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Utilizing Incentives to Increase Teacher Praise

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Table of Contents

Acknowledgements .................................................................................................................. 4
Abstract ........................................................................................................................................ 5
Introduction .................................................................................................................................... 6
School-Wide Positive Behavioral Intervention and Supports (SWPBIS) ....................................... 8
Teacher Praise ............................................................................................................................... 13
Literature Review .......................................................................................................................... 14
   Praise as a Behavioral Intervention .............................................................................................. 14
   Social Validity of Praise in the Classroom .................................................................................. 17
   Praising At-Risk Students .......................................................................................................... 19
   Praise Training and Teacher Incentives .................................................................................... 20
   Theoretical Considerations for Incentivizing Teacher Use of Praise ......................................... 22
Current Study ............................................................................................................................... 24
Methods .......................................................................................................................................... 26
   Setting ......................................................................................................................................... 26
   Participants ................................................................................................................................. 26
   Materials ...................................................................................................................................... 26
   Procedures .................................................................................................................................... 31
   Data Analysis ............................................................................................................................. 35
Results ............................................................................................................................................ 36
Discussion ....................................................................................................................................... 42
   Using Incentives to Increase Behavior Specific Praise (BSP) Notes ........................................... 42
   Using Incentives to Decrease Office Discipline Referrals (ODRs) ............................................. 45
   Non-At-Risk vs. At-Risk Student BSP and ODR Rates ............................................................... 46
Faculty Members Who Write Praise Notes

Social Validity

Limitations

Implications and Future Directions

Reference

Tables

Table 1: Student Demographics

Table 2: Staff Demographics

Table 3: Average Percentage of BSP Notes Written per Week by Staff Type

Table 4: Means and Standard Deviations by Phase for BSP Notes and ODRs

Table 5: Effect Size and Classification for BSP Notes and ODRs

Table 6: Social Validity Results

Figures

Figure 1: Non-At-Risk Student BSP and ODR rates

Figure 2: At-Risk Student BSP and ODR rates

Appendix

Appendix A: Praise Note Example

Appendix B: Participating School’s Behavior Matrix

Appendix C: Faculty Preference Assessment of Intervention Prizes

Appendix D: List of Prizes Delivered

Appendix E: Social Validity Assessment

Appendix F: Letter of Explanation to Faculty at Beginning of Study

Appendix G: Letter of Explanation to Faculty at Introduction of Incentives
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Abstract

An ABA single-subject research design was used in examining the effect on school staff's written praise and student behavior when staff were provided with an incentive (i.e., would an incentive raffle increase written praise and appropriate student behavior?). Participants included 93 staff members and 755 students at an elementary school in central Illinois. School staff members were instructed on the importance of using praise, and praise notes were measured on a weekly basis by praise type (behavior-specific or general), staff member type (core teacher, non-core teacher, or non-teacher), and student type (at-risk or non-at-risk). Results indicated that the faculty incentive produced medium effects for praise in both student groups. However, the faculty incentive did not affect the number of office discipline referrals given to either student type. Staff members indicated that they found praise notes to be an acceptable school-wide system for managing student behavior, but had mixed feelings regarding faculty receiving prizes for writing praise notes. Implications as well as future research are discussed.

Keywords: Positive Behavior Intervention and Supports (PBIS), praise, praise notes, behavior specific praise (BSP), at-risk students, office discipline referrals (ODRs), teacher/school staff training, teacher/school staff incentives.
INTRODUCTION

Since No Child Left Behind was introduced in 2001, there has been a push across the nation to reform education practices to improve student educational outcomes (Detrich & Lewis, 2012). With this reform, more pressure has been placed on teachers to change their classroom practices to help students reach objective, measurable, and higher levels of achievement (Cavanaugh, 2013; Detrich & Lewis, 2012; Lingo, Barton-Atwood, & Jolivette, 2011). Many factors influence student achievement, such as evidenced-based academic instruction and effective behavior management. Teachers who utilize evidence-based instruction paired with evidenced-based classroom management methods are more likely to efficiently and effectively manage class time. This increases the likelihood that students will be on-task and directly engaged with classroom material (Reinke, Herman, & Stormont, 2013). This study aimed to examine whether implementation of a teacher incentive for use of an evidence-based classroom management strategy (i.e., written behavior specific praise notes) increased rates of behavior specific praise notes and decreased student misbehavior, particularly in at-risk students.

It is pertinent to the field of education to inspire teachers to incorporate evidence-based behavior management strategies into everyday use in their classrooms. When teachers use ineffective classroom management strategies, students are likely to receive less academic instruction. This is because the teacher directs more of their time and attention toward student misbehavior rather than providing quality academic instruction. Ineffective behavior management strategies are related to poor student outcomes, as well as poor teacher outcomes.
Teachers are more likely to experience burnout or leave the field of education when they struggle to effectively manage student behavior in their classrooms. Difficulties with classroom management was cited as one of the top three threats to teacher attrition (Curtis, 2012). This threat is costly to the schools where teachers with inadequate behavior management strategies teach because they may choose to leave the field (Curtis, 2012; Mee & Haverback, 2014). Therefore, it is imperative that teachers have the tools to successfully manage the students in their classes. Teachers who are more confident in managing their classrooms have higher rates of self-efficacy, more positive interactions with their students, and better job satisfaction. Ultimately, these teachers have higher-achieving students as a result (Reinke et al., 2013).

One simple and free classroom management strategy is teacher praise (Becker, Madsen, Arnold, & Thomas, 1967; Madsen et al., 1970). The functional relationship between praise and student behavior is well documented (Haydon & Musti-Rao, 2011; Madsen, Becker & Thomas, 1968; Pisacreta, Tincani, Connell, & Axelrod, 2001). When teachers provide positive social reinforcement (i.e., praise) to students for appropriate behavior, students are less likely to misbehave and more likely to demonstrate appropriate behavior. When students are not misbehaving, teachers spend less time reacting and disciplining. This gives them more time for academic instruction, which leads to higher student academic engagement and productivity (Chalk & Bizo, 2004).

Positive findings have been reported from studies that train teachers to increase their use of praise with students; however, it is unclear which training methods provide the best, most cost-effective and beneficial results (Floress, Beschta, Meyer, & Reinke, in press). Having a wider breadth of information regarding teacher praise training has the potential
to significantly influence system-wide preventative programs, like School-Wide Positive Behavior Intervention Supports (SWPBIS; Reinke et al., 2013), teacher professional development, and teacher consultation.

In a review of the teacher praise training research, Floress et al. (in press) found that delivering incentives to teachers to increase their use of praise was the most infrequently studied praise training method. In fact, only one of the 29 articles reviewed utilized teacher incentives. Studying whether teacher incentives increases teachers’ use of praise is particularly interesting because of its simple, easy, and cost-effective training potential. Furthermore, many schools already implement tangible reinforcers (i.e., tickets, stars, candy) in combination with teacher praise to recognize student appropriate behavior as part of their school’s SWPBIS program (Nelson, Young, Young & Cox, 2010). Adding teacher incentives is a straightforward, logical addition to current praise note practices that has the potential to significantly increase teachers’ use of praise. Further, students identified as at-risk for problem behavior are more likely to receive fewer praises (VanAcker, Grant, & Henry, 1996; Kern & Clemens, 2007), have poor relationships with teachers, struggle academically, and to drop out of school (Dufrene et al., 2012). If incentives increase praise to all students, providing additional incentives to teachers who praise at-risk students could bridge this discrepancy.

**School-Wide Positive Behavioral Intervention and Supports (SWPBIS)**

SWPBIS is a school-wide framework of prevention that utilizes multiple tiers of support to promote a positive and safe school environment (Reinke et al., 2013; Sugai & Horner, 2002). Similar to the Response to Intervention (RTI) framework that allows teachers to differentiate their instruction to meet student's individual instructional needs
(Moors, Weisenburgh-Snyder, & Robbins, 2010), SWPBIS utilizes differentiated tiers of support to meet the individual behavioral needs of students. This framework is most commonly depicted as an isosceles triangle, with approximately 80% of students having their needs met by universal support systems (tier one), approximately 15% of students needing some type of additional support (tier two), and less than 5% needing individualized support to succeed in the school (tier three). This multitier framework provides proactive and preventative supports to all students in the school, and provides additional support for students that still exhibit behavior that are determined to be problematic in the school setting (Feuerborn, Tyre, & King, 2015).

Ultimately the goal of SWPBIS is to increase student success by improving behavior and social skills among the student body (Howell, Caldarella, Korth, & Young, 2014). SWPBIS is well-supported in the research literature as effectively decreasing student problem behavior and increasing student academic performance (Bradshaw, Mitchell & Leaf, 2010; Horner et al., 2009; Reinke et al., 2013). With all students benefiting from the supports at the universal level, it is critical that the first tier of a SWPBIS system be well-formed and evidence-based. This helps all students perform to their highest potential in school. Though some students will need additional support, approximately 80% of the student body should only require these universal supports to succeed (Reinke et al., 2013). The SWPBIS framework includes four major components at the tier one (universal) level: (1) clear and positively stated rules and expectations, (2) effective instruction, (3) responding to behavioral violations, and (4) reinforcing student appropriate behavior (Reinke et al., 2013). Each of these components are described next.
Clear, Positively Stated Rules and Expectations

First, it is necessary to develop school-wide rules that clearly outline student behavioral expectations across every school setting and explicitly teach these expectations to students. Rules should be stated in a developmentally appropriate way, in a manner that informs the student of what they need to do rather than what they should not do (for example, walk in the hallway, rather than do not run in the hallway; Sugai & Horner, 2002). To effectively communicate expectations to students, rules must be stated positively. Rules should also include common language across school settings, so students generalize appropriate behavior in a variety of school settings. For instance, Carter and Pool (2012) outlined the process of implementing and providing instruction of clear and positively stated rules in a preschool setting. The authors described how they give children three general expectations, (1) We take care of ourselves, (2) We take care of our friends, and (3) We take care of our school. These guidelines were taught to the children by giving specific, positively stated examples of how these rules can be followed in different areas of the school, such as the bathroom, outside, during circle time, during meal time, and while waiting for the bus at the end of the day (e.g., “Eyes on teacher,” “Use your walking feet,” “Use inside voices,” and "Treat all equipment gently.")

Rules and expectations must also be explicitly taught to students. It is not enough for the rules of the classroom to passively be hung on the wall, rather the teacher needs to take time to teach and review the expectations with students. This ensures that all students are learning what is expected while they are in the classroom or other school settings. For example, Carter and Pool (2012) outlined how to explicitly teach a lesson on the behavioral expectations for the classroom and other school environments, why each
expectation is in place, and examples along with non-examples of the expectations. Students should also be provided with the opportunity to demonstrate their understanding of these expectations and receive reinforcement for meeting the expectations during the learning process. To do this, teachers might ask students questions about the expectations or have students demonstrate certain expectations. During this lesson, teachers should provide corrective feedback and/or praise for appropriate responses. In the Carter and Pool article, the teacher gave students the opportunity to demonstrate the new expectations in the five different settings. In addition, the teacher provided students feedback during sessions where new expectations were taught so that children knew that their behavior was in-line with the new expectations or learned what they needed to do instead to meet the new expectations (2012).

