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## **Emailed Prompt Package to Increase Alternative School Educators' Use of Behavior Specific Praise**

Chelsea Johnson

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EMAILED PROMPT PACKAGE TO INCREASE ALTERNATIVE SCHOOL  
EDUCATORS' USE OF BEHAVIOR SPECIFIC PRAISE

by

Chelsea Johnson

A Dissertation  
Submitted to the Graduate School,  
the College of Education and Human Sciences  
and the School of Psychology  
at The University of Southern Mississippi  
in Partial Fulfillment of the Requirements  
for the Degree of Doctor of Philosophy

Committee:

Dr. Brad Dufrene, Committee Chair

Dr. D. Joe Olmi

Dr. Emily R. DeFouw

Dr. Zachary LaBrot

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## ABSTRACT

Alternative school educators are often placed in alternative education settings with minimal training or support to manage disruptive behaviors in the classroom. To combat this, school-based consultation may be provided to assist alternative school educators with classroom management strategies. However, face-to-face consultation may be limited due to the numerous responsibilities placed on school-based consultants. Behavior specific praise (BSP) is a strategy that is recommended, but often provided at low rates. To address these barriers, previous literature has examined the use of emailed prompts to increase treatment integrity, feasibility, and acceptability of a variety of evidence-based interventions. A concurrent multiple baseline design across three participants was implemented to assess the social validity and effectiveness of an emailed prompts intervention on alternative school educators' rates of BSP and corrective statements. Additionally, to investigate alternative school educators' behavior resulted in improved class wide behavior. Results indicated that all three alternative school educators' rates of BSP increased and corrective statements decreased with minimal impact on class wide behavior. Results maintained for two of the three participants. Limitations and future directions are discussed.

## DEDICATION

Throughout the numerous years of school, I always knew I wanted to help children by providing them with unwavering support. During high school, Mrs. Beverly Smith, Tobin Davidson, Karen McGhee and other teachers lit a fire of confidence in me that provided me with the certainty to know I was going to succeed at anything. Thank you for pushing me to go to college and take advantage of all opportunities.

Nevertheless, this project is dedicated to my Dad, Barry Johnson, I know you are so proud. I would give anything to hear you call me “Dr. Johnson” and tell people that I am a lawyer (he never understood what I was in school for). I finally accomplished my dream of being a doctor. Keep watching over me, buddy.

To my always-supportive family, even though you all were unsure of what I was doing, you continued to support me throughout this tiring journey. To my mother, you deserve the world; thank you for everything, my girl. Ethan, Dylan, and I appreciate you more than you know. The HUGEST thank you to my very close friends Clea (spud), Madison, Kameron, and Mina for always listening to me vent and providing me a safe space to have fun. Kameron and Terreca, I will always cherish and remember our good ole’ karaoke nights at Shenanigans and Juicy Crab! A special thank you to AJ, my significant other, for listening to me complain, but still motivating me to push through. Lastly, thank you to the wonderful friends this journey has blessed me with, Rebecca Lovelace, Mikaela Anderson, all my gym friends, and many more. You all will forever be appreciated. As I always say, “*everything will get done, so \*f\*orget it*”.

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## LIST OF ABBREVIATIONS

<i>ADHD</i>	Academically Engaged Behavior
<i>AEB</i>	Academically Engaged Behavior
<i>BIRS</i>	The Behavior Intervention Rating Scale
<i>BSP</i>	Behavior Specific Praise
<i>CASS</i>	Consultation Acceptability and Satisfaction
<i>DB</i>	Disruptive Behavior
<i>PF</i>	Performance Feedback
<i>USM</i>	The University of Southern Mississippi

## CHAPTER I - INTRODUCTION

Disruptive behaviors in the classroom are steadily increasing in schools (Jacobsen, 2013; White et al., 2001), especially since the COVID-19 pandemic (Habecker, 2023). Educators often have difficulties managing disruptive behaviors in general education classrooms. As such, students exhibiting substantial, chronic disruptive behaviors are often sent to alternative schools. Equivalent to general education teachers, some alternative school teachers may not be equipped to manage these behaviors. More recently, data revealed that the alternative education population has progressively increased over the last 20 years by 50% (Kho & Rabovsky, 2022). Disruptive behavior in the classroom is exasperating for teachers and students and may lead to a variety of concerns (Allday & Pakurar, 2007). Particularly, teacher frustration stemming from disruptive behaviors may lead to reactive and punitive measures. Reactive measures due to disruptive behavior may cause a lack of attention for other students in the class, increases in student drop-out later in life, reports of lower grades (Finn et al., 1995; Rosenbaum, 2020; Venus, 2020), and impaired instructional learning environment (Bru, 2009), and escalated teacher burnout (McCarthy et al., 2009). Similarly, these behaviors can impede student achievement while taxing administrators (Allday & Pakurar, 2007; Johnson et al., 2022), others in the classroom, the instructional environment, or the respective student. Overall, impacts from disruptive behaviors in the classroom extend beyond disruptive students to their peers and classroom teachers.

### **1.1 Alternative Education Settings**

Students that present with severe and chronic disruptive behaviors in the classroom are often sent to alternative education settings. Kumm et al. (2020) reported

that students could be placed in alternative school settings for the following reasons: 1) individualized education program (IEP) team decision if they are a child receiving special education services, 2) referral from family member or other mental health professionals, 3) expulsion from the general education setting due to disruptive behaviors, and 4) a legal decision (e.g., court system decision based on student's behavior). In the 1990s, about 640,000 students were enrolled in alternative school settings (e.g., typical alternative placement for behavior reasons, but not a function of special education, as part of special education placement, for vocational training, or some combination of the aforementioned) (Kho & Rabovsky, 2022). It is also possible that there are academic and attendance reasons for alternative school placement that are not related to aberrant behavior. Overall, students are transitioned to alternative schools due to risk of academic failure, poor attendance, disruptive behavior, or other additional factors associated with school removal (e.g., suspension, expulsion) (Paglin & Fager, 1997).

However, over the last 20 years, Kho and Rabovsky (2022) reported that the alternative education population has increased by approximately 50%. Students in alternative schools may often have diagnoses such as, but not limited to, attention-deficit/hyperactivity disorder, oppositional defiant disorder, and conduct disorder. Overall, students with emotional, social, academic, and behavioral disorders resulting in behaviors that are difficult to manage in the general education setting often find themselves placed in alternative education settings. Moreover, the educators providing services to students with disruptive behaviors (e.g., emotional disturbance) are often not adequately prepared or trained to provide sufficient education and support to students with emotional and behavioral disorders (Benner et al., 2010).

## **1.2 Challenges with Alternative School Educators**

Educators in alternative school settings are provided limited exposure to evidence-based interventions, classroom management supports, and formal training to support students (Mason-Williams & Gagnon, 2017). Although some alternative school educators may receive in-service trainings relevant to managing disruptive behavior in their classroom, the training provided may not be systematically implemented. Also, there may be a lack of follow up on the trainings to ensure strategies are being implemented with fidelity. Alongside poor preparation and inappropriate in-service trainings, alternative school educators in alternative school settings have diminished financial support to fund teacher assistants, classroom materials, and additional teacher trainings. Consequently, limited exposure to classroom management strategies can result in students not receiving adequate classroom instruction. The National Center for Education Statistics (NCES) (2022) reported that 86% of school districts hired teachers specifically for the alternative schools and programs. In addition, school districts indicated that a portion of teachers were involuntarily transferred to alternative settings (NCES, 2022). This indicates that not only are alternative school educators not specifically trained for students in alternative school settings, but some are transitioned to these settings reluctantly, which may result in their unwillingness or low motivation to provide adequate services within these programs. Thus, it is essential that teachers are provided with suitable education, trainings, and certifications to promote successful and equitable care to students in alternative school settings (Mason-Williams & Gagnon, 2017).

### **1.3 Alternative School Educators' Use of Evidence-Based Practices**

In alternative education settings, the training and consultation supports provided to teachers may be inadequate and brief; additionally, the strategies taught may not be evidence-based practices. Fortunately, there are evidence-based practices that can be implemented to address these disruptive behaviors in the classroom. Specifically, praise for students' appropriate behaviors, effective instructions, and group contingency interventions have been shown to promote improved outcomes (Dufrene et al., 2012; Ford et al., 2001; Gorton et al., 2021; Johnson et al., under review; Kamps et al., 2011; O'Handley et al., 2020, 2022). Although the previous studies demonstrate the effectiveness of stated evidence-based practices, there is still a dearth of studies pertinent to alternative schools.

Praise is a simple, yet effective strategy that has been shown to increase appropriately engaged behavior and decrease disruptive behavior (Dufrene et al., 2012; LaBrot et al., 2020, 2021; O'Handley et al., 2020, 2022), increase task engagement (Gorton et al., 2021), and increase student compliance to adult instructions (Fullerton et al., 2009) in classroom settings. Though effective, teachers may not be taught to use praise, and subsequently may deliver praise at low rates (O'Handley et al., 2022). Effective instruction delivery is an additional teacher strategy that has been shown to reduce disruptive behavior in the classroom (Dufrene et al., 2012) and increase student compliance (Ford et al., 2001; Johnson et al., in preparation; O'Handley et al., 2021). Effective instruction delivery includes providing direct, positively stated, descriptive instructions and is associated with improved student compliance (Dufrene et al., 2012; Mandal et al., 2000). Unfortunately, teachers may not be trained to deliver instructions in

an effective manner or may not maintain effective instruction delivery following didactic training. Group contingencies include programmed consequences for groups of students and have been shown to improve students' academic and behavioral outcomes. Kamps et al. (2011) reported that a group contingency-based intervention (e.g., utilized CW-FIT) resulted in an increase in on-task behavior and a decrease in disruptive behaviors for children at-risk for developing emotional and behavioral disorders.

There are multiple evidence-based classroom management strategies that alternative school educators can implement that may result in positive outcomes such as increased compliance, decreased disruptive behaviors, and increased academic achievement (Parsonson, 2012). Unfortunately, due to lack of training and consultation supports, many alternative school educators may not be aware of these strategies or may implement them inconsistently. Thus, alternative school educators are not seeing the benefits of implementing evidence-based practices. Furthermore, due to higher levels of disruptive behavior, teachers may deliver corrective statements at a higher percentage if proactive supports are not in place. It would behoove researchers and educators to test training and consultation supports that effectively increase teachers' use of simple, evidence-based classroom management practices such as praise for students' appropriate behavior and decrease their use of reactive, punitive strategies such as reprimands and behavioral corrections.

### **1.3.1 Behavior Specific Praise**

Praise for students' appropriate behaviors may be general, or specific. Behavior specific praise (BSP) is a specific-labeled positive statement that explicitly describes and acknowledges a desired behavior (Allday et al., 2012; LaBrot et al., 2021, 2022). General

praise is a nonspecific positive statement that expresses favorable judgement towards an individual's behavior but does not specify the behavior being praised (Floress et al., 2018). BSP and general praise are both effective for improving students' academic and behavioral performance; however, BSP is more effective than general praise because it allows individuals to differentiate which behaviors evoke praise (Brophy, 1981; Floress & Jenkins, 2015).

Floress et al. (2018) investigated general education teachers' use of general praise and BSP. Results of this study indicated that teachers who used more BSP than general praise experienced greater decreases in off-task behavior in the classroom. These data provide further support for earlier research demonstrating enhanced effects of BSP relative to general praise (Brophy, 1981; Gable et al., 2009).

BSP has been shown to be effective for a variety of populations ranging from preschool children to high school students with and without disabilities. For example, Allday and colleagues (2012) trained general education teachers to increase their use of BSP to improve behavior in students with emotional and behavioral disorders (EBD) and at-risk students. Participants consisted of teacher-student dyads and triads in kindergarten, first grade, second grade, and sixth grade. Teachers were provided 30 to 40-min of BSP training that included the following five components: a verbal definition of BSP, examples and non-examples of BSP, specific examples from their baseline observations, a graph of their BSP usage during baseline, and an opportunity for teachers to identify instances in their classes in which they could provide more BSP. A component of this training worth noting was that the teachers were not provided instructions to alter their use of BSP to ensure that observations following the training were naturalistic.

Following observations, the teachers were provided emailed performance feedback (PF) every three days that consisted of an explanation of their performance, their goal achievement or underachievement, and target student task engagement data. Results of this study indicated that teachers increased BSP, and students increased their task engagement following the teacher training. Likewise, as teachers use of BSP increased, use of corrective statements decreased. Although student behavior improved due to increased rates of BSP and decreased corrective statements, maintenance or follow-up data were not collected to determine the sustainability of the treatment gains. Additionally, the PF did not include a BSP goal for participants or describe how participants could improve their behavior during the next observation. Allday et al. (2012) included a packaged approach to increasing teachers use of BSP. The consultation literature includes a variety of approaches for increasing teachers' BSP (Floress et al., 2017; Zoder-Martell et al., 2019).

Given the myriad consultation approaches appearing in the literature that have been used to increase teachers' use of praise, Zoder-Martell et al. (2019) conducted a meta-analysis of studies that included training teachers to use BSP. The study synthesized findings from 28 single-case design studies to determine the extent to which teachers increase praise following training, what methods were used to train teachers, and how effective the training strategies or packages were. The results of the study indicated that the overall effect size for consultation for BSP was 0.85, which is regarded as a strong effect. Additionally, results showed that there were no differences in effect sizes when looking at studies that did and did not utilize specific training methods. A large percentage of studies implemented didactic training which is a commonly used training

procedure (Floress et al., 2017), PF, and multi-component consultation packages. Less common methods reported were prompts, which occurred in 18% studies (Zoder-Martell et al., 2019). Overall, this systematic review and meta-analysis demonstrated that teacher training increased teachers' use of BSP; however, the researchers were unable to distinguish which specific components of the training packages were responsible for teachers' increases in BSP (Zoder-Martell et al., 2019). Likewise, the study specified that it is imperative to utilize feasible and time efficient training methods to ensure BSP is effectively implemented. Therefore, future research may include testing individual consultation supports that are time and resource efficient.

