USING CONSULTATION WITH PERFORMANCE FEEDBACK TO ALIGN CLASSROOM MANAGEMENT STRATEGIES WITH A SOCIAL EMOTIONAL LEARNING CURRICULUM IN EARLY CHILDHOOD

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USING CONSULTATION WITH PERFORMANCE FEEDBACK TO ALIGN
CLASSROOM MANAGEMENT STRATEGIES WITH A SOCIAL EMOTIONAL
LEARNING CURRICULUM IN EARLY CHILDHOOD

A Dissertation Presented
by
JESSICA M. KEMP

Submitted to the Graduate School of the
University of Massachusetts Amherst in partial fulfillment
of the requirements for the degree of

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College of Education
School Psychology
USING CONSULTATION WITH PERFORMANCE FEEDBACK TO ALIGN
CLASSROOM MANAGEMENT STRATEGIES WITH A SOCIAL EMOTIONAL
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A Dissertation Presented

By

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This research project has been a momentous way to blend and apply the many aspects of school psychology that I am passionate about. I am incredibly fortunate to have the support of so many along the way. Thank you to my advisor, Sara Whitcomb, who inspired this work of aligning SEL and classroom management and largely encouraged my interest in early childhood prevention, several years prior. You somehow manage to balance it all, in addition to always having a positive attitude, authenticity, and excitement! Thank you for also sticking to my timelines, so I could keep things moving in the right direction. An immense appreciation to my other committee members, Sarah Fefer and Lisa Harvey, who dedicate so much of their efforts to young students with behavioral concerns and provided thoughtful consideration to this research to strengthen measures, design, and outcomes. The compassion you all have for your work does not go unnoticed.

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ABSTRACT

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MAY 2020

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Traditionally, school-based preventative frameworks have been implemented in isolation with little consideration of alignment and integration of practices throughout the school day. The present study aims to address this gap by increasing school psychologists’ preventative involvement with consultation in early childhood school settings. Using an integrated approach through a multiple baseline design, four Head Start teachers were trained in classroom management practices, to increase opportunities throughout the day for teaching, prompting, and reinforcing key skills taught through the Second Step social emotional learning curriculum. Findings suggest that a brief professional development session (1-hour) followed by weekly performance feedback (15 minutes) quickly, and effectively, increased teacher use of aligning classroom management strategies with weekly Second Step lessons (ES = .94, p-value = <.000). Effects on challenging behavior varied, with two classrooms demonstrating an overall decrease in behavior (ES = -.20). Results further indicate this intervention increased feelings of teacher self-efficacy and was
a socially valid approach. Teachers reported the aligned strategies were acceptable, sustainable, and beneficial to students. Limitations and implications of this study are further discussed with suggested directions for future research.
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CHAPTER 1
STATEMENT OF THE PROBLEM

A Need for Prevention in Early Childhood

Effective early childhood school settings include preventative systems of support, enabling teachers to foster positive learning environments ripe for developing student social-emotional competencies (Hemmeter, Fox, Jack, & Broyles, 2007; Macleod et al., 2017). By strengthening the implementation of universal prevention programs, schools have the potential to cultivate resiliency and decrease the amount of students requiring more intensive services (Taylor, Oberle, Durlak, & Weissberg, 2017). Oftentimes, schools serve as a critical defense against external stressors and a meaningful point of contact for students with a lack of support for developing social and emotional competencies (Weare & Nind, 2011). Moreover, prosocial interactions between students and teachers have been identified as a catalyst for facilitating the connection between instruction and optimized learning, rendering development of social competencies relevant for all students (Elias & Haynes, 2008).

Despite these findings, and the ample literature advocating for the effectiveness of preventative practices beginning in early childhood (Hemmeter, et al. 2007; Macleod et al., 2017; Stormont, Smith, & Lewis, 2007), there is an absence of adequate planning and ongoing support for teachers regarding implementation and alignment of prevention objectives (Cook et al., 2015; Fox, Hemmeter, Snyder, Binder, & Clarke, 2011; Snell, Berlin, Voorhees, Stanton-Chapman, & Hadden, 2012).

Acknowledging the increasing prevalence of mental health concerns, many students fail to cultivate the prerequisite skills needed to navigate a school environment.
Children with a lack of social and emotional competencies tend to demonstrate challenges connecting with their teachers and peers, often resulting in a negative perception of self, and a failure to develop healthy student-teacher and peer relationships (Gunter, Caldarella, Korth, & Young, 2012; Pianta, 2013; Pianta, 1999). In general, research estimates that roughly 10-20% of children have at least one diagnosable mental health disorder and that nearly half of all of children will display symptoms or be diagnosed with a disorder by the age of 21 (Kessler, Berglun, Demler, Jin, & Walters, 2005; O’Connell, Boat, & Warner, 2009). However, approximately 70% of these individuals do not receive necessary services (Kataoka, Zhang, & Wells, 2002). Starting in early childhood, educators have consistently reported an increase in aggressive behaviors (Benedict, Horner, & Squires, 2007) and a lack of effective strategies to address these behaviors (Stormont, et al., 2007). Given that social-emotional skills have proven to be stronger predictors of future academic performance than past academic performance (Caprara, Barbaranelli, Pastorelli, Bandura, & Zimbardo, 2000), it is no surprise that students who are not taught appropriate social-emotional strategies early on tend to have difficulties with self-regulation and engaged learning (Durlak et al., 2007).