Effective Instruction

A second component of SWPBIS is effective instruction. Effective instruction refers to utilizing evidence-based practices during classroom academic instruction to maximize time spent teaching and to increase student engagement in learning. Effective instruction increases student outcomes because students who are actively engaged in learning cannot simultaneously be off-task. Not surprisingly, lower levels of off-task behavior are related to higher rates of achievement (Greenwood, Terry, Marquis, & Walker, 1994). Examples of effective instruction include appropriately pacing instruction, using relevant materials that are challenging yet not above the students’ instructional level, and providing opportunities to respond to questions about the curriculum (Reinke et al., 2013).
Responding to Behavioral Violations

A third component of SWPBIS is implementing consequences consistently across settings for student misbehavior. It is also important that consequences are matched appropriately to the magnitude of the misbehavior. When consequences are delivered, the staff member should clearly identify a better alternative to the misbehavior so the student has an idea of what should be done differently in the future (Reinke et al., 2013). Implementing punishments that increase in severity as misbehavior is repeated (e.g., three office referrals then suspension) is not effective (i.e., does not decrease misbehavior), but in fact increases the occurrence of misbehavior (Sugai, Sprague, Horner, & Walker, 2000). Rather than using punitive measures, teachers and administrators should use concise statements that inform the student of what rule they have broken and redirect the student to a more acceptable behavior for the situation. Other strategies, such as planned ignoring of minor misbehavior to decrease inappropriate classroom behavior, are also effective in minimizing student misbehavior (Reinke et al., 2013).

Reinforcing Appropriate Student Behavior

Finally, the last component of SWPBIS is reinforcing students’ appropriate classroom behavior. Rather than focusing on reprimanding negative behavior, identifying appropriate student behavior helps create a positive classroom environment. When teachers identify what students do correctly and express their approval, it fortifies a positive student-teacher relationship, which leads to a more positive classroom and educational experience (Conroy, Sutherland, Snyder, Al-Hendawi, & Vo, 2009). Identifying appropriate student behavior allows teachers to become “an active agent of prevention who influences and regulates the classroom environment to promote and
maintain appropriate student behaviors” (Partin, Robertson, Maggin, Oliver, & Wehby, 2010, p. 173). Furthermore, when students have higher rates of positive interactions with their teachers, they are more likely to have higher positive academic and social outcomes (Reinke et al., 2013). Praise is one way to reinforce student appropriate behavior.

**Teacher Praise**

Praise is a simple and easy way to reinforce student appropriate behavior. Praise is defined as an expression of approval for a behavior (Brophy, 1981; Chalk & Bizo, 2004). The praise statement acts as a form of positive social reward, which is intended to increase the likelihood that the behavior will be performed again in the future (i.e., reinforcement for appropriate behavior). Consequently, as students engage in more appropriate behavior, they have fewer opportunities to engage in disruptive behavior (Partin et al., 2010). Use of praise in the classroom is also positively associated with students following directions, being on-task, correctly answering academic questions, and accurate homework completion (Partin et al., 2010).

There are two commonly identified types of teacher praise, general praise (GP) and behavior-specific praise (BSP; Brophy, 1981). A GP statement is one that does not inform the recipient what they were doing to receive the praise, but still expresses approval (i.e., “Good job!” or “Nice work!”). The statement “good job” lets the child know they did something that lead to praise, but what exactly they did that led to approval may not be clear. On the other hand, BSP tells the recipient exactly what they did that led to praise (i.e., “Good job turning your homework in on time!” or “Nice work raising your hand quietly while you waited to be called on!”). In these examples, the child hears the teacher tell them explicitly what behavior they exhibited to earn the
praise. It is widely accepted that BSP is a superior form of praise because it identifies the exact behavior that led to positive attention, and therefore increases the likelihood that the child will repeat that same behavior in the future (Brophy, 1983). Both inside and outside of the classroom, BSP has been identified as an effective component of several behavior modification interventions.

Literature Review

Praise as a Behavioral Intervention

BSP has been an integral part of several interventions aimed at changing behavior. Its effective use has been demonstrated across ages and different levels of development (typical students as well as students with cognitive, social, and/or emotionally delayed children). For instance, Fullerton, Conroy, and Correa used praise to change the behavior of young children that were at-risk for behavioral disorders (2009). In this study, the researchers trained four early childhood teachers to deliver BSP statements to targeted, at-risk students in their classroom. All four targeted children increased their compliant responses and engagement during instruction (Fullerton et al., 2009).

Similarly, Allday et al. trained general education teachers to use BSP with children that had already been diagnosed with or were suspected of having an emotional/behavioral disability (2012). Four general education teachers (kindergarten through sixth grade) participated, along with one or two target students identified per teacher. Teacher training included a 30 to 40-minute training session that provided BSP didactic instruction (i.e., definition, examples and non-examples, examples of teachers’ use of BSP during baseline, review of the teachers’ use of BSP rates at baseline), and
opportunity for the teacher to set a personal BSP goal along with time to think of specific times during the day they could increase their use of BSP. Results indicated that as teachers’ BSP statements increased so did the on-task behavior of all students targeted for intervention.

Reinke, Lewis-Palmer, and Martin (2007) also examined the effects of increased teacher BSP rates on student disruptive behavior. This study focused on providing initial didactic training to teachers on effective praise, as well as gave each teacher daily visual performance feedback (VPF). VPF was provided so that each teacher could see his or her own implementation of praise. In three general education classrooms, six students were targeted. While baseline and intervention data were collected on the teacher’s praise and the target student’s disruptive behavior, data were also collected on a comparison peer. Results indicated that when teachers’ BSP rates increased, target students’ and a comparison peers’ disruptive behavior decreased. These results further support the functional relationship between teacher praise and decreasing disruptive behavior. Additionally, these findings suggest that when BSP is delivered to target students, non-targeted students also benefit. In this study, teachers not only increased their rates of BSP to target students, but also generalized BSP to all students in the class. It was observed that disruptive behavior of both the targeted students and their identified comparison peers decreased. Another noteworthy point of this study were the high levels of social validity. All three teachers rated the intervention as “very important, very effective, and very positive” (Reinke et al., 2007).

Research has suggested that praise is an effective strategy for decreasing other problem behavior in addition to off-task and disruptive behavior. Caldarella, Christensen,
Young, and Densley (2011) examined whether using praise notes decreased student tardiness. A praise note is a small slip of paper with a written praise statement provided to a student when they meet or exceed behavioral expectations. Rather than using punitive measures (e.g., verbal reprimand, office referrals) to address student tardiness which increases the amount of missed instruction, Caldarella and colleagues delivered praise notes to six target students with established patterns of tardiness when they arrived to school on time. Teachers provided BSP notes that described how responsible the student was for being on-time for class or implemented planned ignoring when students arrived late. Results indicated that the three students who were identified as moderately tardy had a 78% decrease in their minutes tardy and the students identified as severely tardy had an 84% decrease in their minutes tardy. Thus, targeted students increased their time spent in the classroom and received larger amounts of teacher instruction after the praise note intervention was implemented. This study also demonstrated the flexibility of using targeted praise notes within a larger praise note system because the school where the study took place used praise notes school-wide to increase other positive student behavior.

In sum, BSP praise is an effective strategy for changing maladaptive behavior, such as aggression, tardiness, and non-compliance. In addition to its efficacy, BSP has strong social validity, as the majority of teachers trained to use BSP in their classrooms have found it to be an easy, simple, and effective method of positively regulating the behavior of their students (Howell et al., 2014). The next section will review the social validity of praise in the classroom.
Social Validity of Praise in the Classroom

Determining the social validity of any intervention is important for many reasons. When participants rate interventions as having high social validity, they are also more likely to implement interventions with fidelity (Dart, Cook, Collins, Gresham, & Chenier, 2012; Howell et al., 2014). Further, when the individual implementing the intervention does so with fidelity, the intervention is more likely to result in the intended outcomes. In the case of BSP, intended outcomes would include an increase in student appropriate behavior and a decrease in inappropriate behavior. Along with having the skills to implement an intervention, when the teacher finds the intervention to have social validity they are more likely to feel empowered in their use of the intervention, which further plays into lowering rates of teacher attrition when examining teachers who are leaving the education field due to frustration surrounding behavior management in the classroom (Curtis, 2012).

Social validity is the acceptability of interventions as determined by the stakeholders in the intervention (Gresham & Lopez, 1996). Simply stated, an intervention has high rates of social validity when the individual implementing it finds it to be acceptable. High rates of social validity are particularly important in determining the usage that a teacher will get out of an intervention in their classroom due to the many constraints that are in place, such as time constraints, administrative pressures, and meeting curriculum objectives.

Adherence to an intervention’s protocols is needed for the intervention to have its intended effects, which then allows the individual or group of people being targeted by the intervention to benefit from the intended outcomes of the intervention (Dart, 2012).
For instance, if increasing rates of BSP in a classroom is the intervention, the BSP must be delivered with high rates of fidelity for the students in the classroom to obtain the benefits associated with these increased rates of teacher praise. An intervention can only be as effective as how well it is implemented, i.e., the targets of the intervention (in this case, the students) will not benefit from an intervention, regardless of how evidenced-based the intervention is, if the intervention is not being implemented with fidelity.

Howell et al. (2014) examined the social validity of praise notes used at an elementary school by surveying teacher, parent, and student opinions of praise notes. All participants were presented with a measure of thirteen items and asked to rate their personal opinions about praise notes on a five-point Likert scale. The results were largely positive; over 90% of all participants believed that students should be praised for their appropriate classroom behavior and that students enjoyed receiving praise notes. Further, over 80% of all participants believed that praise notes helped students to improve their behavior and 91% of students believed that praise notes were an important way for teachers to communicate their expectations to students. Overall, 81% of teachers and over 90% of students and parents believed that praise notes should be used the following school year, indicating high rates of social validity from the three main categories of stakeholders in the praise note intervention.

Though most responses were positive, there were a few concerns. Approximately 40% of teachers expressed that writing praise notes was too time consuming. Overall teachers were positive about the praise note system; however, finding ways to further improve praise notes may increase teachers’ use of this intervention. For instance, providing an incentive to teachers who write praise notes may make the system more
enjoyable due to receiving a tangible token of appreciation along with observing an increase in students’ appropriate classroom behavior. In fact, it is possible that providing students praise is not immediately reinforcing for many teachers. White (1975) found that teachers of higher level grades (middle school & high school) praised less than elementary teachers. She suggested that the decline in praise might be because teachers of young students are more likely to see a direct relation between their praise and changes in student behavior, where this relation is less obvious among older children (Floress & Jenkins, 2015). It may also be less reinforcing for teachers to praise students with greater behavioral difficulties in the classroom (Sutherland, Wehby, & Copeland, 2000), which further demonstrates the need to identify effective and socially valid systems of behavior management.