Though research has shown BSP to be effective, like other evidence-based practices, teachers tend to infrequently implement BSP (Brophy, 1981; Floress et al., 2018). Additionally, without effective training or support, teachers may not increase BSP, appropriately generalize BSP, or sustain increases in BSP should increases occur (Dufrene et al., 2014). Floress and colleagues (2018) showed that teachers' rates of BSP were low with teachers (e.g., elementary school teachers K-5<sup>th</sup> grade) providing BSP once every 30 min. Thus, teachers are not using BSP at suggested rates. Likewise, as research indicates, using BSP at appropriate rates can have a positive impact on child behavior. Therefore, the extant literature clearly indicates that without explicit training or consultation supports, many teachers will not deliver BSP at a rate necessary for improved student outcomes. In addition, many research studies testing BSP have not evaluated alternative school teachers' BSP rates.

## **1.4 Teacher Consultation and Performance Feedback**

Although research indicates that the use of evidence-based practices leads to improved student outcomes (Cook et al., 2012), teachers may not implement such practices with fidelity due to barriers such as time constraints, burnout, resources, knowledge base, or feasibility. Fortunately, there are strategies that can increase treatment integrity such as PF delivered through teacher consultation. As stated previously, Zoder-Martell et al. (2019) conducted a meta-analysis and identified a variety of strategies effective for increasing teachers' BSP. One such strategy identified by Zoder-Martell et al. (2019) was PF, which is one of the most widely studied consultation strategies for use in schools and has been identified as an evidence-based strategy (Criss et al., 2022; Noell et al., 2005; Sanetti et al., 2007, 2013, 2014).

PF includes providing educators with information regarding intervention steps, data regarding recent implementation integrity, and guidance for improving implementation (Coddington et al., 2005; Dufrene et al., 2005; Noell et al., 2005; Reinke et al., 2008; Sanetti et al., 2007; Truckenmiller & Amanda, 2019). Sanetti et al. (2007) indicated that an important component within PF is presenting the teacher with their treatment integrity data. Overall, PF typically involves a discussion concerning what the teacher is doing well, what they are doing inadequately, and what they can improve while providing a justification for the intervention components.

Fallon et al. (2015) conducted a systematic review relative to PF and its effectiveness in improving the implementation of school-based interventions. Included studies were evaluated based on the design standards and additional criteria (e.g., year published, intervention components, treatment integrity measure). Results indicated that

out of 126 studies, 24 showed no evidence, 48 showed moderate evidence, and 54 showed strong evidence. Studies implementing PF provided it in a variety of formats such as the following: when performance fell below expectation, five times a week, weekly, and one time per month. Additionally, the delivery of PF varied (e.g., verbal and written). If PF was written, it occurred the same day, whereas verbal PF was provided weekly. Overall, the systematic review demonstrated that the implementation of PF, in a variety of formats, is an effective strategy to increase teachers' treatment integrity.

Despite the knowledge that consultation and PF are effective, there are barriers to both. Teachers spend the majority of their workday teaching students with few personnel resources to provide breaks, which limits their availability to meet with consultants. Likewise, school psychologists and school-based consultants also have numerous professional responsibilities, which limits their availability. Moreover, systemic factors may dictate school psychologists' professional duties (e.g., substantial time devoted to eligibility evaluations) and limit their ability to travel to multiple schools to collaborate with teachers (George-Levi et al., 2022). Another barrier reported is that school-based consultants may feel uncomfortable when providing feedback to colleagues (e.g., teachers) and that doing so may change the dynamic of their relationship (LaBrot et al., 2022; Sanetti et al., 2013, 2014). Therefore, it is imperative that feasible approaches to train and provide consultation to teachers are identified. For example, if school psychologists and school-based consultants have limited time to travel to multiple schools to consult with teachers, then perhaps they can leverage technology to make consultation more time-efficient. Electronic supports may provide a means for feasible

and effective consultation delivery, and PF may be particularly amenable to electronic delivery.

### **1.5 Electronically Delivered Performance Feedback**

In perhaps the first study to assess a weekly schedule of PF and incorporating technology to alleviate time barriers, Mortenson and Witt (1998) tested the effects of PF delivered weekly. In this study, the consultant provided school-based consultation services to a rural elementary school. Daily face-to-face consultation was deemed unfeasible; therefore, participants utilized a fax machine to provide daily permanent products to consultants. Participants in the study included four female teacher-student dyads. Teacher participants sought assistance for students that presented with academic difficulty (e.g., infrequent assignment completion, failing grades). Teachers were trained to implement a reinforcer-based classroom intervention in which they were provided all necessary materials (e.g., folders and worksheets), treatment integrity sheets, and reinforcers. At the end of the day, teachers were instructed to fax daily summaries to the consultant. A multiple baseline design was used to assess the effects of weekly face-to-face PF meetings on teachers' treatment integrity. Results indicated that weekly PF increased teachers' treatment integrity in three of the four dyads. Although weekly PF increased teachers' treatment integrity, providing verbal PF may warrant an aversive experience for both the teacher and consultant. Moreover, PF was delivered in a face-to-face format on a weekly basis. Although progress monitoring of treatment integrity was done electronically, the consultant still travelled a substantial distance for the face-to-face PF meeting.

Advances in technology since Mortenson and Witt (1998) allow for electronic PF that is more time-efficient and reduces the chance of an aversive consultation experience. Barton and Wolery (2007) evaluated the use of email feedback on the use of verbal behaviors by preservice teachers in two experiments. Both experiments were similar except that feedback for experiment 1 included PF for multiple behaviors (e.g., expansions, contingently delivered specific praise, and directives) and PF for experiment 2 focused on expansions only. An expansion is a verbal behavior that requires an adult to repeat what a child says by adding more complex language, which can accelerate language growth. A multiple baseline design across preservice teachers was used to assess effects of electronic PF on teachers' expansions, BSP, and directives. During the feedback intervention phase, an email containing the following was sent to the participants on the same day after each observation: three to six randomly selected verbatim statements from the observation, total number of expansions observed, and an embedded question regarding classroom or practicum scheduling with a reply request (e.g., to ensure they read the email). A graduate student was copied to the email and instructed to complete a 4-item checklist to measure the extent to which PF was implemented as planned. Although the email did not incorporate a graph of the data, the results demonstrated that the preservice teachers use of expansions, BSP, and directives increased when email feedback was provided. Experiments 1 and 2 produced an increase in expansions; however, the effects were larger when feedback was only given for expansions instead of multiple verbal behaviors. Additionally, the participants positively rated the email communication indicating that emails may be an acceptable tool for providing feedback. As previously noted, providing teachers with treatment integrity data

may increase the effectiveness of PF. The emails were also provided after observations occurred and not before to prompt participants. The impact of teacher behavior on child behavior was not examined.

Investigating the impact of teacher behavior on child behavior is an important factor to determine the effectiveness of emailed PF. Hemmeter and colleagues (2011) conducted a study to determine if the implementation of PF delivered through email increased preschool teachers' use of descriptive praise and maintained after removal of emails. The study also evaluated if the increase of teachers' descriptive praise resulted in an increase of class-wide child engagement and a decrease in challenging behavior. Participants received a 30-min descriptive praise training that included benefits of praise, how to use praise, examples, non-examples, and developing a plan of starter praise phrases. Similar to Barton and Wolery (2007), PF emails were sent after each observation containing five components: 1) opening comment, 2) supportive feedback, 3) corrective feedback, 4) planned actions, and 5) closing comments, and procedural integrity was assessed using a checklist. The participants were also directed to view a 30-90-s video clip of teachers implementing descriptive praise. Across four participants, teachers' rates of descriptive praise increased following PF. Likewise, teachers maintained their rates of descriptive praise and challenging classroom behavior minimally decreased as teachers increased their descriptive praise. Maintenance data were only collected for two of the four participants and one participant terminated participation before several sessions could be conducted. However, the study illustrates the use of emailed PF for increasing teachers' use of praise.

Continuing to investigate the effectiveness of emailed PF in relation to treatment integrity of a variety of evidence-based interventions is essential. Barton and colleagues (2016) conducted a study to analyze the use of email as an intervention to provide PF to preservice' teachers. Additionally, the study determined if there was a functional relation between the emailed PF and participants generalized use of target behaviors across environments. The study included three female preservice teachers and intervention took place within the preschool classroom. Target behaviors included the following: descriptive praise, choice making, emotion labeling, language expansions, and promoting social interactions.

During baseline, the researchers observed the frequency of target behaviors and sent emails after each observation to confirm that the participants were checking their email regularly. Intervention observations were consistent with baseline; however, an email containing PF components was sent to each participant the same day observations occurred. The email included the following components: a positive opening statement, a frequency count of target behavior(s), one to three verbatim examples of their use of the target behavior(s), a positive closing statement, and a request for a response (Barton et al., 2016). If the participant did not implement one of the target behaviors, the email included corrective feedback (e.g., what they did correctly and what needed to improve). The maintenance phase was employed to determine if following removal of emailed PF teachers would maintain the use of target behaviors. Results of the study indicated that the implementation of emailed PF increased the participants' use of target behaviors (Barton et al., 2016). Though results of this study demonstrated a functional relationship between the use of emailed PF and increases of target behaviors, there were limitations.

Participants only included preservice teachers (e.g., practicum students), which does not signify if emailed prompts are generalizable to other populations (e.g., alternative school teachers). Also, the impact of teachers increased use of descriptive praise on child behaviors was not evaluated. Thus, collecting child data would develop a stronger support for providing emailed PF for specific target behaviors. Though effective, PF typically occurs after an individual's performance (e.g., observation, intervention) due to low treatment integrity; whereas prompts may be an antecedent strategy that prevents treatment integrity drift. More recent research includes studies testing the use of emailed prompt packages to increase teachers' use of BSP (LaBrot et al., 2022).

### **1.6 Emailed Prompts**

Implementing preventive strategies to increase teachers' treatment integrity may not only decrease treatment integrity drift, but also increase feasibility of consultation. Prompts are a simple strategy to remind individuals of an expectation (e.g., behavior) prior to or during the behavior occurring (Cooper et al., 2020). Evolving research demonstrates effective results using emailed prompts to promote teachers' treatment integrity of evidence-based strategies (Collier-Meek et al., 2017; Fallon et al., 2018; LaBrot et al., 2022). Emailed prompts are similar to traditional prompts, but the prompts are sent via email. Emailed prompts can include a description of the intervention and target behavior, expectations for intervention implementation, examples of implementation behaviors, and non-examples of intervention behaviors (Collier-Meek et al., 2017; LaBrot et al., 2022).

An early example of electronic emailed prompts for increasing treatment integrity includes Collier-Meek and colleagues (2017) study testing the impact of emailed prompts

on teachers' implementation of a class-wide behavioral intervention as well as teacher classroom behaviors. The class-wide behavioral intervention components varied based on the intervention provided (e.g., Good Behavior Game or Caught Being Good Game) because teachers were provided the option to choose. Although two different intervention options were offered, each intervention consisted of 15 intervention steps such as reviewing expected behavior, rules, criteria for winning the game, and the potential reward. Alongside teacher classroom behaviors (e.g., teachers' rate of praise and corrective statements), class-wide behaviors were examined (e.g., academic engagement and disruptive behavior). Three elementary school teachers were provided a 10–20-min intervention training that incorporated instructions, modeling, role play, and feedback. After the training, the researchers introduced the intervention and reviewed the intervention components. Following the training, participants were sent an automated email with a read receipt that included the following: each intervention step, tips for each step, a sample dialogue the teacher might use during implementation, and a quick tip (e.g., how to deliver one randomly identified intervention step with suggestions). Data indicated that following the intervention training, all participants showed moderate levels of treatment integrity, and treatment integrity increased following the implementation of emailed prompts. Per read receipts, three out of four teachers opened 100% emailed prompts sent to them. Emailed prompts produced consistent and higher levels of teachers' treatment integrity when compared to the intervention training alone. Teachers also exhibited increased rates of praise, decreased corrective statements, and rated the intervention as acceptable or favorable on most items per the social validity scale. Likewise, as teachers' classroom behaviors improved, class-wide behaviors (e.g.,

disruptive behavior and academic engagement) improved. Results from Collier-Meek et al. are promising in that a resource efficient electronic prompting method was functionally related to increased teacher treatment integrity.

In a subsequent study assessing the effects of emailed prompts on teachers' treatment integrity, Fallon and colleagues (2018) compared the use of emailed prompts and emailed PF on teachers' treatment integrity of a class-wide group contingency intervention. The study also examined if increases in teachers' treatment integrity resulted in increases in students' rates of academic engagement and decreases in disruptive behavior. Three elementary school teachers were provided a 15-min didactic training followed by the delivery of emailed prompts, consistent with components of Collier-Meek et al. (2017). Following emailed prompts, the emailed PF phase was similar to emailed prompts with an addition of a graph of previous observation data, praise for intervention steps implemented as intended, and a reminder to implement steps that were not previously completed. Initial intervention training resulted in moderate increases in teachers' treatment integrity (e.g., adherence and quality) and emailed prompts produced higher levels of treatment integrity. The emailed PF phase yielded even higher and more consistent treatment integrity (Collier-Meek et al., 2017). Though moderate increases were noted, future research is needed to increase the generalizability of findings to other teacher populations.

Early research indicates that emailed prompts may increase teachers' treatment integrity and teachers may perceive such supports as socially valid (Collier-Meek et al., 2017; Fallon et al., 2018); however, additional research is needed to address limitations of the early research. Specifically, both studies did not collect maintenance data to

demonstrate that treatment integrity was maintained following termination of emailed prompts. Additionally, participant demographics do not support the use of emailed prompts for different populations outside of elementary school teachers. Particularly, no studies have evaluated the effectiveness of emailed prompts to increase alternative school educators' intervention integrity.