In order to ensure that the students access the considerable benefits of early education, there must be increased professional development for teachers that enables the implementation and alignment of social and emotional instruction and preventative classroom management practices. Using an integrated approach, proactive classroom management practices can be aligned with an SEL curriculum to provide routines for prompting, teaching, and reinforcing critical skills for school readiness.
While federally funded early childhood special education programs are intended to provide an abundance of services to students at risk or those with disabilities under P.L. 99-457, these services are not always made available for students exhibiting social and emotional or behavioral needs – often due to the nuances of exclusion criteria for eligibility and a lack of universal screening. Moreover, if services are implemented, they are often in response to an elevated need, rather than a more proactive and preventative approach (Benedict, et. al., 2007). Children in Head Start settings are often at increased risk for challenging behaviors, with educators reporting 40% of their students demonstrating one or more challenging behaviors on a daily basis, with many students exhibiting over 6 challenging behaviors daily (Willoughby, Kupersmidt, & Bryant, 2001).

Although an increasing amount of developmental literature has shed light on the significance of social emotional competence and executive functioning in early childhood (Upshur, Heyman, & Wenz-Gross, 2017), it is well documented that several young children, especially those from socioeconomic disadvantaged backgrounds, may enter preschool and kindergarten with these challenges, largely due to limited access to early learning and increased exposure to stress (Blair & Raver, 2015; Burchinal, Vandergrift, Mashburn & Pianta, 2010, McClelland, Acock, & Morrison, 2006). Without early social and emotional competencies, students are also susceptible to internalizing maladaptive methods of coping, including denial and withdrawal, often leading to poor mental health outcomes, such as anxiety, depression, and externalizing disorders (Denham & Weissberg, 2004; Durlak et al., 2011). Studies indicate that at least 50% of children who demonstrate challenging behaviors in preschool, go on to have similar problems in elementary settings (Campbell, Shaw, & Gilliom, 2000). Kindergarten and first grade students with problem
behaviors often become susceptible to peer rejection and are at increased risk for negative interactions with their teachers (Stormont, et. al., 2007). Similarly, research has suggested that disruptive and aggressive behaviors in elementary school have led to subsequent mental health disorders, problems with academics, and substance abuse with difficulties persisting into adulthood (Bradshaw, Schaeffer, Petras, & Ialongo, 2010; Kellam, et. al., 2008; Pas, et al., 2014).

Research confirms that prevention and early intervention for both behavioral and academic difficulties are increasingly effective and more desirable than waiting for these behaviors to escalate, requiring more intensive support (Cook et. al., 2015). Moreover, universal intervention is appropriate for all children, given necessary cultural adaptations, and should be provided within the classroom, the setting in which most of the behaviors first appear. Universal prevention refers to services disseminated to all students in the first level of tiered services through multi-tiered systems of support (MTSS). MTSS has been adopted as an effective framework for providing a continuum of mental health services to students, stemming from a public health model of prevention and using data-based decision making to guide the implementation of evidence-based practices (Doll & Cummings, 2008). Social Emotional Learning (SEL) (Durlak et. al., 2011; Taylor, Oberele, Durlak, & Weissberg, 2017) and classroom management strategies, such as those within Positive Behavioral Interventions and Supports (PBIS) (Bradshaw, Bottiani, Osher, & Sugai, 2014; Sugai, & Horner, 2002; 2009), have been identified as two of the most widely utilized universal prevention frameworks for promoting positive student outcomes.
Social-Emotional Learning

Social and Emotional Learning refers to a student-centered strengths-based approach aiming to foster a core set of competencies including; self-management, self-awareness, relationship skills, social awareness, and responsible decision making, as outlined by the Collaborative for Social and Emotional Learning (CASEL; 2008; Durlak et al., 2011; Zins & Elias, 2006). Students learn to express a continuum of emotions while maintaining an ability to self-regulate and have behavioral control, increasing resiliency and protective factors (Denham et al., 2004). Although SEL can be delivered to students through a variety of methods, effective SEL programming has been shown to follow the SAFE approach (Sequenced, Active participation, Focused lesson, and Explicit instruction) (CASEL, 2008; Durlak et al., 2011). While these foundational skills encompass the short-term goals of SEL, long-term implications include a myriad of prosocial outcomes. In 2011, a meta-analysis from Durlak and colleagues examined the results of 213 studies incorporating universal SEL interventions and found that SEL led to a reduction in negative behaviors, emotional distress, as well as improved behaviors, more positive attitudes toward school, and an 11 percentile point gain in academic achievement. In addition, a more recent meta-analysis of follow-up effects suggests that regardless of students’ socioeconomic status, race, or school location, those participating in an SEL intervention had increased well-being, social-emotional skills, graduation rates, and safe sexual behaviors. Notably, post-intervention social-emotional skill development was deemed the strongest predictor of well-being at follow-up (Taylor et al., 2017). Preventative Social and Emotional Learning curricula are necessary to minimize the number of students experiencing difficulty regulating their emotions, increase emotion recognition in others,
and facilitate appropriate relationship development. By doing so, the likelihood of costly resources allocated to often ineffective, later intervention methods, will be drastically reduced (Durlak, et. al., 2011; Taylor et al., 2017). However, while both of these meta-analyses are seminal in the field of SEL, they fail to include an early childhood population.

**Second Step in Early Childhood Settings**

Empirical support for SEL programs in early childhood settings is growing (CASEL, 2012; Domitrovich, Moore & Greenberg, 2012; McIntyre & Garbacz, 2016). Recognized as one of the most popular social and emotional learning curriculums, Second Step (Committee for Children, 1991) is a curriculum designed for universal intervention aimed at reducing aggressive behaviors and increasing social emotional competencies in Prek-12th grade (Frey, Hirschstein, & Guzzo, 2000). Ongoing research related to Second Step continues to garner primarily positive findings regarding its effectiveness on elementary student social-emotional skills and knowledge, (Cooke, et. al., 2007; Bierman, et al., 2010; Holsen, Iverson, & Smith, 2009; Moy & Hazen, 2018) prosocial behaviors (Low, Cook, Smolkowski, & Buntain-Ricklefs, 2015), as well as small, but meaningful effects on academic performance (Cook et al., 2018). Conversely, a randomized control trial across nine schools found results suggesting no positive or negative effects after curriculum implementation (Nebbergall, 2009).

