Summer 2014

The Effects of a Tiered-Training Intervention on Teachers' Use of Behavior Specific Praise During the Reading Instruction of Elementary Students with Emotional Disabilities

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THE EFFECTS OF A TIERED-TRAINING INTERVENTION ON TEACHERS' USE OF BEHAVIOR SPECIFIC PRAISE DURING THE READING INSTRUCTION OF ELEMENTARY STUDENTS WITH EMOTIONAL DISABILITIES

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A Dissertation Submitted to the Faculty of
Old Dominion University in Partial Fulfillment of the
Requirements for the Degree of

DOCTOR OF PHILOSOPHY

SPECIAL EDUCATION CONCENTRATION

OLD DOMINION UNIVERSITY
August 2014

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ABSTRACT

THE EFFECTS OF A TIERED TRAINING INTERVENTION ON INCREASING TEACHERS' USE OF BEHAVIOR SPECIFIC PRAISE AND IMPROVING THE STUDENT OUTCOMES OF ELEMENTARY STUDENTS WITH EMOTIONAL DISABILITIES

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Despite longstanding acknowledgement regarding the effectiveness of behavior specific praise for students with emotional disabilities, there continues to be an underuse of this strategy with this population. The purpose of this study was to investigate the effectiveness of a tiered training intervention on teachers' use of behavior specific praise during the small group reading instruction of elementary students with emotional disabilities. A multiple baseline design was used across two groups of teacher and student participants as the means of investigating the effectiveness of the training model on teachers' use of behavior specific praise and the associated student outcomes. Similar to previous studies, results indicated that a brief approach to teacher training may be effective in increasing teachers' use of behavior specific for students with emotional disabilities during small group reading instruction. Future research is needed to explore increasing teachers' maintenance of this strategy, the effect of behavior specific praise on the academic achievement of students with emotional disabilities, and the challenges of conducting research in an applied setting for students with emotional disabilities.

This dissertation is dedicated to my grandparents.

To my grandmother, who inspires me through her faith and lifelong love of learning and teaching and who is always interested (and willing) to read the things I write. I am blessed to have spent the time finishing this project in the daily company of your love and support.

To my grandfather, who taught me by example the value of "doing things right" and being honest, trustworthy, friendly, and kind. Not a day goes by that I don't miss you, but I know you are smiling down on me as I cross the finish line.

ACKNOWLEDGEMENTS

The completion of this dissertation would not have possible without several special people in my life. I owe a tremendous amount of gratitude to the special education faculty and to all of the professors I have had throughout this program. This journey would not have been the same without each and every one of you.

I am especially grateful for the support and encouragement of my dissertation committee. Dr. Linda Bol, thank you for setting the bar high from the first class of doctoral studies. Your intellect and rigor encouraged me to work to my utmost potential and set the tone for the remainder of my coursework. I am so appreciative of your belief in me and your tolerance of my neurotic, perfectionist nature. Dr. Steve Tonelson, whose intelligence is complemented by his keen sense of humor, I am grateful for your willingness to take a chance in working with me, despite never having formally taught me in class. I appreciate all of your support in conceptualizing and conducting this study, but I am especially thankful for your guidance in helping me figure out the next proverbial chapter of my life. Last, but certainly not least, I owe an enormous amount of gratitude to my major advisor, Dr. Bob Gable. Thank you for every opportunity, your commitment to my success, and for always believing more in my abilities than I ever believed in myself. You have set an excellent example of scholarship and professionalism for which I will continue to strive. I feel incredibly blessed to have had the opportunity to work with and learn from one of the best in our field. Thank you for the countless hours you spent guiding me and ensuring that I stayed the course. I have learned more from you than I can possibly express in words and I will be forever grateful for your mentorship and friendship.

I would also like to express my sincere appreciation to one of my other mentors and friend, CJ Butler. Your passion for teaching is palpable and your energy is contagious; I have learned more from watching you at your craft and listening to your experiences than I could have ever learned from a book. Thank you for your persistence, patience, and support in helping me figure out "what I want to do when I grow up."

I am also incredibly appreciative of the amazing colleagues I have had the chance to work with. Anne, your guidance was instrumental. To Lisa, the epitome of diligence, and Elle, who radiates enthusiasm for learning and for life, I absolutely would not have survived the past three years without you. You are the only two people who have can truly relate to what we experienced on this journey and I will always cherish the adventures we have had together. I am inspired and motivated by both of you every day.

I would also like to acknowledge the role that my family played in this endeavor. To my parents, thank you for always encouraging me to follow my dreams and for supporting me in so many ways throughout my entire life. Thank you for instilling in me the morals and values that have guided me in becoming who I am today. To my brother, Jason, thank you for never letting me take myself too seriously and reminding me that no matter what, I "must not quit." To my niece Shallyn, you will never how much your smiles and hugs alleviated so much of my stress. Thank you to my stepdaughter, Halle, for your love and understanding of this unique time in our family's life. Finally, I owe a heartfelt thank you to my husband for the endless sacrifices and unwavering support he offered in helping me pursue this goal. PJ, without you, this would not have been possible. The past three years have been quite a rollercoaster, but with a lot of patience, strong faith, and even more teamwork and love, we made it through!

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CHAPTER 1

INTRODUCTION

Chapter Overview

The purpose of this chapter is to provide a brief summary of the characteristics of students with ED and the challenges associated with educating this population. The chronic academic and behavioral failure of students with ED will be described and the complexities of this problem as it is related specifically to reading will addressed. The research to practice gap will be also be discussed as a major contributing factor to the prolonged failure of this population. Finally, the benefits of behavior specific praise and the underuse of this strategy will provide a rationale for the current study. Research questions and hypotheses for this study will be included in this chapter.

Statement of the Problem

Successfully educating students with ED is, at best, a formidable and demanding task. There are characteristics of students with ED that distinguish them from other students with and without disabilities. The Individuals with Disabilities Education Act (IDEA; 2004) provides the following characteristic definition:

> Emotional disturbance means a condition exhibiting one or more of the following characteristics over a long period of time and to a marked degree that adversely affects a child's educational performance: a) an inability to learn that cannot be explained by intellectual, sensory, or health factors; b) an inability to build or maintain satisfactory interpersonal relationships with peers and teachers; c) inappropriate types of behavior or feelings under normal circumstances; d) a general pervasive mood of unhappiness or depression; e) a tendency to develop

> physical symptoms or fears associated with personal or school problems. Emotional disturbance includes schizophrenia. The term does not apply to children who are socially maladjusted, unless it is determined that they have an emotional disturbance under paragraph (c) (4) (i) of this section.

Although students with ED often present with an intelligence quotient (IQ) that falls slightly below the mean of the students without disabilities, the mean cognitive ability of this population still falls within one standard deviation of the normal curve (Kauffman & Landrum, 2009). Thus, although students with ED may have an IQ that falls on the lower side of the average range, in theory they should still be able to demonstrate progress throughout their educational career. Unfortunately, this often is not the case (Reed, Gable, & Yanek, 2014).

According to the 31st Annual Report to Congress (2009), the outcomes for students with ED have been stagnant and abysmal. In 2007, students with ED comprised the smallest subgroup of students receiving special education services (7.3%). Yet more students with ED dropped out of school than any other subgroup of special education; this dropout rate (44.8%) was almost double the overall dropout rate of all students receiving special education services (25.7%). Additionally, more students with ED dropped out than actually graduated with a regular diploma (42.7%). In comparison to other subgroups of disabilities, students with ED had the second lowest graduation rate, only surpassing students with intellectual disabilities. From 1997-2007, the graduation rate of students with ED only increased by 15.3%. The low graduation rate of students with ED has persisted over time (Wagner et al., 2006).

The failure of students with ED is not limited to academics. Rather, behavior problems exacerbate the academic challenges of this population. In fact, students with ED often have been considered to be among the most challenging students to teach (Bradley, Doolittle, & Bartolotta, 2008; Bullock & Gable, 2006). Students with ED demonstrate either internalizing or externalizing behaviors, or both, that pose significant challenges to educators (Lane, Oakes, Harris, Menzies, Cox, & Lambert, 2012). These students often engage in socially inappropriate and maladaptive behaviors that often lead to difficulty making and keeping friends and participating successfully in an academic environment (Kauffman, 2005). Students with ED frequently engage in physical and verbal aggression and non-compliance (Kauffman, 2005). In fact, students with ED are removed from classrooms for possession of drugs and weapons, or for causing serious bodily injury three times more often than students in other subgroups of special education (Congress, 2009). Similarly, students with ED are suspended and expelled more than any other subgroup of special education (Congress, 2009). The negative trajectory experienced by students with ED does not end upon exiting school; students with ED are more likely to be underemployed, abuse drugs, and be arrested (Gage et al., 2010; Kern, Hilt-Panahon, & Sokol, 2009). At the post-secondary level, and these dismal outcomes have persisted over several decades.

In 2001 the No Child Left Behind (NCLB) Act mandated that students with ED be held to the same academic standards of progress as students enrolled in general and gifted education. A few years later, a reauthorization of the Individuals with Disabilities Education Act (2004; IDEA) integrated the academic expectations defined in NCLB with

special education legislation, placing even more of an impetus on the importance of high-quality instruction of academic content for students with ED (IDEA, 2004).

At odds with federal regulations that mandate academic progress, the traditional emphasis on teaching students with ED has been on the use of behavioral interventions for students in order to manage disruptive behavior. Academic interventions often were reserved for students with learning disabilities and other cognitive impairments (Gable & Bullock, 2004; Gable, Hendrickson, Tonelson, & Van Acker, 2002). Although a reciprocal relationship between improving behavior and improving academics has been accepted in the field, there continues to be a paucity of empirical research in this area (Lane, Jolivette, Conroy, Nelson, & Benner, 2011). As public school teachers and administrators across the country strive to attain Adequate Yearly Progress (AYP), the need for quality academic intervention for students with ED can no longer be ignored (Vannest, Temple-Harvey, & Mason, 2009).

While the persistent failure of students with ED is likely the result of several factors, there are a few major issues that are perpetuating this long-standing problem. First, students with ED struggle to obtain age-appropriate reading skills. Second, there continues to be a gap between research and practice in special education and the field of ED is not exception to this rule.

Reading Deficits and ED

One factor that likely contributes to the poor academic performance of this population is that many students with ED have significant reading deficits. As a group, students with ED have shown specific academic deficits in the area of reading that often do not diminish over time (Nelson, Benner, Lane, & Smith, 2004; Trout, Nordness,

Pierce, & Epstein, 2003). In that reading skills are essential to overall success, deficits in the area of reading exacerbate the challenge of educating students with challenging behavior (Lin et al., 2013). In isolation, a reading or behavior problem makes it particularly difficult for a child to engage positively in the teaching and learning process. When combined, the risk of failure is increased (Lin et al., 2013). The broad academic deficits that students with ED have across academic domains (Nelson, Benner, Lane, & Smith, 2004) may likely be the result of an increasingly heavy reliance on a students' ability to read and comprehend information in order to succeed across grade levels (Lane & Menzies, 2010).

It is widely accepted that any students, not just students with disabilities, who fail to learn to read by approximately third grade face substantial challenges across grade levels. In fact, students with poorly developed literacy skills in the primary grades are unlikely to reach grade-level competencies at the secondary level (Torgesen, 1998). In a seminal article in the field of reading, Stanovich (1986) applied the sociological concept of the Matthew effect to reading. When considered within the context of reading development and education, the Matthew effect suggests the same phenomenon as the sociological theory from which it originated: the "rich-get-richer" while the "poor-get-poorer" (Stanovich, 1986, p.311). Students who are "good readers" will continue to excel in reading, and as a result, they are likely to succeed in other academic areas. "Good readers" become "better readers" and continue to grow their skills because, once identified as a "good reader," they are placed in environments that foster the development of reading skills. They are presented with material that is rich in text or that stimulates comprehension, or are placed in activities where there is an emphasis or a requirement to

read (Stanovich, 1986). Thus, as a result of having "good" reading skills, they are provided with more opportunities to practice. Conversely, the theory suggests that students who are classified as "low readers" or "struggling readers" often are presented with books or activities that actually have less text and fewer opportunities to practice reading. Thus, students who struggle with literacy skills are likely to experience less academic success.

Paucity of Research in Reading and ED. Despite the call for empirical support for academic interventions for students with ED (Lane and Menzies, 2010), a relatively small number of peer-reviewed studies have focused on effective interventions for increasing reading achievement in students with ED. Vaughn, Levy, Coleman, and Bos (2002) conducted an integrative review of observation studies specifically addressing reading instruction. However, the review included students with learning disabilities as well as students with ED. Despite their largely inclusive search parameters of more than one disability subgroup, only 16 studies over 25 years were included in their final synthesis. Mooney, Ryan, Uhing, Reid, and Epstein (2005) conducted a review of the literature that focused on the academic outcomes associated with self-monitoring interventions for students with ED. Only 20 peer-reviewed articles over the course of more than 30 years met the search criteria for this review, further indicating a paucity of research on academic interventions for students with ED. Reading development was specifically targeted in only 36% of the reviewed studies.

More recently, Rivera, Al-Otaiba, and Koorland (2006) conducted a review of the literature on reading instruction for students with and at-risk for ED. However, this review only included studies with participants in kindergarten through third grade. The

authors offered a compelling argument in support of early intervention. While reading instruction is a large component of an elementary curriculum, many students who have fallen behind grade level may still be receiving remedial instruction or interventions in the upper elementary grades.

Benner, Nelson, Ralson, and Mooney (2010) conducted a meta-analysis in order to evaluate the effect of reading instruction and interventions on students with and at-risk for ED. Despite the known challenges that students with ED encounter in the area of reading, only 24 studies over a span of 27 years were identified as having independent and dependent variables related to reading intervention and outcomes for students with or at-risk of ED. However, the results of the meta-analysis did indicate that as a group, students with or at-risk of ED are largely responsive to reading interventions. Myriad approaches to reading instruction were represented, and the effect sizes (ES; calculated using Hedges' *g*) for all were promising. Out of six group-design studies, overall ESs ranged from 0.46 to 4.31. Out of 18 single-subject studies, ESs ranged from -0.06 to 2.68. The authors concluded that the moderate to large effect sizes were important, particularly when considering the variety of interventions that were reviewed.

Interpreting the work of Benner and colleagues (2010) leads to two important conclusions. As the authors suggest, providing some type of reading intervention to students generally is effective, provided the intervention has substantial empirical support and is delivered with fidelity. Additionally, the limited number of studies suggests that there has been little focus on academics and, more specifically, reading for this population. The limited number of studies may likely be due to the challenges associated with conducting reading interventions in classrooms where there is limited attention

given to academics. Further compounding the situation is the challenge of measuring the outcomes of students who are often non-compliant, unengaged, or frequently removed from the classroom due to high rates of disruptive behavior. In all, this limited emphasis highlights the need for more empirical investigations related to the reading progress of students with ED with the goal being to encourage academic achievement in all areas.

Research to Practice Gap

Despite the aforementioned implications of federal legislation and an abundance of research supporting the implementation of specific behavioral and academic interventions, there continues to be a significant discrepancy between research and practice in the field of ED (Fitzpatrick & Knowlton, 2009; Maggin et al., 2010). The disconnect between the strategies and interventions suggested in peer-reviewed journals and what is actually occurring in the classrooms is known as the research to practice gap and has long plagued the field of ED (Maggin et al., 2010). The challenging behavior of students with ED combined with the disconnect between research and practice is a plausible explanation for the chronic failure of this population in the area of reading. According to the literature, special education teachers, and specifically teachers of students with ED, report using ineffective instructional techniques as frequently as they use evidence-based practices (EBPs; Burns & Ysseldyke, 2009; Gable, Tonelson, Sheth, Wilson, & Park2012). Although there are myriad definitions, descriptions, and criteria of what constitutes a practice to be evidence-based, an EBP can be summarized as "practices and programs shown by high-quality research to have meaningful effects on student outcomes" (Cook & Odom, 2013; p. 136).

In that teachers of students with ED are seldom using EBPs, it is not surprising that students with ED are failing. Cook, Landrum, Tankersley, and Kauffman (2003) suggest that the pervasive failure of this population across content areas and over time may be greatly perpetuated by the lack of evidence-based instruction being implemented in classrooms. In considering how to address the chronic failure of students with ED by attempting to narrow the research to practice gap, two issues must be considered. First, the barriers that prevent EBPs from being infused into classrooms must be acknowledged. Second, the factors that support both the implementation and the sustainability of such practices must be addressed.

Barriers Between Research and Practice. There is a paucity of empirical research investigating the causal factors that contribute to teachers' use of ineffective classroom practices (Gersten, Chard, & Baker, 2000). However, there has been much discussion regarding why practitioners may not make use of EBPs. Cook and Cook (2004) suggested that the nature of research is not always compatible with the realities that teachers experience in the classroom, particularly in regard to the daily decision-making processes that occur through the context of a single lesson, let alone an entire day. Similarly, Cannon (2006) posited that the focus of research is often aligned with the interests of researchers rather than with the needs of practitioners. In general, it appears that overall nature of scientific research makes it challenging to implement EBPs in the classroom (Cannon, 2006; Cook & Cook, 2004).

A second barrier to the implementation of EBPs into schools is tangentially related to the nature of scientific research: the availability of peer-reviewed research to practitioners. It is highly possible that one of the main factors preventing putting EBPs

into practice is that access to scholarly journals is often limited and expensive (Janey & Wood, 2012). Furthermore, teachers seldom have the time that is required to read and implement novel instructional strategies (Cannon, 2006). Even when practitioners do have access and time to read current empirical articles, they may not have the skills necessary to understand the technical nature of research reports or to integrate information from a variety of sources (Cook & Cook, 2004; Gersten, Vaughn, Deshler, & Schiller, 1997; Janey & Wood, 2012).

Factors Sustaining Research in Practice. Although there are myriad factors that create obstacles in integrating research into practice, there are also factors that have been identified as supporting the implementation and sustainability of EBPs. Gersten and colleagues (2002) supported the supposition that teachers' lack of skills in interpreting research is a barrier to implementing EBPs into classrooms. The researchers suggested that a teacher's understanding of information as it is related to an EBP is critical in beginning and sustaining use of EBPs for quality instruction. To further support this notion, self-report data indicates that in order for teachers to use outside resources to influence their instruction, the information presented must be easily accessible and presented in practitioner-friendly terms so that it is understandable (Janey & Wood, 2012).

Cook, Cook, and Landrum (2013) suggest that one approach to creating lasting effects of the dissemination of EBPs is to apply Heath and Heath's (2008) tactic for making ideas "stick." This strategy that has been used in field of management in order to effectively communicate ideas that will have a lasting impression on consumers. This model suggests that ideas and methods used to change the existing practices of special

education teachers to include more EBPs should be simple, unexpected, concrete, credible, emotional, and/or tell a story.

Another recent method for sustaining the use of EBPs is training teachers using a tiera system of support similar to the Response to Intervention (RtI) approach that is used for monitoring student progress (Myers, Simonsen, & Sugai, 2011). In the Myers et al. (2001) study, teachers participated in a training targeted toward increasing teacher praise. The first training was considered the Tier 1 intervention. In the event that teachers did not meet a pre-determined criterion, they were moved into Tier 2, which included a brief, weekly meeting with the researcher to review data. In the event that criterion was still not achieved, teachers were moved into Tier 3, at which point they were provided daily feedback on their use of praise. Results of this study provide preliminary support for using an RtI approach in professional development for in-service teachers and indicate that brief trainings may be effective for some practitioners, while others may require more intensive supports. Perhaps training teachers in a manner that is reflective for both the difficulty of the task and their individual needs for support may lead to increased sustainability of interventions. In this model, the resources that are required for intensive models of professional development would be afforded those practitioners who demonstrate a need for support in implementation.

Evidence Based Practices in ED

In an attempt to promote academic achievement of students with disabilities, IDEA mandated that practitioners use scientifically-based practices for students with disabilities, including ED. Nonetheless, achieving that goal has proved to be tenuous (Lewis, Hudson, Richter, & Johnson, 2004). Researchers and practitioners alike have

struggled to define the meaning of "scientifically based research" practices as well as to distinguish such practices from those that fail to demonstrate evidence of success (Simpson, Peterson, & Smith, 2011).

While the meaning of the term EBP is nebulous, it has been used to describe the notion of "scientifically based research." However, there is a lack of consensus on what actually determines whether or not a practice is, in fact, evidence based (Lewis et al., 2004). In other words, there is disagreement among researchers as to what criteria should be applied to identify an EBP. Although more work is needed in refining the definition of an EBP, especially in the field of ED (Maggin, Robertson, Oliver, Hollo, & Partin, 2010), the indeterminate nature of this problem should not undermine the value of the empirical literature that currently supports the use of specific interventions and practices for students with ED.

Teacher Praise

In 2004, Lewis and colleagues applied the criteria developed by the Peacock Hill Working Group in 1991 to identify research-based strategies targeting social behaviors for students with ED. The results were disappointing; only four strategies met the criteria to be considered an EBP, one of which was the use of teacher praise as a means of reinforcement.

The use of teacher praise as an effective intervention has been researched for over forty years. Madsen, Becker, and Thomas (1968) conducted a study to investigate the differential effects of rules, ignoring, and acknowledging appropriate behavior through verbal praise or positive physical contact on the behavior of elementary students identified as having difficulty engaging in class and who demonstrated inappropriate

behavior. Even when compared to interventions presented together, "praise for appropriate behavior was probably the key teacher behavior in achieving effective classroom management" (Madsen et al., 1968; p.148). Praise was found to decrease inappropriate behavior and increase appropriate behavior, which was defined as time on task during a given instructional period.