**Praising At-Risk Students**

It is likely difficult for teachers to provide praise to students that demonstrate higher rates of disruptive behavior. Teachers report that working with students with disruptive behavior is one of the most stressful parts of their job (Allday et al., 2012). Therefore, it is important to find effective and efficient ways to train teachers in behavior management strategies that alleviate teacher stress related to student behavior. When students’ behavior is appropriately and proactively regulated, the need to use reactive behavior management is minimized. This leaves more time for the teacher to provide instruction to students, giving more time for students to focus on classwork. In addition to the more observable productivity increase, teachers providing praise to at-risk students can also increase child/teacher rapport, which can aid in creating a more positive classroom environment for all students (Sutherland et al., 2000).
Teachers reported feeling more emotionally exhausted in their classroom when they deliver higher rates of reprimand (Reinke et al., 2013). Not only do students with behavioral difficulties receive fewer praise statements, they also receive more reprimands. Therefore, it is important to find more ways to instruct teachers and other faculty members to provide positive behavior supports rather than focusing on negative behavior. This can be a difficult task when a student demonstrates more inappropriate behavior than appropriate behavior and the teacher does not see the change in student behavior readily at the beginning of the intervention. Because teachers have difficulty praising students in general, let alone students who are at-risk for behavior problems, it is important to find training methods that are simple and effective. These training methods must also provide reinforcement with immediacy for teachers so that they are encouraged to sustain higher rates of praise over time (Dufrene, Lestremau, & Zoder-Martell, 2014).

**Praise Training and Teacher Incentives**

Although the benefits of implementing higher rates of BSP is well documented, understanding which praise training approach is best (i.e., most efficient and time and cost effective), is less clear. In a review of the literature, Floress et al. (in press) found that teacher praise training can be broken into seven categories: (1) didactic, (2) in vivo, (3) self-monitoring, (4) goal setting, (5) teacher incentive, (6) feedback, and (7) prompts. These training methods range from indirect methods (e.g., didactic education) to direct methods (e.g., in vivo coaching during classroom instruction). Dufrene et al. argued that indirect methods of training might not have as long lasting effects (as compared to direct methods) after consultation services are removed (2012). Training may also be improved by specifically matching teacher need with teacher training. Teachers with a higher need
for behavior management training may benefit from more direct training compared to teachers with less need (Floress et al., in press). It is also possible that simply rewarding teachers for praising may increase their use of BSP. In the Floress et al. review, only one of the 29 studies reviewed examined the effects of incentives on teacher praise (Nelson et al., 2010).

Nelson et al. (2010) examined the effects of a school-wide praise note system on middle-school students' behavior. After educating teachers on the importance of praise within the SWPBIS system and how to complete praise notes at the beginning of the intervention, it was observed that teachers used praise notes at low frequencies in the first seven months of the study. To combat this low utilization of notes, in the last two months of the first school year and through the second year, teachers were rewarded in two different ways for writing praise notes. First, teachers' praise notes were periodically placed in a lottery for prizes. The drawing for prizes occurred during faculty meetings, so it is assumed that these drawings took place monthly, but this is unclear based on the information provided. The authors also did not specify what “prizes” were given at the raffle. Second, teachers earned gift certificates to local restaurants when they reached set praise note benchmarks (e.g., 25, 60, 100, and 150 written praise notes). Teachers who met the 60, 100, and 150 benchmarks earned gift cards to "higher quality" restaurants. The authors did not specify gift card value. Office discipline referrals (ODRs) were tracked through the duration of the study to determine if the use of praise notes influenced the behavior in the student body that would warrant an office referral.

A significant negative correlation was found between the number of praise notes written and the number of ODRs delivered across the course of the study; that is as the
number of praise notes written increased, the number of ODRs decreased. This relationship was particularly evident when the teacher incentive was put into place, as an increase of 672% in praise notes written from an average of 0.88 per 100 students per day before incentive to 5.91 notes per day per 100 students occurred after the incentive was put into place.

Understanding what influences teachers’ use of praise and other behavioral supports is an important area of study. It provides an opportunity to increase support to students and decrease the need and the amount of ODRs and other student discipline measures, thereby increasing students’ time spent in the classroom and engaged in academic instruction. Study of teachers’ use of praise also propels the investigation of effective and efficient ways to train teachers to implement classroom behavior management strategies within a SWPBIS framework.

Theoretical Considerations for Incentivizing Teacher Use of Praise

Although the goal of behavior management in the classroom is to increase appropriate student behavior, it is necessary to consider that implementing a new intervention also requires the teacher to change their behavior. Before influencing and ultimately changing student behavior (i.e., increasing adaptive and appropriate behavior and minimizing disruptive behavior), teachers’ behavior must change (i.e., attend to and reinforce student adaptive and appropriate behavior; Herschell, Calzada, Eyberg, & McNeil, 2003).

When a teacher is trained to use a new strategy, such as praise, the interventionist is placing a demand on the teacher to change their behavior with the goal of changing that students’ behavior. Simply put, the interventionist is attempting to change the teacher’s
behavior first in order to increase the student’s appropriate behavior. It is well understood that rewarding appropriate student behavior is likely to increase student appropriate behavior (Allday et al., 2012; Fullerton et al., 2009); however, rewarding teachers for learning a new strategy and implementing that strategy with fidelity is not well researched (Floress et al., in press). If students’ behavior is more likely to change when appropriate behavior is reinforced, it is more than reasonable that teachers will implement praise with higher fidelity when reinforced.

Arguably, improvement of student behavior may reinforce the teacher’s use of an intervention or strategy. However, student behavior change may not occur immediately enough to be reinforcing for the teacher to sustain the intervention over time or with fidelity. In other words, although student behavior change would in theory reinforce teachers’ use of increased praise, student behavior change may not be notable or obvious enough for teachers to maintain the rate of praise needed to observe long-term student outcomes.

Skinner (1958) demonstrated that when initially learning a new behavior, a continuous and immediate schedule of reinforcement is key. This has also been demonstrated in applied research. For example, a child with a behavior intervention plan must be immediately and regularly reinforced for meeting behavioral expectations (Allday et al., 2012). The intervention is less effective (or may not be effective at all) if the child does not encounter reinforcement regularly (Durand & Kishi, 1987). A teacher who is trained to use praise notes may not encounter student behavior change immediately or regularly enough to continuously or frequently use praise notes. Using incentives with teachers may ensure that teachers are immediately and consistently
reinforced for using praise notes. Incentives may also increase teachers’ frequency, self-awareness, and participation in a praise note program (Nelson et al., 2010).

**Current Study**

In summary, BSP is a valuable behavior management tool that teachers can use to promote appropriate student behavior, which in turn decreases inappropriate behavior (Brophy, 1981). Many schools in the United States have adopted a SWPBIS framework to prevent student behavior problems by promoting a safe and positive school environment. One component of SWPBIS is reinforcing student appropriate behavior (i.e., praising students). However, additional research is needed to determine efficient and cost effective ways to increase teacher praise, particularly for students at-risk for behavior problems. Therefore, the aim of the current study was to determine if providing faculty members incentives for writing praise notes increased use of praise notes and decreased student office referrals. Further, because students identified with problem behavior have been reported to receive fewer praises than their peers without behavioral difficulties (Gable, Hendrickson, Shores, & Stowitscheck, 1983), the second aim of the study was to examine the effects of influencing faculty members to praise students at-risk for problem behavior by providing higher rates of incentives. The following research questions were posed.

**Research Question One**

Does entering staff members who write praise notes into a weekly staff raffle increase use of behavior specific praise notes? It was hypothesized that when teachers were entered into a raffle to earn prizes for writing BSP notes, the use of teacher BSP notes would increase from baseline levels. Nelson et al. (2010) reported that once
teachers were rewarded for meeting set praise note benchmarks and were also entered periodically into a raffle for prizes based on writing praise notes, teachers' use of praise notes increased by 672%.

**Research Question Two**

Does entering staff members who write praise notes into a weekly staff raffle decrease students' office discipline referrals? Based on prior research (Nelson et al., 2010) it was hypothesized that ODRs would decrease when the raffle was in place. Based on the assumption that praise note rates would increase, the functional relationship between praise and disruptive behavior would have resulted in a decrease in ODRs.

**Research Question Three**

Does providing staff members with two raffle entries for praising students at-risk for behavior problems increase the number of behavior specific praise notes written to these students? At-risk students are praised less frequently compared to their peers without behavior problems (Jenkins et al., 2015; Sutherland, 2000). Therefore, it was hypothesized that when staff were given two raffle entries for praising at-risk students, the rate of BSP notes written to at-risk students would increase.

**Research Question Four**

Does providing staff members with two raffle entries for praising at-risk students decrease these students' office discipline referrals? Based on prior research that demonstrated the functional relationship between teacher praise and student disruptive behavior decreases (Madsen et al., 1968) it was hypothesized that ODRs for at-risk students would decrease when the raffle was in place (because it was assumed that praise notes for students at-risk would increase).
Methods

Setting

The current study was an extension of the thesis chair’s research program, therefore the primary investigator collected data from one of the two schools where the study was implemented. Considering this, the setting for this study was an elementary school in Central Illinois, serving kindergarten through fifth grade students. Administrators at this elementary school were asked to participate in the study because a praise note system was currently being implemented as a component of the school’s SWPBIS program. Data were collected on-site and no identifying information (e.g., praise notes, ODRs, lists of at-risk students, faculty classification or names) left the school building.

Participants

Participants in this study included all school employees and students. All 93 staff members employed at the school (e.g., teachers and non-certified support staff) participated in the study because based on the SWPBIS program in place at the school, all staff members are encouraged to write praise notes to students demonstrating appropriate behavior. Employee demographic information is presented in Table 1. Similarly, all 755 students enrolled at the school participated in the study because based on the SWPBIS program in place all students were eligible to receive written praise notes from staff. Student demographic information is presented in Table 2.

Materials

The current study utilized praise notes and ODRs to measure changes due to teacher incentives. Both praise notes and ODRs were in place at the elementary school
prior to the primary investigator approaching administration staff regarding participation in the study.