Although emailed prompts have not been tested with a wide range of teacher participants, emailed prompts have been shown to improve early childhood educators' use of BSP. LaBrot and colleagues (2022) evaluated the effectiveness of an emailed prompts package similar to Collier-Meek et al. (2017) and Fallon et al. (2018) that included brief behavioral skills training and emailed prompts. Maintenance and generalization data were also collected to determine if treatment gains were maintained following the termination of emailed prompts. Three early childhood educators were provided a three to five-min intervention training session that included a description of BSP, rationale of BSP, modeling, rehearsal, and feedback on rehearsal. Following the training, teachers received an automated emailed prompt with an attached read receipt. The LaBrot et al. (2022) consultation package was consistent with previous studies and included the following five components: 1) rationale for providing BSP, 2) a description of BSP, 3) two examples of BSP statements, 4) instructions to provide at least one statement, and 5) a positive statement (e.g., Thank you for working with us!). Observations of teachers and their children occurred in the morning time and generalization observation occurred in the afternoon during similar classroom activities. Results indicated that the participants' rates of BSP increased following delivery of the consultation package. Likewise, participants' rates of BSP were maintained following

termination of emailed prompts in both settings (e.g., target and generalization). Finally, teachers rated the consultation package as socially valid. LaBrot et al. (2022) results demonstrate the effectiveness, acceptability, generalization, and maintenance of emailed prompts with early childhood educators'; however, further research is needed to expand the external validity of findings.

### Current Study

In an ever-changing educational environment, some things remain the same; that is, some students engage in disruptive behaviors, many teachers are ill equipped to effectively manage students' disruptive behaviors, and there are numerous obstacles that impede consultants' ability to effectively collaborate with teachers to support teachers and their students. Fortunately, technology is being increasingly leveraged to efficiently overcome impediments to consultation delivery. Emailed prompts are feasible in that they can be automatically delivered which reduces the effort within the consultation process for school psychologists and behavioral consultants. Unfortunately, there is a lack of literature supporting the use of emailed prompts with alternative school educators' use of BSP. In addition, due to the high occurrence of disruptive behaviors in these settings, alternative school educators may require additional support from behavioral consultants to implement evidence-based supports (e.g., BSP) with high integrity. Emailed prompts may not only be an effective strategy, but an efficient, acceptable, and feasible consultative support. Thus, the purpose of this study was to test the effects of an emailed prompt package (Collier-Meek et al., 2017; Fallon et al., 2018; LaBrot et al., 2022) with daily emailed prompts to increase alternative school educators' rates of BSP and reduce teachers' corrective statements. Moreover, this study was designed to investigate whether

emailed prompts effects maintained following consultation and to assess teachers' perceptions of the social validity of consultation supports. The following research questions were evaluated:

#### Research Questions

1. Is there a functional relation between intervention training and emailed prompts and an increase in alternative school teachers' rate of BSP?
2. Are increases in BSP rate maintained following the termination of emailed prompts?
3. Is there a functional relation between intervention training and emailed prompts for BSP and a decrease in alternative school teachers' rate of corrective statements?
4. Are decreases in rate of corrective statements maintained following the termination of emailed prompts?
5. Is there a functional relation between alternative school teachers increased rates of BSP and class wide academically engaged behavior and disruptive behavior?
6. If teachers' rate of BSP do not increase following emailed prompts, does emailed performance feedback increase alternative school teachers' rates of BSP?
7. Do educators rate the email prompt consultation procedures as a socially valid implementation support?
8. If emailed performance feedback is implemented, do educators rate it as socially valid?

## CHAPTER II - METHODS

### **Participants and Setting**

Study participants included three alternative school educators from an alternative school in a Southeastern United States rural school district. The alternative school served elementary and middle school students and was operated by a public school district. The school district served approximately 10,325 students. Within the district, approximately 20% of families had a family income below the federal poverty level and approximately 22% of families received government assistance (e.g., SNAP benefits). Families within the school district identified as 74% White, 20% Black or African American, 3% Hispanic or Latino, 2% as two or more races, and 1% as Asian.

Students enrolled in the alternative school had been placed there due to chronic disruptive behaviors or severe behavior incidents such as fighting, drug offenses, or incidents that included serious bodily injury. Students attending the alternative school ranged from five to 12 years old. Additionally, the alternative school classroom sizes were small with approximately 8 to 10 students per classroom.

Regarding recruitment of participants, the researcher described and discussed the project with the school's superintendent and school principal. Once approved, the researcher met with nominated teachers, described the study, and then if teachers were interested in participating, they were provided with a Consent Form (Appendix A). This study did not include consent from students' parents or assent from students as no identifiable data were collected for individual students; rather, only aggregate class-wide data were collected and reported.

In order to be selected for participating in this study, teachers were required to provide BSP statements at a rate less than 0.5 statements (one praise statement every two mins) during the screening observation that included frequency within interval during a 10-min observation period.

Participant 1, Ms. Clea, was a 58-year-old Caucasian female who held a bachelor's degree in elementary education K-8 and had been teaching for 35 years. Ms. Clea reported having not received previous behavior management training for classroom management strategies but indicated that she had been working in an alternative school environment for 10 years. Ms. Clea's class included 10 students who ranged in age from five to eight-years-old and were in Kindergarten through 1<sup>st</sup> grade. Ms. Clea's classroom consisted of one female and nine males. Some students in Ms. Clea's classroom had disabilities including Intellectual Disability and Other Health Impairment IDEA rulings. Students' diagnoses included ADHD and developmental delay. Although prompted, teachers were unable to provide exact percentages of students who had specific disabilities as well as a specific percentage breakdown of ethnicities within their classroom.

Participant 2, Ms. Madison, was a 53-year-old Caucasian female who held a bachelor's degree in elementary education and had been teaching for 28 years. Ms. Madison reported having previously received training for classroom management skills. Her classroom included 10 students who ranged in age from seven to 12-years-old and were in 2<sup>nd</sup> through 5<sup>th</sup> grade. Ms. Madison's classroom consisted of all males. Some students in Ms. Madison's classroom had Specific Learning Disability and Other Health

Impairment IDEA rulings. Students' diagnoses included ADHD and oppositional defiant disorder.

Participant 3, Ms. Kameron, was a 40-year-old Caucasian female who held a specialist's degree in psychometry and a master's degree in special education with an emphasis in behavioral and emotional disorders. Ms. Kameron reported that she had been teaching for 15 years. Ms. Kameron reported having received previous training for behavior management skills through an Applied Behavior Analysis program. Ms. Her classroom included 10 students who ranged in age from 5 to 11-years-old and were in Kindergarten through 5<sup>th</sup> grade. Ms. Kameron's classroom consisted of two females and eight males. Students in Ms. Kameron's classroom had Autism Spectrum Disorder and Emotional Disturbance IDEA rulings. Students' diagnoses included ADHD, oppositional defiant disorder, disruptive behavior disorder, and pediatric autoimmune neuropsychiatric disorder associated with streptococcal.

The primary researcher was a 26-year-old African American female in her 4<sup>th</sup> year of graduate training in School Psychology. Secondary observers were graduate students in School Psychology. All observers completed a mandatory observation training as part of their doctoral training that included instruction, practice, and feedback for time-sampling procedures. To complete the training, doctoral students met an 80% agreement criterion with established observers. Additionally, the primary researcher trained all observers to conduct observations by reviewing procedures for momentary time sampling and operational definitions included in this study.

## **Instruments and Materials**

**The Behavior Intervention Rating Scale (BIRS).** The BIRS (see Appendix B) was utilized to assess teachers' perceptions of the BSP intervention. The BIRS is a 24-item rating scale with responses ranging from 1 (strongly disagree) to 6 (strongly agree) and measures individuals' perceptions of treatment acceptability, effectiveness, and time to intervention effectiveness (Elliot & Treuting, 1991). The authors identified three factors for the BIRS: Acceptability (63% of variance), Effectiveness (6% of variance), and Time to Effectiveness (4.3% of variance). Additionally, internal consistency has been found to be high for the entire instrument ( $\alpha=.97$ ), with high internal consistency for each factor, as well. More precisely, acceptability, effectiveness, and time produced alpha levels of .97, .92, .87, respectively.

**Consultation Acceptability and Satisfaction Scale (CASS).** Teachers rated the social validity of the emailed prompts consultation procedure via the CASS (see Appendix C), which is a 12-item rating scale with ratings ranging from 0 (strongly disagree) to 5 (strongly agree). Higher scores on the CASS indicate greater perceptions of social validity. Preliminary research indicates high internal consistency for the CASS ( $\alpha=0.97$ ) (Dufrene & Ware, 2018).

**Observation and Procedural Integrity Forms.** Observations forms were used to code behavior (see Appendix D). The research team used procedural integrity checklists forms to assess researchers' procedural integrity (see Appendix E).

## **Dependent Variables and Observation Procedures**

**Behavior Specific Praise.** The primary dependent variable was teachers' rate of BSP per min during a 10-min observation. BSP was defined as an audible verbal,

specific-labeled positive statement that explicitly describes the students' behavior that warranted praise (Allday et al., 2012; LaBrot et al., 2021, 2022). Examples of BSP included "I love the way you are sitting in your chair, Chelsea!" or "Thank you for cleaning up your kitchen center, Nicole!". Non-examples of BSP included "I love that!", "Awesome job!", or "Thank you Andriel!". Additional non-examples included the teacher showing thumbs up to a student, clapping for the student, or hugging the student after an appropriate behavior occurred. See Appendix F for additional BSP examples and nonexamples.

**Corrective Statements.** The secondary dependent variable was teachers' rate of corrective statements per min during a 10-min observation period. Corrective statements were defined as an audible verbal statement that used words such as "stop", "don't", or "no" (Allday et al., 2012; Collier-Meek et al., 2017). The student's behavior did not have to be labeled to be coded as a corrective statement. Examples of this included "Don't say that!", "Stop!", "No running!", "No talking", or "Stop getting out of your seat". Non-examples of this included a teacher making a gesture such as "waving their finger no" to a student or a teacher providing a pre-correction statement prior to a behavior occurring such as "remember to use your walking feet in the hallway."

**Academically Engaged Behavior.** AEB was defined as active or passive participation in classroom activities (Collier-Meek et al., 2017) and included attending to a classroom assigned task (e.g., writing on math sheet) and the teacher (e.g., looking at the teacher when the teacher is speaking). Examples of this were writing, reading, raising a hand, answering questions, asking relevant questions, participating in assigned tasks, looking at instructional materials, and talking to peers with teacher permission. Non-

examples of this included talking to peers during academic tasks or without permission, looking at the ceiling for more than 5-s, and sleeping during academic tasks. For example, if a student was sitting in their desk and completing assignments, this was defined as AEB. However, if a student was talking at their desk without teacher permission, this was not defined as academically engaged behavior.

**Disruptive Behavior.** DB was defined as a student engaging in any action that interrupted classroom activity or others (Collier-Meek et al., 2017) such as negative verbal comments, physical aggression towards others, out of seat for more than three seconds without teacher permission, and inappropriate vocalizations (Folino et al., 2014). Negative verbal comments were defined as any audible verbal statements, questions, or comments that were directed at peers or teachers including threats, insults, swearing, name-calling, or blaming. For example, if a student called their peer ugly, this met the definition of a negative verbal comment. However, if a student told their peer that they liked their dress, this would not be considered a negative verbal comment. Physical aggression towards others and objects was defined as a student making forceful contact with another individual via body part or object. These behaviors included hitting, kicking, spitting, biting, hitting others with objects, writing on desk, or kicking chairs. For example, if a student forcefully pushed another student or threw an object at that student, it was defined as physical aggression. However, if a student lightly patted another student on the back, it was not considered physical aggression. Out of seat behavior was defined as the student leaving his or her seat without asking or being granted permission from the teacher or classroom assistant for more than three seconds (Folino et al., 2014). For example, if a student went to sharpen their pencil without permission, this was defined as

out of seat behavior. However, if a student went to sharpen his pencil with teacher permission, this was not considered out of seat behavior. Inappropriate vocalizations were defined as any audible verbal statement such as calling out answers, yelling, and interrupting peers. For example, if the student shouted out answers without teacher permission, this was defined as an inappropriate vocalization. However, if the student was called on by the teacher and shouted out their answer, this was not defined as an inappropriate vocalization.

**Social Validity.** At the conclusion of the experimental portion of the study (i.e., following the maintenance phase), each teacher was provided with a CASS and BIRS and was asked to rate the social validity of consultation and the BSP intervention, respectively. The teachers were informed that the CASS would assess their perception of the consultation process and that the BIRS assesses the BSP intervention (LaBrot et al., 2022). The consultant added an additional question that permitted the teachers to narratively describe what they liked or did not like about the consultation procedures. Additionally, teachers were provided a graph of their student's data to see their performance.

**Observation Procedures.** Observers were doctoral students in a school psychology program. Prior to conducting observations, all observers completed a mandatory observation training as part of their doctoral training that included instruction, practice, and feedback for time-sampling procedures. To complete the training, doctoral students were required to meet a 90% agreement criterion with established observers. Additionally, the researcher trained observers to conduct observations by reviewing

procedures for momentary time sampling and operational definitions included in this study.

Frequency of BSP and corrective statements within each 10-s interval were coded. BSP rates were calculated per min (e.g., 2.02 BSP statements per min). Momentary time sampling (MTS) procedures included 10-s intervals to record AEB and DB student data. When compared to other data collection procedures (e.g., partial interval, whole interval), MTS has demonstrated a closer match to continuous measurement (Radley et al., 2015). A fixed-rotation method was used to observe class-wide behavior in which a different pre-identified was observed during each 10-s interval. When observers arrived, four students were randomly selected for each observation. The fixed-rotation method was chosen as previous research indicates that it is the most precise estimate of class-wide behavior (Briesch et al., 2015).