As defined by Lewis and colleagues (2004), praise is the "application of contingent positive reinforcement following desired appropriate social behavior, typically in the form of teacher attention or recognition" (p. 250). The use of teacher praise has been repeatedly recommended to practitioners as a strategy to improve social behavior, time on task, and correct responding and academic performance, a recommendation that is supported by a substantial body of empirical evidence (Conroy, Sutherland, Snyder, & Marsh, 2008; Niesyn, 2009). Indeed, research has shown that the use of praise can improve correct student responses in mathematics (Kirby & Shields, 1972) and rate of oral reading (i.e., words correct per minute; Gable and Shores, 1980) as well as lead to a decrease in classroom disruption (Gunter & Jack, 1993).

Praise as an Instructional Strategy. The use of teacher praise is widely recognized as an essential component of a positive classroom climate, which is one of the most effective methods of preventing problem behavior and encouraging student learning (Conroy, Sutherland, Snyder, Al-Hendawi, & Vo, 2009). In regard to the use of praise and student engagement, it is important to consider that praise may be used as an instructional strategy. An instructional strategy is academic instruction or intervention targeted at producing academic improvement. According to Maggin et al. (2011), instructional strategies are "discrete teaching behaviors that can be used across

instructional activities and formats" (p.85). In that praise has repeatedly led to improved rates of student engagement, there is little question that praise is an effective instructional strategy for improving academic outcomes. Praise is most effective as an instructional strategy when it is contingent on student behavior, consistently delivered immediately following the desired behavior, and when it is applied in close proximity to the student and coupled with increased opportunities to respond (OTR) (Hester, Hendrickson, & Gable, 2009).

Landrum , Tankersley, and Kauffman (2003) identified attention to task and academic responding as key areas that should be targeted in order to address the academic deficits of students with ED. As supported by the aforementioned research, the use of praise both facilitates and complements those areas. The use of praise statements has been found to be an effective instructional strategy for students with ED (Conroy, et al., 2009; Conroy et al., 2008; Gunter, Coutinho, & Cade, 2002; et al., 2003; Niesyn, 2009). Even so, classroom observation research indicates that praise is underused (Van Acker, Grant, & Henry, 1996).

Underuse of Praise and Students with ED. Due to the longstanding evidence regarding the effectiveness of praise, the issue of whether or not praise should be used for students with ED is no longer a question in and of itself. The answer, to put it simply, is yes. However, a real conundrum exists. Despite long-documented effectiveness, praise continues to be significantly underused for students with ED (Shores & Wehby, 1999). In fact, students with inappropriate externalizing behaviors are likely to have almost 20 percent more negative interactions than positive with their teacher (Gunter & Jack, 1994).

This ratio is consistent with other studies that have explored the rate of teacher praise and the relationship between praise and reprimands for students with behavioral challenges. For example, Gable, Hendrickson, Young, Shores, and Stowitschek (1983) reported that teachers of students with behavioral and learning deficits reprimanded students twice as often as they used praise. Shores et al. (1993) conducted a lag sequential analysis in order to investigate the classroom interactions of teachers and students with ED. Specifically, the authors investigated the relationship between mands (i.e., teacher requests), student behavior, and the teachers' response to that behavior. Although students were typically responsive to teacher requests, positive feedback was seldom offered. In fact, there may be an inverse relationship between the severity of a students' behavior and the rate of praise that a teacher provides. Van Acker and colleagues (1996) found that the higher the risk for a student engaging in aggressive behavior, the less likely a teacher is to offer that student praise, even when he or she is engaging in appropriate behavior. Furthermore, students at high-risk for aggressive behavior were twice as likely to receive reprimands from their teacher for engaging in maladaptive behavior than were students who engaged in maladaptive behavior but were at less of a risk. It is disconcerting that a strategy with such strong empirical support is infrequently used.

Summary of the Problem

Students with ED face extreme academic challenges due to their unique behavioral characteristics and needs. Despite chronic failure over time and across academic subject areas, there is a limited emphasis on the academic instruction of students with ED both in research and in practice. One plausible explanation for the

prolonged failure of students with ED is that many students in this population have significant reading deficits (Lane & Menzies, 2010). This problem is further complicated by the research to practice gap (Fitzpatrick & Knowlton, 2009; Maggin et al., 2010). While research targeting improved academic outcomes is limited, it is still existent. However, there continues to be a gap between what has been found to effectively improve academic outcomes in research, and what is being executed in practice. One example of this disconnect is teacher use of praise for students with ED. Praise has long been documented as an effective intervention for improving the social and academic outcomes of students with ED. However, as previously discussed, the limited use of praise in classrooms may be due in large part to teacher training interventions that do not lead to a sustained use of evidence based practices by teachers.

One approach to ameliorate this problem that appears promising at the pre- and in-services levels and was borrowed from the field of management emphasizes effectively communicating practitioners. Another option is a multi-tiered approach that aligns the kind and amount of support with the needs of a teacher. Both approaches have the potential to increase teachers' use of EBPs in the field of ED.

Purpose of Present Study

Praise has been shown to have a positive influence on student behavior (Gunter & Jack, 1993), and in some instances, student achievement (Gable & Shores, 1980), but whether or not the impact of praise strategies extends to academic performance continues to remain an empirical question that warrants further investigation. The purpose of the present study was to attempt to bridge the research to practice gap by providing ED teachers with training, and support if necessary, in an applied setting. First, this study

investigated the effectiveness of a tiered-teacher training program in increasing teachers' use of BSP during small group reading instruction for students with ED. Second, this study explored the impact of teacher praise on the academic engaged time (AET) and academic performance of students with ED.

Specifically, the following research questions were be answered:

1. Does a brief, tiered teacher training intervention increase teachers' use of BSP for students with ED during reading instruction?
2. Does an increase in teachers' use of BSP impact the level of AET for elementary students with ED during small group reading instruction?
3. Do teachers maintain their use of BSP after the intervention is complete?

Hypothesis

Based on a review of the accumulated literature, it was hypothesized that a brief teacher training will increase teachers' use of BSP statements on behavioral and academic skills. Further, it was hypothesized that an increase in teachers' use of BSP statements will lead to a higher percentage of AET for each student as well as an improvement in reading fluency. Finally, it was hypothesized that teachers will maintain their rates of BSP during small group instruction.

Chapter Summary

There is no question that the progress of students with ED across content areas and overtime is an alarming problem that necessitates immediate attention from researchers and educators alike. Students with ED have demonstrated continuous academic failure that is likely due, in part, to a combination of poor reading abilities and the research to practice gap. Although the use of BSP has a plethora of empirical

support, this strategy continues to be underused by teachers of students with ED. Based on recent findings of peer-reviewed search, one effective means of increasing teacher use of BSP is through a tiered-training intervention. This study has been designed in order to evaluate the effects of a tiered-training intervention on teacher use of BSP and the associated student outcomes of elementary students with ED.

CHAPTER 2

REVIEW OF THE LITERATURE

Chapter Overview

The purpose of this chapter is to provide a synthesis of the current literature related to teacher use of behavior specific praise (BSP) with students with emotional disabilities (ED). A systematic review of the literature was conducted in order to investigate the effects of various teacher training interventions on teachers' use of BSP and student outcomes. This chapter will provide a description of the search methodology employed and a synthesis of findings in related studies.

Introduction

Research suggests that there continues to be an underuse of BSP by teachers of students with ED despite the long-documented effectiveness of the strategy (Shores & Wehby, 1999). Therefore, further work is needed in order to increase the use of BSP in classrooms of students with ED. In order to identify methods that have been effective in increasing teachers' use of BSP over the past decade, a systematic review of the literature was conducted. This review indicated that the use of praise for students with ED is considered an evidence-based intervention, which may account for the limited number of recent empirical studies investigating this topic. However, the articles that have been published on the frequency of its use, both in the past and more recently, reflect a continued underuse of BSP. Additionally, the outcomes associated with using praise as an instructional strategy may be inflated due to the fact that praise is often a component of other intervention packages (Simonsen et al., 2008) This suggests a dire need for the

continued investigation of praise, specifically BSP, as a single intervention in classrooms of students with or at-risk of ED.

The purpose of this review of the literature was to provide a current perspective on the use of praise toward students with or at-risk of ED. This review attempted to look critically at the methods used for increasing teachers' use of verbal praise and the associated student outcomes.

Method

In order to identify articles for inclusion, the following search methodology was employed. First, a search was conducted using the EBSCO online search engine. Specifically, the Education Full Text (H.W. Wilson), Academic Search Complete, Education Research Complete, Education Source, and ERIC electronic databases were used. A combination of the following terms and truncated terms were used to identify possible articles: emotion* dis*, behavior* dis*, teacher praise, praise, behavior specific praise, positive verbal feedback, and teacher use. The contents of each volume of the following journals over the past decade (2003-2014): *Journal of Special Education, Journal of Emotional and Behavioral Disorders, Exceptional Children,* and *Behavioral Disorders* were reveiwed.

In order to be selected for inclusion, articles must have been published in a peer-reviewed journal. Initially, inclusion was limited to the past 10 years. However, due to the limited number of articles published during that time period, articles that were identified during the electronic search from 2000-2014 were considered for review. In order to be included in this review, the participants represented in each study must have been identified as a student with ED, or a categorical variation thereof (e.g., emotional

and behavioral disorder, EBD; behavior disorder, BD). Studies evaluating students at-risk of ED or students identified as having challenging behavior were also included due to the severe discrepancy that exists between students identified with ED and those identified as having mental health disorders. Approximately 80% of students with ED remain unidentified (Kauffman, Mock, & Simpson, 2007) so it is important to include studies with participants who are identified as being at-risk of ED. In the case that there were not student participants, articles were included if the teacher participants were teaching students with or at-risk of ED in one of the following settings: a general education classroom, an inclusion classroom, a self-contained classroom, a resource setting, or an alternative educational placement (e.g., residential or day treatment facility).

Due to the paucity of research investigating the use of BSP for students with or at-risk of ED, articles were included if either the independent or dependent variables were related to use of teacher praise. For example, a study that investigated a teachers' use of praise as it related to the overall level of disruptive behavior in the classroom and a study that investigated a teacher training intervention on a teacher's use of praise were included in this review. Intervention, correlational, or descriptive studies were all included; empirical investigations were the focus of this review, thus excluding expert opinion and application articles. Finally, due to the various contextual differences in classrooms of students with ED and the associated setting events, studies must have been conducted in the United States in order to be included in this review.

It should be noted that the use of praise, and specifically BSP, often has been investigated as a component of a larger intervention package within the context of

School-Wide Positive Behavior Interventions and Supports (SWPBIS; Caldarella, Shatzer, Gray, Young, & Young, 2011; Reinke, Herman, & Stormant, 2013). Articles of this nature were not included in this review. The implementation of SWPBIS is a complex and tiered approach to intervention and the research related to SWPBIS comprises its own, separate body of literature within the field. Therefore, articles that included interventions related to teacher praise as a part of a SWPBIS intervention were considered to be beyond the scope of this review. Articles that included praise as a component of any other type of intervention package also were excluded from this review.

Results

After a comprehensive examination, it was determined that twelve studies met the inclusion criteria for this review. Of the twelve articles, three were published in *Behavioral Disorders*, the others were was published in each of the following journals: *Journal of Special Education, Beyond Behavior, Preventing School Failure, Behavior Modification, Journal of Positive Behavior Interventions,* and *Multiple Voices.* All but three studies were conducted using a variation of a multiple-baseline design. Sutherland, Wehby, and Yoder (2002) was a correlational investigation and Sutherland and Wehby (2001) used a repeated measure ANOVA to analyze the data. Last, Utley, Greenwood, and Douglas (2007) conducted a pilot study using a pretest-posttest design. The results of the review of the literature are summarized in Table 1.

Setting

The wide variety of instructional settings that were represented in this review were reflective of the continuum of placement options available to students with ED or

at-risk of ED and varied greatly in level of restrictiveness. The most restrictive setting was a self-contained classroom in a residential treatment facility (Kennedy & Jolivette, 2008). Slightly less restrictive was one study conducted in a self-contained classroom in a day-treatment facility (Burke, Howard, Peterson, Peterson, & Allen, 2012) and another study conducted in a self-contained classroom at an alternative school for students with ED (Hawkins & Heflin, 2011).

The nine remaining studies were conducted in public day school classrooms that ranged from preschool to middle school levels. Five studies were conducted in self-contained classrooms in neighborhood schools (Kalis, Vannest, & Parker., 2007; Rathel, Drasgow, & Christle, 2008; Sutherland, Wehby, & Copeland, 2000; Sutherland & Wehby, 2001; Sutherland, et al., 2002). Four studies were conducted in what has historically been considered the least restrictive setting for any student with a disability, the general education classroom (Alday et al., 2012; Fullerton, Conroy, & Correa 2009; Mesa, Lewis-Palmer, & Reinke., 2005; Utley et al., 2007). It should be noted that in studies that focused solely on teacher outcomes, the teacher trainings were often conducted in separate settings from where the data collection occurred; those settings will be described in the following sections.

Table 1

Summary of Related Literature

Authors	Student participants				Teacher participants (n)	Setting	Variables		Design	Outcomes
	n	Age	Description	Gender			IV	DV		
Allday, Hinkson-Lee, Hudosn, Neilsen-Gatti, Kleinke, & Russel (2012)	7	5-12	EBD and at-risk	6 male 1 female	4	Elementary general education	30-40 min training Performanc e feedback every third day	*Teacher DV*: BSP *Student DV*: On-task behavior	Modified multiple baseline	Increase in BSP and increase in on-task behavior
Burke, Howard, Peterson, Peterson, & Allen (2012)	n/a				4	Day treatment facility	VPF	BSP; general praise; time-out	Multiple baseline with reversal	Increase in teacher use of BSP in targeted instructors and non-targeted aides
Fullerton, Conroy & Correa (2009)	4	2-5	Problem behavior; not at-risk of developme ntal delay	Male	4	Early childhood classrooms	Teacher training; cue cards; daily feedback	*Teacher DV*: specific praise; non-specific praise *Student DV*: compliance; engagement	Multi-baseline	Increase in teacher use of BSP and improvement of student behaviors

Table 1 Continued

Authors	Student participants				Teacher participants (n)	Setting	Variables		Design	Outcomes
	n	Age	Description	Gender			IV	DV		
Hawkins & Heflin (2011)			n/a		3	Self-contained classroom in an alternative setting	VSM VPF	BSP NSP Reprimands	Multiple baseline with embedded withdrawal	Increase in use of BSP
Kalis, Vannest, & Parker (2007)			n/a		1	Self-contained classroom	BSP training and self-monitoring	BSP; general praise	ABA maintenance design	Increase in overall use of praise
Kennedy & Jolivette (2008)	2	12	EBD	1 male 1 female	1	Residential treatment facility classroom	Self-monitoring; goal setting	Percent of time students spent outside of classroom	Multiple baseline	Overall decrease in time spent outside of the classroom
Mesa, Lewis-Palmer, & Reinke (2005)	23	2nd grade	Disruptive behavior	10 male 13 female	2	Elementary general education classroom	VPF	*Teacher DV*: teacher praise *Student DV*: disruptive classroom behavior	Multiple baseline	Variable effects on teacher praise but increase in use of praise from baseline; decrease in disruptive behavior of students

Table 1 Continued

Authors	Student participants				Teacher participants (n)	Setting	Variables		Design	Outcomes
	n	Age	Description	Gender			IV	DV		
Rathel, Drasgow, & Christle (2008)			n/a		2	Elementary self-contained classroom	Supervisor performance feedback	Frequency of positive and negative teacher comments	Multiple baseline design across 2 teachers	Increase in positive comments and decrease in negative comments
Sutherland & Wehby (2001)	216	5-15	112 EBD 48 LD 20 ID 36 otherwise categorized	183 male 33 female	20	Elementary and middle self-contained classrooms	Self-evaluation	*Teacher DV:* praise, reprimands, opportunities to respond *Student DV:* correct responses, academic talk, other talk	Repeated measure ANOVA	Increase in teacher praise; decrease in reprimands; improvement in student responding
Sutherland, Wehby, & Copeland (2000)	9	10-11	EBD	7 male 2 female	1	Elementary self-contained classroom	Teacher training; feedback; goal-setting	*Teacher DV:* BSP, non-behavior specific praise *Student DV:* on-task behavior	ABAB withdrawal	Increase in BSP and on-task behavior of students

Table 1 Continued

Authors	Student participants				Teacher participants (n)	Setting	Variables		Design	Outcomes
	n	Age	Description	Gender			IV	DV		
Sutherland, Wehby, & Yoder (2002)	216	5-15	112 EBD 48 LD 20 ID 36 otherwise categorized	183 male 33 female	20	Elementary and middle self-contained classrooms	n/a	Praise: BSP and non-specific praise; opportunities to respond	Correlational	Relationship between teacher praise and opportunities to respond
Utley, Greenwood, & Douglas (2007)	10	3rd and 4th grade	Disruptive behaviors	9 Male 1 Female	2	Elementary general education classroom	Social Skills intervention for students: Cool Tool	*Teacher DV*: praise; reprimands *Student DV:* appropriate and inappropriate behavior; on-task and off-task behavior	Pilot study	Increase in teacher praise and on-task behavior of students

Participants

Of the twelve studies included in this review, only seven included student participants. That is, while other studies may have reported the classroom composition of the setting in which teacher participants worked, only seven measured the outcomes of student participants. The five remaining studies focused solely on teacher participants. The participant characteristics for students and teachers are described in detail below.

Student participants. In total, there were 478 students represented in the seven studies that included student participants; students ranged from age 4 to age 15. However, this number is slightly misleading. Mesa and colleagues (2005) reported 23 student participants; however, only three students were receiving support for "behavioral and academic problems" (p.4). Sutherland et al. (2002) and Sutherland and Wehby (2001) each included 216 student participants. However, although the authors did not acknowledge it, it appears that both studies were conducted using the same set of participants. The participant descriptions (e.g., numbers, disabilities, demographics) for both studies were the same. Out of the 216 students in each study, 112 were labeled as having EBD. Sutherland et al. (2002) was an intervention study, whereas Sutherland et al. (2002) was a correlational report; it is likely that each article was part of one larger study.

Out of the remaining studies, only 13 students were identified as specifically having ED. Kennedy and Jolivette (2008) and Sutherland et al. (2000) were the only two studies in this review that included only students identified as having ED. Alday et al. (2012) included two students with ED and two students that had been referred to the school's evaluation team for behavioral difficulties. One study focused on students in

preschool (Fullerton et al., 2009). As is common for that age group, students had not been identified as having ED. However, their classroom teachers identified them as students who demonstrated challenging behaviors that conflicted with task engagement, but who were otherwise typically developing, as indicated by scores within the normal range on the Battelle Developmental Inventory Screening.

Behavioral characteristics of the students who were not identified as having ED, but demonstrated challenging behavior (i.e., considered at-risk for the purpose of this review) were solely reflective of externalizing behavior challenges. Students at-risk were described as demonstrating "noncompliance, inattentiveness, and excessive disruptions" or as being "non-compliant and combative with the teacher" (Alday et al., 2012; p.90) or as demonstrating noncompliance, aggression, and disruptive behaviors (Fullerton et al., 2009). Students were described as demonstrating physical violence toward others, engaging in excessive talking during work time, seeking teacher attention, remaining out of their seat, refusing to complete assignments, and blaming other students for their misconduct (Utley et al., 2007).

Teacher participants. In all, 63 adult participants were included in the studies in this review. Again, that number is slightly skewed if the assumption is made that the same teachers participated in both the Sutherland and Wehby (2001) and the Sutherland et al. (2002) studies. Twenty self-contained special education teachers were included in each study. Out of the remaining teacher participants, only 6 were reported as being special education teachers (Hawkins & Heflin, 2011; Kalis et al., 2007; Kennedy & Jolivette, 2008; Sutherland et al., 2000). Only four out of the seven studies with student participants also had teacher participants that were described as having experience

teaching students with ED (Kennedy & Jolivette, 2008; Sutherland et al., 2000; Sutherland et al., 2001; Sutherland et al., 2002)

The other adult participants represented in this review had a variety of teaching credentials. Two participants were pre-service teachers who were enrolled in master's degree programs and specializing in students with ED at the time of the study (Rathel et al., 2008). Eleven general education teachers ranging from early childhood (Fullerton et al., 2009) through sixth grade (Alday et al., 2012) participated in the studies. In the final study, the participants were described as staff members at a day treatment facility; two were identified as instructors and two were identified as aides, however training or experience specifically with students with ED was not described (Howard, Peterson, Peterson, & Allen, 2012).

Teacher Use of BSP: Interventions

Ten of the twelve studies included various strategies designed to increase teachers' use of praise or BSP as part of the intervention. Sutherland et al. (2002) was a correlational study, so an intervention was not conducted. Uley et al. (2007) was unique in that a change in teacher behavior was investigated as a function of change in student behavior. Utley and colleagues conducted a pilot study that investigated the impact of a social skills intervention for students on the use of teacher praise. Common elements of the teacher interventions included teacher training, self-management, and feedback.