**Praise notes.** Praise notes (see Appendix A) were slips of paper provided to students when a staff member determined the student performed a behavior that was in line with the school's behavioral expectations (e.g., respect ourselves, respect others, and respect our school; see Appendix B for participating school's behavior matrix). The slip was a small piece of paper that was filed out by a staff member which included the child's name and a short statement about what the child did to earn the praise note. Staff at the participating school also taught students about "virtue words." Virtue words were skills that staff members wanted students to exercise daily. Examples of virtue words include honest, achievement, and kindness. Virtue words lined the top and bottom of the slip, and the staff member circles the virtue the child was demonstrating to earn the slip. These slips were provided to the students on duplicate paper, with one copy going into a student raffle, and the second copy for the student to take home to share with caregivers. For the current study, praise notes were counted each week for praise type, student type, and teacher type. Specific category definitions are described below.

**Praise type (general vs. behavior-specific).** Behavior-specific notes were defined as notes that specified what the child did to receive the note. For example, a note that said "Thank you for helping clean up the lunchroom" or "Good job helping explain the reading lesson to a classmate who needed help" was coded as a BSP note. General notes were defined as notes that provided a non-specific statement that did not contain a rational as to why the student received the note. For example, if a note stated "Math achievement" or "Star student," the note was coded as GP. If the faculty member only
circled a virtue word and did not write any other information pertaining to why the student received the note, or provided no rational for awarding the slip, the note was identified as general.

**Student type (non-at-risk vs. at-risk).** The following criterion for at-risk student status was created by the researchers: (1) the student was eligible for special education services due to an IDEA classification of emotional disability, (2) the student was eligible for special education services due to a classification other than emotional disability, but currently had a behavior intervention plan (BIP), (3) approximately 3 months into the school year, the student received two or more office referrals in one month, and/or, (4) the student was identified as a student at-risk for behavior concerns based on an administrator or teacher referral. According to IDEA, a student is eligible for services under the categorization of an emotional disability if the child exhibits one or more of the following over a long period of time: (1) inability to learn that cannot be explained by intellectual, sensory, or health factors, (2) inability to build and/or maintain interpersonal relationships with peers and teachers, (3) inappropriate behavior or feelings under normal circumstances, (4) a pervasive mood of unhappiness or depression, (5) a tendency to develop physical symptoms and/or fears associated with personal or school problems (IDEA, 2004). Based on this criterion provided by the researchers, a school administrator compiled a list of at-risk students that was used as a reference to count the number of at-risk students who received praise notes. Staff at the school were not provided a list of at-risk students to maintain student confidentiality.

**Teacher type (core, non-core, non-teacher).** To determine which school faculty members delivered praise notes, faculty members were categorized into one of following
three categories: core teacher, non-core teacher, and non-teacher. Core teachers were defined as homeroom, grade-level teachers, such as a kindergarten or a fourth grade classroom teacher. Non-core teachers were teachers in non-core academic areas, such as specials teachers (e.g., art, gym, or music) and special education teachers. Non-teachers were defined as faculty members who did not participate in direct instruction of students but provide support in other ways, such as paraprofessionals, administration, student support services (school psychologist, social worker, speech pathologist), custodians, and reading specialists.

Office discipline referrals. Office discipline referrals (ODRs), called “pink slips” at the participating school, were given to students who performed a major behavioral infraction, such as participating in student violence or disrespecting staff. Pink slips were given to students whose actions were unacceptable (e.g., such as hitting another student or calling a staff member a rude name) and required a referral to the office at the time of the infraction for further disciplinary action from the principal or vice principal as determined appropriate. A student may also have received a pink slip if they received several white slips. A “white slip” was a discipline slip that was given to a student for a minor behavioral infraction, such as chronic tardiness or disrespecting a peer. Both pink and white slips were recorded continuously by school staff and stored in an electronic database. At the end of the study, formal student discipline data were collected from the database and reported in terms of ODRs given per week. In addition, ODRs given per week to at-risk students and non-at-risk population students were also calculated.

Preference assessment. A preference assessment was used to determine what types of raffle prizes staff preferred at the participating school (see Procedures, Training
for more details). The preference assessment (Appendix C) prompted staff members to suggest six items (valuing approximately $5 each) they would enjoy receiving for raffle prizes. This information was considered when raffle prizes were purchased to increase the social validity of the intervention.

**Incentives.** Using the preference assessment described above, incentives were purchased for the study. Incentives included a variety of gift cards to local establishments (e.g., coffee shops or retail stores), school supplies, and chocolate. Each prize was valued between five and six dollars (see Appendix D).

**Social validity.** Social validity was measured to determine staff satisfaction of using praise notes with students and satisfaction with receiving incentives for using praise notes with students. The original Behavior Intervention Rating Scale (BIRS; Appendix E) was adapted and used in this study to understand the staff member’s feelings of effectiveness, appropriateness, and general approval or disapproval of both the praise note system and the incentives. The BIRS is a measure that utilizes a five-point Likert scale to assess social validity of behavior interventions, and has been found to have high rates of reliability and validity (Elliott & Treuting, 1991). Further, the authors of the measure have suggested that the BIRS would be appropriate for adaptation to better assess the social validity of specific interventions. The original BIRS included 24 questions, most pertaining to the teacher’s feelings towards a behavior intervention for a student. For this study, the questionnaire was adapted to include 14 questions pertaining to teachers’ feelings toward receiving prizes for writing praise notes.
Procedures

The study was conducted by the primary researcher, who implemented the intervention and collected praise note data with one undergraduate research assistant who helped collect praise note data. Institutional Review Board and school administrator approval was obtained before conducting this study.

Throughout all phases of the study, the school-wide praise note program was carried out as follows: (1) all students were eligible to receive praise notes from any adult employed at the school, (2) staff were encouraged to give students praise notes when they demonstrated school expectations (i.e., appropriate behavior), (3) staff members completed the note and gave the note to the student, (4) the student brought the first copy to the library and placed it in a praise note canister for their grade level, and brought a second copy of the praise note home, (5) at the end of the week one praise note was drawn from each of the six canisters (kindergarten through fifth grade) and the child whose praise note was drawn was given a prize, (6) once the student raffles were completed for the week, the praise notes were saved for the primary investigator to count according to praise type, student type, and teacher type, (7) during the intervention phase, one praise note was drawn per grade and prizes were placed in the winning staff member’s mailbox. Further description of step seven, the staff raffle, is provided in the Training and Intervention Phase sections, starting on page 33.

Data collection training. Prior to data collection, the primary investigator and research assistant reviewed the GP and BSP definitions as well as faculty status definitions so that notes were counted accurately. The primary investigator and research assistant also reviewed the list of students identified as at-risk, as outline by the
researchers (on page 28). Teacher and student lists were available for reference during praise note data collection.

**Design.** An ABA single-subject research design was used to measure whether an increase in teacher praise notes occurred when the staff raffle was in place. An ABA, or withdrawal, design has three phases (Kazdin, 1982). First, baseline data is collected to determine functioning levels before the intervention is put in place. Second, the intervention is introduced and data is collected to determine whether targeted behavior changes. Finally, the intervention is removed and data is collected to determine whether behavior returns to baseline rates. Experimental control is demonstrated when change in the dependent variable is observed, first when the intervention is introduced and second when the intervention is withdrawn and rates return to baseline levels. This demonstrates experimental control because it suggests that the intervention had influence (control) over the behavior (dependent variable) measured. In this study, the independent variable was the incentive (prizes) provided to staff members during the second phase for writing BSP notes and the dependent variables were praise notes and ODRs. It was expected that praise notes would increase and ODRs would decrease during the intervention phase. Further, it was expected that teachers’ use of praise notes and ODRs would return to rates similar to baseline during the withdrawal phase. An ABA design was chosen, as compared to an ABAB design, due to the limited duration of the study (i.e., one school year).

**Steps for collecting praise note data.** Before data collection began, the primary investigator and thesis chair spoke to staff at a regularly scheduled faulty meeting. The researchers explained that praise notes would be part of a data collection project (see
Appendix F). The primary investigator explained that no changes would be made to how faculty members were expected to implement the current praise note program. The primary investigator reviewed how staff should complete praise notes (write name on praise note if different from child's homeroom teacher) and encouraged staff to use BSP. The primary investigator provided a brief explanation for why BSP was believed to be superior to GP to all staff members in attendance. Though all notes were counted (BSP and GP) throughout the study, the explanation to use BSP was included to staff at the beginning phase of the study to hold the demand constant throughout the study, rather than placing this contingency only during the intervention portion. The primary investigator answered staff questions and encouraged administrators to provide Appendix F to any staff members unable to attend the staff meeting.

**Baseline phase.** During baseline data collection, praise notes were counted weekly on the following Tuesday. The primary investigator counted the praise notes based on praise type, student type, and teacher type. Baseline data were collected for ten weeks.

**Training.** Before the intervention phase began, the primary investigator introduced the intervention to the staff members during a regularly scheduled faculty meeting. The following raffle contingencies were explained to staff members: (1) only BSP notes are entered (i.e., GP notes are not entered into the raffle), (2) praise slips that have a circled school virtue, but do not specify what the child did to earn the slip (i.e., GP note) are not entered into the raffle, (3) BSP notes written to students at-risk of behavioral difficulties are duplicated, rendering an additional entry into the raffle. Finally, (4) each
week a praise note is drawn from each grade level (e.g. six raffle pulls each week, one from each grade level, K-5.

It should be noted that no specific names of at-risk students were provided to staff to maintain student confidentiality, but the teachers were provided with the criterion by which students were determined at-risk. Also, staff members could write a note to any student, regardless of the students’ grade. For example, if a third-grade teacher were to write three praise notes to third graders, one praise note to a kindergartener, one praise note to an at-risk second grader, and one praise note to a fifth grader, that teacher would receive three entries into the third-grade raffle, one entry to the kindergarten raffle, two entries to the second grade raffle (due to the duplication for the at-risk student), and one entry to the fifth grade raffle.

At the end of the meeting, staff members were encouraged to complete the preference assessment (Appendix C). Teachers were told that the prizes they suggested should be about five dollars in value and were encouraged to give ideas for gift cards and items they could use at school (e.g., classroom items).

**Intervention phase.** During the intervention phase teachers were entered into a weekly raffle for eight weeks. Six praise notes (which acted as raffle tickets) were drawn each week. The teachers who wrote behavior-specific notes are entered into the student’s grade’s raffle. For example, all the BSP notes written for kindergarten students were put into a pile, shuffled thoroughly face down, and one praise note was drawn. Before the raffle was conducted, the researcher counted all the notes and then made duplicate notes for teachers who wrote a BSP note to an at-risk student and added it to the corresponding pile. The researcher mixed the notes in each of the six piles and then selected a note from
each pile. The name of the teacher who wrote the note received a raffle prize in their mailbox (which was likely discovered the same or following day) with a small note explaining why they won the prize.

**Return to baseline phase.** After the eighth week of intervention, the return to baseline phase was implemented. This phase lasted five weeks. During this phase, the staff raffle was discontinued and staff members were no longer provided with prizes for writing praise notes. Staff members were not informed of the withdrawal of the intervention.