Observers arrived at the classroom at least five mins early prior to beginning the observation to reduce reactivity. The observers located themselves in an unobtrusive area that allowed them to view the entire classroom and did not interact with anyone (e.g., teachers, students). The observers began observations approximately 5-10 mins after arrival. All observations were conducted in the alternative education classroom during academic activities, group instruction, and independent work. Observations for each teacher participant remained constant and occurred between the times of 9:00 am and 11:00 am.

### **Experimental Design and Data Analysis**

**Experimental design.** This study included a concurrent multiple baseline design across three teachers. Other single subject research designs were possible for these

research questions; however, a multiple baseline design allowed for a potentially efficient design in terms of teachers spending fewer sessions in baseline conditions and eliminated the need for a withdrawal phase, relative to a reversal design, which is desirable from an ethical perspective given that the participants are teachers in an alternative school. What Works Clearinghouse (2020) design standards require three treatment demonstrations (e.g., intervention implementation for each of three participants) including at least five data points per phase (Clearinghouse, 2020; Kratochwill et al., 2010). Additionally, there must be at least a two-data-point stagger between each teacher for intervention implementation. Finally, for the intervention to be implemented in panels two and three, there must be an intervention effect in the preceding panel. The multiple baseline design included three phases, baseline, intervention, and maintenance. Finally, the multiple baseline design included a randomization component such that the order of teachers' intervention start point in the multiple baseline design was randomized (Kratochwill & Levin, 2014), which increases statistical power and may decrease the probability of a Type I error. Randomizing teachers to intervention start points was deemed appropriate and unlikely to encounter violations of multiple baseline phase change rules for at least two reasons. First, previous BSP research indicated that, in general, teachers emit low stable rates of BSP during baseline (LaBrot et al., 2021, 2022); as a result, it was unlikely that teachers would display increasing trends for BSP during baseline. Second, previous research indicated that alternative school teachers displayed increased rates in BSP following behavioral consultation (Dufrene et al., 2014).

**Data analysis and Phase Change Decisions.** Visual analysis included analyzing level, trend, variability, immediacy of effect, consistency of effect, and non-overlap of

data across phases (Horner et al., 2005). Additionally, descriptive statistics including mean, and range are provided for all dependent variables. Social validity results were analyzed using descriptive statistics (e.g., mean).

Phase change decisions were based on visual analysis of BSP data paths. During baseline, rates of BSP were required to be stable or descending and below the predetermined criterion of 0.5 BSP statements per min. The predetermined criterion of 0.5 BSP statements per min was selected based on previous literature indicating the rate produced improved child behavior in early childhood and head start settings (LaBrot et al., 2020, 2021). Phase changes did not occur until each participant had stable or descending rates of BSP.

Therefore, the first participant randomly assigned to receive intervention first began intervention when they had a low, steady rate of BSP below the criterion, or a descending trend. Next, in order for the second participant randomly assigned to begin intervention, they were required to have at least two more baseline data points than the first participant, and the first participant had to demonstrate a beneficial response to intervention and the second participant had to exhibit a low, stable rate of BSP below the criterion, or a descending trend. The same rules applied to the third participant. Participants transitioned to the maintenance phase once they had at least 5 steady intervention data points or demonstrated an increase in trend.

**Effect Size.** This study included a non-parametric effect size measure as a means of data analysis. Tau U was used to assess the effect size (Parker et al., 2011). The website, <https://jepusto.github.io/SingleCaseES/>, was used to calculate Tau U (Pustejovsky et al., 2023). Effect sizes between zero and one were interpreted as a

positive effect of the intervention on the participants behavior. Additionally, values that were closer to one demonstrated a stronger effect relative to values closer to zero. A small Tau value was considered a value less than 0.2, a moderate effect included values between 0.2 and 0.6, a large effect included values between 0.6 and 0.8, and values greater than 0.8 were very large (Vannest & Ninci, 2015).

## **Procedures**

**Screening Observation.** To participate in this study, teachers were required to deliver BSP at a rate lower than 0.5 BSP statements per min during a 10-min screening observation. The researcher conducted a 10-min screening observation to determine if the teachers' rate of BSP was below the predetermined criterion (e.g., less than 0.5 statements per min). During the screening observation, the researcher recorded teachers' BSP using a frequency within interval method and frequency was converted to a rate-based measure including BSP statements per min. The screening observation datum was counted as their first baseline datum, if they were below the criterion; thus, baseline continued. During the screening observation, the researcher also coded for teachers' corrective statements and the class' AEB and DB.

**Baseline.** During baseline, teachers were instructed to continue regular classroom procedures. The observers entered the classroom and took a seat in an unobtrusive location. The observers did not interact with the teachers or students. Observations began approximately 5-10 min after arrival. At the conclusion of the observation, the observers exited the classroom and did not provide feedback to the teachers or students.

**Emailed Prompt Package.** After the baseline phase, and prior to the first email prompt phase, the researcher conducted a brief training (e.g., 3-5 min) with a teacher. The

brief training was used to teach the teacher the operational definition of BSP, review the criterion goal, and note the importance of and rationale for BSP as a classroom management strategy. Additionally, the researcher used a behavioral skills training approach to train the teacher in the delivery of BSP, which included instructions, modeling, teacher practice, and feedback (LaBrot et al., 2022; Miltenberger et al., 2017). At the conclusion of the training, the researcher determined the designated time that the teacher preferred to receive the emailed prompt the following day. All teacher participants indicated 7:00 am as their preferred time to receive an email prompt. The researcher informed the teacher was informed that they would begin receiving the emailed prompt the next school day and that it would include a reminder to give BSP statements at the predetermined goal to their classroom (LaBrot et al., 2022). A read receipt via the Boomerang app was attached to the email. Essentially, Boomerang is an app within Outlook that allowed the consultant to view the following: the time the email was opened, how long the email was open, and if the link in an email was clicked on. See Appendix G for the emailed prompt example.

The researcher returned to the teachers' classroom to observe in an unobtrusive location and completed the observation. At the end of the observation, the researcher did not provide any feedback to the teacher. If the teachers' rate of BSP was below the predetermined criterion for 3 consecutive days, or 3 of 5 nonconsecutive days, the researcher would provide PF via email. Although the teacher participants did not require PF, the PF email template included the same information as the original emailed prompt with the addition of the following information: the number and rate of BSP statements the teacher delivered during the last observation of the teacher, corrective feedback since the

teacher did not meet the predetermined BSP criterion, and encouragement to provide BSP at least once every 2-mins during the designated time. The information regarding the teachers' rate of praise would have been provided in written and graphical format. See Appendix G for the PF emailed prompt example.

**Maintenance.** The participants transitioned to the maintenance phase once they completed at least five stable intervention data points. The maintenance phase procedures were implemented to the same degree as the baseline phase and emailed prompts were removed.

### **Interobserver Agreement and Procedural Integrity**

**Interobserver agreement (IOA).** Interobserver agreement was calculated for at least 30% of the observations by phase for all participants per the What Works Clearinghouse standards (Clearinghouse, 2020; Kratochwill et al., 2010). IOA was calculated by dividing total number of intervals agreed upon by total number of intervals and multiplying by 100 (Cooper et al., 2020). If IOA fell below 80%, the datum was still used; however, the observers met with the researcher to review observation procedures, retrain, and resolve differences. Ms. Clea's IOA averaged 100% across all phases. Ms. Madison's IOA averaged 99.79% across all phases and ranged from 98.33% - 100%. Ms. Kameron's IOA averaged 96.21% across all phases and ranged from 87% - 100%.

**Procedural Integrity.** Procedural integrity data were collected to determine the extent to which the researcher implemented the steps for the teacher training, baseline phase, emailed prompt phase, and the maintenance phase. Procedural integrity data were collected in a checklist format with specific steps (see Appendix E). The baseline procedural integrity steps consisted of the following: the researcher entered the classroom

and sat in an unobtrusive location, the researcher did not interact with the teacher or students, and the researcher exited the room and did not provide feedback to the teacher.

The emailed prompt phase checklist consisted of the following steps: an automatic emailed prompt was sent to the teacher via the Boomerang app in Outlook, the email included a rationale for and description of BSP, the email included an example of BSP, the email included a non-example of BSP, and the email recommended providing at least one BSP statement every two mins during the designated activity. The maintenance phase checklist included the same steps as the baseline phase. If PF would have been sent via email, the checklist would have included the same steps included in the emailed prompt checklist in addition to the following steps: the email listed the number and rate of BSP statements the teacher delivered during the last observation, a graphical display of teachers' BSP was included, and the email included a corrective feedback statement and encouragement to provide BSP at least once every 2-mins during the designated activity.

Integrity was calculated by dividing the number of completed steps by the total number of steps and multiplying by 100. This was collected by an observer to confirm that the lead researcher completed each step of the training and included indicated components of the emailed prompt each day during the intervention phase. Additionally, an additional researcher (e.g., graduate student) conducted IOA for 30% of the procedural integrity checklists. Procedural integrity was 100% across all participants and phases.

## CHAPTER III - RESULTS

### 3.1 Visual Analysis

**Participant 1 – Ms. Clea.** BSP and corrective statement rates were calculated by dividing the frequency of the behavior by 10 (i.e., number of statements divided by number of observation mins). For example, if a participant emitted seven BSP statements, seven was divided by 10 which equaled 0.7 BSP statements per 10-min observation. During baseline, Ms. Clea's rate of BSP statements averaged 0.02 per min and ranged from 0.0 – 0.1. Her corrective statements averaged 0.24 per min and ranged from 0.0 – 0.6. When the emailed prompts intervention was implemented, there was an immediate and substantial increase in BSP, with a mean rate of 1.0 BSP statement per min (range, 0.7 – 1.4). Thus, indicating a very large treatment effect with an effect size of 1.00 ( $SE = 0.04$ ; 95% CI: [1.00, 1.00]). During intervention, Ms. Clea's corrective statements averaged 0.02 per min (range, 0.0 – 0.1) and yielded an effect size of 0.14 ( $SE = 0.13$ ; 95% CI: [0.03, 0.52]), indicating a small effect. When the maintenance phase began, Ms. Clea demonstrated a decrease in BSP statements with an average of 0.84 BSP statements per min (range, 0.8 – 1.1) with a very large effect size of 1.00 ( $SE = 0.04$ ; 95% CI: [1.00, 1.00]). During maintenance, Ms. Clea's corrective statements remained stable and consistent with the intervention phase with a mean rate of 0.02 statements per min (range, 0.0 – 0.1) indicating a small effect size of 0.14 ( $SE = 0.13$ ; 95% CI: [0.03, 0.52]). For Ms. Clea, there was no overlap for BSP from baseline to intervention; however, there was some overlap for corrective statements from baseline to intervention.

Concerning the class' behavior, DB averaged 10.66% of the observed intervals (range, 0% to 25%) during baseline. DB remained at a low level with a decreasing trend.

However, in the last two baseline observations, DB remained stable. Ms. Clea's class' AEB averaged 89.33% of the observed intervals and ranged from 75% - 100% during baseline. AEB remained at a high and variable level. When the emailed prompts intervention was implemented, Ms. Clea's class' AEB increased with a mean rate of 99.6% (range, 98.3% - 100%) with an effect size of 0.76 ( $SE = 0.17$ ; 95% CI: [0.39, 0.93]), indicating a large effect. Ms. Clea's class' AEB remained at a high and stable level. Ms. Clea's class' DB slightly decreased with a mean rate of 0.33% (range, 0% - 1.67%) and yielded an effect size of 0.24 ( $SE = 0.17$ ; 95% CI: [0.07, 0.61]), indicating a small effect. Ms. Clea's class' DB remained at a low and stable level.

When the maintenance phase began, Ms. Clea's class' AEB decreased with a mean rate of 97.68% (range, 91.67% - 100%) and yielded an effect size of 0.68 ( $SE = 0.18$ ; 95% CI: [0.33, 0.90]). Ms. Clea's class' DB slightly increased with a mean rate of 2.33% (range, 0% - 8.33%) with an effect size of 0.32 ( $SE = 0.18$ ; 95% CI: [0.10, 0.67]), indicating a moderate effect. Ms. Clea's class' AEB and DB demonstrated overlap across the baseline and intervention phases.

**Participant 2 – Ms. Madison.** During baseline, Ms. Madison's rate of BSP statements averaged 0.03 per min and ranged from 0.0 – 0.1. Ms. Madison's corrective statements averaged 0.1 per min and ranged from 0.0 – 0.3. Ms. Madison's BSP and corrective statements remained at a low and stable rate across the baseline phase. When the emailed prompts intervention was implemented, there was an immediate and substantial increase in BSP, with a mean rate of 0.56 BSP statements per min (range, 0.2 – 0.7) which indicated a very large treatment effect with an effect size of 1.00 ( $SE = 0.02$ ; 95% CI: [1.00, 1.00]). Ms. Madison's intervention phase was extended by two

observations due to low rates of BSP. During the 5<sup>th</sup> observation, Ms. Madison's BSP statements decreased to 0.2 statements per min, below the criterion. During this observation, it was noted that there was a disturbance in the classroom with a student. Ms. Madison appeared to be distracted. After completing two additional observations, Ms. Madison demonstrated higher rates of BSP (0.6 and 0.7 statements per observation), which were greater than the criterion.

During maintenance, Ms. Madison's corrective statements were variable, but remained at a low level with a mean rate of 0.06 per min (range, 0.0 – 0.2) and yielded an effect size of 0.40 ( $SE = 0.16$ ; 95% CI: [0.17, 0.69]), indicating a moderate effect. When the maintenance phase began, Ms. Madison's rate of BSP statements were variable and did not consistently remain above the criterion. Ms. Madison demonstrated a mean rate of 0.37 BSP statements per min (range, 0.1 – 0.7) with a very large effect size of 1.00 ( $SE = 0.05$ ; 95% CI: [0.64, 0.99]). Ms. Madison's corrective statements remained low and stable with a mean rate of 0.06 statements per min (range, 0.0 – 0.2) yielding an effect size of 0.27 ( $SE = 0.14$ ; 95% CI: [0.09, 0.59]). Ms. Madison demonstrated overlap across the baseline and intervention phases.