Training. Out of the ten studies that included interventions that were designed to increase teacher use of praise, seven included a teacher training session; however, the intensity and length of the training sessions varied greatly. In one study, a 20 minute teacher training intervention was mentioned, but it was not described in detail (Kalis et

al., 2007). Information was given that indicated that teachers were trained and were asked to identify examples and non-examples of BSP. Yet, no other details were given. The length of teacher training sessions varied from 10 minutes (Hawkins & Heflin, 2011) to 1.5 hours (Fullerton et al., 2009).

Three of the studies that included a teacher training component simply described the interaction as a "meeting" between the teacher and the researcher (Hawkins & Heflin, 2011; Rathel et al. 2008; Sutherland et al., 2000). The procedures for researcher and teacher meetings were described with minimal detail, thus making it difficult for the procedures to be replicated. Sutherland and colleagues (2002) used meeting time to review the teacher's baseline rate of BSP, discuss the benefits of implementing BSP, provide the instructor with examples of praise, and then set a criterion for teacher progress. Similarly, Rathel et al. (2008) and Hawkins and Heflin (2011) presented teachers with baseline rates of praise statements. Rathel and colleagues (2008) focused on describing positive and negative teacher comments, of which praise was a component of positive comments, whereas Hawkins and Heflin (2011) specifically discussed the frequency of BSP. Both studies incorporated visual feedback through the use of frequency graphs. Sutherland et al. (2000) and Hawkins and Heflin (2011) met with teachers prior to each intervention session to review data from the previous day. However, Rathel et al. (2008) did not.

In the case that information about the details of the teacher training sessions was provided, commonalities were seen across studies (Alday et al. 2012; Fullerton et al., 2009; Sutherland & Wehby, 2001). In all three studies, teachers were provided with their rates of BSP during baseline, discussed the use and benefits of using BSP, and were

given examples and non-examples of BSP. The focus of the interventions in Alday et al. (2012) and Fullerton et al. (2009) was on training teachers in understanding and using BSP, whereas Sutherland and Wehby (2001) focused on training teachers to record their own use of BSP. Additionally, two of the interventions included goal-setting as a component of the training (Alday et al., 2012; Sutherland & Wehby, 2001). In all training sessions, the application of BSP was made relevant to individual teachers' classroom. For example, teachers were asked to define appropriate and problem behaviors of target students (Fullerton et al., 2009), identify instances in which more BSP could be used in their own instruction, and record their own use of BSP by listening to an audio recording of their instruction.

In addition to commonalities among the studies, there were a several contrasting features of the teacher training interventions. Alday and colleagues (2012) trained teachers in the effective use of BSP, but teachers were not explicitly told to change their natural use of BSP in the classroom. Rather, the authors were interested in the impact of the training alone immediately following intervention with intermittent feedback along the way. In contrast, Fullerton and colleagues (2009) provided teachers with cue-cards to place in their classrooms as a visual prompt to use BSP. The cards included general examples of BSP as well as examples that were specific to each teacher's classroom. In all cases, teacher training was associated with an increase in teachers' use of BSP or general praise, depending on what was measured. However, the teacher training sessions often provided prompting in self-management and feedback to teachers during the intervention phase, making it difficult to isolate the effectiveness of the intervention

alone from the effectiveness of the intervention when combined with prompting and feedback.

Self-management Strategies. Six interventions included the implementation of self-management strategies for teachers. Again, the nature and description of self-management strategies in each intervention varied. Strategies included goal setting and self-monitoring. The use of self-management strategies was an effective strategy for increasing teacher use of praise.

Goal setting. Five studies included goal-setting as a method of self-management. Alday et al. (2012) reported that teachers were given an opportunity to set goals; however, the procedures of goal setting were not described. To the contrary, in two of the five studies, the goal was set by the researcher rather than by the teacher (Hawkins & Heflin, 2011; Sutherland et al., 2000). Hawkins and Heflin (2011) established a criterion goal for teachers using a mathematical equation based on individual rates of BSP during baseline, whereas Sutherland and colleagues (2000) criterion was slightly more arbitrary. In the first example, a criterion was established by increasing the maximum number of praise statements observed during baseline by 50 percent. In the latter, the researcher and teacher agreed upon a criterion of six BSP statements per session simply based on the teacher's baseline performance and belief in the attainability of that goal.

Kennedy and Jolivette (2008) approached goal-setting in by creating goals for the teachers to gradually increase their use of praise. In the first phase, researchers set a goal for instructors to increase their use of praise by one more positive statement that was used during baseline. In phase two, teachers were charged with using more than two positive statements per session than the baseline rate. Teachers were responsible for recording

their use of positive and negative comments; however the procedures were not described. The authors reported that a gradual increase in the goal did lead to improved rates of praise. However, the focus of that particular intervention was student behavior, so statistics for teacher use of praise were not reported.

Self-evaluation. In three studies, teachers were responsible for monitoring their own use of praise during instruction. Again, the descriptions for these procedures were sparse and inconsistent. In one study, teachers recorded their use of positive and negative comments, however that procedure was not described. While processes used were described in some instances (e.g., Kalis et al., 2007) as self-monitoring (monitoring one's own behavior at the time it is occurring), the procedures used were more reflective of self-evaluation (evaluating one's own performance after the behavior has occurred). The difference is subtle and largely temporal, but it is important to distinguish the two approaches. Sutherland and Wehby (2001) described a self-evaluation process in which teachers were tasked with recording their instruction and then listening to that instruction to monitor their own use of praise to establish a rate. However, rather than monitor the entire session, teachers listened to a five minute segment of their instruction, recorded their use of praise, and then multiplied that number by three, in order to get a rate for the entire 15 minute session. Clearly, this process creates a major limitation regarding the validity of the outcomes. Similarly, Kalis et al. (2007) had teachers reflect on their use of praise by recording their verbal comments at the middle and end of an instructional period.

Summary of Self-management Findings. Self-management strategies such as goal-setting and self-evaluation were found to be effective components of teacher

training interventions. However, much like teacher training sessions, self-management interventions most often were presented in tandem with other interventions, such as instruction through a training session or feedback from the research team. As previously mentioned, presenting self-management in conjunction with another intervention, or as a component of a larger intervention, makes it difficult to judge the effectiveness of each part.

Feedback. The final common component of teacher interventions was the use of feedback. Much like teacher training and the use of self-management strategies, the type of feedback offered and the frequency at which it was delivered varied from study to study. Feedback was used in eight out of 10 teacher intervention studies. It was most common for feedback to be incorporated with self-management strategies (Alday et al., 2012; Hawkins & Heflin, 2011; Kalis et al., 2007; Sutherland et al., 2000). In two studies, feedback was provided to teachers during the intervention sessions following teacher training (Fullerton et al., 2009; Rathel et al., 2008) and in two sessions feedback was the only intervention (Burke et al., 2012; Mesa et al., 2008).

Feedback was provided to teacher participants in a number of different ways. In some instances, teachers received written feedback via a note or email (Fullerton et al., 2009; Rathel et al., 2008). In other instances, the researchers provided feedback during meetings with the teachers (Kalis et al., 2007; Sutherland et al., 2000). Visual performance feedback (VPF) was also used as a method of providing teachers with information about their use of praise or BSP (Burke et al., 2012; Hawkins & Heflin, 2011; Mesa et al., 2008). In all studies, the researchers graphed data and teachers were provided with a visual representation of their performance. Burke and colleagues (2012)

used a unique method of providing VPF to teacher aides, which also improved teacher behavior as well. Instructors were tasked with recording their aides' use of general praise and time out and reporting that data to the researcher. In turn, the researcher graphed the aides' behavior and returned the VPF graph to the aide without any further intervention. Although the instructors were not provided with VPF of their behavior, simply recording their aides' use of praise increased instructor use of praise by 50 percent. The use of praise by teacher aides doubled, leading to an improvement in the praise: correction ratio. Hawkins and Heflin (2011) used both VPF and video self-monitoring to provide teachers with examples of their use of BSP. Teacher use of BSP increased from 0.1-1.4 praise statements to session during baseline to 2.4-6 praise statements during intervention.

In addition to being provided feedback in a variety of manners, teachers also were provided feedback at various frequencies and times during the intervention. With the exception of Alday et al. (2012,) feedback was provided to teachers on a daily basis. Most interventions provided feedback to teachers as a follow-up to each intervention session. However, in some cases, the researcher provided feedback to the teacher immediately before a session (Hawkins & Heflin, 2011; Sutherland et al., 2001). It should be noted that even when feedback was provided every three sessions, there was an increase in teacher praise and increase in on-task student behavior (Alday et al., 2012).

Given the varied nature of feedback, the presentation of feedback as a component of an intervention, and an increase in praise when feedback is presented daily or every three days, many questions remain regarding the use of feedback to increase teacher praise. There is no doubt that feedback represents an important component of professional development. However, whether or not daily feedback is an essential

component of an intervention targeting teacher praise remains an empirical question. Similar to the other teacher interventions discussed, it is difficult to discern the impact of feedback in improving teacher praise when so often, it is part of a larger intervention package.

Teacher Use of BSP: Outcomes

While some studies included measurements of teacher reprimands or negative verbal interactions along with teacher use of praise (Hawkins & Heflin, 2011; Utley et al., 2007; Sutherland & Wehby, 2001), the use of teacher praise was the most noteworthy dependent variable. In the cases where reprimands or negative interactions were recorded, various types of the previously described interventions (e.g., self-evaluation, VPF, video self-monitoring) appeared to reduce the amount of negative feedback that was given and improve the ratio of praise statements to reprimands.

The use of teacher praise typically was measured in terms of behavior specific praise and non-specific, or generic, praise. Fullerton and colleagues (2009) differentiated between the two types of praise by defining behavior specific praise as "positive declarative statements directed to the target child that describes the child's behavior" and non-specific praise as "positive declarative statements specifically directed to the target child that do not describe the child's behavior" (p.121). Similarly, Alday and colleagues (2012) described BSP as an "audible statement that conveys explicit reference to a desirable behavior" (p. 88). In all studies, the use of teacher praise was reported as either a rate of praise statements per a given amount of time or as a frequency count of total praise statements in a given session. Due to the varied length and nature of the interventions and the following observed classroom sessions, it is difficult to make

comparisons across studies regarding the total increase in praise statements following interventions. However, in all instances, rates of BSP increased following intervention. As pointed out by Alday and colleagues (2012), a standard has yet to be clearly defined regarding the exact number of praise statements needed in order to be considered appropriate or effective in changing student behavior. The rates of praise in this review are reflective of the difficulty in establishing a criterion for the use of BSP. When rates of BSP were increased to as few as a mean of .60 praise statements per minute (Fullerton et al., 2009) to as many as 7.8 praise statements per session (Sutherland et al., 2000), desirable outcomes were seen in student behavior (see Table 1).

Teacher Maintenance of BSP. Only four studies examined the maintenance of BSP following the intervention. Kallis et al. (2007) found that the teacher's rate of BSP was maintained following the self-monitoring intervention; however, conclusions were limited because there was only one teacher participant. The effect of VSM and VPF on teachers' maintenance of BSP was inconsistent. In one study, teachers maintained their use of BSP one week and one month following the intervention (Burke et al., 2012). However, in other studies, only one of the three teachers (Hawkins & Heflin, 2011) and one of two teachers (Mesa et al., 2005) demonstrated maintenance of BSP. Given that many studies did not collect maintenance data on teacher use of BSP following the intervention (Alday et al., 2012; Fullerton et al., 2009; Rathel et al., 2008; Sutherland et al., 2000) and that the studies that did measure maintenance yielded mixed results, it is clear that more work is needed to investigate the sustainability of this intervention.

BSP and Associated Student Outcomes

The student outcomes measured in this review included both behavioral, or social, outcomes as well as some academic outcomes. Seven of the 12 studies measured teacher and student outcomes and one study (Kennedy & Jolivette, 2008) focused solely on student outcomes (see Table 1). Four studies did not report student outcomes at all (Burke et al., 2012; Hawkins & Heflin, 2011; Kalis et al., 2007; Rathel et al., 2008). Utley and colleagues (2007) reported student outcomes; however, the independent variable was a social skills program, not the implementation of BSP. Rather, teacher use of praise was the dependent variable. Failure to report student outcomes following an increase in teacher praise raises a critical empirical question: Is it worth the effort spent to increase teacher use of BSP if that increase does not directly result in student outcomes? Fortunately, the majority of studies reviewed found that increasing teachers' use of BSP does in fact result in an improvement in student performance.

Student behavior was the primary student outcome measured in the studies included in this review. Specifically, outcome measures included disruptive behavior, engagement (i.e., time on task), and compliance. Mesa et al. (2005) found that disruptive behavior, which was described as a "verbal comment, physical gesticulation, or other event, individual, or group that disrupts the academic instruction or other students' academic engagement" (p.4), decreased substantially when teacher praise averaged between two and three statements per minute. It should be pointed out that Mesa and colleagues measured the overall rate of disruption in a general education classroom that included students who were at high-risk of disruptive behavior. Mesa and colleagues reported teacher use of praise toward the class as a whole as it related to overall

classroom behavior; however, Alday and colleagues (2012) reported teacher use of praise as it related to the behavior of target students (i.e., students with or at-risk of ED). Even when teachers increased their use of BSP to others, the on-task behavior of target students improved. As a result of BSP directed toward target and non-target students, the on-task behavior of target students increased (M=68-81%). Sutherland and colleagues (2000) also reported an increase in on-task behavior (M=83.3-85.6%) following an increase in teacher use of BSP. However, teacher use of non-specific praise also was increased, which may have bolstered student outcomes. Teacher use of BSP was found to lead to increased rates of student compliance for early childhood students at-risk of ED (Fullerton et al., 2009).

Another variable used to measure student behavior was the amount of time students spent outside of their classroom due to disruptive behavior. Teacher use of praise significantly decreased the time that middle-school students in a residential treatment facility spent outside of the academic learning environments due to separations or referrals (Kennedy & Jolivette, 2008). In this study, the time spent outside of the classroom in three different academic subjects decreased to zero. While decreasing the amount of time a student spends away from instruction is necessary, the results of this study are limited. The quality of the time spent in the classroom (e.g., engagement and achievement outcomes) was not discussed.

While decreasing maladaptive behavior and increasing student engagement are both important and necessary aspects for improving learning, only one study attempted to measure academic progress as the result of an improvement in the use of BSP. Sutherland and Wehby (2001) found that an improvement in teachers' praise to

reprimand ratio was associated with an increase in correct student responses. For teachers who used self-evaluation to monitor their use of praise, not only did the amount of praise increase, but also the increase in correct responding from students was statistically significant (*ES*=1.6). Based on the findings of this review of the literature, it is clear that there continues to be a dearth of research related to teacher use of BSP and the academic outcomes of students with ED.

Chapter Summary

Numerous interventions have been implemented to increase teacher use of behavior specific praise. However, most interventions have been comprised of multiple components, making it difficult to discern which part of the intervention led to improved outcomes. Teacher use of BSP also has been found to increase the performance of students with or at-risk of ED. Increasing teacher use of BSP was found to be an effective strategy in improving student outcomes in the area of compliance, engagement, disruption, and in one study, academic performance. However, the limited focus on academic performance in the studies in this review is reflective of the overall lack of focus on academics for students with or at-risk of ED in the field. It also indicates a dire need for research that extends the effect of teacher use of BSP past student engagement variables and explores whether increasing engagement through BSP is a robust enough intervention to improve academic learning.

CHAPTER 3

METHODOLOGY

Chapter Overview

The purpose of this chapter is to present the methodology of a study designed to investigate the effectiveness of a tiered teacher training program to improve teachers' use of behavior specific praise (BSP) and how the use of such an instructional strategy may lead to improved student outcomes behaviorally and academically. Specifically, this chapter includes a summary of the research questions, the research design, research materials and procedures, as well as information about the research setting. In addition, this chapter includes a brief description of teacher participants and a detailed description of student participants. Given the unique characteristics of students with emotional disabilities (ED), detailed descriptions of students are provided in order to better understand the complexities and challenges that were involved in conducting research with this population.

Present Study

The present study was designed to address two main issues in the field of ED. First, this study was designed to explore a novel approach to training teachers in a way that focuses on responding to their individual needs of support to increase their use of BSP, which is an evidence-based practice for students with ED. As discussed in the preceding chapters, although BSP is a highly effective strategy for students with ED, research indicates that it is underused with this population. Thus, a teacher-training package that increases the use of BSP would be a major contribution to the field. Second, this study was designed to extend the current literature on the use of BSP for elementary

students with ED. Specifically, this study aimed to link teacher use of BSP to student outcomes. Four research questions were addressed:

1. Does a brief, tiered teacher training intervention increase teachers' use of BSP for students with ED during reading instruction?
2. Does an increase in teachers' use of BSP impact the level of academic engaged time (AET; i.e., time on task) for elementary students with ED during small group reading instruction?
3. Do teachers maintain their use of BSP after the intervention is complete?

Method

Research began following approval from the Old Dominion University Institutional Review Board (IRB) and from the participating school division. Prior to selecting participants, the researcher met with a representative from the school division, the school principal, and the school reading specialist to discuss the study and the inclusionary criteria for participants. It was agreed that all students who attended the school would be invited to participate in the research.

Participants

A research participation packet which included a letter of explanation from the school division, permission to video record, and an informed consent document (see Appendix A), was sent home in a sealed envelope to all students enrolled in the participating school. After consent was obtained, the school principal identified students whose who were identified as having ED and provided that information to the reading specialist. Then, the reading specialist identified students who were reading below grade level and who were eligible to participate based on their reading curriculum schedule.

Students who had parental consent, were identified as having ED, who were reading below grade level, and who did not have a conflict in their instructional schedule were chosen to participate in this study.

Similar to student participants, all teachers from the four ED classrooms were invited to participate in the study. The school principal provided teachers with an informed consent document (see Appendix B) and then returned the signed consent documents to the researcher. All teachers agreed to participate in the study; however, only teachers who led the small group reading instruction in each respective classroom were selected for participation.

Two issues regarding participation must be addressed. First, it should be noted that all teachers and students in one classroom were excluded from the study. Given that a large number of students in the classroom were in foster care, the division representative did not approve research in this classroom. Virginia state law protects children in foster care from being filmed and, since this research was video-recorded, the division felt it was in the best interest of all parties to prohibit research in that classroom. Second, on the third day of baseline data collection in one of the classrooms, the parent of a student participant contacted the school principal and reported that her child felt uncomfortable being videotaped. The parent withdrew the student from the study and the principal discontinued research in that classroom. As a result, only two eligible classrooms remained.

In all, two teacher participants and four student participants from two separate classrooms participated in this study. Each classroom had one teacher and two student participants. Participant characteristics are described in detail below.

Teacher participant characteristics. Both teacher participants were responsible for leading the small group reading instruction in their respective classrooms. Teacher 1 held a Master's degree and an endorsement in Early Childhood Special Education. Teacher 2 held a Master's degree and was endorsed in elementary education, middle school science and history, English as a second language, and as a reading specialist.

Student participant characteristics. As previously mentioned, all student participants were receiving services as a student with ED under the federal definition provided by IDEA. In addition, student participants were identified by the school reading specialist as having difficulty engaging during academic instruction, reading below age and/or grade level expectations, and who do not typically respond negatively to teacher attention. Student 1 and Student 2 were students in Teacher 1's class; Student 3 and Student 4 were students in Teacher 2's class.

Student 1. Student 1 was a 13 year, 4 month old male currently receiving instruction as a fifth grade student. Student 1 was identified as a student with an emotional disability. Historical eligibility data indicated that Student 1's IQ ranged from borderline to average in various subsets. Due to an extreme discrepancy between his verbal comprehension (borderline) and perceptual reasoning (average) abilities, a full-scale IQ score could not be calculated. A discrepancy between Student 1's ability and academic performance existed in a few areas, including writing and oral language comprehension. The school reading specialist identified Student 1 as reading below grade level. According to report card data, Student 1 received grades of an A-, B+, and B+ in the area of English for the first, second, and third marking periods, respectively. Student 1's report card suggested that his strengths were in maintaining good attendance,

participating in classroom activities, cooperating with the teacher, and exhibiting appropriate behavior. Completing class work on time was identified as a growth area. Historical school records indicated that Student 1 sought "a lot of adult attention and praise" and had difficulty maintaining on-task behaviors.

According to his most recent Individualized Education Program (IEP), various assessments (e.g., Qualitative Spelling Inventory (QSI), Phonologic Awareness Literacy Screening (PALS), Brigance subtests) were given to Student 1 in order to determine his overall reading level, strengths, and weaknesses. Based on a variety of formal and informal assessments, it was determined that Student 1 was reading on a third grade level. However, beginning of the year assessments from the literacy intervention program used for reading instruction revealed that Student 1's independent reading skills reflected a first grade reading level (i.e., decoding and comprehension). By February, Student 1 had improved his independent reading level by one grade level.

Student 1's IEP indicates that he has a difficult time completing classwork. It was reported that Student 1 becomes easily frustrated when he cannot complete a task and that he will stop working, put his head down, or engage in aggressive behaviors. Student 1's IEP team also reported that he will discontinue eye contact, push his hands into furniture, or balling up his fists. However, team also agreed that Student 1 was a polite boy who is eager to help his teachers. His teacher indicated that he was an active participant in both whole group and small group instruction and that he was able to utilize coping strategies to help manage his frustrations.