**Data Analysis**

In this study, the changes in BSP notes and ODRs were reviewed by visual analysis and calculated effect sizes. First, a visual analysis of the plotted data (praise notes and ODRs to students not at-risk as well as at-risk) was conducted. If incentives effectively increased teachers’ use of praise notes, total praise note rates were expected to increase when the intervention phase was introduced and return to baseline rates when the intervention was removed. Similarly, the total number of ODRs were expected to decrease when the intervention phase was introduced and return to baseline rates when the intervention was removed. Additionally, it was hypothesized that the praise notes and ODRs received by students at-risk for behavioral difficulties would follow the same trend as that of the general population.

Next, effect sizes were calculated by using the Standard Mean Difference (SMD; Olive & Smith, 2005) and Nonoverlap of All Pairs (NAP; Horner, Carr, Halle, McGee, Odom, & Wolery, 2005). To calculate SMD, the intervention mean is subtracted from the baseline mean and divided by the standard deviation of the baseline. Due to its nature of
being easily calculated and its production of a *Cohen’s d* value, the SMD is a beneficial calculation in understanding the results of a single-subject design study. When interpreting the SMD, effect sizes between 0 and 0.2 are considered small, 0.21 to 0.5 are considered medium, and 0.51 to 0.8 are considered large (Cohen, 1988).

A measure of Nonoverlap of All Pairs (NAP) was also utilized to analyze the effect size of the intervention. NAP, as described by Horner et al. (2005), is an index that allows for comparison of overlap of data between study phases. For example, baseline data can be compared against the data of the intervention phase. To be precise, NAP is calculated by subtracting the number of overlapping pairs (between the baseline and intervention phases), from the total possible pairs within the data set. NAP values from 0 to 0.65 are considered weak effects, 0.66 to 0.92 are medium effects, and 0.93 to 1.0 are large or strong effects (Parker & Vannest, 2009).

**Results**

The average percentage of total praise notes written (GP and BSP) per week based on teacher type is presented in Table 3. Total praise notes are presented rather than GP and BSP because in some teacher categories there were very few praise notes written. Total praise notes therefore provide an overall picture of which staff members participated in writing praise. On an average week, core teachers wrote the most praise notes, approximately 74% (range between 46 to 97%). On average, 21.6% of the notes per week were written by non-teachers (range 4-50%). Non-core teachers wrote approximately 4.2% of the praise notes (range 0-14%).
Teacher Praise for Non-At-Risk Students

Teacher praise for non-at-risk students are presented in Figure 1. Rates of BSP notes per student per day were calculated by dividing the number of notes delivered by the number of students in the sample then divided by the number of days in the week. Using datum point 1 as an example, 34 BSP notes were written, 727 students were in the non-at-risk sample, and data collection occurred over five days that week. Therefore, 0.009 BSP notes were written per student per day.

Mean rates of BSP notes during each phase of the study are presented in Table 4. Mean rates were calculated by totaling all the BSP praise notes in the phase then dividing the number by the number of data points in the corresponding phase of the study. Using the baseline phase as an example, the total amount of BSP notes written per day per student was 0.120 and there were 10 data points in the phase. Therefore, 0.012 was the mean rate of BSP notes written per student per day during the baseline phase.

Research question one. During baseline, BSP note delivery was somewhat variable and there was an upward trend noted during the last four weeks. The mean rate of BSP notes delivered to non-at-risk students was $M = 0.012$ notes per student per day, $SD = 0.006$. When the intervention was introduced, BSP note delivery immediately became more stable and then increased. The mean rate of BSP notes delivered to non-at-risk students during the intervention phase was $M = 0.018$ notes written per student per day, $SD = 0.005$. When the intervention (incentive) was withdrawn, BSP note delivery continued to increase dramatically for two weeks and then declined immediately. The mean rate of BSP notes delivered to non-at-risk students during the withdrawal phase was $M = 0.029$ notes written per student per day, $SD = 0.015$. SMD and NAP effect size
TEACHER PRAISE INCENTIVES

comparisons for BSP notes delivered to non-at-risk students reflect large and medium effects respectively (see Table 5).

**Disruptive Behavior of Non-At-Risk Students**

In addition to BSP note rates, Figure 1 also depicts ODR rates for non-at-risk students. ODR rates were calculated similarly to BSP note rates. The number of ODRs written during the week were divided by the number of students in the sample divided by the number of days in the week. Using datum point 2 as an example, there were 35 ODRs written in the week, 727 students in the non-at-risk sample, and five days in the week. Therefore, 0.01 ODRs were written per student per day during week two.

The mean rate of ODRs written in each phase of the study were also calculated (see Table 4). Mean rates of ODRs were calculated by totaling the ODR rates written per student per day in each phase of the study, then that number was divided by the number of data points in the phase. For example, during the intervention phase of study, the totaled rates of ODRs written per student per day was 0.074 and there were seven data points in the phase. Therefore, 0.011 ODRs were written per student per day on average during the intervention phase.

**Research question two.** During baseline ODR rates were relatively stable with a slight upward trend during the last four weeks of data collection. The mean rate of ODRs delivered to non-at-risk students during baseline was \( M = 0.009 \) per student per day, \( SD = 0.003 \). When the intervention was introduced, ODRs appear to be delivered similarly to baseline. The mean rate of ODRs delivered to non-at-risk students during the intervention phase was \( M = 0.011 \) per student per day, \( SD = 0.003 \). When the intervention (incentive) was withdrawn, ODRs delivery slightly increased. The mean rate of ODRs delivered to
non-at-risk students during the withdrawal phase was \( M = 0.015 \) per student per day, \( SD = 0.003 \). SMD and NAP effect size calculations reflect no effect and weak effects respectively (see Table 5).

**Teacher Praise of Students At-Risk**

Rates of BSP notes delivered to at-risk students are depicted in Figure 2. BSP note rates for at-risk students were calculated the same way praise notes rates for non-at-risk students were calculated; Praise note rates were calculated by dividing the number of notes by the number of students in the sample, then divided by the number of days in the week. Using datum point three as an example, two praise notes were written to at-risk students, there were 28 students in the at-risk sample, and seven days in the week (one full week of five days and two days before a holiday break). Therefore, 0.010 praise notes were written per at-risk student per day.

To obtain the mean rate of BSP notes written to at-risk students throughout the study, all praise note rates were totaled and divided by the number of data points in the corresponding phase of the study. For example, during the withdrawal of intervention phase, the totaled praise rate was 0.315 and the total number of weeks in the phase was five. 0.315 divided by 5 is 0.063 praise notes written per student per day on average. Mean rates of praise notes for at-risk students are presented in Table 4.

**Research question three.** During baseline, BSP note delivery was variable. The mean rate of BSP notes delivered to at-risk students was \( M = 0.043 \) notes written per student per day, \( SD = 0.050 \). When the intervention was introduced, BSP note delivery became more stable and a slight upward trend was noted. The mean rate of BSP notes delivered to at-risk students during the intervention phase was \( M = 0.041 \) notes written
per student per day, $SD = 0.018$. When the intervention was withdrawn, BSP note delivery was variable. The mean rate of BSP notes delivered to at-risk students during the withdrawal phase was $M = 0.063$ notes written per student per day, $SD = 0.042$. SMD and NAP effect calculations reflect no effect and moderate effects respectively (see Table 5).

**Disruptive Behavior for Students At-Risk**

Along with BSP note rates for at-risk students, ODR rates of at-risk students are presented in Figure 2. ODR rates of at-risk students were calculated in the same way as ODR rates of non-at-risk students. The total number of ODRs for each week was divided by the number of students in the at-risk contingency, then the number was divided by the number of days in the week. Using datum point four as an example, five ORDs were written, there were 28 students in the at-risk contingency, and there were five days in the week, meaning there was a rate of 0.036 ODRs per student per day.

Additionally, the mean rate of ODRs written per week is depicted in Table 4. Mean rates of ODRs were calculated in the same way as mean rates for praise notes; all rates in the phase were added, then divided by the number of weeks in the phase. Using the baseline phase as an example, the total number of ODRs written per student per day was 0.623, and there was ten weeks in the phase, equaling 0.0623 ODRs written per student per day on average during the phase.

**Research question four.** During baseline, ODR rates were variable with an increasing trend. The mean rate of ODRs delivered to at-risk students during baseline was $M = 0.062$ per student per day, $SD = 0.035$ (Figure 2). When the intervention was introduced, ODRs immediately stabilized and decreased slightly. The mean rate of ODRs delivered to at-risk students during the intervention phase was $M = 0.059$ per student per
day, $SD = 0.010$. When the intervention was withdrawn, ODRs delivery increased and was variable. The mean rate of ODRs delivered to at-risk students during the withdrawal phase was $M = 0.091$ per student per day, $SD = 0.050$. SMD and NAP calculations indicated small and weak effect sizes (See Table 5).

**Social Validity**

Thirty-three of the total 93 staff members (39.78%) completed the electronically distributed adapted BIRS. Across all faculty, the average acceptability rating for praise notes was 4.18 on a five-point scale. The percentage of staff who indicated that they “agree” or “strongly agree” with each survey item is reported in Table 6. The majority (91%) of respondents found praise notes to be appropriate for increasing appropriate behavior. Similarly, most faculty members agreed that they would suggest using praise notes to other teachers (85%). Further, 88% of respondents believed that praise notes were beneficial to students and 79% felt that praise notes improve teacher/student relationships.

Interestingly, less than half of respondents (45%) indicated that gold slips were effective in reducing students’ problem behavior. In an open-ended section of the survey, a few respondents voiced concerns in how the praise note system was implemented inconsistently across staff. For instance, respondents reported that some faculty delivered praise notes for any appropriate student behavior, whereas others delivered praise notes only for “above and beyond” appropriate behavior. Despite the overall positive ratings, only 30% of staff believed they would be more likely to use praise notes when given prizes for doing so, and only 30% of respondents indicated they felt it was appropriate to receive incentives (which suggests that 70% felt it was inappropriate to receive
incentives). Nonetheless, 69% of respondents indicated that they enjoyed receiving or would enjoy receiving prizes for writing praise notes.

**Discussion**

The current study examined whether implementing a weekly staff raffle would increase staff members’ use of written BSP notes and decrease use of ODRs with students. Findings indicated that when a weekly raffle for staff was implemented, faculty use of written BSP notes increased among both non-at risk students and at-risk students. However, implementing the weekly raffle had little to no effect on the number of ODRs delivered to both non-at risk students and at-risk students. Although more written BSP notes were delivered to at-risk students throughout the study, at-risk students also received more ODRs throughout the study. The BSP to ODR ratio for at-risk students was 0.69 across baseline, intervention, and return to baseline phases; whereas the BSP to ODR ratio for non-at risk students was 1.26 (baseline), 1.70 (intervention), and 1.92 (return to baseline). On average, most weekly total praise notes were given to students by core teachers (i.e., homeroom teachers, as opposed to a specials classroom teacher or support staff member). Overall, teachers found using praise notes to be acceptable and reported that they enjoyed receiving prizes for writing BSP notes. The current study provides important information on using incentives to increase teachers’ use of BSP, which may help inform future research, especially among at-risk student populations.