Concerning the class' behavior, DB averaged 8.1% of the observed intervals (range, 0% to 40%) during baseline. DB remained at a low level with low variability except for one outlier. Ms. Madison's class' AEB averaged 91.9% of the observed intervals and ranged from 60% - 100%. AEB remained at a high and variable level. When the emailed prompts intervention was implemented, Ms. Madison's class' AEB slightly increased and maintained at a level of 100% and yielded an effect size of 0.86 ( $SE = 0.10$ ; 95% CI: [0.55, 0.96]), indicating a very large effect. Ms. Madison's class' DB decreased

and stabilized at 0% of the observed intervals. Ms. Madison's class' DB yielded an effect size of 0.14 ( $SE = 0.10$ ; 95% CI: [0.04, 0.45]).

When the maintenance phase began, Ms. Madison's class' AEB and DB remained consistent with the intervention phase. Ms. Madison's class' AEB was 100% and DB 0% throughout the phase. Ms. Madison's class' AEB and DB demonstrated overlap across the baseline and intervention phase. Tau-U calculations were consistent, indicating a very large effect for AEB, 0.86 ( $SE = 0.10$ ; 95% CI: [0.55, 0.96]), and a small effect for DB, 0.14 ( $SE = 0.10$ ; 95% CI: [0.03, 0.47]), once emailed prompt procedures were removed.

**Participant 3 – Ms. Kameron.** During baseline, Ms. Kameron's rate of BSP statements averaged 0.18 per min and ranged from 0.0 – 0.7. Ms. Kameron's corrective statements averaged 0.31 per min and ranged from 0.0 – 0.6. When the emailed prompts intervention was implemented, there was an immediate increase in BSP, with a mean rate of 2.02 BSP statements per min (range, 1.2 – 4.0). Thus, indicating a very large treatment effect with an effect size of 1.00 ( $SE = 0.02$ ; 95% CI: [1.00, 1.00]). Throughout the intervention phase, Ms. Kameron's BSP rate decreased, but remained at a high and stable level above the criterion. Ms. Kameron's corrective statements averaged 0.03 per min (range, 0.0 – 0.2) and yielded a small effect size of 0.09 ( $SE = 0.08$ ; 95% CI: [0.02, 0.39]).

When the maintenance phase began, Ms. Kameron's rate of BSP statements remained at a high level with a mean rate of 1.22 BSP statements per min (range, 0.9 – 1.50) with a very large effect size of 1.00 ( $SE = 0.02$ ; 95% CI: [1.00, 1.00]). Ms. Kameron's corrective statements remained at a low and stable level. Ms. Kameron demonstrated a mean rate of 0.1 statements per min (range, 0.0 – 0.2) yielding an effect

size of 0.16 ( $SE = 0.10$ ; 95% CI: [0.04, 0.48]). Ms. Kameron demonstrated minimal overlap across the baseline and intervention phase for corrective statements.

Concerning the class' behavior, DB averaged 3.15% of the observed intervals (range, 0% to 11.66%). DB remained at a low and stable level. Ms. Kameron's class' AEB averaged 96.7% of the observed intervals and ranged from 88.8% - 100%. AEB remained at a high level. When the emailed prompts intervention was implemented, Ms. Kameron's class' AEB slightly increased and stabilized at 100% of the observed intervals with an effect size of 0.94 ( $SE = 0.06$ ; 95% CI: [0.65, 0.99]), indicating a very large effect. Ms. Kameron's class' DB slightly decreased and stabilized at 0% of the observed intervals and yielded an effect size of 0.06 ( $SE = 0.06$ ; 95% CI: [0.01, 0.35]).

When the maintenance phase began, Ms. Kameron's class' AEB decreased with a mean rate of 99.67% (range, 98.33% – 100%) and yielded an effect size of 0.90 ( $SE = 0.08$ ; 95% CI: [0.58, 0.98]). Ms. Kameron's class' DB slightly increased with a mean rate of 0.24% (range, 0% - 1.67%) with an effect size of 0.11 ( $SE = 0.09$ ; 95% CI: [0.02, 0.43]). Ms. Kameron's class' AEB and DB demonstrated overlap across the phases.

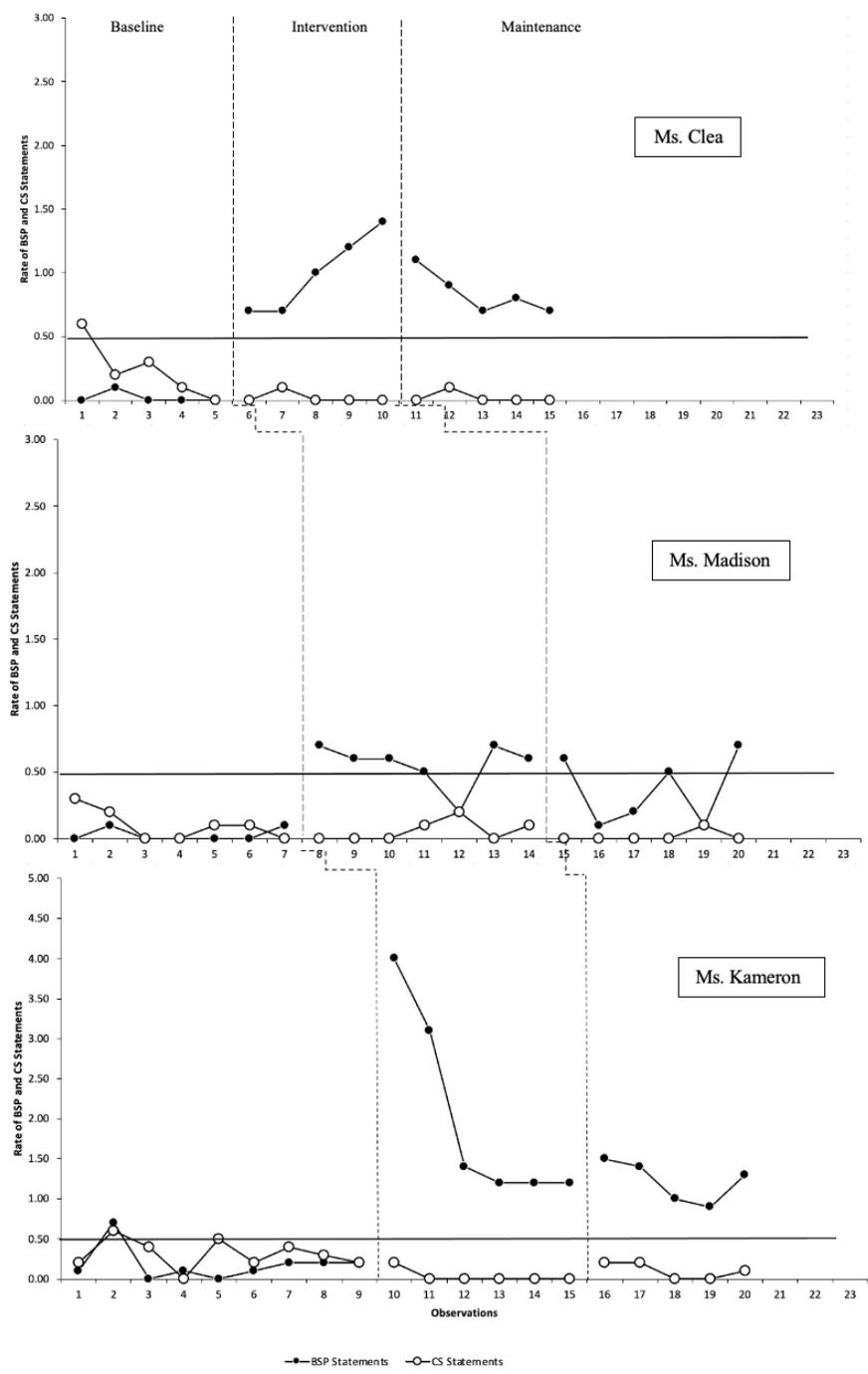


Figure 3.1 Participants Frequency of BSP and Corrective Statements

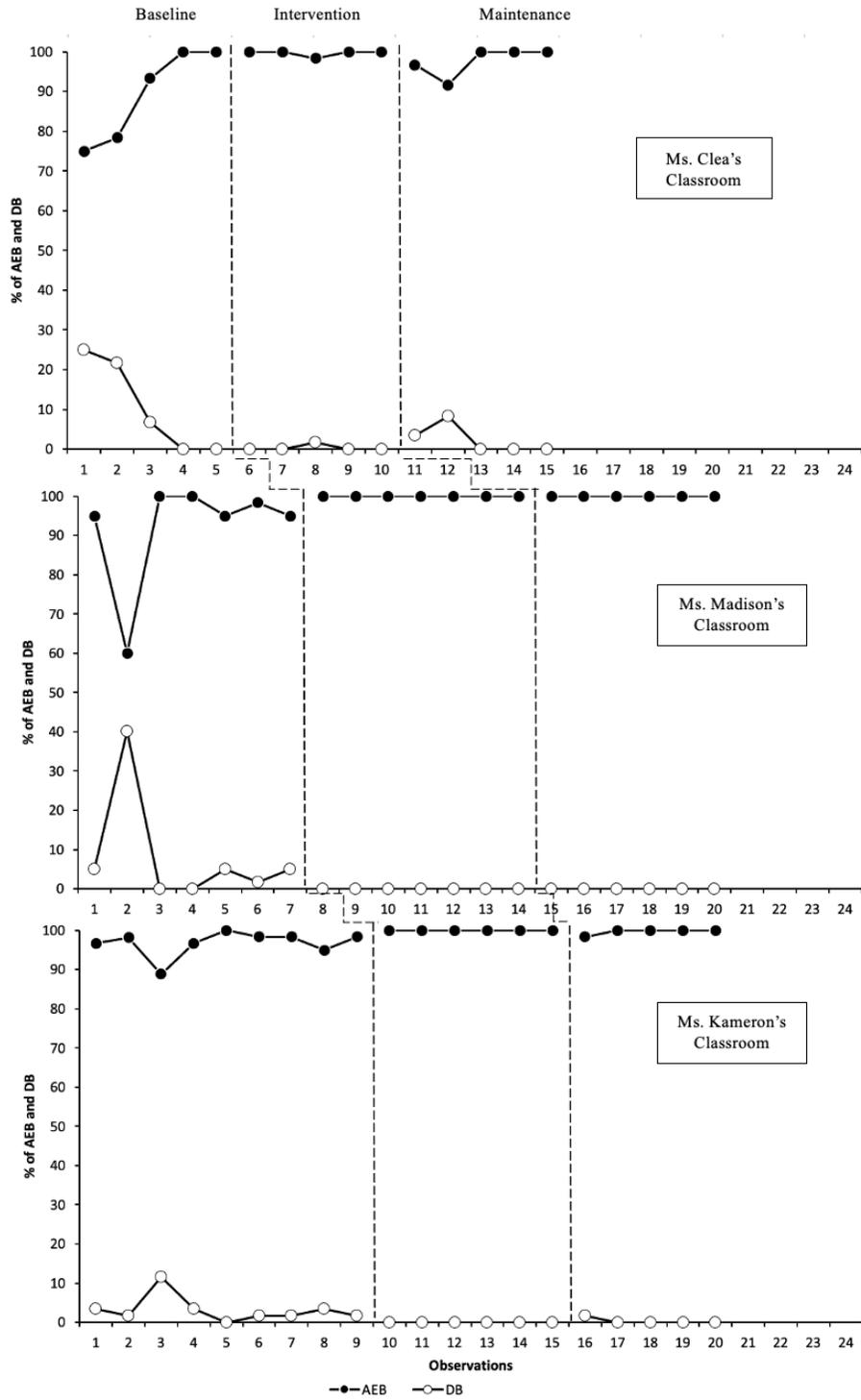


Figure 3.2 *Class-wide Percentages of DB and AEB*

## **Summary of Results of BSP**

Data from all teachers indicated low levels of BSP during baseline and all teachers demonstrated immediate and substantial increases in BSP when the emailed prompts intervention was implemented. Overall, the rate of BSP for all teachers during the emailed prompts phase was greater than rates observed during baseline, demonstrating consistency of effect for the emailed prompts intervention. Moreover, for all teachers, maintenance BSP data were similar to the emailed prompts phase and greater than the baseline phase, demonstrating consistency of maintenance of the emailed prompts intervention. Finally, visual analysis and effect size data converge to indicate that there was a functional relation between implementation of the emailed prompts intervention and increases in teachers' rate of BSP.

## **Social Validity Results**

At the conclusion of data collection, all three teachers completed the BIRS and CASS. Results from the BIRS and CASS are reported in Tables 2.1 and Table 2.2. All three participants rated the emailed prompt consultation procedures as moderately to highly socially valid. According to the BIRS, Ms. Clea and Ms. Kameron found the BSP intervention highly acceptable, and Ms. Madison found it moderately acceptable.

Table 3.1

*BIRS Results*

	<b>ACCEPTABILITY FACTOR</b>	<b>EFFECTIVENESS FACTOR</b>	<b>TIME TO EFFECTIVENESS FACTOR</b>
<b>Ms. Clea</b>	5.58	5.14	5.0
<b>Ms. Madison</b>	4.38	4.43	3.5
<b>Ms. Kameron</b>	5.71	5.43	5.0

Table 3.2

*CASS Results*

	<b>CASS Score</b>
<b>Ms. Clea</b>	5.0
<b>Ms. Madison</b>	4.17
<b>Ms. Kameron</b>	4.83

## CHAPTER IV - DISCUSSION

The purpose of this research study was to test the effects of an emailed prompts intervention on alternative school educators' rates of BSP, corrective statements, and class-wide DB and AEB. Additionally, this study evaluated maintenance of intervention effects following complete removal of the emailed prompts. Finally, this study included evaluation of teachers' perceptions of the social validity of the consultation and intervention procedures.