Additional research is needed on the efficacy of Second Step in early childhood settings in particular. In a recent meta-analysis of the Second Step curriculum (Moy & Hazen, 2018) 5 of the 24 studies included involved a PreK population (Beisly, 2011; McCabe, 2000; McMahon & Washburn, 2003; Neace & Muñoz, 2012; Osmondson, 2000). However, three of those studies were doctoral dissertations (Beisly, 2011; McCabe, 2000;
Positive outcomes included medium effect sizes for prosocial behaviors (Beisley, 2011), and small effect sizes for reductions in antisocial behavior (McCabe, 2000; McMahon & Washburn, 2003 & Osmondson, 2000) and knowledge (Neace & Muñoz, 2012).

In a pilot study from 2013, initial results from a 2-year implementation of Second Step in a cluster-randomized design found that by the second year, improvements were observed in classroom climate and teacher interaction skills. While teachers generally reported positive responses to the curriculum, no evidence was found regarding improvements in student challenging behaviors or social skills (Upshur, Wenz, Gross, & Reed, 2013).

Based on the minimal effects the previous version of Second Step had on student outcomes, a new version of Second Step, Second Step Early Learning (SSEL), was developed (Committee for Children, 2011). Designed to include multiple short lessons throughout each day of the week, activities related to social emotional learning in this curriculum are further constructed to bolster student executive functioning competencies. With “brain builder” games incorporated throughout the week, mini lessons emphasized learning SEL skills, such as problem solving, through focusing attention, following directions, and inhibitory control. In a recent two-year randomized trial (Upshur et al., 2017) with 31 Head Start and community preschool classrooms, researchers implemented the SSEL curriculum, as compared to Creative Curriculum (Teaching Strategies, LLC, 2002–2012), another universal social emotional curricula. Results suggested significant improvements in students’ executive functioning skills for students in the SSEL condition as compared to the Creative Curriculum, but small effect sizes were indicated for students’
social emotional skills, including prosocial problem solving and emotion knowledge. These findings are likely attributed to the comparison curriculum’s similar emphasis on social emotional competencies, but not executive functioning skills. This study presents preliminary findings with the newest version of the Second Step curriculum and is one of the first early childhood SEL studies to include both Head Start and community-based preschool settings, increasing implications for curriculum generalization. Although these findings are promising, additional empirical studies are needed to consider Second Step evidence-based at the early childhood level.

**Proactive Classroom Management in Early Childhood**

In addition to promoting children’s social-emotional competencies, teachers are charged with creating healthy classroom environments. In order to cultivate safe and effective learning environments, classroom teachers must be able to incorporate proactive classroom management practices. Throughout the school-based literature, Positive Behavioral Intervention and Supports (PBIS) is a widely-cited framework for facilitating positive and predictable environments with ample opportunities for prompting, teaching, and reinforcing new skills. PBIS includes use of a three-tiered model of prevention and intervention and is reliant on the integration of data, systems, and practices (Sugai & Horner, 2009). At the elementary level, School-wide PBIS has been shown to be effective in reducing student absences, problem behaviors, and increasing academic performance (Bradshaw, et. al., 2014; Bradshaw, et. al., 2010; Horner et al., 2009; Bradshaw, Koth, Bevans, Ialongo, & Leaf, 2008). In the classroom, fundamental practices associated with a PBIS framework often include: a) maximizing structure b) establishing and teaching positively stated expectations c) actively engaging students in instruction, d) implementing
a continuum for responding to positive behavior, and e) incorporating a continuum of strategies for responding to challenging behavior (Simonson, Fairbanks, Briesch, Myers, & Sugai, 2008; Reinke, Herman & Stormont, 2013).

Although substantial literature exists related to PBIS in elementary settings, research related to PBIS in preschool settings is limited (Stormont, et. al., 2007). Initial early childhood PBIS studies suggest mixed results with decreases in teacher reported challenging behaviors (Muscott, Pomerleau, & Szcesiul, 2009) and mild improvements in academic engagement (Carter & Norman, 2010). A lack of effect on challenging behavior has also been documented (Benedict, et. al., 2007).

Results from preliminary PBIS adaption in early childhood settings suggest increased confidence of staff in dealing with challenging behaviors, ultimately facilitating less reliance on outside support and a substantial shift to more preventative, versus crisis and other more intensive intervention approaches (Hemmeter, et al., 2007; Steed et al., 2013). Other studies have further investigated the effects of increasing implementation of specific components of PBIS, such as behavior specific praise and pre-corrections, and found improvements in student behaviors (Convington Smith, Lewis, Stormont, 2010; Stormont, et al., 2007). Moreover, in an overview of common elements in early childhood, strategies related to modeling, precorrections, opportunities to practice, error corrections, specific praise, and tangible reinforcement were all cited as critical or useful in supporting social, emotional, and behavioral outcomes (McLeod et al., 2017). Given the literature base supporting the efficacy of individual practice elements and universal SEL curricula, additional research around the systematic use of these behavioral practices aligned with social emotional learning in early childhood is needed (Stormont et al., 2007).
Aligning Universal Classroom Management with Social Emotional Learning