A summary from an informal student interview revealed that Student 1 viewed running and physical education as areas of strengths. Student 1 participated in Tae Kwon

Do outside of school; he has a black belt and identifies that as a strength. Student 1 reported needing to work on ignoring others and asking adults for help when needed. He aspires to join the Navy or become a veterinarian when he grows up and had aspirations of visiting Hawaii one day.

Student 1's IEP included both academic and behavioral goals. Based on his current level of progress, the IEP team reported that it was unlikely that he would achieve grade level competencies in the area of reading. Student 1's goals in language arts included decoding and spelling words ending with –ed or –ing, reading and comprehending a reading passage at the fourth grade level, and writing with appropriate capitalization and punctuation. Student 1's goals included following directions, remaining in an assigned area, and a reduction in physical aggression to zero aggressive incidents (i.e., hitting, pushing, and throwing). Student 1 was present for all baseline, post-training, and maintenance sessions.

Student 2. Student 2 was a 13 year, 2 month old male who was receiving instruction in the fifth grade classroom. Student 2 was receiving services as a student identified with an emotional disability (ED). Historical data in Student 2's records indicated his cognitive functioning to be in the low-average to borderline range in various subsets, with his full-scale IQ being borderline (IQ=78). A significant discrepancy was found in the area of reading comprehension. Based on existing school data from the literacy program, Student 2 was identified by the school reading specialist as reading below grade level. For the first three grading periods, Student 2 received grades of a D+, E, and E in the area of English (i.e., reading and writing). According to school report card data, Student 2 maintained good attendance during the first marking period. During

the first, second, and third marking periods, Student 2 was identified as needing improvement in the following areas in one or more of the marking periods: working neatly and carefully, completing classwork on time, talking at the appropriate time, cooperating with teachers and peers, and choosing appropriate behaviors. School records indicate that Student 2 occasionally had difficulty attending to tasks.

According to Student 2's most current IEP data, various assessments (e.g., PALS, Brigance subtests, literacy program assessments) were given to determine his reading level. Assessments in the beginning of the school year, showed that Student 1 was reading on a first grade level. In March, Student 2 had progressed to reading on a second grade level.

Student 2's present level of performance in his IEP indicated that he had difficulty completing classwork. Student 2 was described as being "selective" in the classwork that he would complete; when assignments were completed, they were not usually done so with accuracy. Student 2's IEP team reported that he would leave the classroom or building, become physically aggressive, throw materials, discuss inappropriate topics of a "sexual nature," and make negative remarks. The IEP also identified many of these maladaptive behaviors as being avoidance behaviors; Student 2 would engage such behaviors as an attempt to avoid classwork.

The present level of performance in Student 2's IEP also included an informal student interview. Student 2 identified his personal strengths as being helpful, athletic, and able to build things. Student 2 reported needing improvement in his ability to follow directions and manage his anger. Student 2 aspires to be a professional football player

when he grows up and had a desire to travel to New York to climb to the torch of the Statue of Liberty and to visit his friends.

Student 2's IEP included behavioral and academic goals. The behavioral goals in his IEP included: improving his ability to follow directions when given the first time, working quietly, obtaining teacher permission before speaking, remaining in his assigned area, and keeping his hands and feet to himself in an effort to have no incidents of physical aggression toward others. Student 2's goals in the area of English included reading and writing goals. Reading goals included decoding and spelling words with long vowel sounds, reading and answering comprehension questions on a fourth grade level, using appropriate punctuation when writing, and responding to a writing prompt by writing a one or two paragraph response. Student 2 was present for 28.57% of baseline sessions, 66.67% of post-training sessions, and was not present for the maintenance session.

Student 3. Student 3 was an 11 year, 5 month old female who was in the fourth grade. Student 3 was identified as a student with ED and student records revealed that she was identified with a mood disorder in 2009 at a private psychiatric practice. Historical data from Student 3's initial evaluation for special education services (2010) indicated that her cognitive ability fell within the average to high-average ranges on all subtests of the Wechsler Intelligence Scale for Children, Fourth Edition (WISC-IV). Student 3's Full Scale IQ fell within the average range (IQ=109). Results from the Wechsler Individual Achievement Test, Third Edition (WIAT-III) revealed that Student 3's overall reading achievement fell within the average range, with a "Total Reading composite score of 89." It was reported that there was a significant discrepancy between

her reading ability and her reading achievement. During fourth grade, Student 3 earned grades of a D+, C-, and C for the first, second, and third marking periods in the area of reading and responding to literature. Specifically, Student 3's report card indicated a need for improvement in reading and comprehending fiction and non-fiction texts. Student 3's report card also showed that she attended school regularly.

Student 3 was given a variety of assessments (e.g., QSI, Brigance Inventory of Basic Skills) in the beginning of the school which revealed a difficulty completing reading tasks at the fifth grade level. Results of the Benchmark Assessment System 2 indicated that Student 3 began the school year (September) reading at the second grade level. The midyear assessment given in February indicated that Student 3 had not made any progress in the area of reading and was still reading at the second grade level.

The present level of performance in Student 3's most recent IEP indicated that Student 3 frequently requires redirection in order to complete her classwork. Student 3's behaviors were described as being disruptive to others and included humming, shaking desks, talking out, and making negative comments to others. Student 3 has a difficult time ignoring her classmates and frequently encourages other students to engage in inappropriate behavior. The IEP team agreed that Student 3's behavior negatively impacted her ability to make academic progress. Self-report data indicated that Student 3 enjoys reading.

Student 3's IEP included academic and behavioral goals. In the area of language arts, Student 3's goals included: decoding multisyllabic, compound, and hyphenated words and reading and comprehending grade level text. Behavioral goals included following directions, working quietly during class, and raising her hand for permission to

speak. Student 3 was present for 90% of baseline sessions, 100% of post-training sessions, and the maintenance session.

Student 4. Student 4 was an 11 year, 2 month old male currently receiving instruction in the fourth grade classroom. He transferred to the current school in the middle of the year was receiving services as a student identified with an emotional disability (ED). Historical data in Student 4's school records indicate that he was most recently evaluated in 2012 using the Reynolds Intellectual Assessment Scale (intelligence measure) and the WIAT-III (achievement measure). Results indicated that his overall intelligence was in the average range (SS=109). Achievement tests results indicated that Student 4 was performing in the average range in both word reading and comprehension. A discrepancy was not reported. It was noted that the results from these measures may be limited due to Student 4's behavior. Specifically, Student 4 demonstrated limited attention and impulse control during testing. Progress report data revealed that Student 4 needed improvement in the areas of participating in class, cooperating, and asking for help when needed.

Student 4's progress report data revealed that he was making satisfactory progress in the area of reading. According to Student 4's most current IEP Student 4 was given various assessments in the beginning of the year (e.g., QSI, PALS) which indicated that he was performing at the fifth grade level in the area of reading. However, according to the school literacy program data, he was reading below grade level.

The present level of performance in Student 4's IEP confirmed his difficulty with impulse control. Student 4's maladaptive behaviors included cursing, yelling, arguing, hitting his desk, and attempting to leave the classroom. Student 4's IEP team reported

that he has a difficult time entering the classroom appropriately and following directions and that he frequently requires redirection. Although his teachers reported that he has a difficult time interacting appropriately with his peers, Student 4 reportedly enjoyed engaging with his peers and playing basketball. Student 4 hoped to attend a state university and become an engineer.

Student 4's IEP included behavioral and academic goals. Behavioral goals included following directions, keeping his hands and feet to himself, obtaining permission to speak, and working quietly. In the area of language arts, Student 4's only had one reading goal, which was focused on decoding and spelling multisyllabic words. Student 4 was present for 100% of baseline sessions, 87.5% of post-training sessions, and the maintenance session.

Setting

This study was conducted in an alternative education setting for students with ED, in a public elementary school in the mid-Atlantic region of the United States. The alternative education program was housed in a separate wing of a public day school in the local school division. Overall, the student body of the school division was comprised of approximately 52% Caucasian, 24% African American, and 9% Hispanic/Latino students, with approximately 10% of students identified as having a disability.

The alternative educational program was specifically designed to provide services to students with ED (Hobbs, 1983). In a few cases, students with autism or a developmental disability were enrolled in the program. The program was designed according to the "reeducation of emotionally disturbed children" (Re-ED; Hobbs, 1966, p. 1105) model and was put in place to provide an educational setting for students who

are unable to function in inclusive or self-contained classrooms in their neighborhood school. Students are typically referred to the program for severe behavioral challenges, which often included verbal and physical aggression toward classmates and adults.

Each classroom was staffed with at least two adults at all times, with the only exception being if an adult had to remove a student due to a behavioral outburst or non-compliance. In both classrooms, reading instruction took place at a kidney shaped or circular table in the middle of the room. While small group reading instruction was occurring, other students in the classroom were engaged in independent assignments or were working on the computer. For Teacher 1, three students participated in the small group reading instruction; however, only two were participants in the study. For Teacher 2, two students participated in the small group reading instruction and both were participants in the study. The researcher sat at a small desk or another table in order to collect data and video record each session.

Research Design

This study employed a multiple baseline design across groups in order to evaluate the effectiveness of the intervention on teachers' use of BSP, academic engaged time, and reading fluency. As previously described, each group consisted of one teacher participant and at least one student participant.

A multiple baseline design introduces an independent variable in a successive sequence across participants in similar environments or contexts who also have similar academic or behavioral needs and should be used when teaching skills or behaviors that are not reversible, such as academic skills (Gast, 2010). Given that the intervention in this study targeted skill acquisition for both the teachers and the students, a multiple

baseline design is most appropriate. Specifically, this study employed an A-B design with one maintenance probe following the conclusion of the intervention. Due to end of the year statewide assessments and scheduling conflicts, generalization probes were not able to be collected. Due to the fact that a change in teacher behavior was the primary dependent variable, research decisions were based on teacher performance rather than student behavior.

Independent Variable. The independent variable in this study was a teacher-training intervention that specifically provided teacher training on the use of BSP. The intervention was adapted from the BSP module in the *Best In CLASS* (BIC) manual (see Appendix C; M.A. Conroy, personal communication, February 5, 2013; Vo, Sutherland, & Conroy, 2007).

Dependent Variables. Data on dependent measures were collected on both teacher and student participants. For teacher participants, the dependent measure was the frequency of use of BSP that was directed toward a desirable student behavior (e.g., accurately reading a sight word, keeping hands to oneself). A correct BSP statement was operationally defined as: positive declarative statements specifically directed to the target child that describes the child's behavior" (Fullerton et al., 2009, p. 121) that were issued immediately following the target student's target behavior, such as "Good job reading the word 'me'" (academic reading) and "Nice job keeping your eyes on the teacher" (behavioral).

The dependent measure for student participants was AET (i.e., time on task), which was operationally defined as: a student appropriately using materials, interacting with the teacher or other students, participating in instruction, reading when prompted

and verbally responding when appropriate (Scheuermann & Hall, 2012). A broad operational definition was used in order to account for the variance in the topography of on-task and off-task behavior for each participant. During transitional time, students were considered to be on-task if they were waiting appropriately for directions from an adult or for the next task to begin. Appropriate transitional behavior was defined by the classroom transition rules.

Procedure

Baseline. During the baseline phase, students participated in their usual reading instruction without any novel instructional or behavioral changes, using the reading series that was prescribed by the local school district. During baseline, the teacher employed any behavior management strategies or individualized accommodations that were in place.

Training. As suggested by Myers et al. (2011), a tiered approach to teacher training was designed for this study. During Tier 1, teachers were simply trained in the use of BSP. Training lasted for approximately one hour and was conducted on the last day of baseline for each teacher. The teacher met with the primary researcher for a one-on-one training session. For Teacher 1, training was conducted afterschool in an empty classroom, which appeared to be the art room. For Teacher 2, training was conducted afterschool in a conference room. In order to control for fidelity of training, a script (see Appendix D) was used to teach the BSP module that was modified from the BIC manual. Additionally, this training added a component on delivering BSP statements specifically targeted at an improvement in reading skills (e.g., "Great job reading the word 'said.'"). As part of the training, the teachers had the opportunity to identify BSP statements,

identify non-examples of BSP statements, and write BSP statements using a practice sheet (see Appendix D). Then, teacher viewed a 2 minute clip of a baseline session (Fullerton et al., 2009) in order to identify his or her use of BSP and or identify opportunities that BSP could have been provided. Training lasted for approximately one hour.

Following the teacher training session, the teacher was given a brief assessment of BSP statements (see Appendix E), with a criterion of 90% accuracy or better in order to proceed without further training. Participants were given examples of praise statements (Kalis et al., 2007) and were asked to identify which statements were examples of BSP. In addition, teachers were asked to generate two examples of BSP that may be used during their reading instruction, one of which specifically addressed reading improvement.

At the end of the teacher training, the teacher was provided with a BSP cue sheet (see Appendix F) which was a list of ten BSP statements, (Fullerton et al., 2009) and a modified version of the BIC BSP self-reflection form (see Appendix G). The researcher explained how each tool could be incorporated into the daily instructional practices, but teachers were given the instructional freedom to use or not use each tool. The researcher also suggested that teachers add cues to the scripted lesson to serve as a prompt to make a BSP statement. Teachers were asked to complete the reflection on a daily basis during the intervention phase, and to turn in all self-reflection forms at the end of the intervention. However, teachers were not prompted to complete the self-reflection forms unless there was a consistent contra-therapeutic trend in their use of BSP. At the end of the training-session, teacher participants will be asked to withhold from discussing the

purpose of the training with their colleagues. Given that research suggests that some teachers may be able to increase their use of BSP without further coaching (Fullerton et al., 2009), coaching and feedback were not used in Tier 1. Teachers who remained in Tier 1 received written feedback via email on the final day of the post-training data collection phase. This feedback thanked the teacher for participation and briefly described the difference in the teacher's use of BSP during baseline and after the intervention.

As is typical in an RtI approach, tiers two and three were reserved for teachers who did not respond to the Tier 1 training. Tier 2 was reserved for any teacher who did not show an immediate increase in use of BSP or who began to show a contra-therapeutic trend for more than three consecutive data points. Tier 2 was defined as a re-teaching session on the use of BSP and the mandatory use of the BSP cue sheet and self-reflection form. In other words, teachers would not have the instructional freedom to choose whether or not to use the supplemental materials. Tier 3 was reserved for teachers that did not show an immediate increase after receiving the Tier 2 intervention, or if a contra-therapeutic trend occurred for more than three consecutive data points. Tier 3 included another re-teaching session, along with daily written feedback following each intervention session. It should be noted that neither Tier 2 nor Tier 3 interventions were needed for either teacher participant.

Post-training. Following the teacher training session, teachers continued to conduct small-group reading instruction without any additional interventions or curricular modifications. Data were collected on teacher and student measures during this phase.

Maintenance. One maintenance probe was collected for each group of participants. Inconsistencies in the amount of time in between the final intervention and the maintenance phases occurred as a result of the end of the year standardized testing schedule. For Teacher 1, maintenance occurred approximately two weeks following the final post-training observation. For Teacher 2, maintenance occurred approximately 5 weeks after the final post-training observation session. Additionally, the end of the year schedule made it difficult to collect more than one maintenance probe for each group.

Materials

In order to successfully implement this study, several materials were necessary. For the teacher training component of the intervention, the BSP training script and associated materials were used. Materials included the Microsoft PowerPoint© presentation (see Appendix H), BSP self-reflection sheet, BSP cue sheet, the BSP assessment and baseline videos. The training presentation and baseline videos were presented using a MacBook Pro® laptop computer. Materials needed for data collection in all phases included an iPad®, the ABC Data Pro© application, and data recording sheets (see Appendix I). A video recording device was also used.

Data Collection Procedures and Analysis

The primary researcher collected data for all dependent measures across all phases. Data were collected using both real-time data collection as well as using video recording. Teacher use of BSP statements was recorded during each session but student behaviors were recorded after each session using the video recordings.

As suggested by Fullerton et al. (2009), the frequency of BSP statements was converted to rate data by dividing the total number of BSP statements by the total number

of minutes per instructional session. Sessions were rounded to the nearest whole minute in order to compute rate. Teacher rate of BSP was analyzed based on their overall use of BSP per instructional session (i.e., BSP for target students, non-target students, and the group overall). This method is supported by the findings of Alday and colleagues (2012); as discussed in the previous chapter, a teacher's increase in overall use of BSP (i.e., not necessarily directed toward the target student) led to an improvement in student behavior. Data were collected in order to compare teachers' use of BSP across phases. As previously defined, AET data were collected using 5-second, full interval recording (Cooper, Heron, & Heward, 2007).

Due to the fact that off-task behavior of students is clearly discernible, off-task behavior was recorded for each student. Off-task behavior is functionally opposite and incompatible with the dependent variable for students. Therefore, if at any point during the observation a student was observed as not being engaged, the researcher recorded that behavior using the "off-task" button on the data collection instrument. Any 5-second interval that included an "off-task" code was not counted as an interval during which students were engaged in the task at hand. Raw data were computed using the online analysis tools provided with the application (www.cbtaonline.com/analysistools). Data were copied into the Session Analysis tool and the number of intervals recorded as having off-task behavior was subtracted from the total number intervals. The remaining intervals were divided by the total number of intervals in order to compute a percentage of AET for each student.

Data were analyzed and graphed using Microsoft Excel©. Visual analysis of data was conducted according to the procedures outlined by Gast (2010) and included an

analysis of the critical components of single-subject data: variability, level and trend (Cooper, et al., 2007). Specifically, trend analysis focused on calculating the percentage of data exceeding the median (PEM; Parker, Vannest, & Davis, 2011). In an article comparing nonoverlap methods of data analysis, Parker and colleagues (2011) suggested that using such techniques may provide easier visual interpretation and may be easier to use because they do require "parametric assumptions" (p. 304). When there is no trend identified in the baseline condition, the PEM is considered to be "identical" to the extended celebration line (ECL) method of analysis (Parker et al., 2011, p.310). Recently, Woolery, Busick, Reichow, and Barton (2010) referred to the ECL as the percentage of data exceeding a median trend (PEM-T). When compared to other methods of data analysis, PEM-T and PEM had the lowest percentage of error (i.e., 16.5% and 13.2% respectively; Woolery et al., 2010). Given that PEM-T is synonymous with ECL, and PEM and ECL are equal when there is no trend in baseline data, the PEM method of data analysis was appropriate and legitimate for analyzing teacher use of BSP statements. Mean rates of BSP, non-specific praise, and reprimands were reported descriptively (Alday et al., 2010). Academic engaged time for students was analyzed using the ECL technique.

Interobserver reliability. Interobserver agreement (IOA) data were collected by a graduate student in special education for 36.36% of all observation sessions for and was collected using the video recordings of each session. Sessions were randomly selected to represent each condition using a web-based random number generator (www.random.org). For teacher use of BSP, total count IOA was calculated by dividing the small count of BSP by the larger count of BSP and multiplying by 100 for each

session (Cooper et al., 2007). The percentage of IOA across observations was averaged for each teacher, and the average IOA for each teacher was averaged to calculate the overall IOA for teacher use of BSP.

Reliability was also measured for student AET by calculating interval-by-interval IOA (Cooper et al., 2007). Using this method, intervals were scored for agreement on both the occurrence and non-occurrence of off-task behavior. The total number of agreements was divided by the total number of observation sessions and was then multiplied by 100. The percentage of IOA across observations was averaged for each student, and the average IOA for each student was averaged to calculate the overall IOA for AET.

Procedural fidelity. Procedural fidelity was checked for both training sessions (Gast, 2005). Procedural fidelity was assessed by a doctoral student in special education using a checklist created by the primary researcher (see Appendix J). Procedural fidelity scores of 85% or higher indicated that the intervention was executed with fidelity. Given that there were not any changes to the classroom instruction and that classroom instruction was based on a scripted lesson provided in the Leveled Literacy Instruction (LLI) curriculum, procedural fidelity ratings were not needed during the post-training phase.

Chapter Summary

This chapter provided an overview of the research design, methods, and procedures that were used to explore the effectiveness of a teacher training intervention on teachers' use of BSP with students with ED and the associated student outcomes. In addition, this chapter provided a description of the data analysis procedures that were used to evaluate the effectiveness of the intervention. Results of the data analysis will be discussed in the following chapter.

CHAPTER 4

RESULTS

Chapter Overview

The purpose of this chapter is to present the results of the implementation of the independent variable on the dependent outcomes in this study. Specifically, the purpose of this research was to examine the effects of a teacher training intervention on teachers' use of behavior specific praise (BSP) and the associated student outcomes. This chapter includes the results of the interobserver agreement (IOA) and procedural fidelity ratings, a visual analysis of teacher and student data, and an overview of the social validity outcome measures. Interpretations of the data will be discussed in the following chapter.

Interobserver Agreement

Total count interobserver agreement (IOA; Cooper et al., 2007) was calculated for 36.36% of the total observation sessions. For Teacher 1, IOA was collected for 28.57% of baseline sessions, 33.33% of intervention sessions, and for the single maintenance data point, for an overall IOA of 35.71%. For Teacher 2, IOA was collected for 30% of baseline sessions, 42.86% of intervention sessions, and for the single maintenance data point, for an overall IOA of 36.84%. Overall, IOA for teacher use of BSP was 92.12% (range 66.67-100%). For Teacher 1, IOA for teacher use of BSP was 92.56% and for Teacher 2, IOA for teacher use of BSP 91.67%.