In regard to the first research question, which addressed the functional relation between training and emailed prompts and an increase in alternative school teachers' use of BSP, results indicated an increase BSP rates for all three participants with minimal overlap across baseline and intervention phases. Therefore, there was a functional relation between emailed prompts and increases in teachers' use of BSP. These findings are consistent with previous studies testing the effects of emailed prompts on teachers' BSP (LaBrot et al., 2022). As such, these findings extend the literature by demonstrating effects of emailed prompts with a novel teacher population, alternative school teachers. It is hypothesized the emailed prompts served as the controlling stimulus initially for teachers' increased use of BSP; however, transfer of stimulus control may have occurred because teachers' BSP was introduced to the naturally occurring reinforcement of improved student behavior. Stimulus control refers to when an individual engages in specific behaviors due to a stimulus being present.

Furthermore, It is important to note that when looking at Ms. Kameron's data, there appears to be a decreasing trend after the first datum point. During this observation, Ms. Kameron provided a BSP statement roughly every 30 seconds. Following the

observation, Ms. Kameron informed the researcher that it was not feasible. The researcher informed Ms. Kameron that she could reduce the amount of BSP statements provided to increase feasibility of the intervention. Therefore, the decreasing trend reflects the change in BSP statements.

The second research question sought to determine if the effects of increased BSP rates were maintained. Two out of the three participants' rates of BSP statements remained above the 0.5 criterion following the removal of emailed prompts. Ms. Madison demonstrated inconsistent rates of BSP statements across the maintenance phase. Specifically, although Ms. Madison's maintenance phase was extended, she still demonstrated three data points below the criterion and one datum point at the criterion (0.5); however, BSP during maintenance was still greater than rate observed during baseline. These results are consistent with results from previous emailed prompt studies demonstrating maintained BSP following termination of the emailed prompts intervention (LaBrot et al., 2022). Teachers may have maintained use of BSP because use of BSP statements was being reinforced by improvements in students' behavior. To be specific, Ms. Kameron reported that she noticed students raising their hand more after being praised for the behavior or asking permission to engage in a specific task. It is also important to note that intervention ended for Ms. Clea and Ms. Madison with an upward trend occurring. Intervention ended due to time constraints as it was the end of the school year. It was decided that although there was an increasing trend, the two participants were expected to continue providing BSP rates above the criterion.

The third and fourth research questions addressed the functional relation between training and emailed prompts and a decrease in alternative school teachers' rate of

corrective statements and if the effects were maintained. It was hypothesized that following training and emailed prompts, alternative school educators' rates of corrective statements would decrease and maintain upon removal of the emailed prompts. Across the baseline phase, all three participants demonstrated low rates of corrective statements with the highest rate being 0.6 statements per 10-min observation. Corrective statement rates slightly decreased during the intervention phase but overlapped with the baseline phase. Largely, across all phases, alternative school educators' rates of corrective statements remained low and maintained across all phases. Effect sizes for the corrective statements were small to moderate; however, rates of corrective statements were lower than expected during baseline. Therefore, this may contribute to smaller effect sizes as a result of a floor effect.

These findings are consistent with previous literature that showed as teachers increased their use of BSP statements, their use of corrective statements decreased following training (Allday et al., 2012) and extends the literature to demonstrate consistent results with alternative school educators. It is hypothesized that the teachers' rate of corrective statements decreased because providing BSP statements resulted in a slight decrease of DB behavior whether it was observed through individual students or class wide. As previously stated, Ms. Kameron reported that when she praised raising hand behavior (e.g., raising a hand before being called on), students raised their hand more often because of previously being praised for raising their hand. Essentially, providing BSP may have reduced the teacher's response effort when compared to providing corrective statements. Likewise, there may have been a reduction in disruptive behaviors which meant the teachers had less of a need to provide corrective statements.

Lastly, following emailed prompts, teachers BSP behavior may have been followed by a richer schedule of reinforcement than their corrective statements; thus, teachers matched their responding the richer schedule of reinforcement. These findings extend the current literature as there is a lack of studies assessing the impact of emailed prompts on alternative school educators' use of BSP and corrective statements.

The fifth research question addressed the functional relation between alternative school teachers increased rates of BSP and an increase in class wide AEB and decrease in DB. It was hypothesized that as alternative school educators' rate of BSP statements increased, AEB would increase, and DB would decrease. It was observed that across all phases and all teachers' classrooms, AEB generally remained high, and DB remained low. Although AEB remained high and DB remained low across phases, these findings are consistent with previous literature that demonstrated as teachers' BSP statements increase, task engagement increased (Allday et al., 2012), challenging behavior minimally decreased (Hemmeter et al., 2011), and decreases in off-task behavior were observed (Floress et al., 2018). Unfortunately, strong statements regarding a functional relation between emailed prompts and increases in AEB and decreases in DB cannot be made. There are multiple reasons for this. Students' AEB and DB were high and low, respectively, during baseline, which weakens internal validity. This may have occurred due to some unique contextual variables. First, there were few demands placed on the students which permitted them to engage in multiple breaks throughout academic instruction. It could also be that since there were few demands placed, students have less instances that they could engage in disruptive behaviors such as noncompliance. Thus, decreasing the chance of DB occurring because they were working for a break. For

example, the classrooms used a timer that permitted the students to work for a set period. Once the timer beeped, they were permitted to engage in leisure activities (e.g., read a book, lay their head on the desk, play a game). Additionally, the students were only required to complete a set amount of work per day, once the work was completed, they were permitted to engage in leisure activities for the remainder of the day. Due to the study occurring at the end of the school year, students had completed a majority of their required work, which resulted in more low-effort work (e.g., leisure activities or simply reading a preferred book). Overall, this resulted in more AEB behavior throughout majority of the observations. It is worth mentioning that these results may have been impacted by a ceiling effect as class wide AEB was initially at high levels. It is possible that teachers needed help recognizing appropriate behaviors to praise and had an easier time finding things to praise after receiving this intervention. This could explain the increases of AEB in small percentages (e.g., 98% to 100).

The sixth research question addressed the implementation of emailed PF if the alternative school educators' rates of BSP fell below the predetermined criterion of 0.5 for three observations. Fortunately, all participants remained above the criterion during the intervention phase and PF was not implemented. However, as mentioned, Ms. Madison demonstrated low levels of BSP for one datum point during the intervention phase and results did not maintain. Pertaining to Ms. Madison's rates of BSP, it is thought that her rates remained lower than other participants due to her classroom dynamics. Specifically, Ms. Madison's classroom age ranged to 7-12 years old and consisted of older children. In addition, AEB generally remained high, and she often engaged in one-on-one time with students throughout the observations which could

contribute to higher AEB. For example, many times Ms. Madison would invite a student to her desk to assist with their independent work.

### **Social Validity**

Another purpose of this study was to evaluate if alternative school educators rated the emailed prompt consultation procedure as a socially valid implementation support. Likewise, if PF was delivered, did the alternative school educators' rate it as socially valid. All three participants rated the emailed prompt consultation procedures as moderately to highly socially valid as indicated by overall mean scores of 5, 4.17, and 4.83 for Ms. Clea, Ms. Madison, and Ms. Kameron, respectively.

The BIRS was provided to assess teachers' perception of the BSP intervention. Ms. Clea's overall mean score on the BIRS (5.58) indicates that she found the BSP intervention to be highly acceptable. Ms. Clea's mean scores were 5.58, 5.14, and 5 for acceptability, effectiveness, and time to effectiveness scales, respectively. Ms. Madison's overall mean score on the BIRS (4.375) indicates that she found the BSP intervention to be moderately acceptable. Ms. Madison's mean scores were 4.38, 4.43, and 3.5 for acceptability, effectiveness, and time to effectiveness scales, respectively. Ms. Kameron's overall mean score on the BIRS (5.71) indicates that she found the BSP intervention to be highly acceptable. Ms. Kameron's mean scores were 5.71, 5.43, and 5 for acceptability, effectiveness, and time to effectiveness scales, respectively.

### **Limitations**

Although this research study demonstrates the effectiveness of emailed prompts for increasing alternative school educators' rates of BSP, there are limitations that should be discussed. Due to the researchers conducting observations in the classroom, there may

have been teacher and student reactivity which could pose as a threat to internal validity. The researchers implemented multiple procedures for reducing reactivity such as arriving early and seating themselves in an unobtrusive location and not interacting with teachers or students. Another limitation is that the teachers may have not fully read the emailed prompts, although the Boomerang application in Outlook indicated they read the email. It was noted that the teachers would notify the researcher that they received and read the emails prior to observations occurring. Nonetheless, it is uncertain if teachers read the entire email, but seeing the email prompt in their email box may have served as a visual prompt or discriminative stimulus to use BSP throughout the school day.

Third, the academic setting at the alternative school was highly structured which was not expected prior to beginning observations. This deviated from previous classrooms as classrooms were on a set schedule and rarely deviated. Likewise, the teachers provided set timers throughout the day to allow students to complete work and take breaks. Thus, students understood that they must complete their work to receive a break that allowed them to engage in a preferred activity. This structure may contribute to the high and unexpected levels of AEB during the baseline phase for all three classrooms. Furthermore, data collection occurred towards the end of the school year. The students' academic work had become more lenient which meant the students engaged in more breaks more than usual which may have contributed to higher percentages of AEB. Fourth, all three teachers and their classrooms were located in the same hallway and beside each other due to the size of the alternative school. Thus, participants may have discussed the intervention or overheard BSP being provided prior to being trained which may pose as a threat to internal validity (e.g., selection maturation interaction).

Nonetheless, all participants rates of BSP were relatively low during baseline and demonstrated a substantial increase only after the emailed prompts intervention was implemented, which strengthens the argument for a functional relation between the emailed prompts intervention and increases in BSP.

### **Future Directions**

There are many areas related to the use of emailed prompts that should be further investigated. First, this study did not collect generalization data to determine if alternative school educators' rates of BSP generalized across settings and times of the day (e.g., recess and lunch time). Future research might replicate this study to determine if alternative school educators generalize BSP to other settings. Secondly, future research make seek to include more than one behavioral intervention within the emailed prompt procedures. For example, this study included only a simple BSP intervention. Future studies may replicate this study and use multiple Tier 1 or Tier 2 behavior strategies such as effective instruction delivery, precorrections, and positive greetings.

Third, this study used emails as a prompt to remind alternative school educators to use BSP. Future research may replicate this study by using different applications to provide the prompts. For example, using SMS text messages, sticky note reminders, repeated alarm reminders on the phone, or calendar reminders. However, the preferences of prompts would be dependent upon the teacher's choice. A teacher may prefer to check their text messages over an email. Some teachers may enjoy having sticky note reminders over a calendar reminder. Then, some teachers may prefer a simple alarm reminder on their Apple Watch. This may increase the feasibility and acceptability of the consultation procedures due to allowing the teacher to have a choice throughout the process. Lastly,

future research may seek to replicate this study with different age and grade populations such as high school or preschool students in an alternative or special education setting. This would expand the social validity of the emailed prompt consultation procedures by demonstrating the generalization across populations. Lastly, future studies may tailor class-wide behaviors to the teacher's preference (e.g., out-of-seat, hand-raising, noncompliance) by simply asking the teacher what behaviors cause a problem in the classroom that they would prefer addressed.



INSTITUTIONAL REVIEW BOARD  
**STANDARD (SIGNED) INFORMED CONSENT**

<p><b>STANDARD (SIGNED) INFORMED CONSENT PROCEDURES</b></p> <ul style="list-style-type: none"> <li>• <b>Use of this template is optional.</b> However, by federal regulations (<a href="#">45 CFR 46.116</a>), all consent documentation must address each of the required elements listed below (purpose, procedures, duration, benefits, risks, alternative procedures, confidentiality, whom to contact in case of injury, and a statement that participation is voluntary).</li> <li>• Signed copies of the consent form should be provided to all participants.</li> </ul> <p style="text-align: right;">Last Edited May 18<sup>th</sup>, 2022</p>
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Today's date:		
<b>PROJECT INFORMATION</b>		
Project Title: Emailed Prompt Package to Increase Alternative School Educators' Use of Behavior Specific Praise		
Protocol Number: 23-0201		
Principal Investigator: Chelsea Johnson	Phone: (423) 255-8945	Email: chelsea.n.johnson@usm.edu
College: Education and Human Sciences	School and Program: University of Southern Mississippi, School Psychology	
<b>RESEARCH DESCRIPTION</b>		
<p><b>1. Purpose:</b>                  This purpose of this study is to examine the use of a class wide behavior management strategy to decrease students' disruptive behavior and increase appropriate behavior in the classroom.</p> <p><b>2. Description of Study:</b>                  Consent Process: Teachers will be asked to sign consent forms to participate in the study. Researchers will discuss intervention processes prior to starting.</p>		

Baseline (Week 1): Following consent, researchers will begin collecting baseline data (observations). Data will be collected during the morning time. All classrooms will begin at baseline. This means we will only collect observations. No intervention will be provided and you can continue your normal classroom procedures.

Intervention (Week 2-6): Teachers will receive a brief training, followed by an email each morning that provides a reminder of the intervention. The researcher will then conduct a 20-minute observation. Teachers are only required to read their email each morning and implement intervention.

Follow-up: Follow up data will be collected. This means we will only collect rating scale data regarding the consultation process and intervention. No intervention will be provided.

**3. Benefits:**

You will gain an effective strategy to assist in positive behavioral and academic outcomes for your classroom such as reducing disruptive behavior and increasing on-task behavior.

**4. Risks:**

There are no risks associated with participating in this study.

**5. Confidentiality:**

At no point will we ever tell other people about which teachers participated in this study. We will destroy the information we collect three years after we have finished learning from this information. We will keep this information in a locked filing cabinet in a locked office. We may use findings from this project to present at professional conferences, or report in scientific journals. However, if we do so, we will never provide any information that identifies you or your classroom.