While both proactive classroom management practices within a positive behavioral framework and SEL have accrued an abundance of literature advocating for their individual positive effects on student social, emotional, academic, and behavioral outcomes, a growing body of research suggests when they are implemented in combination, student mental health outcomes are bolstered, as compared to implementing one framework alone (Bradshaw, et. al., 2014; Cook et. al., 2015; Reinke, et. al., 2012). Both SEL and proactive classroom management are grounded in the assumptions that necessary conditions for learning include physical and emotional safety, high expectations for performance and behavior, teaching social-emotional core competencies throughout daily classroom instruction, and developing school connections (Bradshaw, et. al., 2014). As students learn new social and emotional skills, they should be presented with opportunities to use these skills identified through teacher prompting and further reinforced throughout the day in the context of the classroom, and larger school environment (Weare & Nind, 2011). Acquiring new skills takes practice, moreover, the newer or increasingly complex a skill is, the more reinforcement is necessary to increase the likelihood that children will engage in similar behavior in the future (Alberto & Troutman, 2009). Students benefit from ample opportunities to develop and practice the prerequisite skills for school readiness. Using an integrated approach, classroom management practices within a PBIS model can be emphasized to provide routines for prompting, teaching, and reinforcing key skills taught through SEL curriculum. Accordingly, a critical, but under researched element of SEL implementation is the specific practices that promote skill acquisition and generalization (Low, Smollkowski, & Cook, 2016).
In an early childhood context, the *Pyramid Model* is one framework that has served to provide an avenue for PBIS and SEL integration (Fox, Dunlap, Hemmeter, Joseph, & Strain, 2003; Hemmeter, Ostrosky, & Fox, 2006). The *Pyramid Model* largely aligns with the three tiered PBIS framework utilizing evidence-based practices to promote social and emotional competencies, while preventing and addressing challenging behaviors (Hemmeter, Snyder, Fox, & Algina, 2016). Although limited research exists regarding the effects of the Pyramid Model on student, teacher, or classroom outcomes, recent studies seeking to investigate this further have found promising results. Teachers who received professional development on the *Pyramid Model* as well as performance feedback coaching, demonstrated increased fidelity of program implementation, higher social emotional support, and a more positive classroom climate (Hemmeter, et. al., 2016). While initial research has investigated the efficacy of the framework program-wide, additional research is needed on specific components of the *Pyramid Model* as well as increased evaluation of tier I practices on their ability to increase social-emotional development and prevent challenging behaviors (Fox, et al., 2011).

*The Incredible Years* parent, teacher, and child training are other programs available at the early childhood level for universal prevention. These programs are primarily targeted at preventing conduct problems and improving school readiness through positive classroom management, family engagement, and social emotional lessons. Research investigating the effects of the teacher and parent programs have been positive with results suggesting improved parent-teacher relationships, decreased non-compliance and aggression, and the maintenance of these effects one year later (Webster-Stratton, Reid & Hammond, 2001). In addition, an evaluation of the teacher and child *Incredible Years*
program in high-risk schools indicates increases in teacher positive classroom management, improvements in student social competence self-regulation, and reduced conduct problems (Webster-Stratton, Reid, & Stoolmiller, 2008). However, despite the promise of preventative classroom practices (Boat et al., 2009; Durlak et al., 2011; Wilson & Lipsey, 2007), consistent implementation is an all too common barrier (Cook, Lyon, Kubergovic, Wright, & Zhang, 2015; Fox et al., 2011; Hemmeter et al., 2016).

A Need for Supplemental Training and Support

Oftentimes in the schools where students present with the most risk and highest needs, such as Head Start, they tend to have teachers with minimal training (Lankford, Loeb, & Wyckoff, 2002) and experience the largest amounts of turnover (Loeb, Darling, Hammond, & Luczak, 2005). Such a predicament only serves to contribute to the difficulty of supporting teachers’ ability to meet student needs – socially, behaviorally, and academically (Pas et al., 2014). While minimal student outcomes are frequently attributed to a lack of intensity, clarity, and fidelity surrounding the intervention and its implementation (Weare & Nind, 2011), the positive effects of increased implementation fidelity on improved student outcomes are well-documented (Domitrovich, Gest, Jones, Gill, & DeRousie, 2010; Durlak & DuPre, 2008; Low, et. al., 2016). Many educators do not receive adequate training in evidence-based classroom management practices (Simonsen et al., 2014). However, Head Start teachers in particular report feeling inadequately prepared to effectively manage these problem behaviors in the classroom (Stormont, et. al., 2007), especially with students with disabilities (Reinke, Stormont, Herman, Puri, & Goel, 2011). With rates of expulsion 3.2 times higher for preschool-age children than for school-age students (Gilliam & Shabar, 2006), it is apparent that early
childhood educators are not provided with the appropriate level of support needed to promote social emotional competencies and effectively address challenging behaviors in the classroom. High levels of stress from student misbehavior are often related to lower levels of reported self-efficacy in classroom management (Reinke et. al., 2013). Accordingly, a lack of efficacy regarding handling challenging behaviors in the classroom is a primary reason for leaving the teaching profession (Ingersoll & Smith, 2003). Self-efficacy is a significant mediating variable between knowledge and actual behavior (Bandura, 1977) and is frequently associated with instructional practices, proactive and positive classroom management, student achievement and motivation, and implementation of new interventions (Han & Weiss, 2005). Students who have teachers with poor classroom management, tend to receive less academic instruction and are more likely to have long-term negative academic, behavioral, and social outcomes, than students in well-managed classrooms (Reinke, et. al., 2013). Considering the fast-pace of the school environment and large number of responsibilities teachers are held accountable for, teachers cannot be expected to have the capacity to translate strategies learned at a day of professional development, directly into the classroom setting. Accordingly, the “train and hope” method of professional development has been consistently rendered ineffective when compared to professional development training paired with follow-up consultation for support in the classroom (Noell et al. 2005). To enhance teacher learning outcomes and support use of strategies into daily routines, ongoing opportunities for practice and reflection on these practices are essential (Darling-Hammond, Wei, Andree, Richardson, & Orphanos, 2009; Fixen, Blasé, Metz, & Van Dyke, 2013). In order to address behaviors and social emotional competencies at the larger classroom level, behavioral consultation
(Bergan, 1977; Kratochwill & Bergan, 1990) is an effective framework through which to increase teacher knowledge and use of strategies, essentially enhancing teacher capacity to implement more generalizable interventions with fidelity.