Interval-by-interval IOA was calculated for an average of 37.53% of student observations; the total agreements on both the occurrence and non-occurrence of off-task behavior were averaged for each session. Across students, there was an average IOA of 87.58% (range 71.13-96.22%). For Student 1, IOA was calculated for a total of 38.46% of the attended sessions with 80.62% reliability for academic engaged time (AET). For

Student 2, IOA was calculated across 37.5% of the attended sessions with 86.75% agreement. For Student 3, IOA was calculated for 35.29% of the attended sessions with an IOA rating of 92.95%. Finally, for Student 4, IOA was calculated across 38.89% of the attended sessions with 90% agreement.

Procedural Fidelity

Procedural fidelity checks were conducted for all teacher training intervention sessions. Each training session was recorded using a handheld video camera and a copy of each video was given to the doctoral student on a portable flash drive device. For both training sessions, the graduate student rated that the researcher conducted the training intervention with 100% procedural fidelity.

Teacher Use of Behavior Specific Praise

Teacher use of BSP was analyzed using procedures outlined in the previous chapter. The researcher did not note a consistent use of the BSP cue-sheet; however, teachers did make use of the BSP self-evaluation form. The rate of teacher use of BSP statements per each instructional session is presented in Figure 1. A 20% stability envelope was established around median data points (Gast, 2007); for data to be considered stable, a minimum of 80% of the data points must have fallen on or within the stability envelope.

Teacher 1. Visual analysis within each phase was conducted for Teacher 1. Baseline data for Teacher 1 were highly stable with zero trend (Cooper et al., 2007); 100% of the baseline data fell within the established stability envelope. Given that teacher 1 did not use BSP during any baseline sessions, both the mean and median rates of BSP were 0.0. There were no relative or absolute changes in level during baseline for

Teacher1. During the post-training phase, Teacher 1 increased her use of BSP to a mean rate of 0.41, with a median of 0.34 BSP statements per minute. Although teacher use of BSP increased during the post-training phase, the data showed a slight decrease in level during that phase, with a relative change of -0.04 and an absolute change of -0.31. There also was a descending trend in data during the post-training phase. Data were variable in regard to both the level and trend, with 50% of data points falling within the stability envelope for both cases. During the maintenance observation, Teacher 1's use of BSP returned to the baseline rate of 0.0 BSP statements per minute.

In addition to within phase visual analysis, a visual analysis was also conducted across phases for Teacher 1. Immediately following the teacher training, Teacher 1 showed a significant increase in the rate of BSP to 0.77 BSP statements per minute. This indicated an absolute change of 0.77 and a relative change of 0.36. Teacher 1 increased her rate of BSP by a mean change of 0.41, with a median change of 0.34. For Teacher 1, the percentage of non-overlapping data (PND) between baseline and intervention for was 100% .

In addition to visual analysis, percentage of data exceeding the median line (PEM) also was analyzed across phases. During the post-training phase, 100% of data points exceeded the median line in the baseline phase. During maintenance, Teacher 1's rate of BSP returned to the baseline level.

Teacher 2. Visual analysis within each phase was conducted for Teacher 2. Baseline data for Teacher 2 were highly stable with zero trend (Cooper et al., 2007); 100% of the baseline data fell within the established stability envelope. On session four, Teacher 2 had a baseline rate of 0.05 BSP statements per minute; otherwise, Teacher 2

did not demonstrate a use of BSP during baseline. The mean baseline rate of BSP for Teacher 2 was 0.05 and the median baseline rate of BSP was 0.0. There were no relative or absolute changes in level during baseline for Teacher 2. During the post-training phase, Teacher 2 increased her use of BSP to a mean rate of 0.38 with a median of .40 BSP statements per minute. Although teacher use of BSP increased during the post-training phase, the data showed a slight decrease in level during that phase with a relative change of -0.22 and an absolute change of -0.42. There also was a descending trend in data during the post-training phase. Data were variable in regard to both the level and trend, with 38% and 25% of data points falling within the respective stability envelopes. During the maintenance observation, Teacher 2's use of BSP returned to the baseline rate of 0.0 BSP statements per minute.

In addition to within phase visual analysis, a visual analysis also was conducted across phases for Teacher 2. Immediately following the teacher training, Teacher 2 showed a significant increase in the rate of BSP to 0.47 BSP statements per minute. This indicated an absolute change of 0.47 and a relative change of 0.44. Teacher 2 increased her rate of BSP by a mean change of 0.33, with a median change of 0.40. For Teacher 2, the PND was 87.5%.

In addition to visual analysis, percentage of data exceeding the median line (PEM) also was conducted across phases. During the post-training phase, 100% of data points exceeded the median line in the baseline phase. During maintenance, Teacher 2's rate of BSP approximated baseline levels.

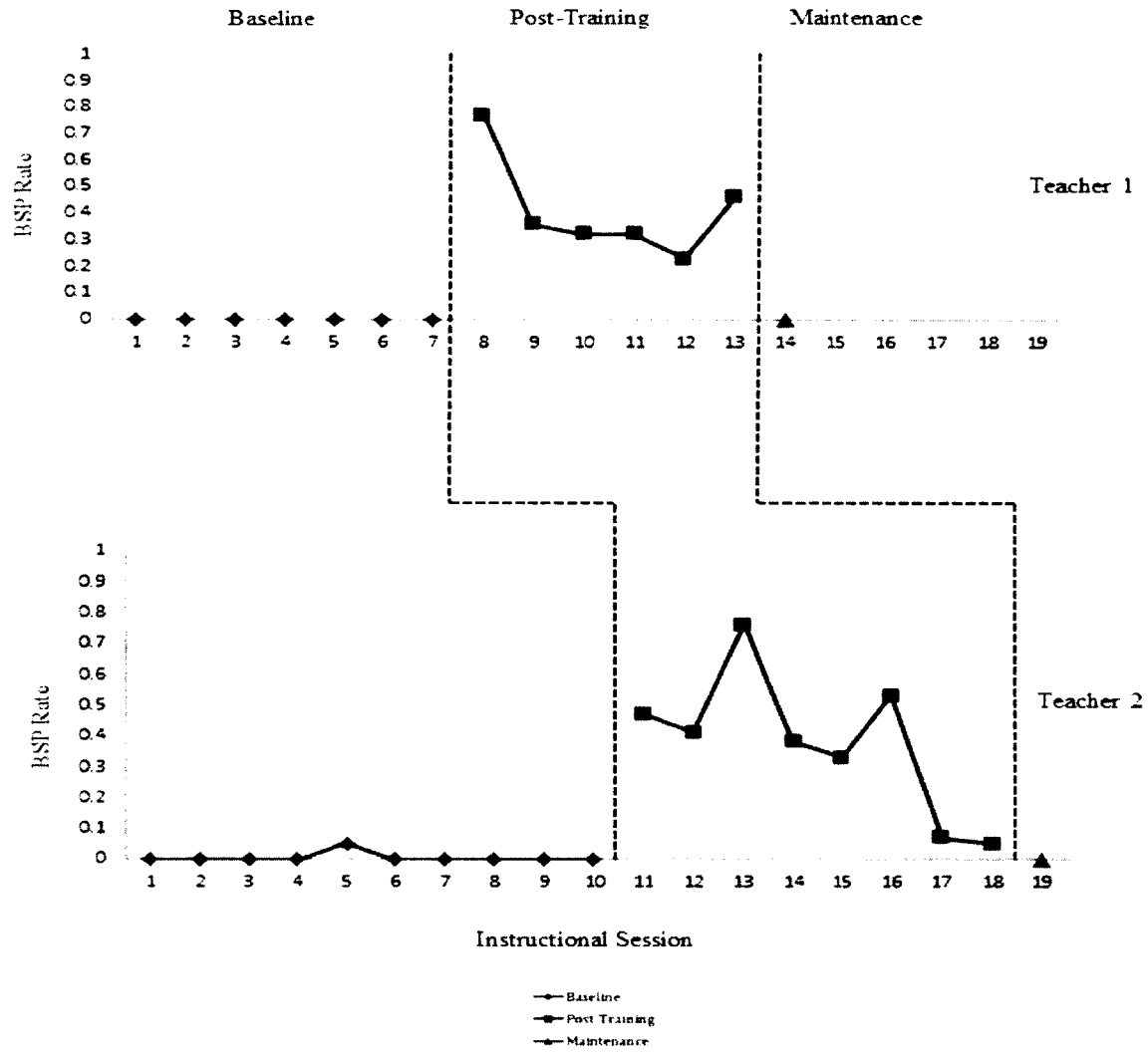

Figure 1

Teacher rate of total use of behavior specific praise statements per instructional session.

Academic Engaged Time

Data for the student outcome measure, AET) were variable. Due to student absences during baseline, instability of behavior during baseline, and/or baseline rates of student behavior that approximated the expected levels of behavior following the intervention (See Figure 2), a detailed visual analysis and a correlational analysis between teacher use of BSP and AET were not conducted. According to Horner and

colleagues (2005), a functional relationship between the independent and dependent variables cannot be determined without a stable trend during the baseline phase. However, mean rates of AET were calculated for the baseline and post-training phases (Alday et al., 2012) and are presented in Table 2.

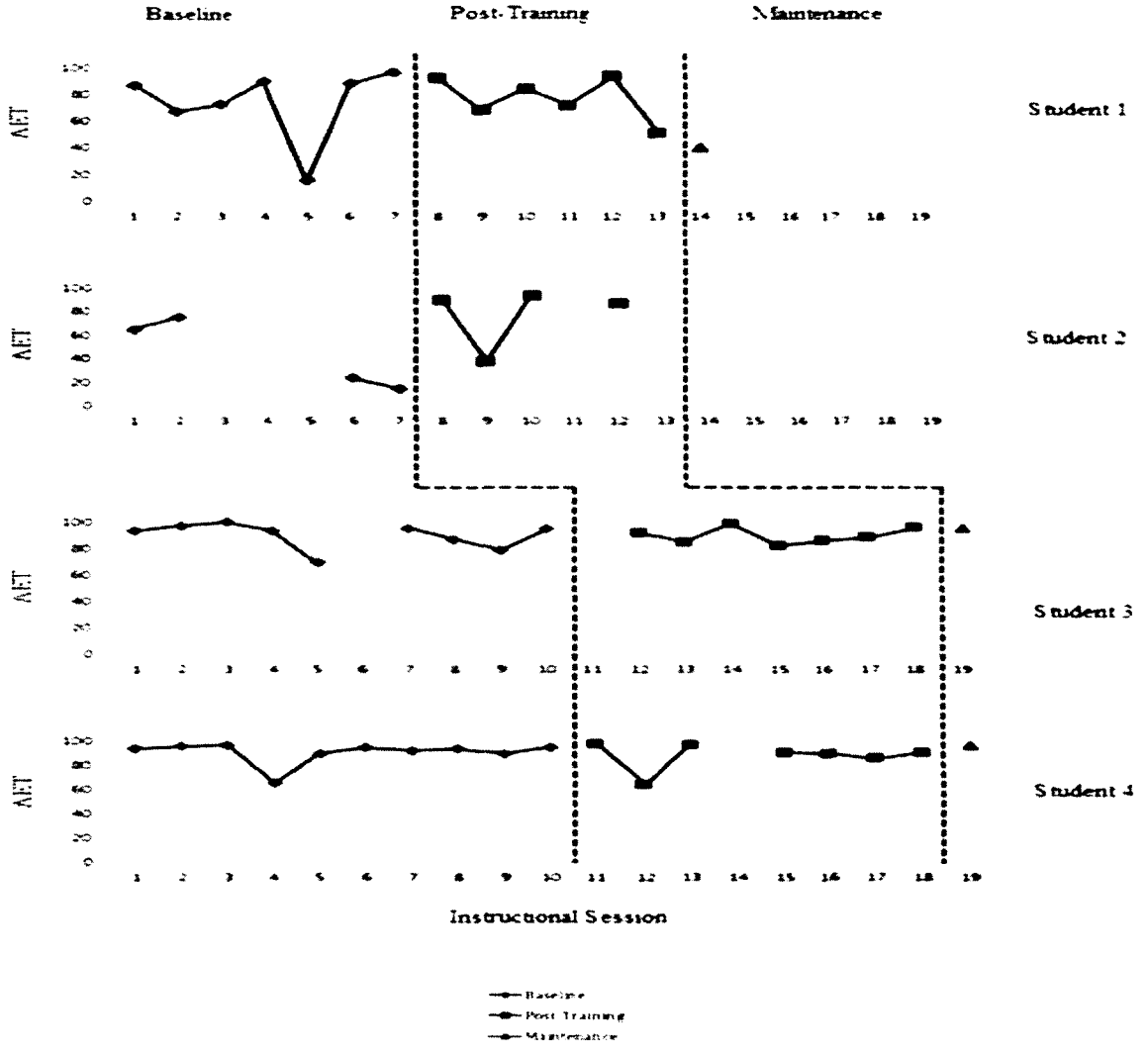

Figure 2

Percent of academic engaged time of student participants.

Table 2

Mean percentage of AET across conditions.

Student	Baseline	Post-training	Maintenance
Student 1	74.17	77.74	41.03
Student 2	44.57	77.55	n/a
Student 3	90	89.73	95.77
Student 4	90.75	87.98	96.83

Chapter Summary

This chapter presented the results of the data analysis in order to investigate the effect of a tiered-teacher training intervention on teachers' use of BSP and the associated student outcomes. A visual analysis was conducted in order to examine the effect of the training intervention on teacher use of BSP, however student engagement data were variable. Interpretations of the data analysis are presented in the following chapter.

CHAPTER 5

DISCUSSION

Chapter Overview

The purpose of this chapter is to provide an interpretation of the results discussed in the previous chapter. First, the results will be interpreted within the context of the research questions and comparisons will be made to the existing body of research in this field. Second, limitations of this study will be acknowledged. Third, implications of the research findings and recommendations for future research will be addressed. Finally, the overall conclusions of this study will be presented.

Summary of Findings

This study was designed to investigate the effectiveness of a tiered approach to teacher training on elementary teachers' use of behavior specific praise (BSP) with students with an emotional disability (ED) in an alternative setting. The research was guided by a broad question: What is the effect of BSP on the performance of students with ED during small group reading instruction? Specifically, the following research questions were examined:

1. Does a brief, tiered teacher training intervention increase teachers' use of BSP for students with ED during reading instruction?
2. Does an increase in teachers' use of BSP impact the level of academic engaged time (AET) for elementary students with ED during small group reading instruction?
3. Do teachers maintain their use of BSP after the intervention is complete?

The results of this study will be summarized for each research question respectively.

Teacher Praise. It was hypothesized that a tiered approach to training teachers in the use of BSP would be effective in increasing teachers' use of this strategy. It also was hypothesized that teachers would maintain an increased use of BSP following daily observation sessions. The results of this study are consistent with findings of the related literature that various teacher-training interventions are effective in increasing teachers' use of BSP. For both teachers, 100% of the data in the post-training phase exceeded the median line of the baseline phase. Similarly, for both teachers, improvement of BSP approximated levels of BSP as seen in previous interventions. Teacher 1 improved her rate of BSP from a mean of 0.0 BSP statements per minute during baseline to a mean rate of 0.41 following training; teacher 2 improved her baseline rate of 0.0 BSP statements per minute to a post-training, mean rate of 0.38. These rates approximated the range of teacher rate of BSP reported by Alday et al. (2012) and Fullerton et al. (2009). Both teachers returned to a baseline rate of 0.0 BSP statements per minute during the maintenance phase. However, maintenance data should be interpreted with caution: only one maintenance data point was collected for each teacher and there were inconsistencies in the amount of time between the final post-training observation and maintenance sessions. It should be noted that while a lack of maintenance data points is not ideal, it is not uncommon for school-year schedules to conflict with the original plan to collect data and prevent the collection of maintenance data (Alday et al., 2012; Rathel et al., 2008).

The findings of the present study indicate that a brief teacher training intervention that does not include any further supports may be effective for some teachers. Neither teacher in this study demonstrated the criteria set forth to receive additional tier-2 or tier-3 interventions. Therefore, the findings of this study support previous findings that some

teachers can improve their use of BSP without further coaching (Fullerton et al., 2009). However, it is likely that the teachers may have been able to further increase their use of BSP had additional feedback been provided (Hawkins & Heflin, 2011; Rathel et al., 2008; Sutherland et al., 2000). It is important to point out that, since neither teacher received Tier 2 or Tier 3 interventions, this study is not able to support the notion that a tiered approach to teacher training is effective in increasing teachers' use of BSP; the intervention was not tiered because neither teacher met the criterion of receiving further intervention. This study may have been improved by reconsidering the criterion to implement Tier 2 or Tier 3 interventions. For example, teachers may have received more intensive interventions in order to increase their rate of BSP to a pre-determined criterion.

Student Engagement. It was hypothesized that an increase in teacher use of BSP would be functionally related to improvement in student engagement. Due to instability in baseline data for academic engaged time (AET) for students, a functional relationship was not determined. However, there were increases in AET seen for Student 1 and Student 2. It is likely that the instability of student data was due to the extreme range of behavior typical of students with ED, as well as the structure of the small group reading instruction. During various observations of the students in Teacher 1's class, students were tasked with independent activities while the teacher administered running record assessments to another student in the group. Student 2 frequently left the group during baseline instruction or did not attend the group at all. However, it should be noted that similar to the findings of Kennedy and Jolivette (2008), Student 2 did increased the amount of time that he remained in the classroom. During baseline, Student 2 was present for approximately 57% of observation sessions. Following the teacher training

intervention, student 2 was present for approximately 67% of observation sessions. However, due to Student 2's low attendance during baseline, it is not possible to determine if there was a functional relationship between his attendance and teacher use of BSP.

While mean rates of engagement were calculated, the data were wholly inconclusive and should be interpreted with caution. Rates of AET were calculated by observing the functionally incompatible demonstration of off-task behavior. As set forth by the operational definition and data collection procedures, time in which students were transitioning or waiting for instruction were not coded as off-task behaviors. Therefore, it is likely that the mean rates of AET may be overestimates of the actual time spent on task for the student participants. This study should be replicated in order to distinguish between AET, time off-task, and time spent in transition for students with ED during small group reading instruction.

These findings are both inconsistent and consistent with previous research. Some previous studies reported an increase in student engagement (e.g., Alday et al., 2012; Fullerton et al., 2009; Sutherland et al., 2000); whereas other studies did not report student outcome measures at all (e.g., Burke et al., 2012; Hawkins & Heflin, 2011; Kalis et al., 2007). While the inconclusive nature of the student outcome measures in this study is less than ideal, the omission of student outcome variables as related to teacher use of BSP is representative of what was reported in the review of the literature. It is likely that student outcome measures were not able to be obtained, or were inconclusive, and therefore may not have been published in many articles.

Controlling for Threats to Validity

Internal validity. Various measures were taken in order to control for threats to internal validity in this study. First, data collection methods were consistent for all phases. The primary researcher was present during baseline and intervention phases and the video recording device was used for all sessions in order to control for the Hawthorne effect (Leedy & Ormond, 2010). Due to unexpected and uncontrollable circumstances, the primary researcher was required to leave town during the second and third intervention sessions for Teacher 2. A graduate student in education attended those sessions and used the same video recording device to record the respective sessions and recorded teacher use of BSP during the observation session. However, in order to control for threats to instrumentation, the primary researcher re-coded teacher use of BSP using the video recordings; the primary researcher's data was used to report teacher use of BSP during those two sessions. Threats to internal validity due to history and maturation were greatly reduced by the brief nature of this study (Gast, 2005).

External validity. As is inherent in single subject research design, the external validity of this study was greatly limited due to the limited number of participants (Horner et al., 2005). In order to enhance the generalizability of this study and attempt to control for threats to external validity, this study was designed so that it would be replicated across three groups of participants. However, due to aforementioned issues with attrition and participant selection, replication only occurred across two groups of participants. Although generalizability to other individuals is limited, the ecological validity of this study is enhanced due to the fact that the intervention was conducted in an

applied classroom setting during the regularly scheduled reading instruction rather than during an alternative instructional session (e.g., afterschool tutoring session).

Limitations

As occurs in most research, especially research conducted in applied settings (Gast, 2010), several limitations of this study should be acknowledged and addressed. Conducting research in an alternative public school setting for students with ED posed myriad challenges, which ultimately served as limitations to the design, results, and internal and external validity of this study. Gast (2010) identified several pragmatic issues that are common when conducting research in an applied setting and that are often beyond the control of the primary researcher. An overview of the challenges associated with conducting a study in an applied setting will be provided. Additionally, the pragmatic issues of conducting this study in an applied setting for students with ED will be discussed within the context of the quality indicators of single-subject research (Horner et al., 2005).

Pragmatic Challenges of Applied Research. As previously discussed, a significant problem in the field of special education is that there is a longstanding gap between research and practice (Burns & Ysseldyke, 2009; Fitzpatrick & Knowlton, 2009; Gable et al., 2012; Maggin et al., 2010). The challenges in conducting this study in an applied setting support the notion that the research to practice gap may be the result of a reciprocal incompatibility between the standards for identifying high quality research and the realities of what occurs in practice. In other words, it has been suggested that the nature of research may not be compatible with the demands involved in instructional decision making (Cook & Cook, 2004). It is plausible that the policies that govern

applied settings and the complexities of routines and behaviors that occur in classrooms may be incompatible with the nature of research.