**6. Alternative Procedures:**

If you change your mind about being in this study before we analyze the data, just let us know and we will not include you or your classrooms information. If you choose not to take part, there will be no penalty or loss of benefits to which you are entitled. Your identifiable information will not be shared unless (a) it is

required by law or university policy, or (b) you give written permission. Your decision will not affect your relationship with Jefferson Todd Education Center or The University of Southern Mississippi.

**7. Participant's Assurance:**

This project and this consent form have been reviewed by USM's Institutional Review Board, which ensures that research projects involving human subjects follow federal regulations. Any questions or concerns about rights as a research participant should be directed to the Chair of the Institutional Review Board, The University of Southern Mississippi, 118 College Drive #5125, Hattiesburg, MS 39406-0001, 601-266-5997.

Any questions about this research project should be directed to the Principal Investigator using the contact information provided above.

**CONSENT TO PARTICIPATE IN RESEARCH**

**Participant's Name:** \_\_\_\_\_

I hereby consent to participate in this research project. All research procedures and their purpose were explained to me, and I had the opportunity to ask questions about both the procedures and their purpose. I received information about all expected benefits, risks, inconveniences, or discomforts, and I had the opportunity to ask questions about them. I understand my participation in the project is completely voluntary and that I may withdraw from the project at any time without penalty, prejudice, or loss of benefits. I understand the extent to which my personal information will be kept confidential. As the research proceeds, I understand that any new information that emerges and that might be relevant to my willingness to continue my participation will be provided to me.

( )

\_\_\_\_\_  
**Research Participant  
Person Explaining the Study**

## APPENDIX B – Behavior Intervention Rating Scale (BIRS)

Behavior Intervention Rating Scale (BIRS; Elliot and Von Brock Treuting, 1991)  
 1=Strongly Disagree 2=Disagree 3=Slightly Disagree 4=Slightly Agree 5=Agree 6=Strongly Agree

1.	This would be an acceptable intervention for the child's problem behavior.	1	2	3	4	5	6
2.	Most teachers would find this intervention appropriate for behavior problems in addition to the one described.	1	2	3	4	5	6
3.	The intervention should prove effective in changing the child's problem behavior.	1	2	3	4	5	6
4.	I would suggest the use of this intervention to other teachers.	1	2	3	4	5	6
5.	The child's behavior problem is severe enough to warrant use of this intervention.	1	2	3	4	5	6
6.	Most teachers would find this intervention suitable for the behavior problem described.	1	2	3	4	5	6
7.	I would be willing to use this in the classroom setting.	1	2	3	4	5	6
8.	The intervention would <i>not</i> result in negative side-effects for the child.	1	2	3	4	5	6
9.	The intervention would be appropriate intervention for a variety of children.	1	2	3	4	5	6
10.	The intervention is consistent with those I have used I have used in classroom settings.	1	2	3	4	5	6
11.	The intervention was a fair way to handle the child's problem behavior.	1	2	3	4	5	6
12.	The intervention is reasonable for the behavior problem described.	1	2	3	4	5	6
13.	I like the procedures used in the intervention.	1	2	3	4	5	6
14.	The intervention was a good way to handle this child's behavior problem.	1	2	3	4	5	6

Behavior Intervention Rating Scale (BIRS; Elliot and Von Brock Treuting, 1991)  
 1=Strongly Disagree 2=Disagree 3=Slightly Disagree 4=Slightly Agree 5=Agree 6=Strongly Agree

15.	Overall, the intervention would be beneficial for the child.	1	2	3	4	5	6
16.	The intervention would quickly improve a child's behavior.	1	2	3	4	5	6
17.	The intervention would produce a lasting improvement in the child's behavior.	1	2	3	4	5	6
18.	The intervention would improve a child's behavior to the point that it would not noticeably deviate from other classmates' behavior.	1	2	3	4	5	6
19.	Soon after using the intervention, the teacher would notice a positive change in the problem behavior.	1	2	3	4	5	6
20.	The child's behavior will remain at an improved level even after the intervention is discontinued.	1	2	3	4	5	6
21.	Using the intervention should not only improve the child's behavior in the classroom, but also in other settings (e.g., other classrooms, home).	1	2	3	4	5	6
22.	When comparing this child with a well-behaved peer before and after the use of the intervention, the child's and the peer's behavior would be more alike after using the intervention.	1	2	3	4	5	6
23.	The intervention should produce enough improvement in the child's behavior so the behavior no longer is a problem in the classroom.	1	2	3	4	5	6
24.	Other behaviors related to the problem behavior also are likely to be improved by the intervention.	1	2	3	4	5	6

APPENDIX C – Consultation Acceptability and Satisfaction Scale (CASS)

	Strongly Disagree			Strongly Agree		
1. The consultant seemed knowledgeable about effective classroom practices.	0	1	2	3	4	5
2. The consultant effectively answered my questions.	0	1	2	3	4	5
3. The consultant provided recommendations that were appropriate given the concerns about the student/class.	0	1	2	3	4	5
4. The consultant clearly explained the training and/or intervention procedures.	0	1	2	3	4	5
5. The consultant effectively taught me how to implement their recommendations.	0	1	2	3	4	5
6. The consultant provided me with the resources to implement their recommendations.	0	1	2	3	4	5
7. The consultation process seemed appropriate for the classroom.	0	1	2	3	4	5
8. The consultation process did NOT significantly interfere with classroom activities.	0	1	2	3	4	5
9. The consultation process was completed in a timely fashion.	0	1	2	3	4	5
10. The referred student/class benefited from the consultation process.	0	1	2	3	4	5
11. I would like to work with this consultant again in the future.	0	1	2	3	4	5
12. Other teachers would benefit from working with this consultant.	0	1	2	3	4	5

Please describe below what you did like and did not like about the consultation procedures:

## APPENDIX D – Observation Form

Date \_\_\_\_\_

From \_\_\_\_\_ To \_\_\_\_\_

Teacher \_\_\_\_\_

Setting \_\_\_\_\_

Activity \_\_\_\_\_

Observer \_\_\_\_\_ IOA/(Circle)

Behavior	1.1	1.2	1.3	1.4	1.5	1.6	2.1	2.2	2.3	2.4	2.5	2.6
	<u>CS:</u>											
	<u>BSP:</u>											
	<u>AEB DB</u>											
Behavior	3.1	3.2	3.3	3.4	3.5	3.6	4.1	4.2	4.3	4.4	4.5	4.6
	<u>CS:</u>											
	<u>BSP:</u>											
	<u>AEB DB</u>											
Behavior	5.1	5.2	5.3	5.4	5.5	5.6	6.1	6.2	6.3	6.4	6.5	6.6
	<u>CS:</u>											
	<u>BSP:</u>											
	<u>AEB DB</u>											
Behavior	7.1	7.2	7.3	7.4	7.5	7.6	8.1	8.2	8.3	8.4	8.5	8.6
	<u>CS:</u>											
	<u>BSP:</u>											
	<u>AEB DB</u>											
Behavior	9.1	9.2	9.3	9.4	9.5	9.6	10.1	10.2	10.3	10.4	10.5	10.6
	<u>CS:</u>											
	<u>BSP:</u>											
	<u>AEB DB</u>											

APPENDIX E – Procedural Integrity Form

**Baseline and Maintenance Phase**

Teacher: \_\_\_\_\_

Date: \_\_\_\_\_

Observer: \_\_\_\_\_

Class Period: \_\_\_\_\_

	<b>Steps</b>	Yes	No
1	The researcher entered the classroom and sat in an unobtrusive location.		
2	The researcher did not interact with the teacher or students.		
3	The researcher exited the room and did not provide feedback to the teacher.		
	Number of steps completed:	/3	
	Percentage of steps completed:		

**BSP Training**

Teacher: \_\_\_\_\_

Date: \_\_\_\_\_

Observer: \_\_\_\_\_

Class Period: \_\_\_\_\_

	<b>Steps</b>	Yes	No
1	Describe and provide a rationale for behavior specific praise to the teacher.		
2	Model behavior specific praise for the teacher three times with children.		
3	Teacher practices behavior specific praise three times with children.		
4	Provide feedback to the teacher about each instance of behavior specific praise.		
5	Inform teacher that the emailed prompts will be beginning the following day.		

	Number of steps completed:	/5
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	Percentage of steps completed:	
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**Emailed Prompt Intervention Phase**

Teacher: \_\_\_\_\_

Date: \_\_\_\_\_

Observer: \_\_\_\_\_

Class Period: \_\_\_\_\_

	<b>Steps</b>	Yes	No
1	An automatic email prompt was sent to the teacher via the Boomerang app in Outlook.		
2	The email included a rationale for and description of behavior specific praise.		
3	The email included an example of behavior specific praise.		
4	The email included a non-example of behavior specific praise.		
5	The email recommended providing at least one behavior specific praise statement every 2 minutes during the designated activity.		

	Number of steps completed:	/5
	Percentage of steps completed:	

**Emailed Prompt (Performance Feedback) Intervention Phase**

Teacher: \_\_\_\_\_

Date: \_\_\_\_\_

Observer: \_\_\_\_\_

Class Period: \_\_\_\_\_

	<b>Steps</b>	Yes	No
1	An automatic email prompt was sent to the teacher via the Boomerang app in Outlook.		
2	The email included a rationale for and description of behavior specific praise.		
3	The email included an example of behavior specific praise.		

4	The email included a non-example of behavior specific praise.		
5	The email recommended providing at least one behavior specific praise statement every 2 minutes during the designated activity.		
6	The email listed the number and rate of BSP statements the teacher delivered during the last observation.		
7	The emailed included a graphical display of teachers' BSP.		
8	The email included a corrective feedback statement and encouragement to provide BSP at least once every 2 minutes during the designated activity.		

	Number of steps completed:	/8
	Percentage of steps completed:	

APPENDIX F – Behavior Specific Praise

<b>Examples of Behavior Specific Praise</b>
I love the way you are playing so gentle, Chelsea!
Thank you for sharing your pencils, Terreca!
Awesome job cleaning your area, Nicole!
Chelsea, I like the way you are working so hard on that math sheet!
Thank you for waiting patiently, Terreca!
Thank you for quietly walking to the restroom!
Thank you for raising your hand!

<b>Non-Examples of Behavior Specific Praise</b>
Good job Chelsea!
Thank you so much Terreca!
Cool!
Awesome job!
I like it!
I love that!
Thanks for that!

## APPENDIX G – Emailed Prompt Example

### **Emailed Prompt**

Good Afternoon, Mrs. Johnson,

One way to effectively prevent disruptive behavior in the classroom is to deliver behavior specific praise. Behavior specific praise involves labeling a child’s appropriate behavior (e.g., “*I love the way you’re sitting quietly!*”, “*Thank you for cleaning your area!*”, or “*I love how quietly the class is watching the video!*”). I would like you to deliver behavior specific praise at least once every minute during the observation (20 instances of behavior specific praise per 20-minute observation). Thank you for all your hard work and dedication to your children, I am excited to be working with you!

Best Regards,

### **Performance Feedback Emailed Prompt**

Good Afternoon, Mrs. Johnson,

One way to effectively prevent disruptive behavior in the classroom is to deliver behavior specific praise. Behavior specific praise involves labeling and praising a child’s appropriate behavior (e.g., “*Great job putting those blocks away!*”, or “*Thank you for using gentle hands!*”). The last time we observed your classroom, we observed that you delivered BSP ### times (at the rate of ### per minute). Remember, we would like you to deliver behavior specific praise at least once every minute during the DESIGNATED time! Thank you for all your hard work and dedication to your children, we are excited to be working with you!

Best Regards,

## REFERENCES

- Allday, R. A., & Pakurar, K. (2007). Effects of teacher greetings on student on-task behavior. *Journal of applied behavior analysis, 40*(2), 317-320.
- Allday, R. A., Hinkson-Lee, K., Hudson, T., Neilsen-Gatti, S., Kleinke, A., & Russel, C. S. (2012). Training general educators to increase behavior-specific praise: Effects on students with EBD. *Behavioral Disorders, 37*(2), 87-98.
- Barton, E. E., & Wolery, M. (2007). Evaluation of e-mail feedback on the verbal behaviors of pre-service teachers. *Journal of Early Intervention, 30*(1), 55-72
- Barton, E. E., Fuller, E. A., & Schnitz, A. (2016). The use of email to coach preservice early childhood teachers. *Topics in Early Childhood Special Education, 36*(2), 78–90.
- Benner, G. J., Beaudoin, K. M., Chen, P. Y., Davis, C., & Ralston, N. C. (2010). The impact of intensive positive behavioral supports on the behavioral functioning of students with emotional disturbance: How much does fidelity matter?. *Journal of Behavior Assessment and Intervention in Children, 1*(1), 85.
- Briesch, A. M., Hemphill, E. M., Volpe, R. J., & Daniels, B. (2015). An evaluation of observational methods for measuring response to classwide intervention. *School Psychology Quarterly, 30*, 37–49. doi:10.1037/spq0000065.
- Brophy, J. (1981). Teacher praise: A functional analysis. *Review of Educational Research, 51*(1), 5–32.
- Bru, D. (2009). Academic outcomes in school classes with markedly disruptive pupils. *Social Psychology of Education, 12*, 461-479.