**Using Incentives to Increase BSP Notes**

First, this study examined whether implementing a teacher incentive for writing BSP notes increased teachers’ use of praise with non-at risk and at-risk students. Because students at-risk for behavior problems are less likely to receive teacher praise
(Sutherland, Wehby, & Copeland, 2000), there was an increased incentive for teachers who praised at-risk students (i.e., two raffle entries). Although implementing the incentive did increase teachers’ use of BSP notes with both at-risk and non-at-risk students, the effects were not as large as anticipated.

In the 2010 study conducted by Nelson et al., use of praise notes increased by 672% at a school where staff incentives were implemented as part of a larger SWPBIS intervention. In addition to incentives, goal setting and feedback were implemented. Staff received feedback on their use of written praise. They also were told whether they had reached praise goals which aligned with incentive/prizes (e.g., restaurant gift cards of increasing value). The current study did not include goal setting or feedback. These differences likely account for why a more significant change in written praise was found in the Nelson (2010) study. The positive outcomes of using direct training methods (e.g., performance feedback) to increase teacher praise is documented in the literature in combination with other behavior interventions (such as opportunities to respond). With direct training, teachers are more likely to use praise correctly and maintain their use of praise over time (Dufrene et al., 2012, Hemmeter, Snyder, Kinder, & Artman, 2011; Simonsen, Myers, & DeLuca, 2010; Sterling-Turner, Watson, & Moore, 2009).

In the Nelson et al. (2010) study, staff also received feedback on which students had not received written praise, allowing staff to target specific students. In the present study, the faculty members were informed that they would receive two raffle tickets if they praised at-risk students; however, to maintain student confidentiality, teachers were not provided with names of specific students in the at-risk contingency. Providing staff feedback on which students have received praise may increase teachers’ use of praise
(especially with at-risk students). Based on the primary investigator's experience, many teachers mention not wanting to praise students whose behavior merely meet expectations, rather only those with exceptional behavior. Having a list of students that have not received praise or who are praised infrequently may help teachers to look for ways to praise these students. This additional information may also inspire teachers with strict praise criterion (i.e., only praise exceptional behavior) to reconsider their practice, knowing that administrators are specifically asking teachers to target these students.

The current study improved upon the Nelson et al. (2010) study because an experimental design was used. In the Nelson et al. study, a non-experimental, AB design was used, which cannot demonstrate experimental control because there is no return to baseline. In an ABA experimental design, during the return to baseline phase (withdrawal), experimental control is demonstrated when the dependent variable returns to near baseline rates. The current study implemented an ABA design; however, staff members were not told when the raffle was removed. In other words, although staff were told when the raffle was starting, they did not know when the raffle had ended. This likely accounts for the fact that in both student groups, the average number of BSP notes written per student per week were highest during the withdrawal phase. When reinforcement is removed and behavior increases, this is called an extinction burst (Cooper, Heron, & Heward, 1987; Kazdin, 1994). The faculty members were not told that the incentive contingency was withdrawn; therefore, faculty who had received prizes for writing notes likely increased their written praise rates in hopes that they would receive a raffle prize. Earning a prize for writing praise notes was already on an intermittent and
delayed schedule of reinforcement. Therefore, when prizes were not delivered, it was
even more ambiguous to staff that writing praise would no longer result in prizes.

**Using Incentives to Decrease ODRs**

Second, it was hypothesized that if BSP notes increased, there would be a
decrease in ODRs. Effect size calculations suggest that the staff raffle had little to no
effect on ODRs. In addition, visual analysis indicated that BSP notes and ODR rates were
not negatively correlated. That is, when BSP note rates increased, ODR rates did not
decrease. This is in opposition to previous praise training interventions where a
functional relationship has been demonstrated between increased teacher praise and
decreased student disruptive behavior (Ayllon, Layman, & Burke, 1972; Lee, Sugai, &
Horner, 1999).

In previous studies that have demonstrated a functional relationship between
increased teacher praise and student disruptive behavior, both teacher praise and student
behavior were measured directly and simultaneously (i.e., direct observation). In this
study, praise and ODRs were both distal, indirect measures of behavior and are less likely
to capture or measure the direct influence of teacher praise on student behavior. One
reason for this is that ODRs are not a direct measure of student disruptive behavior
because they are dependent on teacher interpretation of student misconduct. For example,
if a student is non-compliant, one teacher may send the student to the office (i.e., deliver
an ODR), whereas another teacher may decide that non-compliance does not merit an
office referral. In addition, the number of praise notes and ODRs delivered to specific
students was not collected. Therefore, there is no way to determine whether specific
students who typically received more ODRs (at the beginning of the study), received
more praise (when the intervention was implemented) and ultimately fewer ODRs at the end of the study. If specific students who were more likely to go to the office received targeted increased rates of written teacher praise, a relationship between teacher praise and ODRs may have emerged.

**Non-At-Risk vs. At-Risk Student Praise and ODR Rates**

Third, the current study aimed to increase rates of BSP notes to at-risk students. As previously discussed, students with behavior problems receive fewer teacher praises than their peers (Shores et al., 1993; Sutherland, et al., 2000). In the current study, at-risk students received BSP notes at a higher rate than their non-at-risk counterparts (an average ratio 2.63 at-risk BSP notes to every 1 non-at-risk BSP note). It should be noted that the graphs displaying the non-at-risk and at-risk BSP note and ODR rates (Figures 1 and 2 respectively) are on two different scales. The sample size of the at-risk contingency \((n = 28)\) was limited as compared to the non-at-risk group \((n = 727)\), which may have resulted in an inflated rate of BSP notes per student per day. However, at-risk students received far greater ODRs than their peers. On average, at-risk students received 0.69 praise notes to 1 ODR, whereas non-at-risk students received 1.3 - 1.9 praise notes to 1 ODR. Additionally, faculty were less responsive to the intervention with at-risk students, despite receiving an extra raffle for writing praise to an at-risk student (i.e., weak compared to medium effects).

As previously mentioned, weak effects found among BSP notes delivered to at-risk students may have been influenced by the faculty not knowing which students were on the “at-risk list.” Another explanation (that is supported by anecdotal comments provided in the social validity measure) is that some staff use written praise only when a
student has *exceptional* behavior. If most staff withhold praise from students who are less likely to have exceptional behavior (e.g., at-risk students), it is plausible that the increased probability of earning a small incentive is not powerful enough to overturn this practice. When a negative relationship between an at-risk student and their teacher is established, the teacher will require a more intensive reinforcement to identify the student’s praise worthy behavior as compared to their negative classroom contributions.

**Faculty Members Who Write Praise Notes**

Core classroom teachers wrote (on average) the largest percentage of praise notes, followed by non-teachers, and then non-core teachers. In fact, it was documented that during two weeks of the study, core teachers wrote over 95% of the praise notes, even though core teachers only accounted for 37% of the schools’ faculty. There are a couple of possible reasons for this. First, core teachers spend greater amounts of time with the students assigned to their classes and therefore have more opportunities to praise students. Second, it may be more convenient for core teachers to write notes to their students because they do not have to deliver the note immediately (e.g., a student passes out papers in the morning, but is given a praise note at the end of the day). This flexibility in delivering delayed praise is less likely for a non-core teacher who only sees the student once a week in class (e.g., art or music). Furthermore, a non-teacher (e.g., a custodian, recess monitor, or administrator) may only see the student in passing and would have an even more difficult time delivering a praise note later. This suggests that for non-core teachers and non-teachers to increase their involvement in the praise note system, they must be prepared in the moment to deliver praise (i.e., have notes and a writing utensil).
The fact that core teachers by far represent staff that are implementing the praise note system is important to note because the success of SWPBIS is contingent on all staff members' participation (Lewis, Sugai, & Colvin, 1998; Scott, 2001). To teach and reinforce students for engaging in appropriate behavior across all settings (such as specials, the lunchroom, the playground, etc.), all staff must participate (Knoff, 2000).

Social Validity

Social validity is crucial to a successful behavior intervention (Miltenberger, 1990). Most faculty members indicated that they found the praise note system acceptable. This is encouraging, as a behavior intervention can only be effective if it is being implemented with fidelity (Cook et al., 2010), which is more likely to occur if the stakeholders (i.e., school staff) find it acceptable. The approval ratings for the praise note system are consistent with past research evaluating the use of teacher praise in the classroom (Kalis, Vannest, & Parker, 2007; Stormont, Smith, & Lewis, 2007). However, staff members had less favorable opinions regarding teachers receiving positive reinforcement, such as prizes, for their use of praise. Only one third of respondents indicated that they found it appropriate for teachers to receive prizes for praising students. Anecdotally, one teacher who received a staff incentive reported that it was a nice surprise to receive the raffle prize, but that it did not make them more likely to use the praise note system. Rather, this individual believed that teachers should want to recognize students for their appropriate behavior because it is the right thing to do. Another survey respondent indicated that they did not receive a prize for writing praise notes, so the intervention did not influence their use of praise notes.
These findings are interesting, particularly the similarities between some teachers expecting students to perform exceptionally to receive praise and that teachers should want to praise students just because it is the right thing to do. It is socially desirable to uphold high (honorable, self-less, altruistic) expectations for one’s self and their students (Brophy & Good, 1970). These themes may suggest that some teachers have limited knowledge of behavior management, which is key to increasing student adaptive and appropriate behavior (Skinner, 1984). These are important considerations when interpreting these social validity results and planning for future research examining teacher incentives.

Limitations

This study adds to the understanding of using incentives to increase teachers’ use of BSP notes; however, there are some limitations to note. First, the primary investigator had a total incentive budget of $250. Therefore, weekly incentives were valued at $5 and this modest value might not be enticing enough to change teacher behavior. Though a specific dollar value is not provided, teachers participating in the Nelson et al. (2010) study were provided with gift certificates to local restaurants. Having a range of incentives that increased in value, may increase teacher motivation to participate in writing praise. Further, the weekly raffle in the current study was the only incentive, whereas in the Nelson et al. study there were a variety of incentives including a raffle at staff meetings (which provided an opportunity for public acknowledgement by peers) and benchmark prizes with increasing goals. Having a weekly raffle did not guarantee that all staff could earn a prize. In fact, as raffles tickets were drawn, the primary investigator noted that the same faculty members seemed to win prizes week to week. This suggests
that only a few staff members (those who were regularly writing BSP notes) won prizes. Providing incentives for reaching set praise note benchmarks ensures that all teachers have an opportunity to earn a prize and therefore benefit from the intervention.