The challenges associated with conducting this study in an applied setting began well before the research was initiated. One of the biggest issues of conducting this research was access. In order to conduct this study in an applied setting, the first task was to gain access to a school division that would allow the study to be conducted. In an era in which student performance on state accountability measures guides instructional planning and decision making, pressure is on administrators and teachers to ensure that instructional time is fully maximized. Therefore, school divisions may be hesitant to deviate from the curriculum that has been established to teach the statewide standards. It was the experience of the researcher in this study that conducting research in an applied setting seemed to be viewed as an interruption to the existing pacing guide rather than as a way to improve instruction and student outcomes. As a result, selecting a location in which to conduct this study was guided by convenience rather than by methodologically sound sampling procedures.

Upon obtaining permission from the school division to conduct research, the next obstacle was obtaining permission for the specific goals and procedures of this study. Given that the school division in this study required division approval of the research in addition to approval from the Institutional Review Board (IRB), the primary researcher met with the school principal, reading specialist, and a division representative in order to discuss the primary goals of the research and to gain an understanding of the type of intervention that would be acceptable. The processes of gaining access and approval of the research study were time consuming and were further exacerbated by inclement

weather that caused the school division to be closed for several days. As a result, there were a limited number of instructional days available for this study before the school year ended.

The original goal of this study was to extend the current literature related to effect of BSP on student outcomes beyond student engagement. That is, the intent was to measure student reading performance based on fluency data through running records. While the school division agreed that this would be an important outcome to measure, the division was in its second year of implementation of a new reading curriculum and was collecting data related to its effectiveness. Therefore, in an effort to minimize confounds to the division's data, it was stipulated that the intervention and data collection procedures used in this study would not alter the existing reading curriculum that was in place. In order to respect the wishes of the participating school division, a decision was made to rely on the fluency data that was collected as part of the reading curriculum. However, this decision led to a major complication that ultimately prevented reading achievement from being examined in this study: The reading fluency data that were collected by the division was not sufficient for analysis in this study due to a limited number of running records conducted. As a result, the findings of this study are limited to teacher behavior and student engagement and do not include results related to student achievement. While the inclusion of reading achievement outcomes as they are related to teacher use of BSP would have enhanced this study and offered a contribution to the field, the student outcome measures explored in this study parallel the student outcomes included in current, peer-reviewed literature (Alday et al., 2012; Fullerton et al., 2009; Mesa et al., 2006; Sutherland et al., 2000).

The number of teacher and student participants available to participate in this study was severely limited by the under-identification of students with ED and nature of the school division and school that approved this study. As previously described, the prevalence rate of students identified with ED is alarmingly low: as many as 80% of students estimated to have ED remain unidentified (Kauffman et al., 2007). Understanding that students with ED represent a small subgroup of students in special education (i.e., 7.3% of students identified under IDEA; Congress, 2009) it is not surprising that the number of students with ED placed in an alternative setting is even smaller. Slightly less than 19% of the students identified as having ED under IDEA are educated in an environment other than their neighborhood school (e.g., a separate school, residential or correctional facility, private school, homebound or hospital environment).

More specifically, the setting for this study consisted of four classrooms. Due to the aforementioned legal issues, only three of the four classrooms were approved for study, and only five students were eligible to participate based on the inclusionary criteria, instructional schedules, and need to obtain informed parental consent. Therefore, three teachers and five students were selected for participation. However, during baseline data collection of the third teacher-student participant group, the student's parent withdrew him from the study and the administrator discontinued research in that class.

Once research began, numerous obstacles were encountered during data collection in both baseline and intervention phases. Again, decisions related to beginning baseline data collection in the second participant and ending data collection following the training sessions for teachers were guided in large part by teacher schedules, administrative approval for beginning research in a classroom, and end of the year standardized testing

schedules. The confounding limitations of conducting this study in an applied, alternative setting for students with ED led to several limitations in this research.

Dependent Variable for Students. Although the measure of student engagement, or lack thereof, is common in the accumulated literature on BSP (e.g., Alday et al., 2012; Fullerton et al., 2009; Rathel et al., 2008; Sutherland & Wehby, 2001), there were significant limitations to the measurement of the dependent variable used for students in this study. Measuring the academic engagement of students with ED is socially significant and contains the key areas identified for improving academic outcomes for this population (Landrum et al., 2003). Although students in this study were identified by the school reading specialist as having consistently low levels of engagement, data were variable and indicated otherwise for the students in the second intervention group. However, due to the restrictive sample and the parameters set forth by the school division, it was not feasible to select alternate participants or outcome measures. This study would have likely been improved by conducting a functional assessment in order to identify students who demonstrated low, stable levels of engagement and who were likely to respond to teacher attention (Liaupsin, Umbreit, Ferr, Urso, & Upreti, 2006).

Another limitation to the dependent variable selected for measuring student outcomes was that identifying academic engagement of students proved to be a challenge. Measuring academic engagement of students may have been more accurate if definitions of off-task behavior had been operationally defined for each student. In an attempt to reduce ambiguity and measure the most observable behavior, the functionally incompatible behavior to student engagement (i.e., off-task behavior) was measured in

this study. Even so, precisely identifying whether or not a student with ED is on- or off-task is largely subjective. No matter how precise the operational definition, the decision regarding student behavior is prone to inconsistencies. For example, in one instance, a student may have his head down on the table and may not be participating in a task. In another instance, the same student may have his head down on the table, but when prompted by the teacher, may be able to provide an immediate response. Or, a student may yawn or stretch simply as a natural behavior; however, the behavior does not necessarily impede his or her ability to attend to instruction. Yet, in another instance, a student may engage in a significantly exaggerated yawn or may stretch in a manner that leads to his or her body falling out of the chair or leaning under the instructional table. If a student stays in such a position for an exaggerated period of time, it is likely that the student would be considered to be unengaged. While the function of such behavior cannot be identified with certainty, a researcher or secondary observer may interpret such behavior as attention seeking or avoidance of a task. Measuring student engagement, particularly of students with ED, proved to be a complex task that led to limitations in measuring student outcomes.

Interobserver agreement Horner and colleagues (2005) identify interobserver agreement (IOA) as a quality indicator for the measurement of the dependent variable. The overall IOA for teacher use of BSP (92.04%) indicated a high level of consistency of measurement (Horner et al., 2005). While the IOA for teacher use of praise fell below 80% on three of the randomly selected sessions, this is likely due to the low frequency of behaviors observed. Even so, overall IOA for this dependent variable was acceptable (Cooper et al., 2007).

Due to the challenges associated with measuring student behavior, the use of total count IOA was less stringent than other methods of IOA for interval recording (Cooper et al., 2007). Caution should be exercised when interpreting this IOA data because it is not certain that the dependent variable was accurately and consistently measured (Horner et al., 2005). One possible explanation for the variability in IOA for student engagement is observer drift (Cooper et al., 2007). The instructional sessions of this study lasted approximately 20 minutes on average. Given that the instructional sessions were divided into 5-second intervals, it is highly likely that observer drift occurred. Small intervals were chosen in an attempt to more accurately describe student behavior. Although other studies have used larger intervals (e.g., 10-second intervals; Alday et al., 2012), doing so can lead to over- or under-inflated data (Cooper et al., 2007). Interobserver agreement may have been significantly enhanced if measures of student behavior during instructional session had been conducted over shorter periods of time. For example, five-minute segments from each instructional session could have been randomly selected and coded for student outcome measures. This may have increased the accuracy of measurement and IOA.

Variability in Baseline Data. While teacher behavior was stable in this study, baseline data for students was variable for three out of the four student participants. Thus, based on the premise of baseline logic (Gast, 2010), it was not possible to make comparisons across phases for students regarding a change in behavior before and after the intervention. Although a significant number of baseline data points were observed, student absences and variability of behavior prevented an accurate visual analysis of student behavior. In the event that baseline data approximates the level or trend expected

following the implementation of the independent variable, the ability to interpret the effectiveness of the intervention on a particular outcome measure is limited (Horner et al., 2005). In this study, the decision to implement the independent variable was based on teacher use of BSP, rather than on student engagement. This limitation may have been addressed had a larger student sample been available. Accordingly, the researcher could have conducted pre-baseline data in order to systematically identify students with low and stable rates of engagement.

Social Validity. It was hypothesized that teachers would report the teacher training and their use of BSP to be socially relevant and valuable to their classroom instruction. However, social validity outcome data were not obtained. Due to end of the year testing conflicts and schedule changes, along with significantly limited teacher planning time, teacher interviews could not be conducted in person. As a compromise, questionnaires were administered to teachers via email; however they were not returned. As a result of the school year ending, the researcher was not able to contact teachers in order to examine the perceptions of social validity.

While the inclusion of social validity measures is a quality indicator for single subject research (Horner et al., 2005), lack of social validity measures does not preclude a study related to the use of BSP from publication in a peer-reviewed journal (Burke et al., 2012; Tankersley, Cook, & Cook, 2008). This may be due to the longstanding documented effectiveness of the intervention. Additionally, the requirement of social validity measures in single-subject research has recently been questioned (Tankersley et al., 2008). Tankersley and colleagues questioned whether or not determining the social

validity of an intervention is an obligation of the research community or the responsibility of consumers of research.

Threats to Internal Validity. The limited number of students available to participate and participant attrition in the final intervention group caused a significant threat to the internal validity of this study. As a result, the intervention was only replicated across two groups. While the accumulated peer-reviewed literature on BSP includes studies introduced the independent variable across two conditions (Burke et al., 2012; Kalis et al., 2007; Mesa et al., 2005; Rathel et al., 2008), this is not ideal for single-subject research design. In order to increase internal validity and the demonstration of experimental control in a multiple-baseline design, the intervention should be systematically introduced (i.e., staggered) across a minimum of three conditions (Horner et al., 2005). Due to the fact that this study introduced the intervention across only two teacher-student groups, the results are limited. Although the approach to teacher training used in this study appeared to be promising, examining the effects of the intervention on at least one more teacher would have strengthened results.

Threats to External Validity. As is inherent in single-subject research, external validity is limited by the typically small number of participants included in a study (Horner et al., 2005). In order to increase the external validity of this study, the teacher training intervention should be replicated in other research studies and should include teachers that teach students with ED in inclusive classrooms, self-contained classrooms, and general education teachers as well. One intention of this study was to replicate the findings related to teacher use of BSP and improved student outcomes in order to increase the generalizability of previously published research. However, due to

significant limitations in student outcomes and the small sample size, further investigation is warranted.

Implications and Recommendations for Future Research

Despite an abundance of limitations, the results of this study offer important preliminary implications regarding a novel approach to teacher training in the use of BSP. The results of this study also offer support for three clear, but related, lines of research: teacher training to increase the use of evidence-based practices, specifically, BSP; the effect of BSP on student outcomes; and research that investigates the barriers and facilitators of conducting research in applied settings.

Teacher Training. The results support the notion that a Tier 1 training intervention may be effective for some teachers; however, as previously mentioned, the findings were limited regarding the effectiveness of a tiered approach to teacher training suggested by Myers and colleagues (2011). In the present study, both teachers showed an immediate change in their use of BSP following the brief teacher training intervention. In the future, this model of training should be further explored in order to determine whether or not moving teachers into a second tier of intervention would further increase their use of BSP. In other words, is there a threshold for the amount of teacher praise that is likely to be used and maintained regardless of the intensity and supports of the training intervention? Additionally, future research should investigate the use of Tier 2 and Tier 3 interventions in increasing the sustainability of BSP for students with ED.

It may be that the teachers in this study responded to the intervention because of the training module that was adapted for this study included many of the components that Heath and Heath (2008) (as cited by Cook et al., 2013) suggested are necessary to make

evidence-based practices "stick." First, the intervention was simple (Vo et al., 2012. Not only was the teacher training straightforward, the strategy that was introduced to teachers, but also the use of BSP, was simple and easy to implement. Second, the training included an opportunity for teachers to view their instructional behaviors (Hawkins & Heflin, 2011). This opportunity was unexpected and made the content of the training concrete by allowing teachers to identify instances in which they may have used behavior specific praise in their instruction. Finally, this study sought to appeal to the emotion of teachers by asking them to identify areas of improvement for the target students in their classrooms and develop specific praise statements that could be used for those students. Another valuable line of future research would be to investigate the effectiveness of making EBPs "stick" for teachers of students with ED (Cook et al., 2013). If feedback were given to teachers in regard to their use of an EBP as well as with data that concretely indicates an improvement in student responding, it is likely that the intervention may appear more credible and teachers may be more inclined to trust research.

While the results of this study were promising in regard to teachers' acquisition of BSP, future research is needed in order to investigate methods for improving the maintenance of such an EBP. Given that only one data point was collected for each teacher, it is difficult to draw conclusions regarding teachers' maintenance of BSP. Further research is needed to determine ways to maintain teachers' use of BSP following an intervention.

Student Outcomes. The challenge of obtaining student outcomes related to teacher use of BSP was not unique to this study. As indicated by the review of the

literature, there is limited emphasis on the effect of teacher use of BSP on academic performance. In fact, only one study that was reviewed examined the academic performance of students with ED (Sutherland & Wehby, 2001) and only five examined teacher use of BSP on student behavior (Alday et al., 2012; Fullerton et al., 2009; Kennedy & Jolivette, 2008; Mesa et al., 2005; Sutherland et al., 2000). Accordingly, future research should make certain to distinguish between academic performance and academic behavior. In order to do so, research on teacher use of BSP as a singular intervention must be replicated in order to examine the effect that the strategy has on the academic achievement of students with ED in various subjects, rather than solely on the academic engagement. As suggested by Alday and colleagues (2012), the results of this study underscore the fact that future research should be conducted in order to clearly establish the appropriate rate of BSP, independent of a praise to reprimand ratio, necessary to improve student outcomes.

Research In Practice. , The baseline data of teacher use of BSP is consistent with reports that, despite its long-documented effectiveness (Madsen et al., 1968), it has been grossly underused by teachers of students with ED (Shores & Wehby, 1999). The reason for teachers' underuse of a simple and highly effective strategy, such as BSP, remains an important empirical question. However, it is likely that the one of the reasons for the gap between research to practice is the reciprocal incompatibility between applied research and practice (Cook & Cook, 2004; Cook & Odom, 2013). The limitations described in the present study, along with the results of teacher use of BSP, support the supposition that the challenges associated with bringing "research to practice" may be exacerbated by the inherent difficulties in conducting research "in" practice .

Future research is needed to determine how effective, high-quality research can be conducted in applied settings (Gersten et al., 2000) for students with ED. As seen in the limitations of this study, the challenges of conducting research in an applied setting for students with ED are substantial (Cook et al., 2003). Ignoring these issues and continuing to conduct research despite numerous confounding variables is counterproductive to decreasing the research to practice gap. In order to address these issues, systematic methods for conducting research in applied settings should be explored. Both quantitative and qualitative investigations of the complexities of classrooms of students with ED, and in general, as well as a systematic review of the literature to identify limitations in applied research could offer valuable insight regarding this problem. Bambara, Nonnemacher, and Kern (2009) conducted a qualitative investigation related to the sustainability of individualized positive behavior supports (IPBS). Among other factors, professional development and opportunities for practice were found to foster the sustainability of IPBS interventions. Future research should expound on the work of Bambara and colleagues by exploring the sustainability of interventions in classrooms of students with ED.

At some point, the research community must establish norms for high-quality research that are attainable in applied settings for students with ED (Tankersley, et al., 2008). The results of high quality research in a highly controlled experimental setting for students with ED inhibit the dissemination of such practices to practitioners and sustaining the use of EBPs. In this vein, another empirical question is raised: Is a practice that does not have substantial evidence of being conducted in realistic, applied settings truly an "evidence-based" approach to improving student outcomes? Empirically-

validated practices that are identified in experimental settings may be challenging to implement with fidelity due to the "free operant environments" that characterize an applied setting (Lane et al., p.429). This brings to light another empirical question: To what extent must a practice be implemented with fidelity in order to still lead to student outcomes? In other words, what amount of fidelity of implementation is sufficient for obtaining student outcomes for various interventions?

Conducting research in an applied setting that does not meet the high quality of standards established for single-subject research design (Gersten et al., 2005; Horner et al., 2005) falls short of establishing and identifying sound, evidence-based practices (Cook & Cook, 2011). Moreover, another empirical question remains: What effective practices are being implemented in classrooms for students with ED that require investigation in order to build empirical support? Perhaps one way of addressing the incompatibility between research and practice is to identify effective instructional methods that are in need of empirical support (Cook & Odom, 2013). Given that effective implementation of evidence-based practices is a challenge (Cook & Odom, 2013), the continued development of an empirical body of research for behavioral and instructional interventions that are executed in applied settings may help ameliorate this problem (Cook & Odom, 2013, Simonsen et al., 2008). Another alternative for improving the incompatibility of research and practice in field of ED is service-based research (Lane et al., 2011), which capitalizes on the knowledge and experiences of the stakeholders in a particular educational environment.

Conclusions

Despite the long-documented effectiveness of teacher BSP on improving the academic engagement of students with ED, this strategy continues to be underused in practice. It is possible that the underuse of this strategy is symptomatic of a larger, overarching problem plaguing the field: the inescapable gap between research and practice in special education. Continuing to research and develop effective training models for increasing teachers' use of EBPs is critical to the field. Furthermore, in order to directly address the chronic failure of students with ED, efforts must be made in order to extend the effectiveness of instructional interventions past behavioral outcomes and should include investigating the effect of such interventions on the academic achievement of this population.

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Appendix A

Parental Consent Documents

[*insert date*]

Dear Parents or Guardians:

We are conducting a study involving a teacher training program that aims to improve the outcomes of students identified as having an emotional disturbance/disability (ED). To conduct this study we need the participation of elementary aged students who are currently identified as a student with ED and who are receiving special education services for their disability and who have been identified by their school as reading below age and/or grade level expectations. The attached "Permission for Child's Participation" form describes the study and asks your permission for your child to participate.

Please carefully read the attached "Permission for Child's Participation" form. It provides important information for you and your child. If you have any questions pertaining to the attached form or to the research study, please feel free to contact Dr. Robert Gable or Mrs. Lauren Reed.

After reviewing the attached information, please return a signed copy of the "Permission for Child's Participation" form to you child's teacher if you are willing to allow your child to participate in the study. Keep the additional copy of the form for your records. Even when you give consent, your child will be able to participate only if he or she is willing to do so.

We thank you in advance for taking the time to consider your child's participation in this study.

Sincerely,

Dr. Robert Gable
rgable@odu.edu

Lauren Reed
lreed@odu.edu

PERMISSION FOR CHILD'S PARTICIPATION DOCUMENT

The purposes of this form are to provide information that may affect decisions regarding your child's participation and to record the consent of those who are willing for their child or ward to participate in this study.

TITLE OF RESEARCH: The Effect of Behavior Specific Praise and Pre-teaching on the Reading Achievement of Elementary Students with Emotional Disabilities

RESEARCHERS:

Responsible Principal Investigator: Robert A. Gable, PhD, Darden College of Education, Old Dominion University

Researcher: Lauren C. Reed, Doctoral Student, Darden College of Education, Old Dominion University

DESCRIPTION OF RESEARCH STUDY: A body of research exists to support the positive effects of using behavioral interventions to improve the academic engagement of students with ED. However, more work is needed to investigate how to improve the academic outcomes of this population using behavioral and instructional interventions.

If you allow your child to participate in this study, then your child will join a study involving the training of teachers in a specific behavioral intervention as well as the implementation of additional instruction for your child during his or her regularly scheduled class time. If you say YES, then your child's participation will last for no more than three months. Approximately four teachers and three to ten students will participate in this study.

If your child participates in this study, he/she will continue to participate in the normal reading instruction that occurs in the classroom. In addition, he or she will receive additional reading instruction, briefly (no more than 10 minutes), before his/her usual small-group reading lesson. In addition, your child will be assessed approximately two or three times per week using a supplemental reading assessment.

EXCLUSIONARY CRITERIA: In order for your child to participate in this study, your child must be identified as a student with ED who is attending the SECEP RE-ED program. Your child must be enrolled grades kindergarten through fifth grade and be identified by his/her teacher(s) as a student who is reading below grade level but that typically responds positively to verbal attention.

RISKS: There are no anticipated risks for participation in this study. As with any research, there is some possibility that your child may be subject to risks that have not yet been identified.

BENEFITS: Participation in this study will provide your child with additional behavioral and academic supports. A summary of results will be made available to both teachers and parents.

COSTS AND PAYMENTS: Participation in this study will provide your child with additional behavioral and academic supports.

NEW INFORMATION: If the researchers find new information during this study that would reasonably change your decision about participating, then they will inform you.

CONFIDENTIALITY: Participants will be assigned a code number and/or pseudonym so that your child's name will not be attached to his or her responses. Only researchers involved in the study or in a professional review of the study will have access to data sheets. All data and participant information will be kept in a locked and secure location.

WITHDRAWAL PRIVILEGE: Your child's participation in this study is completely voluntary. It is all right to refuse your child's participation. Even if you agree now, you may withdraw your child from the study at any time. In addition, your child will be given a chance to withdraw at any time if he/she so chooses.

COMPENSATION FOR ILLNESS AND INJURY: Agreeing to your child's participation does not waive any of your legal rights. However, in the event of harm arising from this study, neither Old Dominion University nor the researchers are able to give you any money, insurance coverage, free medical care, or any other compensation. In the event that your child suffers harm as a result of participation in this research project, you may contact contact Dr. Robert Gable at 757-683-3157 or Dr. Ted Remley, Chair of the Darden College of Education Human Subjects Review Committee, Old Dominion University, at tremley@odu.edu.