- Clearinghouse, W. W. (2020). What Works Clearinghouse standards handbook, version 4.1. *National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, US Department of Education*. <https://ies.ed.gov/ncee/wwc/handbooks>.
- Codding, R. S., Feinberg, A. B., Dunn, E. K., & Pace, G. M. (2005). Effects of immediate performance feedback on implementation of behavior support plans. *Journal of applied behavior analysis, 38*(2), 205-219.
- Collier-Meek, M. A., Fallon, L. M., & DeFouw, E. R. (2017). Toward feasible implementation support: E-mailed prompts to promote teachers' treatment integrity. *School Psychology Review, 46*(4), 379–394.
- Cook, B. G., Smith, G. J., & Tankersley, M. (2012). Evidence-based practices in education.
- Cooper, J. O., Heron, T. E., & Heward, W. L. (2020). Applied behavior analysis. Pearson UK.
- Criss, C. J., Konrad, M., Alber-Morgan, S. R., & Brock, M. E. (2022). A systematic review of goal setting and performance feedback to improve teacher practice. *Journal of Behavioral Education, 1-22*.
- Dufrene, B. A., Parker, K., Menousek, K., Zhou, Q., Harpole, L. L., & Olmi, D. J. (2012). Direct behavioral consultation in head start to increase teacher use of praise and effective instruction delivery. *Journal of Educational and Psychological Consultation, 22*(3), 159-186.

- Dufrene, B. A., Lestremau, L., & Zoder-Martell, K. (2014). Direct behavioral consultation: Effects on teachers' praise and student disruptive behavior. *Psychology in the Schools, 51*(6), 567–580. doi:10.1002/pits.21768
- Dufrene, B. A., & Ware, E. (2018). Consultation acceptability and satisfaction scale manual. *Hattiesburg, MS. University of Southern Mississippi.*
- Duncan, N. G., Dufrene, B. A., Sterling, H. E., & Tingstrom, D. H. (2013). Promoting teachers' generalization of intervention use through goal setting and performance feedback. *Journal of Behavioral Education, 22*(4), 325-347.
- Elliot, S. N., & Treuting, M. V. B. (1991). The behavior intervention rating scale: Development and validation of a pretreatment acceptability and effectiveness measure. *Journal of School Psychology, 29*, 45–51.
- Fallon, L. M., Collier-Meek, M. A., Maggin, D. M., Sanetti, L. M., & Johnson, A. H. (2015). Is performance feedback for educators an evidence-based practice? A systematic review and evaluation based on single-case research. *Exceptional Children, 81*(2), 227-246.
- Fallon, L. M., Collier-Meek, M. A., Kurtz, K. D., & DeFouw, E. R. (2018). Emailed implementation supports to promote treatment integrity: Comparing the effectiveness and acceptability of prompts and performance feedback. *Journal of School Psychology, 68*, 113–128.
- Finn, J.D., Pannozzo, G.M., & Voelkl, K. (1995). Disruptive and Inattentive Withdrawn Behavior and Achievement among Fourth Graders. *The Elementary School Journal, 95*(5), 421-434.

- Floress, M. T., & Jenkins, L. N. (2015). A preliminary investigation of kindergarten teachers' use of praise in general education classrooms. *Preventing School Failure: Alternative Education for Children and Youth*, 59(4), 253-262.
- Floress, M. T., Beschta, S., Meyer, K., & Reinke, W. (2017). Praise research trends: Characteristics and teacher training. *Behavioral Disorders*, Published on-line June 15.
- Floress, M. T., Jenkins, L. N., Reinke, W., & McKown, L. (2018). General education teachers' natural rates of praise and student off-task and disruptive behavior. *Behavioral Disorders*, 43, 411–422.
- Folino, A., Ducharme, J. M., & Greenwald, N. (2014). Temporal effects of antecedent exercise on students' disruptive behaviors: An exploratory study. *Journal of School Psychology*, 52(5), 447–462. doi: <https://doi.org/10.1016/j.jsp.2014.07.002>
- Ford, A. D., Olmi, D. J., Edwards, R. P., & Tingstrom, D. H. (2001). The sequential introduction of compliance training components with elementary-aged children in general education classroom settings. *School Psychology Quarterly*, 16(2), 142.
- Fullerton, E. K., Conroy, M. A., & Correa, V. I. (2009). Early childhood teachers' use of specific praise statements with young children at risk for behavioral disorders. *Behavioral Disorders*, 34(3), 118–135.
- Gable, R. A., Hester, P. H., Rock, M. L., & Hughes, K. G. (2009). Back to basics: Rules, praise, ignoring, and reprimands revisited. *Intervention in School and Clinic*, 44(4), 195–205.
- George-Levi, S., Schmidt-Barad, T., Natan, I., & Margalit, M. (2022). Sense of coherence and burnout among school psychologists: The moderating role of

loneliness. *Current psychology (New Brunswick, N.J.)*, 41(4), 2390–2397.

<https://doi.org/10.1007/s12144-020-00766-5>

Gorton, K., Allday, R. A., Lane, J. D., & Ault, M. J. (2021). Effects of brief training plus electronic feedback on increasing quantity and intonation of behavior specific praise among preschool teachers. *Journal of Behavioral Education*.

<https://doi.org/10.1007/s10864-020-09427-w>

Habecker, A. (2023). Proven Behavior Intervention Strategies to Combat Disruptive Behavior (Doctoral dissertation, Roberts Wesleyan College (Rochester)).

Hemmeter, M. L., Snyder, P., Kinder, K., & Artman, K. (2011). Impact of performance feedback delivered via electronic mail on preschool teachers' use of descriptive praise. *Early Childhood Research Quarterly*, 26(1), 96-109.

Horner, R. H., Carr, E. G., Halle, J., McGee, G., Odom, S., & Wolery, M. (2005). The use of single-subject research to identify evidence-based practice in special education. *Exceptional Children*, 71(2), 165–179.

Jacobsen, K. (2013). Educators' experiences with disruptive behavior in the classroom. Retrieved from Sophia, the St. Catherine University repository website:

[https://sophia.stkate.edu/msw\\_papers/199](https://sophia.stkate.edu/msw_papers/199)

Johnson, C. (2022) "A meta-analysis of antecedent exercise on children's classroom behaviors". *Master's Theses*. 941. [https://aquila.usm.edu/masters\\_theses/941](https://aquila.usm.edu/masters_theses/941)

Johnson, C. N., LaBrot, Z. C., Cato, T., & DeFouw, E.R. (n.d.). [Manuscript under review]. Department of Psychology, University of Southern Mississippi.

Kamps, D., Wills, H. P., Heitzman-Powell, L., Laylin, J., Szoke, C., Petrillo, T., & Culey, A. (2011). Class-wide function-related intervention teams: Effects of group

- contingency programs in urban classrooms. *Journal of Positive Behavior Interventions*, 13(3), 154-167.
- Kho, A., & Rabovsky, S. (2022). The Students Alternative Schools Serve.
- Kratochwill, T. R., Hitchcock, J., Horner, R. H., Levin, J. R., Odom, S. L., Rindskopf, D. M., & Shadish, W. R. (2010). Single-case designs technical documentation. *What works clearinghouse*.
- Kratochwill, T. R., & Levin, J. R. (2014). Enhancing the scientific credibility of single-case intervention research: randomization to the rescue.
- Kumm, S., Wilkinson, S., & McDaniel, S. (2020). Alternative education settings in the united States. *Intervention in School and Clinic*, 56(2), 123–126. <https://doi.org/10.1177/1053451220914895>
- LaBrot, Z. C., Pasqua, J. L., Dufrene, B. A., Brewer, E. A., & Goff, B. (2016). In situ training for increasing head start after-care teachers' use of praise. *Journal of Behavioral Education*, 25(1), 32-48.
- LaBrot, Z. C., Dufrene, B. A., Whipple, H., McCargo, M., & Pasqua, J. L. (2020). Targeted and intensive consultation for increasing Head Start and elementary teachers' behavior-specific praise. *Journal of Behavioral Education*, 29(4), 717–740.
- LaBrot, Z. C., Dufrene, B. A., Olmi, D. J., Dart, E. H., Radley, K., Lown, E., & Pasqua, J. L. (2021). Maintenance and generalization of preschool teachers' use of behavior specific praise following in situ training. *Journal of Behavioral Education*, 30(3), 1–28.

- LaBrot, Z. C., Johnson, C., Maxime, E., Cato, T., Butt, S., & DeFouw, E. R. (2022). Emailed prompt package to promote maintenance and generalization of early childhood educators' behavior specific praise. *Journal of Behavioral Education*, 1-21.
- Mandal, R. L., Olmi, D. J., Edwards, R. P., Tingstrom, D. H., & Benoit, D. A. (2000). Effective instruction delivery and time-in: Positive procedures for achieving child compliance. *Child & Family Behavior Therapy*, 22(4), 1-12.
- Mason-Williams, L., & Gagnon, J. C. (2017). An analysis of teacher sorting in secondary special education and alternative schools. *The Journal of Special Education*, 50(4), 239-250.
- McCarthy, C.J., Lambert, R.G., O'Donnell, M., & Melendres, L.T. (2009). The relation of elementary teachers' experience, stress, and coping resources to burnout symptoms. *The Elementary School Journal*, 109(3), 282-300.
- Miltenberger, R. G., Zerger, H. M., Novotny, M., & Livingston, C. P. (2017). Behavioral skills training to promote social behavior of individuals with autism. *Handbook of social skills and autism spectrum disorder: Assessment, curricula, and intervention*, 325-342.
- Mortenson, B. P., & Witt, J. C. (1998). The use of weekly performance feedback to increase teacher implementation of a prereferral academic intervention. *School Psychology Review*, 27(4), 613-627.

- National Center for Education Statistics. (2022). Characteristics of Public School Teachers Who Completed Alternative Route to Certification Programs. Condition of Education. U.S. Department of Education, Institute of Education Sciences. <https://nces.ed.gov/programs/coe/indicator/tlc/alternative-route-certification>
- Noell, G. H., Witt, J. C., Slider, N. J., Connell, J. E., Gatti, S. L., Williams, K. L., & Duhon, G. J. (2005). Treatment implementation following behavioral consultation in schools: A comparison of three follow-up strategies. *School Psychology Review, 34*(1), 87-106.
- O'Handley, R. D., Olmi, D. J., Dufrene, B. A., Tingstrom, D. H., & Whipple, H. (2020). The effects of behavior-specific praise and public posting in secondary classrooms. *Psychology in the Schools, 57*(7), 1097-1115.
- O'Handley, R. D., Dufrene, B. A., & Wimberly, J. (2021). Bug-in-the-ear training increases teachers' effective instruction delivery and student compliance. *Journal of Behavioral Education, 1-25*
- O'Handley, R. D., Olmi, D. J., Dufrene, B. A., Radley, K. C., & Tingstrom, D. H. (2022). The effects of different rates of behavior-specific praise in secondary classrooms. *Journal of Positive Behavior Interventions, 10983007221091330*.
- Paglin, C., & Fager, J. (1997). Alternative Schools: Approaches for students at risk. By Request Series.
- Parker, R. I., Vannest, K. J., Davis, J. L., & Sauber, S. B. (2011). Combining nonoverlap and trend for single-case research: Tau-U. *Behavior Therapy, 42*(2), 284-299.
- Parsonson, B. S. (2012). Evidence-based classroom behavior management strategies. *Kairaranga, 13*(1), 16-23.

- Pustejovsky, J. E., Chen, M., Grekov, P., & Swan, D. M. (2023). Single-case effect size calculator (Version 0.7.1) [Web application]. <https://jepusto.shinyapps.io/SCD-effect-sizes/>
- Radley, K. C., O’Handley, R. D., & LaBrot, Z. C. (2015). A comparison of momentary time sampling and partial interval recording for assessment of effects of social skills training. *Psychology in the Schools*, 52(4), 363-378. doi:10.1002/pits.21829.
- Reinke, W. M., Lewis-Palmer, T., & Merrell, K. (2008). The classroom check-up: A classwide teacher consultation model for increasing praise and decreasing disruptive behavior. *School psychology review*, 37(3), 315-332.
- Rosenbaum, J. (2020). Educational and criminal justice outcomes 12 years after school suspension. *Youth & Society*, 52(4), 515-547. <https://doi.org/10.1177/0044118X17752208>.
- Sanetti, L. M. H., Chafouleas, S. M., Fallon, L. M., & Jeffrey, R. (2014). Increasing teachers’ adherence to a class-wide intervention through performance feedback provided by a school-based consultant: A case study. *Journal of Educational and Psychological Consultation*, 24, 239–260.
- Sanetti, L. M. H., Fallon, L. M., & Collier-Meek, M. A. (2013). Performance feedback provided by school personnel to increase teachers’ intervention implementation: An evaluation of effectiveness, procedural integrity, and feasibility. *Psychology in the Schools*, 50, 144–150.
- Sanetti, L. M., Luiselli, J. K., & Handler, M. W. (2007). Effects of verbal and graphic performance feedback on behavior support plan implementation in a public elementary school. *Behavior Modification*, 31(4), 454-465.

- Stormont, M. A., Smith, S. C., & Lewis, T. J. (2007). Teacher implementation of precorrection and praise statements in head start classrooms as a component of a program-wide system of positive behavior support. *Journal of Behavioral Education, 16*(3), 280-290.
- Truckenmiller, A. & Amanda, L. (2019). Utilization of best practices by problem-solving teams: addressing implementation procedures resistant to feedback. *School Psychology Forum, Research in Practice, 13*(1), 2-15.
- National Association of School Psychologists.
- Vannest, K. J., & Ninci, J. (2015). Evaluating intervention effects in single-case research designs. *Journal of Counseling & Development, 93*(4), 403-411.
- Venus, H. (2020). Efficacy of preventions and interventions for at-risk students in disciplinary alternative education programs. *Walden Dissertations and Doctoral Studies*. 9465. <https://scholarworks.waldenu.edu/dissertations/9465>.
- White, R., Algozzine, B., Audetre, R., Marr, M., & Ellis, E.D. (2001). Unified discipline: A school-wide approach for managing problem behavior. *Intervention in School and Clinic, 37*(3), 3-8
- Zoder-Martell, K. A., Floress, M. T., Bernas, R. S., Dufrene, B. A., Foulks, S. L. (2019). Training teachers to increase behavior-specific praise: A meta-analysis. *Journal of Applied School Psychology, 35*(4), 309-338.