Another limitation to the current study was that there was very little communication or updates regarding the raffle throughout the study. This was done to determine whether implementing a very simple, easy to implement, non-intensive intervention would increase staffs’ written praise. However, it may be important to advertise the weekly raffle prize and publicly acknowledge the previous week’s winners to increase faculty awareness and overall school moral regarding the implementation of the raffle. The lack of announcements and public discussion regarding the raffle throughout the study (over seven months) may have inadvertently lead faculty to not take the raffle or the intent to increase praise notes seriously. Additionally, staff were not aware when the raffle was removed, which influenced internal validity because baseline rates of written praise were not recaptured (Gast & Ledford, 2014). Finally, teachers were not informed as to which students were identified as at-risk for behavior problems. Letting teachers know which students to target might increase their use of written praise with students who are at-risk. It is well documented that students are more successful in meeting classroom expectations when they receive explicit instruction (Sprick, 2006). Similarly, staff need to know who to praise (i.e., which students are at-risk) and how often they need to praise to meet expectations of the intervention.

Finally, the distal, indirect method of data collection may have underreported the change that occurred in behavior (both positive and negative) across faculty and students. Both praise notes and ODRs were a distal measurement, and therefore subject to higher
rates of measurement error. Though this method of data collection is less intrusive and easier to implement (as compared to direct behavior observation), there were several opportunities for inconsistencies. For example, students were trusted to put their copy of the written praise note in the canister in the library; if a slip was lost or forgotten by the student, it was not counted. Additionally, as mentioned in the discussion, two teachers may choose to handle the same behavior infraction in a different way (i.e., ODR or no ODR) based on personal factors (such as skill, previous experience, etc.). In the future, it may be worthwhile to incorporate direct behavior observation approach to data collection.

**Implications and Future Directions**

The current study is the second study in the literature that examined using incentives to increase teacher praise. Finding simple, efficient ways to increase teacher praise is pertinent to the field of education because increased praise decreases disruptive student behavior (Becker et al., 1967), and appropriate student behavior is linked to academic success (Finn, Pannozzo, & Voelkl, 1995). Although praise is a simple and effective strategy, training staff to use praise and maintain high rates of praise can be a struggle (Dufrene, Lestremau, & Zoder-Martell, 2014). Results from the current study suggest that putting a low-key, weekly incentive in place may increase teachers' written praise, but that these gains may not be substantial enough to allow a school system to justify it alone. Providing staff with praise feedback, peer recognition, and/or guaranteed prizes for reaching set benchmarks may have even greater effects on both praise as well as ODRs, and may be relatively easy to implement.
Increasing teacher praise notes through incentives may also be a valuable tool to combat teacher push-back. After communicating with administrators at the beginning of this study and considering open-ended feedback from teachers on the social validity measure, it seemed that it was the rule not the exception that teachers’ have reservations with praising students unless their behavior is above and beyond expectations (Deci, Vallerand, Pelletier, & Ryan, 1991). There are two potential take-home points here. First, if simply providing teachers incentives for praising students increases teachers’ willingness to praise students, administrators may find using incentives very valuable. Discerning more information through research about cost-effective (both time and monetary) behavioral management strategies that promote teacher buy-in is needed to insure successful school wide initiatives.

Second, when providing didactic instruction to teachers regarding praise (e.g., explaining what it is and why it is important), consultants should also focus on teaching behavioral principles (i.e., shaping appropriate student behavior; Emmer & Stough, 2001) that will explain why differentiating praise depending on the students’ typical behavior is key to implementing teacher praise effectively. This is particularly pertinent when praising students at-risk for behavior problems. Teachers are more likely to have more negative interactions with at-risk students (Sutherland & Oswald, 2005) and praise at-risk students less often than non-at risk students (Sutherland, et al., 2000). More negative student-teacher interactions are linked to increased student aggression (Hughes, Cavell & Willson, 2001), higher rates of missed instructional time due to office referrals and suspensions (Gregory & Ripski, 2008; Gregory, Skiba, & Noguera, 2010), and even anti-social behavior (Mayer, 1995). For these reasons, future research must focus on finding
ways to increase teacher praise (and ultimately positive student-teacher interactions) to students at-risk for behavior problems.

In addition to poor outcomes for at-risk students, increased rates of negative interactions are taxing on the teachers that work with at-risk students (Split, Kooman, & Thijs, 2011). Discordant interactions with students create an undesirable working environment for teachers, which is related to poor job satisfaction (Abel & Sewell, 1999). Teachers who are unsatisfied with their work environment are less effective teachers (Bradshaw et al., 2008). Additional research that focuses on cultivating a positive school environment where all faculty feel that their efforts are appreciated and worthwhile is needed. Specifically, future research examining more timely feedback, support, and reinforcement to teachers for praising students will provide additional insight on how to inspire teachers to utilize praise. One example of this is using a tiered model of support (e.g., a MTSS model; Thompson et al., 2012). Initially all faculty could participate in a didactic praise training session that also incorporates ongoing incentives to staff for using written praise. Staff that do not meet praise benchmarks could be targeted for direct-training (e.g., performance feedback or in-vivo instruction) to support them in meeting higher rates of written praise (Sterling-Turner, Watson, & Moore, 2002). Targeted instruction may prove to be an efficient and effective training model. In addition, teachers may find targeted instruction or mentorship more acceptable because their individual needs are supported. This type of support may lead to higher teacher job satisfaction and self-efficacy, which is likely to promote the retention of quality educators (Smith & Ingersoll, 2004).
In conclusion, this study highlights the importance of finding effective and efficient ways to promote teachers’ use of positive behavior supports, such as praise. This study demonstrated that the use of small weekly raffle prizes delivered to teachers did increase staff members’ use of BSP notes, but a more intensive strategy may be required to obtain lower rates of ODRs and to maximize cost-effectiveness. Future research is needed to continue to find simple, efficient, and effective ways to increase teacher praise. This is an important area of study, because when BSP is implemented with fidelity, students’ appropriate behavior increase. School systems aim to increase student learning outcomes and prepare students to become productive members of society. Increasing adaptive student behavior at all ages is necessary to achieve this goal.
References


in elementary schools: Observations from a randomized trial. *Education & Treatment of Children, 31*, 1-26. doi: 10.1353/etc.0.0025


Feuerborn, L. L., Tyre, A. D., & King, J. P. (2015). The staff perceptions of Behavior and Discipline Survey: A tool to help achieve systemic change through


doi:10.1080/1045988X.2015.1124832


Table 1

Staff Member Demographics

<table>
<thead>
<tr>
<th></th>
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<td><strong>Sex</strong></td>
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<tr>
<td>Female</td>
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<td>Male</td>
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<td>6</td>
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<td>47</td>
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## Table 2

### Student Demographics

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<th>$n$</th>
<th>%</th>
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</thead>
<tbody>
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<td></td>
<td>755</td>
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<td>Male</td>
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<tr>
<td><strong>Racial Background</strong></td>
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<tr>
<td>Black/African American</td>
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<td>7</td>
</tr>
<tr>
<td>Hispanic/Latino</td>
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<td>3</td>
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<tr>
<td>Native American</td>
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<td>&gt;1</td>
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<tr>
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<tr>
<td>Multi-racial</td>
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<td>7</td>
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<td></td>
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<td>First grade</td>
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</tr>
<tr>
<td>Second grade</td>
<td>144</td>
<td>19</td>
</tr>
<tr>
<td>Third grade</td>
<td>142</td>
<td>19</td>
</tr>
<tr>
<td>Fourth grade</td>
<td>113</td>
<td>15</td>
</tr>
<tr>
<td>Fifth grade</td>
<td>94</td>
<td>12</td>
</tr>
<tr>
<td><strong>Student lunch status</strong></td>
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<td>Free</td>
<td>472</td>
<td>63</td>
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<tr>
<td>Reduced</td>
<td>50</td>
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<tr>
<td>Regular payment</td>
<td>233</td>
<td>30</td>
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Table 3

*Average Percentage of BSP Notes Written per week by Staff Type*

<table>
<thead>
<tr>
<th>Teacher Type</th>
<th>Total</th>
<th>Baseline</th>
<th>Intervention</th>
<th>Withdrawal</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Range</td>
<td>Mean</td>
<td>Range</td>
</tr>
<tr>
<td>Core</td>
<td>74.0</td>
<td>46-96</td>
<td>72.6</td>
<td>46-96</td>
</tr>
<tr>
<td>Non-Core</td>
<td>4.2</td>
<td>0-14</td>
<td>1.8</td>
<td>0-7</td>
</tr>
<tr>
<td>Non-Teacher</td>
<td>21.6</td>
<td>0-50</td>
<td>25.5</td>
<td>4-50</td>
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</tbody>
</table>
Table 4

Mean and Standard Deviation for Baseline, Intervention, and Withdrawal Phases for BSP Notes and ODRs per Student per Day

<table>
<thead>
<tr>
<th>Student Type</th>
<th>BSP Notes and ODRs</th>
<th>Baseline</th>
<th>Intervention</th>
<th>Withdrawal</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
</tr>
<tr>
<td>Non-At-Risk</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BSP</td>
<td>0.012</td>
<td>0.006</td>
<td>0.018</td>
<td>0.005</td>
</tr>
<tr>
<td>ODR</td>
<td>0.009</td>
<td>0.003</td>
<td>0.011</td>
<td>0.003</td>
</tr>
<tr>
<td>At-Risk</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BSP</td>
<td>0.043</td>
<td>0.050</td>
<td>0.041</td>
<td>0.018</td>
</tr>
<tr>
<td>ODR</td>
<td>0.062</td>
<td>0.035</td>
<td>0.059</td>
<td>0.010</td>
</tr>
</tbody>
</table>
Table 5

*Effect Size and Classification for BSP Notes and ODRs*

<table>
<thead>
<tr>
<th>Student Type</th>
<th>Effect Size</th>
<th>SMD</th>
<th>SMD Classification</th>
<th>NAP</th>
<th>NAP Classification</th>
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</thead>
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<tr>
<td>Non-At-Risk</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BSP</td>
<td>1.00</td>
<td></td>
<td>Large</td>
<td>0.793</td>
<td>Medium</td>
</tr>
<tr>
<td>ODR</td>
<td>-0.006</td>
<td></td>
<td>No effect</td>
<td>0.357</td>
<td>Weak</td>
</tr>
<tr>
<td>At-Risk</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BSP</td>
<td>-0.041</td>
<td></td>
<td>No effect</td>
<td>0.664</td>
<td>Medium</td>
</tr>
<tr>
<td>ODR</td>
<td>0.086</td>
<td></td>
<td>Small</td>
<td>0.436</td>
<td>Weak</td>
</tr>
</tbody>
</table>
Table 6