VOLUNTARY CONSENT: By signing this form, you are saying (1) that you have read this form or have had it read to you, and (2) that you are satisfied you understand this form, the research study, and its risks and benefits. The researchers will be happy to answer any questions you have about the research. If you have any questions, please feel free to contact contact Dr. Robert Gable at 757-683-3157 or Lauren Reed at 757-641-6283.

If at any time you feel pressured to allow your child to participate, or if you have any questions about your rights or this form, please contact Dr. Ted Remley, Chair of the Darden College of Education Human Subjects Review Committee, Old Dominion University, at tremley@odu.edu.

Note: By signing below, you are telling the researchers YES, that you will allow your child to participate in this study. Please keep one copy of this form for your records.

Your child's name (please print): _____

Your name (please print): _____

Relationship to child (please check one):
Parent: _____ **Guardian:** _____

Your Signature: _____

Date: _____

INVESTIGATOR'S STATEMENT: I certify that this form includes all information concerning the study relevant to the protection of the rights of the participants, including the nature and purpose of this research, benefits, risks, costs, and any experimental procedures.

I have described the rights and protections afforded to human research participants and have done nothing to pressure, coerce, or falsely entice the parent to allowing this child to participate. I am available to answer the parent's questions and have encouraged him or her to ask additional questions at any time during the course of the study.

Researcher's Signature: _____

Date: _____

Appendix B

INFORMED CONSENT DOCUMENT
OLD DOMINION UNIVERSITY

PROJECT TITLE: The Effect of Behavior Specific Praise and Pre-teaching on the Reading Achievement of Elementary Students with Emotional Disabilities

INTRODUCTION
The purposes of this form are to give you information that may affect your decision whether to say YES or NO to participation in this research, and to record the consent of those who say YES.

RESEARCHERS
Responsible Principal Investigator: Robert A. Gable, PhD, Darden College of Education
Researcher: Lauren C. Reed, Doctoral Student, Darden College of Education

DESCRIPTION OF RESEARCH STUDY
A body of research exists to support the positive effects of using behavioral interventions to improve the academic engagement of students with ED. However, more work is needed to investigate how to improve the academic outcomes of this population using behavioral and instructional interventions.

If you decide to participate, then you will join a study involving the training of teachers in a specific behavioral intervention as well as the implementation of additional instruction for a student, or students, in your class. If you say YES, then your participation will last for no more than three months. The training session will occur one time, for no more than two hours. Approximately four teachers and three to six students will participate in this study.

RISKS AND BENEFITS
RISKS: There are no anticipated risks for participation in this study. As with any research, there is some possibility that you may be subject to risks that have not yet been identified.

COSTS AND PAYMENTS
The researchers want your decision about participating in this study to be absolutely voluntary.

NEW INFORMATION
If the researchers find new information during this study that would reasonably change your decision about participating, then they will inform you.

CONFIDENTIALITY
All information obtained about you in this study is strictly confidential unless disclosure is required by law. The results of this study may be used in reports, presentations and publications, but the researcher will not identify you.

WITHDRAWAL PRIVILEGE
It is OK for you to say NO. Even if you say YES now, you are free to say NO later, and walk away or withdraw from the study -- at any time. Your decision will not affect your relationship with Old Dominion University, the PI or researcher, or otherwise cause a loss of benefits to which you might otherwise be entitled.

COMPENSATION FOR ILLNESS AND INJURY
If you say YES, then your consent in this document does not waive any of your legal rights. However, in the event of any harm arising from this study, neither Old Dominion University nor the researchers are able to give you any money, insurance coverage, free medical care, or any other compensation for such injury. In the event that you suffer injury as a result of participation in any research project, you may contact Dr. Robert Gable at 757-683-3157 or Dr. Ted Remley, Chair of the Darden College of Education Human Subjects Review Committee, Old Dominion University, at tremley@odu.edu, who will be glad to review the matter with you.

VOLUNTARY CONSENT
By signing this form, you are saying several things. You are saying that you have read this form or have had it read to you, that you are satisfied that you understand this form, the research study, and its risks and benefits. The researchers should have answered any questions you may have had about the research. If you have any questions later on, then the researchers should be able to answer them:

Dr. Robert Gable
rgable@odu.edu

Lauren Reed
lreed@odu.edu

If at any time you feel pressured to participate, or if you have any questions about your rights or this form, then you should contact Dr. Ted Remley, Chair of the Darden College of Education Human Subjects Review Committee, Old Dominion University, at tremley@odu.edu.

And importantly, by signing below, you are telling the researcher YES, that you agree to participate in this study.

Participant's Printed Name & Signature	**Date**

INVESTIGATOR'S STATEMENT

I certify that I have explained to this participant the nature and purpose of this research, including benefits, risks, costs, and any experimental procedures. I have described the rights and protections afforded to human subjects and have done nothing to pressure, coerce, or falsely entice this subject into participating. I am aware of my obligations under state and federal laws, and promise compliance. I have answered the participant's questions and have encouraged him/her to ask additional questions at any time during the course of this study. I have witnessed the above signature(s) on this consent form.

Investigator's Printed Name & Signature	**Date**

Appendix C

BEST in CLASS Teacher Manual: Behavior Specific Praise

Module 4: Behavior Specific Praise

What is behavior specific praise?

Behavior specific praise is an instructional strategy teachers use to express approval of children's behavior and increase the likelihood that they will repeat those behaviors in the future. These statements fit the specific situation and focus on the focal child's effort, improvement, and/or quality of work, rather than on outcomes or abilities. For example, a behavior specific praise statement such as "*Thanks for following the rules and keeping your hands to yourself in the hallway*!" helps the focal child understand what he or she is being praised for, and makes it more likely that he or she will repeat this behavior. When used effectively, behavior specific praise is sincere and immediately delivered to individual children after appropriate behavior occurs. Specific praise following a desirable behavior is highly effective for children who frequently exhibit challenging behaviors. Your coach and the BEST in CLASS curriculum will help you learn to strategically apply behavior specific praise to teach the focal child the behaviors you would like to see and prevent the occurrence of undesirable behavior.

What makes a high quality behavior specific praise statement?

High quality behavior specific praise statements explicitly identify the desired behavior immediately after it occurs. High quality behavior specific praise statements have the following characteristics:

Be Specific

★ Effective praise is behavior **specific**, meaning that it tells the focal child exactly what was correct about his or her behavior or response:

Be Immediate

★ Provide the praise statement immediately after the target behavior occurs:

Be Intentional

★ Behavior specific praise statements should intentionally target a behavior that you would like to see the focal child engage in more often. This may require planning behavior specific praise statements and times to practice using them with the focal child:

Example 1: If you want to see Mary increase the amount of time she sits quietly during story time, plan to 'catch her being good' during story time and tell her, *"Mary, you are doing such a wonderful job of sitting quietly and listening to the story!"*

Example 2: Daniel often calls out during circle time, his teacher decides to prompt Daniel to raise his hand before asking a question so that he can follow up with behavior specific praise. *"Daniel, how do you let me know you want to answer a question during circle time* (teacher models raising his hand)?" Once Daniel raises his hand, his teacher provides behavior specific praise, *"Daniel you did such a nice job of raising your hand just like I asked you to!"*

Be Consistent

★ Provide praise consistently for appropriate behaviors that you want to increase:

Sharing Example: *"I really like the way that you all are sharing your toys today!"; "Amber, you shared your favorite color marker, you are a great friend!"*

Hard Work Example: *"Chris, you worked so hard on your picture! That's*

How do I use behavior specific praise with a focal child in my classroom?

Behavior specific praise can help the focal child understand what behaviors are appropriate and increase the occurrence of those behaviors. The following steps will help you effectively use behavior specific praise. Our two example focal children, Gina and Leo, will help demonstrate each step.

1. **Identify the behavior and context**

    a. Identify the target behavior or response that you want to increase and the context in which it occurs (either when you want it to occur or when it typically occurs):

    Example 1: By noticing when Gina raises her hand during circle time, you can increase her engagement in the activity (e.g., "*Gina, I love the way you have raised a quiet hand*!")

    b. It may be helpful to use precorrection (Module 2) to ensure that the behavior will occur so that you can provide behavior specific praise:

    Example 2: When transitioning to the cafeteria, Leo's teacher provides a precorrection statement prior to leaving the classroom ("*Remember, Leo, I want to see you keeping your hands to yourself while we walk to the cafeteria*") and then catch him following the rules quickly upon leaving the classroom (e.g., "*I like the way Leo is following our rules and keeping his hands to himself*")

2. **Plan high quality specific praise statements you will use with the focal child**

    a. Once you identify the target behavior and context, develop specific praise statements to use when the behavior occurs.

    b. Specific praise statements should relate directly to the target behavior and give the child sufficient information about what she is being praised for:

    Example 1: "*I love the way that Gina has opened her book just like I asked!*"

    Example 2: "*Leo, you are doing a super job sitting on your square and keeping your hands and feet to yourself!*"

3. **Plan the order and frequency of behavior specific praise**

    a. Knowing what each focal child is capable of doing and what you want to teach them to do is important here. For example, perhaps Gina is able to get on task more quickly than Leo but struggles to maintain her attention. On the other hand, Leo might struggle to attend to a task in a timely fashion. Your understanding of your expectations for children's behavioral needs can help you provide the highest quality behavior specific praise statements:

Example 1: If you provide Gina with a behavior specific praise statement in the middle of the good morning activity (e.g., "*Gina, I love the way that you are looking at me when I talk!*") she may stay more engaged during the entire activity.

Example 2: If you provide a behavior specific praise statement at the beginning of an activity (e.g., "*Leo, I really like how you took your seat the first time I asked.*"), then Leo is more likely to stay engaged during the activity.

b. How frequently you give behavior specific praise within an activity will vary based on child need. Your knowledge of the focal child comes in handy here. For example, if Gina is off-task approximately every two minutes during circle time, try to provide her with a behavior specific praise statement for on-task behavior at least every two minutes. If Leo is likely to touch peers during circle after sitting for 5 minutes, provide behavior specific praise about his sitting with his hands and feet to himself after sitting for about 4 minutes.

Note: While there is no magic number for how many behavior specific praise statements to provide (the frequency depends on the activity and the child's needs), there are some guidelines available. Research suggests that teachers should praise frequently and that your ratio of praise statements to reprimands should be at least 3:1 or higher. This means that every time you reprimand a child you should provide at least 3 behavior specific praise statements.

4. Provide behavior specific praise immediately after the behavior occurs

a. Your timing is important to creating high quality behavior specific praise statements. That is, provide behavior specific praise immediately following the target behavior.

b. Use high quality behavior specific praise statements in multiple contexts throughout the school day:

Example 1: To increase Gina's engagement during circle time, her teacher delivers varied behavior specific praise statements when Gina is engaged throughout the school day. As soon as the class transitions to circle time, Gina's teacher reminds the group, eyes on me, and provides Gina with behavior specific praise, *"I like the way you are sitting criss-cross applesauce with your eyes on me, Gina. I am going to call on you first today."*

Example 2: Throughout the school day, Leo's teacher provides behavior specific praise whenever she catches Leo with his hands and feet to himself. During instructional times, she applies behavior specific praise before he typically begins getting restless and touching his peers.

5. **Reflect on how behavior specific praise is working**

   a. Evaluate how your use of behavior specific praise is working. Consider the child's responses, engagement, behavior, and learning rate. Complete the behavior specific praise self-reflection in Appendix B, and note any comments or questions about your use of the strategy. Below are some questions Gina and Leo's teachers will review with their coach:

      Example 1: Is Gina responding appropriately to your behavior specific praise? Is she more engaged during circle time? Are you seeing fewer challenging behaviors? Is she learning more in circle time? Is she displaying the desirable behavior you indicate in your praise statement?

      Example 2: Is Leo engaging in the behaviors identified in your behavior specific praise? Is Leo more engaged during instruction? Is he keeping his hands and feet to himself?

   b. Examine and reflect on your behavior specific praise performance-data with your coach:

      i. Has your use of behavior specific praise changed in quantity and quality? If so, how could you further enhance your use of behavior specific praise? Has the focal child's desirable behavior increased and challenging behavior decreased? If not, what could you do differently?

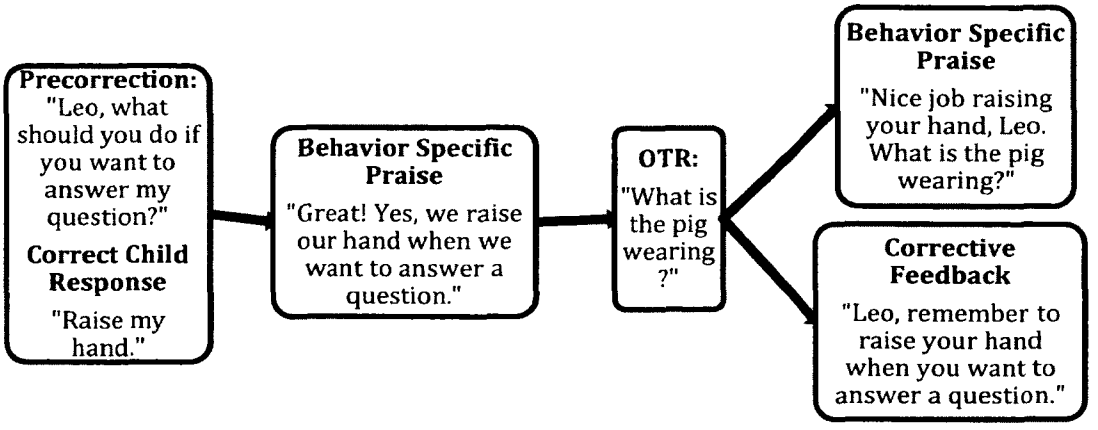
      Example 1: The graph indicates that Gina's teacher increased her use of behavior specific praise with Gina but did not meet her goal. It also shows that Gina is quiet and engaged more often and is displaying fewer challenging behaviors, but she is not verbally participating in the lessons. Gina's teacher and coach talk about using more behavior specific praise statements that target verbal participation during instructional lessons. They decide to pair behavior specific praise with opportunities to respond to encourage more active participation from Gina.

      Example 2: The graph indicates that Leo's teacher increased her use of behavior specific praise with Leo, and met her goal. It shows that Leo is more engaged, and is keeping his hands and feet to himself. Leo's teacher and coach decide to use behavior specific praise to target another behavior, raising his hand instead of calling out during instructional activities.

Linking Strategies

Behavior Specific Praise can be used in a wide variety of situations and can be linked to a number of other BEST in CLASS strategies. Specifically, it can be used following children's appropriate responses to **Precorrection** (Module 2); following responses or attempted responses to **OTR** (Module 3); when children follow **the Rules** (Module 1);

and as a component of **Teacher Feedback** (See Modules 5 & 6). Here are several examples!



Home-School Communication: Sharing Behavior Specific Praise with Caregivers

The informational letter for caregivers in this module explains what behavior specific praise is and how it is used (See Appendix A). Talk with your coach about ways to share behavior specific praise statements with caregivers that target behaviors of concern. One way to reinforce the school rules at home is to provide caregivers with behavior specific praise statements that target your classroom rules. For example, if one of your classroom rules is use listening ears, you can explain this rule to families and suggest behavior specific praise statements they can use at home when their child follows a direction immediately after they give it: "Leo, I like it that you put your toys away when I asked you to. You have on your listening ears!" If you know behaviors the caregivers are working on at home, it would be helpful to share some behavior specific praise statements they can use to target those behaviors.

Summary

Providing generic praise such as "Nice job!" "Way to go!" "Fantastic!" is quick and easy, but it does not teach children the behaviors we want and expect to see. When behavior specific praise is truly specific and follows a behavior immediately after it occurs, it is an effective way to teach children desired behaviors and reduce instances of challenging behavior. Your coach is here to help you strategically plan your use of behavior specific praise to increase desired classroom behaviors.

Appendix D

Behavior Specific Praise (BSP) Training Materials

Sample Script

"Good afternoon. Thank you for being here and for agreeing to participate in this professional development training session. Today, we are going to talk about ways to increase your use of behavior specific praise during small group reading instruction. We are going to start our training by reviewing the definition of behavior specific praise."

Present POWERPOINT SLIDES 1-8 by reading the presentation as it appears on the slides

Present POWERPOINT SLIDE 9

"In the first example, you can see that the student, Mary was identified by name for performing a specific behavior, hand-raising, and waiting to be called on. In the second example, the praise statement focuses on Brian's improvement in his reading behavior.

Leave POWERPOINT SLIDE 9 visible

"Now, we are going to practice writing behavior specific praise statements. In general, think about students that are in your class. Write three statements that you may use in your class that are examples of behavior specific praise."

Provide time for the teacher to write BSP statements.

"Okay, please share what you came up with."

Provide feedback to affirm that the praise statements were behavior specific or assist the teacher in modifying the statements in order to include BSP.

"Now that we have practiced writing BSP statements, we are going to watch a video of you during reading instruction with (target student). The first time we watch, you are going to tally the number of times that you hear yourself give a BSP statement to (target student). The second time we watch, we are going to work together identify instances in which you could have provided the target student with BSP targeted toward both academics and an improvement in reading behavior."

Show the video clip and direct the teacher to tally his/her instances of BSP.

Show the video clip and as students exhibit behavior, discuss with the teacher instances in which BSP statements may have been issued. For example, "Here, you did a great job prompting Johnny to open his materials. Perhaps you could have followed it with 'Johnny, excellent job opening your book."

"Now, we are going to talk about how to use behavior specific praise with a target child in your classroom. Think about (target child). Think about the behavior that he exhibits during the direct instruction portion of small group reading instruction."

Show POWERPOINT SLIDE 10

"Write down the behavior, or behaviors, and context for your target student. For context, you may write 'small-group instruction' or a specific time during small-group instruction.....Great job."

Show POWERPOINT SLIDE 11

"Now, write down two BSP statements that you could give to (target student) in order to positively reinforce desirable behavior during small group reading time."

Show POWERPOINT SLIDE 12

"We are targeting using praise during small group reading instruction. One thing I want to point out is that when you are using BSP to target improvement in reading, remember to issue the BSP statement when there is a natural pause in the student's reading, so that fluency is not disrupted. Think about the times during the direct instruction portion of small group reading that you may be able to issue BSP to (target student). Please make a list of times during small group, such as specific transition times or times when that student frequently exhibits challenging behavior. "

Show POWERPOINT SLIDE 13

Show POWERPOINT SLIDE 14

Distribute BSP self-monitoring form

"I am going to give you a form that you can use each week after reading instruction to monitor your use of BSP. Please put this form with your instructional materials, and use it each day to reflect on your use of BSP. If at any point during the next few weeks, we notice that your use of BSP has decreased, or you are having trouble incorporating BSP into your instruction, we will meet again to review BSP and how to use this form. Self-monitoring will help you stay on-track in delivering BSP. Remember, this form is related to your use of BSP and (target student's) behavior during the direct instruction portion of small group reading **only.** Immediately following your instruction with (target student's) group, you will complete this simple checklist. It should take no more than 1 minute to complete, and you can do it while your groups are transitioning from station to station."

"Now, let's review by taking at a look at some statements and determining if they are examples of BSP."

Show POWERPOINT SLIDE 15 and ask the teacher to identify the examples vs. non-examples of BSP. Provide feedback and/or correction as necessary.

"Fantastic! You really seem to have developed a good understanding of what a BSP statement is. Now, I am going to give you a short assessment to determine if there is anything else left that we need to review."

Give BSP assessment. Review the results with the teacher.

"Thank you for participating. The last thing I am going to give you is a BSP cue sheet. This sheet has examples of BSP but, you can use other statements as well. It may be helpful to write a cue to use BSP statements into the lesson plans that you use during direct instruction, or to write some of the examples we created today on this cue-sheet and to keep the cue sheet on your reading table during small group instruction. Before you leave, I would like to ask that you do not discuss this training with your colleagues. Thank you again for participating."

Teacher Training Practice Sheet

Write 3 examples of BSP that you may use in your classroom.

1._____

_____

_____

2._____

_____

_____

3._____

_____

_____

In this space below, tally the times when you hear yourself use BSP.

In this space below, identify instances that you may have used BSP.

In this space below, write down the target behaviors of (target student) during small-group reading instruction as well as the context in which the behaviors occur.

Write 2examples of BSP that you may use specifically for (target student) during small-group reading instruction.

1._____

_____

_____

2._____

_____

_____

Appendix E

Behavior Specific Praise Training Assessment

Please read each statement below. Please identify each statement as either behavior specific praise, by writing BSP on the line next to it, or non-specific praise, by writing NSP on the line next to the statement.

___ "Patrice, I really like the way you worked hard to finish reading the entire book."

___ "Good job, Adam."

___ "Parker, you did a great job sitting quietly and waiting until you were called to transition."

___ "Jason, excellent job using your pencil appropriately."

___ "Julia, you did great today!"

___ "Jaden, great job! You really improved in reading your sight words."

___ "Fantastic work, everyone!"

___ "Halle, you're doing a great job following along with us as we turn the pages to read."

Please write two examples of BSP praise statements that you may use during your reading instruction. Please make sure at least one statement targets reading improvement.