**Behavioral Consultation**

Derived from theories of behaviorism and operant learning, behavioral consultation is a systematic and structured problem-solving approach to collectively identify and analyze a problem before determining appropriate solutions and evaluating effectiveness (Bergan, 1977; Bergan & Kratochwill, 1990). The primary goal of behavioral consultation in a school setting is to cultivate and maintain desirable student behaviors by enhancing the teacher’s ability to provide evidence-based practices (Kratochwill & Bergan, 1990). Largely trained in intervention and consultation, school psychologists can provide ongoing coaching and support for implementation of these prevention initiatives (McIntyre & Garbacz, 2016). In a preschool context, some prior research has supported the effectiveness of behavioral consultation to increase the capacity of teachers to support children’s emotional, behavioral, and social development (Fox et al., 2011; Duda, Dunlap, Fox, Lentini, & Clarke, 2004). By increasing the strategies available in a teacher’s “toolbox,” as well as their ability to navigate through the problem solving process, behavioral consultation is an effective method for increasing positive student outcomes. Of note, embedding performance feedback within a behavioral consultation model has been deemed more effective for increasing treatment implementation than consultation alone (Erbas, 2010; Jones, Wickstrom, & Friman, 1997; Noell et al., 2005; Reinke, et al., 2014).
Performance Feedback

Performance feedback is one of the most frequently researched consultation features resulting in teacher behavior change and increased implementation fidelity in school-based contexts (Dufrene, et al., 2012; Solomon, Klein, Politylo, 2012; Fallon, Collier-Meek, Maggin, Sanetti, & Johnson, 2015). Although recently cited as an evidence-based intervention for improving teacher implementation of behavioral and academic interventions using What Works Clearinghouse criteria (Fallon, et al., 2015), the implications of performance feedback on teachers’ implementation were first studied by Cossairt, Hall, and Hopkins in 1973. By utilizing performance feedback, the consultant aims to increase target teacher behaviors, facilitating a problem solving process through ongoing support (Noell & Witt, 1999; Noell, Wit, Gilbertson, Ranier & Freeland, 1997). A meta-analysis of performance feedback across single-case literature suggests that outcomes have been shown to be moderately effective for increasing use of evidence-based practices in PreK-12 settings, despite varying frequency and method (Solomon, et al., 2012). Although additional research is needed to understand the additive benefits many of these methods may incur; the supplemental use of graphic visual representation has been consistently shown to increase the effectiveness of performance feedback (Hagermoser et al., 2007; Noell et al., 2005; Reinke, Lewis-Palmer, & Martin, 2007; Reinke, Lewis-Palmer, & Merrell, 2008).

Currently, performance feedback literature in education is primarily at the elementary level and has often been used to facilitate implementation of classroom positive behavioral interventions and supports (Bethune, 2017; Briere, Simonson, Sugai & Myers, 2015; Hershfeldt, Pell, Sechrest, Pas, & Bradshaw, 2012; Myers, Simonsen, & Sugai, 2011;
In an early childhood context, literature for performance feedback is increasing, yet remains relatively sparse. In an attempt to improve implementation of behavioral strategies associated with classroom PBIS in a Head Start setting, Stormont, Lewis, and Smith (2007) found the use of performance feedback led to a significant increase in teacher pre-corrections and praise statements. Similarly, in 2010, Carter and Van Norman found a strong positive relationship with performance feedback and teacher’s ability to create a consistent and predictable environment, implement effective and efficient transitions, and acknowledge appropriate behavior. Performance feedback has also been utilized to facilitate training and coaching of teachers’ implementation of Pyramid Model practices, a complementary early childhood model to the PBIS framework (Fox, et al., 2011; Hemmeter, Hardy, Schnitz, Morris-Adams, & Kinder, 2015; Hemmeter et. al., 2016). Teachers who received professional development as well as performance feedback coaching, demonstrated increased fidelity of program implementation, including the promotion of social-emotional competencies and positive classroom climate (Hemmeter, et. al., 2016). Other studies suggest positive implications for teachers maintaining similar behaviors (Fox et al., 2011) with pre-intervention data indicating particular difficulties promoting social-emotional teaching strategies. These findings are in line with additional research emphasizing the significance of utilizing performance feedback to improve treatment implementation (Fallon et al., 2015; Noell et al., 1997; Noell, et al 2005; Solomon, et. al., 2015). While research on performance feedback consistently yields positive findings for its impact on teacher behavior, mixed findings exist as to the extent that these practices significantly affect student outcomes (Carter & Van Norman, 2010; Hemmeter, et al., 2015; Solomon et al., 2012).
**Current Study**