**Social Validity**

<table>
<thead>
<tr>
<th>Social Validity Question</th>
<th>Respondents who answered “Agree” or “Strongly Agree”</th>
<th>Average Score per Question</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gold slips are an acceptable intervention for increasing student appropriate behavior.</strong></td>
<td>32 (97%)</td>
<td>4.18</td>
</tr>
<tr>
<td>Most teachers would find gold slips appropriate for increasing many appropriate school behaviors.</td>
<td>30 (91%)</td>
<td>4.12</td>
</tr>
<tr>
<td>Gold slips are effective in reducing the student problem behavior.</td>
<td>14 (42%)</td>
<td>3.25</td>
</tr>
<tr>
<td>I would suggest using gold slips to other teachers.</td>
<td>28 (85%)</td>
<td>4.00</td>
</tr>
<tr>
<td>Gold slips should not only improve the students’ behavior in the classroom, but also in other settings (e.g., other classrooms, home)</td>
<td>28 (85%)</td>
<td>4.00</td>
</tr>
<tr>
<td>Gold slips would not result in negative side effects for students.</td>
<td>23 (70%)</td>
<td>3.82</td>
</tr>
<tr>
<td>I like the procedures used for gold slips.</td>
<td>25 (76%)</td>
<td>3.70</td>
</tr>
<tr>
<td>Overall, gold slips are beneficial for the students.</td>
<td>29 (88%)</td>
<td>3.91</td>
</tr>
<tr>
<td>I would enjoy/enjoyed receiving prizes for writing gold slips.</td>
<td>23 (69%)</td>
<td>3.66</td>
</tr>
<tr>
<td>Gold slips improve teacher/student relationships.</td>
<td>26 (79%)</td>
<td>3.94</td>
</tr>
<tr>
<td>Receiving prizes would make me more likely to write gold slips.</td>
<td>10 (30%)</td>
<td>2.91</td>
</tr>
<tr>
<td>I liked the prizes I received for writing gold slips.</td>
<td>20 (61%)</td>
<td>3.76</td>
</tr>
<tr>
<td>Writing gold slips makes me more likely to praise students for appropriate behavior.</td>
<td>15 (45%)</td>
<td>3.30</td>
</tr>
<tr>
<td>I think it is appropriate for teachers to receive prizes for using gold slips for student’s good behavior.</td>
<td>10 (30%)</td>
<td>2.85</td>
</tr>
</tbody>
</table>

**Note.** An average social validity score of 1 = low social validity and a score of 5 = high social validity.
Figure 1. Rates of BSP notes and ODRs delivered to non-at-risk students. Note: Lines with markers are specific data points, lines without markers indicate the mean rate during the phase.
Figure 2. Rates of BSP notes and ODRs delivered to at-risk students. Note: Lines with markers are specific data points, lines without markers indicate the mean rate during the phase.
Appendix A
Praise Note Sample

<table>
<thead>
<tr>
<th>Respect</th>
<th>Caring</th>
<th>Kindness</th>
<th>Dependability</th>
<th>Organizer</th>
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<tbody>
<tr>
<td>Child's Name: Julia Smith</td>
<td>Home Room Teacher: N. Jones</td>
<td>Elementary School: &quot;School Motto&quot;</td>
<td>Great job helping your classmate on their homework!</td>
<td>Organizer: M. Johnson</td>
</tr>
<tr>
<td>Safe</td>
<td>Achieving</td>
<td>Helpful</td>
<td>Future Thinking</td>
<td>Confidence</td>
</tr>
</tbody>
</table>
### Appendix B

#### Participating School’s Behavior Matrix

<table>
<thead>
<tr>
<th>Location</th>
<th>Expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Recess/Playground</strong></td>
<td>Line up promptly by walking to your line.</td>
</tr>
<tr>
<td><strong>Bathroom</strong></td>
<td>Line up promptly by walking to your line.</td>
</tr>
<tr>
<td><strong>Cafeteria</strong></td>
<td>Line up promptly by walking to your line.</td>
</tr>
<tr>
<td><strong>Hallways</strong></td>
<td>Line up promptly by walking to your line.</td>
</tr>
<tr>
<td><strong>Meet &amp; Greet/Areas</strong></td>
<td>Line up promptly by walking to your line.</td>
</tr>
<tr>
<td><strong>Arrival/Dismissal</strong></td>
<td>Line up promptly by walking to your line.</td>
</tr>
</tbody>
</table>

#### Respect Ourselves

- Use kind words and actions.
- Keep hands, feet, and body off of others classmates.
- Keep your desk clean.
- Follow directions.
- Use quiet voices for speaking.
- Be on time.
- Be in line.

#### Respect Others

- Use kind words and actions.
- Keep hands, feet, and body off of others classmates.
- Keep your desk clean.
- Follow directions.
- Use quiet voices for speaking.
- Be on time.
- Be in line.

#### Respect Our School

- Use kind words and actions.
- Keep hands, feet, and body off of others classmates.
- Keep your desk clean.
- Follow directions.
- Use quiet voices for speaking.
- Be on time.
- Be in line.

*Note: The matrix can be expanded to include more specific behaviors in each location.*
We'd like to hear from you!

We are looking for prize ideas for the staff raffle. Please provide at least three prize ideas (approximately a $10 value) that you would be interested in winning. Thank you!

1. 4.
2. 5.
3. 6.
Appendix D
List of Prizes

As a result of the preference assessment conducted at the introduction of the intervention, prizes listed below were chosen for the course of the intervention. Each prize was of a five to six dollar value. Typically, each prize recipient received either a gift card or a classroom related item paired with candies.

1. Dry erase markers
2. Colored pens
3. Post it notes (various sizes)
4. Gift cards to local coffee shop
5. Chocolates/candies
6. Small note books
7. Stickers
Appendix E
Social Validity Assessment

Please complete the survey in full regarding your thoughts and feeling about the gold slip system and receiving prizes for writing gold slips.

<table>
<thead>
<tr>
<th></th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Slightly disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Gold slips are an acceptable intervention for increasing student appropriate behavior.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>Most teachers would find gold slips appropriate for increasing many appropriate school behaviors.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>Gold slips are effective in reducing the student problem behavior.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>I would suggest using gold slips to other teachers.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>Gold slips should not only improve the students’ behavior in the classroom, but also in other settings (e.g., other classrooms, home)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>6</td>
<td>Gold slips would not result in negative side effects for students.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>7</td>
<td>I like the procedures used for gold slips.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>8</td>
<td>Overall, gold slips are beneficial for the students.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>9</td>
<td>I would enjoy/enjoyed receiving prizes for writing gold slips.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>10</td>
<td>Gold slips improve teacher/student relationships.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>11</td>
<td>Receiving prizes would make me more likely to write gold slips.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>12</td>
<td>I liked the prizes I received for writing gold slips.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>13</td>
<td>Writing gold slips makes me more likely to praise students’ for appropriate behavior.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>14</td>
<td>I think it is appropriate for teachers to receive prizes for using gold slips for student’s good behavior.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

Comments:

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
Letter of Explanation to Faculty at Beginning of Study

Hello Elementary Staff Member!

Beginning in October, data regarding School’s praise note system (gold slips) and office discipline referrals (pink slips) will be collected as part of a research project in coordination with Kari Meyer and Meg Floress, Ph.D. at Eastern Illinois University. This project will provide insight into the current Positive Behavior Intervention Support (PBIS) programs implemented in schools located in Central Illinois and will continue through the end of the 2015-2016 school year. No personally identifying information regarding students or staff will be retained as a part of this study, and the data collected will have no bearing over employment or performance evaluations.

Attached is an instructional sheet on how to complete the gold slips in order to assure consistency. Please make sure to complete each slip in full.

If you have any questions or concerns before, during, or after the study, please feel free to contact one of the researchers below. We are more than happy to answer any and all questions that you may have! Results of the study will be available upon request once the study is completed.

We hope you have a wonderful 2015-2016 school year!

Sincerely,

Margaret Floress, Ph.D., LCP, NCSP
Assistant Professor of Psychology
Eastern Illinois University
Contact Information

Kari Meyer
School Psychology Graduate Student
Eastern Illinois University
Contact Information
Gold Slip Completion

In order for your gold slip to be fully completed, the following pieces must all be present:

- Full name of the child
- First initial and last name of the child’s teacher
- First initial and last name of the staff member completing the gold slip (if different than the student’s classroom teacher)
- A circle around the virtue(s) that the student was demonstrating.
- A short sentence describing what the child did specifically to earn the slip.

Please take a look at the example below. If you have any questions, feel free to contact one of the researchers.

<table>
<thead>
<tr>
<th>Respect</th>
<th>Caring</th>
<th>Kindness</th>
<th>Dependability</th>
<th>Organizer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child's Name</td>
<td><strong>Julia Smith</strong></td>
<td>Home Room Teacher</td>
<td><strong>N. Jones</strong></td>
<td>M. Johnson</td>
</tr>
<tr>
<td>Elementary School</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>“School Motto”</td>
<td>Great job helping your classmate on their homework!</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Safe</td>
<td>Achieving</td>
<td>Helpful</td>
<td>Future Thinking</td>
<td>Confidence</td>
</tr>
</tbody>
</table>
Hello Elementary Staff Member!

In continuation of the research project pertaining to School’s gold slip system, for approximately two months (February – March), a raffle for staff members will be implemented. After the student copy of the gold slip is used for the student raffle, the slip will be reused and the staff member that wrote the gold slip will be entered into a staff member raffle. Multiple slips will be drawn weekly, with increasing changes of winning depending on how many gold slips the individual staff members writes. Data will be collected through the end of the 2015-2016 school year. No personally identifying information regarding students or staff will be retained as part of this study, and the data collected will have no bearing over employment or performance evaluations. Important details:

- **EVERY STAFF MEMBER** may write a praise note and is therefore eligible to be entered into the weekly raffle.
- **BEHAVIOR-SPECIFIC PRAISE** (writing on the slip what the child specifically did to earn a gold slip) must be written on the slip in order for the slip to be included in the weekly raffle.
- **TWO SLIPS** will be entered into the raffle for staff members who complete a gold slip for a child who is at-risk for behavior problems.
- Please provide us with **RAFFLE PRIZE** ($10 and under) ideas by completing the bottom of this handout.

Attached is an instructional sheet on how to complete the gold slips in order to assure consistency. Please make sure to complete each slip in full.

If you have any questions or concerns during, or after the study, please feel free to contact one of the researchers below. We would be more than happy to answer any and all questions that you may have! Results of the study will be available upon request once the study is completed.

We hope you continue to have a wonderful 2015-2016 school year!

Sincerely,

**Margaret Floress, Ph.D., LCP, NCSP**
Assistant Professor of Psychology

**Kari Meyer**
School Psychology Graduate Student

Contact information