1. _____

_____

2. _____

_____

Appendix F

Behavior Specific Praise Cue Sheet

BSP Statements: Academic

- "Great job, _____! I like the way you read the word _____!"
  (student's name) (high-frequency word)
- "Excellent job sounding out that word!"
- "Good job using the pictures to help you figure out that word."
- "Wow! Great work! You read the word _____!"
  (high-frequency word)
- "Nice job pointing to all of the words as you read them!
- "Great work reading all of the words on that page!"
- _____
- _____
- _____

BSP Statements: Behavioral

- "Good job sitting with your bottom in the chair and your eyes on the teacher!"
- "Nice work using your listening ears!"
- "Excellent job raising your hand and waiting to be called on when you had a question!"
- "Great job keeping your hands and feet in your own space!"
- _____
- _____
- _____

Appendix G

Behavior Specific Praise Self Reflection Form

Below is the self-reflection form that will be given to teachers for use on a daily basis. This form has been modified based on the self-reflection form in the BIC training manual.

Teacher Name: Date:

My Self-Reflection	**Week**				
	M	**T**	**W**	**R**	**F**
1. Did I increase my use of behavior specific praise with the focal child(ren)?					
2. Did my behavior specific praise statements tell the focal child(ren) exactly what was correct about the behavior or response?					
3. Did I use behavior specific praise to intentionally target behaviors that I want to see the target child(ren) use more often?					
4. Was my behavior specific praise intentional, immediate, consistent, positive, and sincere?					
5. Did I use behavior specific praise to intentionally target accurate reading of high-frequency words?					
6. Did the focal child(ren)'s behavior improve?					
Other Notes:					

Appendix H

Behavior Specific Praise Training Presentation

Behavior Specific Praise

Modified from the BEST in CLASS curriculum

What is behavior specific praise (BSP)?

- "An instructional strategy used to express approval of children's behavior and increase the likelihood that they will repeat those behaviors in the future."
- BSP **does not** focus on outcomes or abilites
- BSP focuses on:
  - Child's effort
  - Quality of work
  - Improvement

What is behavior specific praise (BSP)?

- Follows the eminence of a student's desired behavior
- Example:
  - "Thanks for following the rules and keeping your hands to yourself in the hallway!"

Why use BSP?

- Highly effective
- Helpful for students who "frequently exhibit challenging behaviors"

What makes a statement a BSP statement?

Be Specific

Effective praise is behavior **specific**, meaning that it tells the focal child exactly what was correct about his or her behavior or response:

Examples: *"Johnny, I love how you put your toys away!"; "I am so happy to see you working so hard!"*

What makes a statement a BSP statement?

Be Immediate

Provide the praise statement immediately after the target behavior occurs:

Examples: *"Keith, I love the way that you sat down right after I asked you!"; "Super job raising your hand, Daniel! How can I help you?"*

What makes a statement a BSP statement?

Be Intentional

Behavior specific praise statements should intentionally target a behavior that you would like to see the focal child engage in more often. This may require planning behavior specific praise statements and times to practice using them with the focal child:

Example 1: If you want to see Mary increase the amount of time she sits quietly during story time, plan to 'catch her being good' during story time and tell her, *"Mary, you are doing such a wonderful job of sitting quietly and listening to the story!"*

Example 2: Daniel often calls out during circle time, his teacher decides to prompt Daniel to raise his hand before asking a question so that he can follow up with behavior specific praise. *"Daniel, how do you let me know you want to answer a question during circle time* (teacher models raising his hand)*?"* Once Daniel raises his hand, his teacher provides behavior specific praise, *"Daniel you did such a nice job of raising your hand just like I asked you to!"*

What makes a statement a BSP statement?

Be Consistent

Provide praise consistently for appropriate behaviors that you want to increase:

Sharing Example: *"I really like the way that you all are sharing your toys today!"; "Amber, you shared your favorite color marker, you are a great friend!"*

Hard Work Example: *"Chris, you worked so hard on your picture! That's fantastic!"; "Chris, you sorted all of the letters by color. Wonderful job!"*

More Examples

- Mary, you did an excellent job raising your hand and waiting to be called on when you had a question.
- Brian, you really improved in reading the words 'but' and 'they.'

How to use BSP with students?

- **Identify the behavior and context**
- Identify the target behavior or response that you want to increase and the context in which it occurs (either when you want it to occur or when it typically occurs):
- **Example 1**: By noticing when Gina raises her hand during circle time, you can increase her engagement in the activity (e.g., *"Gina, I love the way you have raised a quiet hand!"*)
- It may be helpful to use precorrection [prompting the child to exhibit the target behavior before he exhibits challenging behavior] to ensure that the behavior will occur so that you can provide behavior specific praise:
- **Example 2**: When transitioning to the cafeteria, Leo's teacher provides a precorrection statement prior to leaving the classroom (*"Remember, Leo, I want to see you keeping your hands to yourself while we walk to the cafeteria"*) and then catch him following the rules quickly upon leaving the classroom (e.g., *"I like the way Leo is following our rules and keeping his hands to himself"*)

How to use BSP with students?

- **Plan high quality specific praise statements you will use with the focal child**
- Once you identify the target behavior and context, develop specific praise statements to use when the behavior occurs.
- Specific praise statements should relate directly to the target behavior and give the child sufficient information about what she is being praised for:
- **Example 1**: *"I love the way that Gina has opened her book just like I asked!"*
- **Example 2**: *"Leo, you are doing a super job sitting on your square and keeping your hands and feet to yourself!"*

How to use BSP with students?

- **Plan the order and frequency of behavior specific praise**
- Knowing what each focal child is capable of doing and what you want to teach them to do is important here. For example, perhaps Gina is able to get on task more quickly than Leo but struggles to maintain her attention. On the other hand, Leo might struggle to attend to a task in a timely fashion. Your understanding of your expectations for children's behaviors needs can help you provide the highest quality behavior specific praise statements.
- **Example 1**: If you provide Gina with a behavior specific praise statement in the middle of the good morning activity (e.g., *"Gina, I love the way that you are looking at me when I talk!"*) she may stay more engaged during the entire activity.
- **Example 2**: If you provide a behavior specific praise statement at the beginning of an activity (e.g., *"Leo, I really like how you took your seat the first time I asked."*), then Leo is more likely to stay engaged during the activity.
- How frequently you give behavior specific praise within an activity will vary based on child need. Your knowledge of the focal child comes in handy here. For example, if Gina is off-task approximately every two minutes during circle time, try to provide her with a behavior specific praise statement for on-task behavior at least every two minutes. If Leo is likely to touch peers during circle after sitting for 5 minutes, provide behavior specific praise about his sitting with his hands and feet to himself after sitting for about 4 minutes.
- **Note**: While there is no magic number for how many behavior specific praise statements to provide (the frequency depends on the activity and the child's needs), there are some guidelines available. Research suggests that teachers should praise frequently and that your ratio of praise statements to reprimands should be at least 3:1 or higher. This means that every time you reprimand a child you should provide at least 3 behavior specific praise statements.

How to use BSP with students?

- **Provide behavior specific praise immediately after the behavior occurs**
- Your timing is important to creating high quality behavior specific praise statements. That is, provide behavior specific praise immediately following the target behavior.
- Use high quality behavior specific praise statements in multiple contexts throughout the school day
- **Example 1**: To increase Gina's engagement during circle time, her teacher delivers varied behavior specific praise statements when Gina is engaged throughout the school day. As soon as the class transitions to circle time, Gina's teacher reminds the group, eyes on me, and provides Gina with behavior specific praise, *"I like the way you are sitting criss-cross applesauce with your eyes on me, Gina. I am going to call on you first today."*
- **Example 2**: Throughout the school day, Leo's teacher provides behavior specific praise whenever she catches Leo with his hands and feet to himself. During instructional times, she applies behavior specific praise before he typically begins getting restless and touching his peers.

How to use BSP with students?

- **Reflect on how behavior specific praise is working**
- Evaluate how your use of behavior specific praise is working. Consider the child's responses, engagement, behavior, and learning rate. Complete the behavior specific praise self-reflection in Appendix B, and note any comments or questions about your use of the strategy. Below are some questions Gina and Leo's teachers will review with their coach:
- **Example 1**: Is Gina responding appropriately to your behavior specific praise? Is she more engaged during circle time? Are you seeing fewer challenging behaviors? Is she learning more in circle time? Is she displaying the desirable behavior you indicate in your praise statement?
- **Example 2**: Is Leo engaging in the behaviors identified in your behavior specific praise? Is Leo more engaged during instruction? Is he keeping his hands and feet to himself?
- Examine and reflect on your behavior specific praise performance-data with your coach:
- Has your use of behavior specific praise changed in quantity and quality? If so, how could you further enhance your use of behavior specific praise? Has the focal child's desirable behavior increased and challenging behavior decreased? If not, what could you do differently?

Example or Non-example

- "Brandon, you did a fantastic job following along with your finger as you read."
- "Great work!"
- "WOW, PJ! What an awesome job."
- "Halle, great job remembering to keep your eyes on the book as you read."
- "Kirstin, I like the way you calmly pulled out your chair, sat down, and waited."

Appendix I

Behavior Specific Praise Data Collection Form

Teacher _____

Date & Session #	Time & Length of Session	BSP to target student		BSP to non-target student or group	List tools observed (BSP cue sheet, self-monitoring, cues in lesson plans)

Appendix J

Procedural Fidelity Checklists

Treatment Fidelity Checklist: Training Intervention

Teacher Student Teacher 1 Date _____

Observer Morin Session_M2U0029

Behavior	Observed (y=yes, n=no)	
Prescribed training slides are presented to the teacher according to the training script	Y	n
Researcher covers material in the training script	Y	n
Teacher is given an opportunity to practice writing BSP statements	Y	
Teacher is given an opportunity to record his/her own BSP from video	Y	n
Teacher and researcher identify opportunities to use BSP in the video	Y	n
Teacher writes down behavior(s) for the target student	Y	n
Teacher creates BSP statements for the target student	Y	n
Teacher creates a list of times that BSP may be used during small group reading instruction	Y	n
Teacher is given self-monitoring form and BSP cue sheet	Y	n
Teacher completes BSP assessment independently	Y	n
Researcher reviews BSP assessment with the teacher	Y	n
Researcher provides teachers with BSP cue sheet and self-monitoring form	Y	n
Researcher thanks teacher and asks her not to discuss the training with colleagues	Y	n

Total Behaviors Observed _13___ 13 Possible Behaviors = _100___ %

Treatment Fidelity Checklist: Training Intervention

Teacher Student: Teacher 2 Date _____

Observer Morin Session_M2U0046

Behavior	Observed (y=yes, n=no)	
Prescribed training slides are presented to the teacher according to the training script	Y	n
Researcher covers material in the training script	Y	n
Teacher is given an opportunity to practice writing BSP statements	Y	
Teacher is given an opportunity to record his/her own BSP from video	Y	n
Teacher and researcher identify opportunities to use BSP in the video	Y	n
Teacher writes down behavior(s) for the target student	Y	n
Teacher creates BSP statements for the target student	Y	n
Teacher creates a list of times that BSP may be used during small group reading instruction	Y	n
Teacher is given self-monitoring form and BSP cue sheet	Y	n
Teacher completes BSP assessment independently	Y	n
Researcher reviews BSP assessment with the teacher	Y	n
Researcher provides teachers with BSP cue sheet and self-monitoring form	Y	n
Researcher thanks teacher and asks her not to discuss the training with colleagues	Y	n

Total Behaviors Observed _13___ : 13 Possible Behaviors = _100___ %

CURRICULUM VITAE
Lauren C. Reed, M.T.

PERSONAL INFORMATION

Name: Lauren C. Reed

E-mail Address: lreed010@odu.edu

EDUCATION

Expected August 2014	Ph.D.	Old Dominion University; Norfolk, VA Concentrations: Emotional Disabilities Research Cognate Dissertation: The Effect of Behavior Specific Praise and Pre-teaching on the Engagement and Reading Achievement of Elementary Students with Emotional Disabilities Advisor & Chair: Dr. Robert A. Gable
2007	M.T.	University of Virginia; Charlottesville, VA Concentration: Special Education ED/LD K-12
2007	B.A.	University of Virginia; Charlottesville, VA Major: Psychology

PROFESSIONAL EXPERIENCE

Higher Education Experience

August 2011-present — **Graduate Teaching Assistant**
Old Dominion University; Norfolk, VA

SPED 618: Characteristics and Advanced Procedures: Emotional and Behavioral Disorders (graduate)

Assists in the creation of course materials; organizes course materials into manageable learning modules; develops learning objectives and instructional activities that facilitate the interaction of distance learning students with the

content, with each other, and with the professor; collaborates with special education and instructional design faculty to launch and maintain asynchronous instruction; identifies and disseminates web-based resources that assists pre-service and in-service teachers in the implementation of evidence-based practices

January 2013- May 2013 **Graduate Teaching Assistant**
Old Dominion University; Norfolk, VA

SPED 411: Classroom and Behavioral Management Techniques for Students with Diverse Needs (undergraduate)

Planned and executed instruction related to the implementation of positive behavior supports; required the application of material through case-study analysis; incorporated technology and cooperative learning activities; received student rankings above department and college mean scores

January 2012- May 2013 **Graduate Research Assistant: Child Study Center Research Team Member**
Old Dominion University; Norfolk, VA

Participated in weekly meetings; collaborated with special education, speech and language, and audiology faculty members as well as doctoral students to formulate research projects conducted in an oral preschool for children with cochlear implements; collaborated to improve research protocols

August 2011- December 2011 **Graduate Research Assistant: Child Study Center Research Team Data Manager**
Old Dominion University; Norfolk, VA

Designed data collection instruments; trained and supervised masters students in data collection; coordinated observations and data sessions; conducted inter-observer reliability assessments; collected and reviewed the data analysis of a masters-level student; secured research materials, and maintained confidentiality; prepared weekly study updates for the research team

Public Education Experience

January 2007- June 2010 **Special Education Teacher, K-5**
John B. Dey Elementary; Virginia Beach City Public Schools; Virginia Beach, VA

Served as a cross-categorical special education teacher in inclusive, resource, and self-contained classrooms; individualized behavioral and academic supports; led individualized education program meetings; taught students identified with developmental disabilities, learning disabilities, autism, emotional disabilities, and other health impairments, participated in the interview and hiring process for special education teacher applicants

September 2008- June 2010 **READ 180 Teacher**
John B. Dey Elementary; Virginia Beach City Public Schools; Virginia Beach, VA

Co-taught an after-school, reading remediation program for fourth and fifth grade students with special education needs and students at-risk for reading failure; collaborated with the Data Support Specialist to gather student assessment data; identified eligible students for enrollment in the program; informed parents and obtained consent for student participation; trained in the implementation of the READ180 program

September 2009- June 2010 **Professional Development Program Liaison**
John B. Dey Elementary; Virginia Beach City Public Schools; Virginia Beach, VA

Attended district-wide training in professional development requirements and opportunities; served as the liaison between the district, school administration, and faculty; communicated individual requirement status to teachers; suggested opportunities to meet the professional development district requirement to teachers

September 2009- June 2010 **School Improvement Coordinator**
John B. Dey Elementary; Virginia Beach City Public Schools; Virginia Beach, VA

Collaborated with the Data Support Specialist to collect and analyze standards based test data; interpreted data with the administrative team; utilized results to assist in the development of professional learning communities, implementation of vertical teams, and execution of learning walks; participated in the school-planning council meetings

September 2008- June 2009 **Academic Coordinator**
John B. Dey Elementary; Virginia Beach City Public Schools; Virginia Beach, VA

Coordinated the Standards of Learning remediation program; collaborated with a general education teacher to plan lessons and prepare materials for math and language arts remediation; recruited and scheduled instructors

October 2008- June 2010 **Elementary Curriculum Integration Committee Member**
Virginia Beach City Public Schools; Virginia Beach, VA

Selected as a member of the science and social studies curriculum committees to provide a special education perspective; charged with the task of creating an integrated curriculum using the Understanding By Design framework; collaborated with team members to develop a fourth grade social studies unit; collaborated with team to rewrite the first grade science curriculum

Summer 2009, 2010 **Virginia Beach Administrator's Annual Conference Attendee**
Virginia Beach City Public Schools; Virginia Beach, VA

Chosen by administrator to participate in the Administrator's Conference; attended as the school's teacher representative; gathered information on the district's strategic plan; collaborated with building administration to align the school's Plan for Continuous Improvement with the strategic objectives of the district

Fall 2008, 2009 **Virginia Beach Reading Council Annual Conference Presenter**
Virginia Beach City Public Schools; Virginia Beach, VA

Selected to co-present a session for teachers on integrating Reader's Theater into a balanced literacy curriculum; provided instruction in the purpose of Reader's Theater, described effective implementation of Reader's Theater; organized materials and prepared sample lesson plans for participants

Community Based Experience

Summer 2008, 2009, 2010 **Camp Gonnawannagoagain**
Families of Autistic Children of Tidewater; Virginia Beach, VA

Served as a counselor in a community-based day program for children with autism; facilitated and oversaw the interaction of a child with autism with a non-disabled peer; implemented behavioral supports; encouraged child with autism to participate in community-based outings; supervised attendees during all activities

PUBLICATIONS

Journal Articles

Lopes, J., Oliveira, C., **Reed, L.**, & Gable, R.A. (in press). Character education in Portugal. *To appear in Childhood Education.*

Richels, C. Bobzien, J., Raver-Lampman, S., Schwartz, K., Hester, P. P., & **Reed, L.** (in press) Teaching emotion words using social stories and created experiences in group instruction with preschoolers with who are deaf or hard of hearing. *To appear in Deafness & Education International.*

Book Chapters

Reed, L.C., Gable, R.A., & Yanek, K. (in press). Hard times … uncertain future: Examining issues facing those working in the field of EBD. In P. Garner, J. Kauffman, & J. Elliott. (eds). *The SAGE handbook of emotional & Behavioral difficulties.* (2nd ed.) London: SAGE Publications.

PROFESSIONAL ACTIVITIES

Professional Presentations

Browning, E. & **Reed, L.C.** "Using assessment to inform your instruction of students with special education needs." Teacher Educator Division of the Council for Exceptional Children 36th Annual Conference; Fort Lauderdale, FL, November 9, 2013.

Lopes, J., Kauffman, J.M., Gable, R., Landrum, T., Lane, K., Oakes, W...Germer, K. "TECBD symposium on the upcoming handbook of emotional and behavioral difficulties." 37th Annual Conference of Teacher Educators for Children with Behavioral Disorders; Tempe, AZ, October 25, 2013.

Gable, R.A., Landrum, T. J., **Reed, L.C.**, & Tankersley, M. "Overcoming the research-to-practice in special education." Conference for the Council for Children with Behavior Disorders; Chicago, IL, September 26, 2013.

Reed, L.C., & Browning, E. "Using Assessment to Inform Instruction of Students with EBD." Conference for the Council for Children with Behavior Disorders; Chicago, IL, September 26, 2013.

Raver-Lampman, S., Bobzien, J., Richels, C., & **Reed, L.C.** "Using social stories to teach emotion words to preschoolers with hearing loss." Council for Exceptional Children 2013 Convention & Expo; San Antonio, TX, April 06, 2013.

Reed, L.C., & Browning, E. "More time in your day? The use of self-monitoring strategies to increase academic and social behaviors of your students with ED." 36th Annual Conference of Teacher Educators for Children with Behavioral Disorders; Tempe, AZ, October 27, 2012.

Watson, L., Gable, R.A., Cho, D., Morin, L., & **Reed, L.C.** "The role of attention and working memory in the learning and teaching process." Council for Exceptional Children 2012 Convention & Expo; Denver, CO, April 14, 2012.

Reed, L.C. "Self-monitoring to improve academic performance." Virginia Council for Learning Disabilities; Harrisonburg, VA, March 24, 2012.

Professional Development

Lehigh University Special Education Law Symposium, June 2013

COURSES TAUGHT
Undergraduate

SPED 411: Classroom and Behavioral Management Techniques for Students with Diverse Needs

GRANTS AWARDED

Reed, L.C., Carrol, J., & Law, L. (2010). Using iPads for teaching students with special education needs. Amerigroup Foundation Grant. Funding: $12,000

PROFESSIONAL LICENSURE

Post-graduate Professional License, Specific Learning Disabilities K-12, Emotional Disabilities
K-12, Virginia Department of Education

HONORS AND AWARDS

2013	CEC-DR Doctoral Student Scholar Nominee Nominated by Dr. Robert Gable
2013	Graduate Student Travel Award Funding Old Dominion University, Darden College of Education
2013	Comprehensive Exam Recognition of Distinction Old Dominion University, Department of Communication Disorders and Special Education
2010, 2011	Reading Teacher of the Year Nominee John B. Dey Elementary School; Virginia Beach, VA

PROFESSIONAL SERVICE

Membership in Professional Societies/Organizations

Council for Exceptional Children
Council for Children with Behavioral Disorders
Council for Exceptional Children-Division for Research

COMMUNITY SERVICE

August 2013-present	Relay for Life of Virginia Beach (American Cancer Society) 2014 Survivor Co-Chair 2014 Team Co-Captain: "Knock Out Cancer"
	Recruited to serve as a committee co-chair based on 2012-2013 team contributions
January – May 2013	Relay for Life of Virginia Beach (American Cancer Society) 2013 Team Co-Captain: "Knock Out Cancer"
	Recognized as a 2013 "Rookie Team of the Year" for fundraising efforts