Historically, school-based preventative frameworks are often implemented in isolation with little consideration of alignment and integration of practices throughout the school day. In addition, there is often a lack of professional development that involves ongoing consultation and support for implementation of these practices. The present study aims to address this gap and increase school psychologists’ preventative involvement through consultation in early childhood school settings. Using an integrated approach of a brief professional development session and weekly consultation with performance feedback, teachers were coached on classroom management practices to provide increased opportunities for prompting, teaching, and reinforcing key skills taught through the *Second Step* curriculum, outside of structured lessons. This study investigated the following research questions: 1) Is there a functional relationship between the introduction of consultation with performance feedback and teacher implementation of aligned classroom management strategies with *Second Step*? 2) Is there a functional relationship between the aligned classroom management strategies with the *Second Step* and decreased challenging behavior? 3) Does consultation with performance feedback increase feelings of teacher efficacy for classroom management? 4) Do teachers find this alignment to be a socially valid approach?
CHAPTER 2
LITERATURE REVIEW

Prevention in Early Childhood

Epidemiological studies within the field of prevention science suggest that the majority of social, emotional, and behavioral concerns have similar underlying risk factors (Domitrovich, et al., 2010). Acknowledging this, strategic integration of universal programming in early childhood may be the most efficacious method for prevention (Hemmeter, Ostrosky, & Fox, 2006; O’Connell, et al., 2009; Pas, Bradshaw, & Cash, 2014). While addressing behavioral and social emotional difficulties early on remains salient, the paucity of school psychologists and other mental health professionals in early childhood school settings presents significant barriers to supporting the development of healthy classrooms. As such, it has been suggested that school psychologists take on a more proactive role, facilitating school readiness in inclusive settings for all students (Albriton et al., 2019; Hojnoski & Missall, 2006).

Introduced in 1965, Head Start agencies currently serve nearly 1 million low-income students and their families, implementing programming that strives to decrease the gap between disadvantaged children and their more affluent peers by bolstering social-emotional, behavioral, and academic competencies (Grisham-Brown & Hemmeter, 2017). Research has deemed the socio-economic status of aggregated groups (e.g. schools) one of the strongest predictors of educational success (García & Weiss, 2017; White, 1982). Moreover, when students fall behind early on, it is increasingly difficult to remediate the gap that has largely affected development across several domains. This achievement gap that has been shown to exist between African Americans and White
peers upon entering Kindergarten (Barnett, Jung, Youn & Frede, 2014) with over-
expulsion of African American students and the high teacher turn-over rate in early
childhood having implications for perpetuating this discrepancy (Albritton, Matthews, &
Anhalt, 2019).

Although a conjoint policy was issued by both the Department of Education and
Department of Health and Human Services limiting the number of suspensions and
punitive discipline practices, children from low-income families in high-crime urban
neighborhoods remain highly susceptible to developing at-risk behavior, such as anxiety,
depression, and aggression, due to a of myriad social and community stressors, including
exposure to violence (Grant et al., 2000). Fortunately, a 10-year longitudinal study by
researchers at the Economic Policy Institute following Kindergarteners through 9th grade,
suggests that this achievement gap has not widened; however, it has not narrowed either.
Of note, authors postulate one promising avenue to close this gap is increased prevention-
oriented investment in preschool settings (Garcia & Weiss, 2017). Specifically, the use of
developmentally appropriate practices, such as clearly communicating expectations,
providing reinforcement for meeting expectations, and embedding consistency into
behavior response procedures, are highlighted throughout (Garcia & Weiss, 2017). An
emphasis has also been placed on improving the training and support of these early
childhood professionals through the use of behavioral consultation (Gilliam, 2005).

Not surprisingly, the turnover rate for Head Start teachers is dismal, with nearly
17% of teachers leaving during the school year. Although reasons for leaving may vary,
one study drawing from 4,000 children and 850 teachers found that teacher turnover was
systematically related to center climate and a lack of administrative support for classroom
behaviors (Markowitz & Bassok, 2018). While the Office of Special Education Programs (OSEP) mandates that early childhood agencies report on social emotional skills and the action taken to address student needs, preschool teachers report feeling grossly underprepared in addressing students’ social and emotional needs, with only 20% receiving indicated training in promoting social and emotional competencies (Joseph & Strain, 2003).

Increasing evidence continues to recognize the aggregated effects that healthy social-emotional development has during early childhood. Overall, improved social emotional competencies have been shown to increase access to resiliency, positive well-being, and reduces the development of future health risks (Anda et al., 2006; Boyd, Barnett, Bodrova, Leong, & Gomby, 2005). Accordingly, Jones, Greenberg and Crowley (2015) found that children’s social and emotional competencies upon entering Kindergarten have been associated with positive outcomes in young adulthood, including fewer mental health concerns, less criminal activity, and increased educational attainment. Socioeconomic status and ethnicity have also been cited as positive moderators of intervention effectiveness. Moreover, an increasing number of prevention studies confirm the finding that children who present with the highest challenging behaviors and lowest social skills, often derive the largest intervention gains (Durlak et al., 2011; Low et al., 2015; Moy & Hazen, 2018; Taylor et al., 2017; Wilson & Lipsey, 2007). Conversely, if social emotional issues due to disabilities, trauma, or maladjustment fail to be attended to early on, these same children are at elevated risk for learning difficulties, aggression, delinquency, and a variety of poor mental health and physical health outcomes (Boyd et al., 2005; Anda et al., 2006).
In general, two primary preventative approaches are utilized in early childhood to enhance social emotional competencies and address behavioral concerns at the classroom level. The first approach is often teacher consultation, providing training in positive classroom management strategies and, at times, targeted interventions for individual students. However, research suggests that more students are identified for needing supplemental support than can be individually supported by mental-health consultants. Accordingly, the second form of intervention is the implementation of social-emotional learning (SEL) curricula aimed at the larger classroom level to build social-emotional skills and prevent challenging behaviors. While both SEL curricula and classroom consultation to support use of classroom management skills have shown efficacy in addressing intended outcomes, there is often a lack of alignment across prevention objectives and thus potential missed opportunities for student growth. Of note, given extensive training in prevention and consultation, school psychologists are well-positioned to facilitate the implementation of these universal supports (Albritton et al., 2019).

