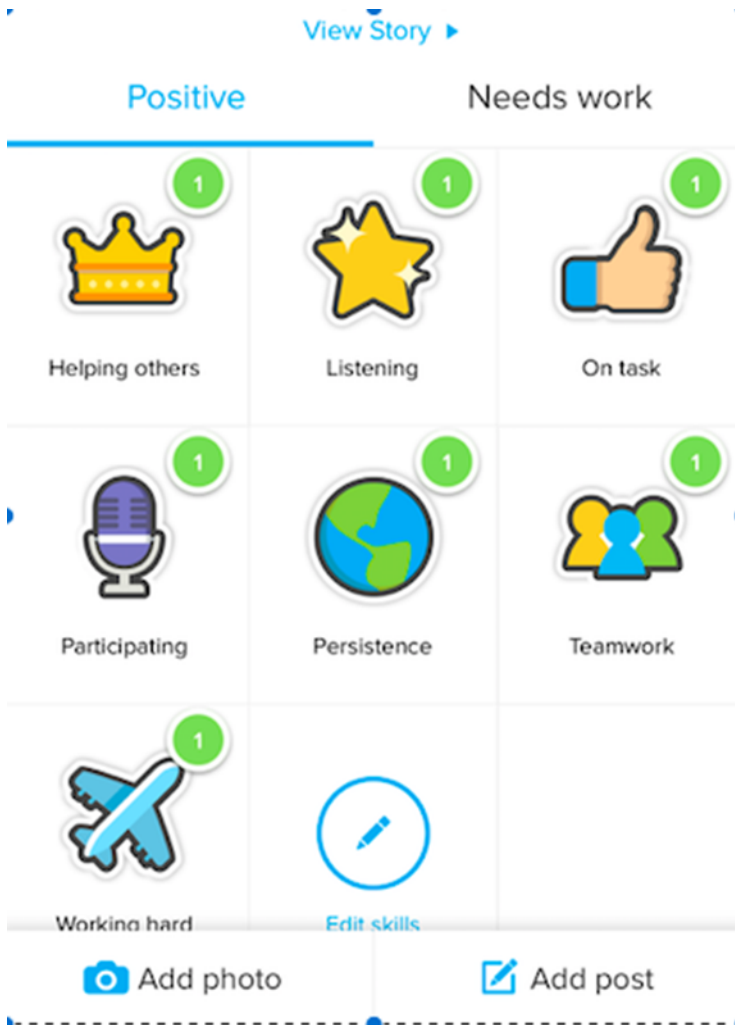
- Strongly Disagree
- Disagree
- Agree
- Strongly Agree

I like the way we learn in this class.

- Strongly Disagree
- Disagree
- Agree
- Strongly Agree

Appendix B

Class Dojo Specific Positive Behaviors



Appendix C

Fidelity Checklist

Date	Treatment/Control	Signature/Initial
Friday, March 3, 2017	Treatment	D.W.
Wednesday, March 8, 2017	Control	D.W.
Thursday, March 14, 2017	Treatment	D.W.
Tuesday, March 21, 2017	Control	D.W.
Thursday, March 30, 2017	Treatment	D.W.