Social-Emotional Learning

SEL Framework and CASEL Competencies

Children’s social, emotional, and academic learning are intrinsically intertwined. Accordingly, schools who intentionally integrate, rather than fragment, efforts to further these competencies are often the most successful (Elias, Zins, Weissberg, 1997). Prominent prevention researchers Adelman and Taylor claim that if schools are to reach their academic goals related to instruction and management, they must also attend to the “enabling” components of those goals (2010). Social-emotional learning is an enabling component to academic success in that it involves a promotion of critical social problem
solving skills (Zins, Bloodworth, Roger, Weissberg, & Walberg, 2004). The Collaboration for Academic, Social, and Emotional Learning (CASEL, 2003) has conceptualized the foundational components of social emotional learning to include 1) Self-Awareness 2) Social Awareness 3) Responsible Decision Making 4) Self-management 5) Relationship Management. Although there are many methods to teach social emotional competencies, such as embedding SEL within the curriculum or utilizing specific SEL programming, CASEL recommends utilizing a SAFE (Sequenced, Active, Focused, Explicit) approach. This method involves teaching an SEL skillset in a sequenced manner, promoting active participation, developing a focused lesson to promote social and emotional skills, and providing explicit instruction to a specific social and emotional skill (CASEL, 2008; Durlak, et. al., 2011). Moreover, while an evidence-based intervention is essential, it does not in itself merit success. CASEL researchers articulate that SEL programming should be further grounded in research and theory, relevant to daily life, involve families, be linked to academic outcomes, and have procedures in place to monitor fidelity and engage in evaluation (Zins et al., 2004). Over the last several decades, a wealth of research continues to support the effectiveness of SEL to foster students’ success in school and general life outcomes (Elias et al., 1997; Zins, Weissberg, Wang, & Walberg, 2004) including the targeted development of social emotional skills and knowledge, improved social and academic adjustment, and reduced emotional distress and conduct problems (Durlak, Domitrovich, Weissberg, & Gullotta, 2015; Durlak et al., 2011; Sklad, Diekstra, Ritter, Ben, & Gravesteijn, 2012; Taylor et al., 2017). Universal social emotional learning curricula have also been shown to have an impact on academic achievement, particularly reading and math (Corcoran, Cheung, Kim & Xie, 2018). Although many SEL programs
are largely intended for prevention purposes, in general, and as noted previously, studies have found that students who were considered ‘at-risk’, or those with the highest symptomology, demonstrated the largest decrease in internalizing symptoms as well as an increase in prosocial behaviors, after exposure to the SEL curriculum (Durlak et al., 2011). Researchers postulate these findings are often due to the ample room for growth that these students initially present with. Not surprisingly, more indirect measures, such as adjustment, distress, and conduct problems have yielded smaller, albeit significant, effect sizes than more direct outcome measures, such as social emotional knowledge (Sklad et al., 2012). Given these results overall, several meta-analyses have supported the effectiveness of using SEL curricula as a sound method for promoting social emotional competencies in school settings (DuBois et al., 2002; Durlak et al., 2011; Durlak & Wells, 1997; Haney & Durlak, 1998; Hill et al., 2007; Horowitz & Garber, 2007; Moy, Polanin, McPherson, & Phan, 2018; Taylor et al., 2017; Wilson & Lipsey, 2007). While this literature is often referred to when advocating for the implementation and long-term effects of SEL, a significant shortcoming of these popular meta-analyses is the failure to include students in pre-kindergarten settings. Despite this, several conclusions regarding the facilitators of effective SEL, such as utilizing SAFE teaching practices and considering resources and when incorporating multi-faceted SEL programming, remain salient for early childhood settings.

While several SEL curriculums have been utilized in early childhood (e.g. Tools of the Mind (Bodrova & Leong, 2007), PATHS (Domitrovich, Greenberg, Cortes, & Kusche, 1999), Strong Start (Merrell, Whitcomb, & Parisi, 2009), Incredible Years (Webster-Stratton, 2001)
with generally positive effects related to improved prosocial student behaviors, teacher-
student relationships, and teacher implementation (Gunter, Caldarella, Korth, & Young,
2012; Mattera, Lloyd, Fishman, & Bangser, 2013) Second Step is one of the most popular
SEL programs with a diversified evidence-base for promoting improved social emotional
competencies and student behavior (CASEL, 2013). Endorsed by CASEL in their 2013
report as an effective SEL curriculum (“SELex”) for the program’s well-designed SAFE
procedures and classroom-based approach, Second Step has been determined efficacious
in numerous quasi-experimental and RCT studies with diverse populations.

Second Step

Second Step is a widely used manualized social-emotional learning curriculum for
use in Pre-K to 8th grade settings that has been adapted and translated for international use.
Intended as a violence prevention program to increase prosocial behavior and reduce
challenging behavior, Second Step has been at the forefront of numerous research studies
(Committee for Children, 2011; Moy, et al., 2018; Low, et al., 2015). A growing body of
research has also examined the effectiveness of Second Step with diverse populations of
students from urban neighborhoods and those from low socioeconomic status, with studies
reporting between 20-75% of students on reduced lunch (Moy & Hazen 2018).

Evaluated with several randomized control trials (Grossman et al., 1997; Low et
al., 2015; Upshur et al., 2017; Espelage, Rose, Polanin, & 2015; Frey, Nolen, Edstrom, &
Hirschstein, 2005) and quasi-experimental designs (Holsen, Smith, & Frey, 2008; Schick
& Cierpka, 2005) results from the implementation of Second Step are primarily
encouraging. Indeed, notable improvements in student positive social behavior, emotion
knowledge, and social emotional skill performance as well as decreases in conduct
problems and emotional distress have been reported (Durlak et al., 2011; Upshur et al., 2017). However, a recent meta-analysis by Moy and colleagues (2018) suggests that the effects of Second Step on student outcomes may be a stronger predictor of knowledge of violence and other emotion knowledge targeted with the curriculum, rather than a direct facilitator to reduce antisocial behaviors (Moy et al., 2018). Authors found that studies that used outcomes measures related to knowledge of the curriculum indicated large, positive effects, compared to studies assessing behavioral outcomes (e.g. prosocial and antisocial behavior). Accordingly, this current review did not find evidence that Second Step led to a statistically significant reduction in antisocial behaviors (Moy et al., 2018). Additional investigation is needed into the implementation details of those studies that did demonstrate reductions in antisocial behaviors, and for the populations in which this change was significant. Furthermore, the definitions of “antisocial” and “prosocial” behaviors often vary across studies, making comparison a somewhat meticulous process. As such, when assessing behaviors that are particularly affected by the intervention, it is critical to understand the behaviors defined within the dependent variables of interest.

Previous studies investigating Second Step at the elementary school-wide level have shown increases in prosocial attitudes (Neace & Muñoz, 2012), social competence, moderate to slight decreases in antisocial behavior (Frey, Nolen, Edstrom, & Hirchstein, 2005; Sprague et al., 2001, Taub, 2001), as well as reduced absences and tardiness (Neace & Muñoz, 2012). However, during a second year of Second Step implementation, some studies have found no additional difference in student behavior (Frey et al., 2005), and even small increases in challenging behavior (Cooke et al., 2007; Brown, Jimerson, Dowdy, Gonzalez, & Stewart, 2012). Potential hypothesis for these findings include increased
awareness of behaviors, the appropriateness of fit with the school population, resources, and relevant needs, in addition to the challenge of implementing multi-component interventions, and the threats posed to implementation fidelity (Durlak et al., 2011).

The *Second Step* curriculum has also demonstrated positive effects at the middle school level (SS-SSTP; Committee for Children, 2008). A recent 3-year randomized controlled-trial (Espelage, Rose, Polanin, 2016) found that students with disabilities (N=123) reported an improved willingness to intervene in bullying situations and demonstrated an increase in standardized academic performance by half a grade, as compared to those students receiving the “Stories of Us” Bullying program (Faull, Jimerson, Swearer, & Espelage, 2008). Over a 1-year period, authors have also found significant decreases in middle school self-reported physical aggression after exposure to the curriculum. No significant intervention outcomes were found related to verbal or relational bullying (Espelage, Low, Polanin, & Brown, 2013).

While the literature on *Second Step* in general continues to grow, few studies have evaluated the efficacy of *Second Step* at the early childhood level, specifically. Moreover, given the emphasis placed on universal interventions within the early childhood *Pyramid Model* (Fox et al., 2003), the use of *Second Step* to bolster social emotional competencies for all students fits well within the framework as a general best practice.

**Description of *Second Step* in Early Childhood School Settings**

The *Second Step* Early Learning (SSEL) program was developed by the Committee for Children (2011) and intended for implementation in preschool classrooms as a universal tier I intervention. Although intentionally targeted for children ages 4-5, the program has also been indicated as appropriate for use with students ages 3-5 (Upshur et al., 2017). The
SSEL curriculum is organized into five major units 1) Skills for Learning 2) Empathy 3) Emotion Management 4) Friendship Skills and Problem Solving and 5) Transition to Kindergarten. Within these larger units, 28 weekly themes are taught in a whole-group format by trained personnel or a classroom teacher. For example, in the Skills for Learning unit, weekly themes include focusing attention, following directions, and asking for what you need, among others. Each weekly theme is displayed on a large card with a breakdown of five short activities (5-7 mins). Intended to be implemented all five days of the week, each Day 1-5 is clearly indicated, with a visual of the skill on the opposite side. Throughout the curriculum, a number of strategies are incorporated to increase SEL development, such as brain builder games to target executive functioning, connections to home, reinforcing activities, and weekly theme activities (CASEL, 2019).

On each weekly lesson card, there are 5 short lessons detailed to be utilized throughout the week. While the first day includes a script and the main lesson, the second day involves sharing of experiences and facilitated discussion. During the third and fourth days, the card provides practice activities that can be delivered in small and large groups. And lastly, on the fifth day the teacher is encouraged to read a book representative of the weekly theme before sending with students home with a “home link activity” to practice these skills with caregivers. While the breakdown of the curriculum into smaller lessons can be considered developmentally appropriate, implementation of 5 (albeit short) lessons per week, increases teacher requirements and may leave ample room for poor implementation fidelity. Indeed, consistent and explicit instruction in social emotional competence has been deemed critical to the development of social emotional competencies,
especially those with social emotional difficulties and other challenging behaviors (Brown, Odom, & McConnell, 2008).

Second Step Studies Including a Preschool Population

In general, studies implementing the Second Step curriculum within a preschool population have shown promising, yet mixed results (Brown, Jimerson, Dowdy, Gonzalez, Stewart, 2012; McMahon et al., 2000; Ocasio, Van Alst, Koivunen, Huang, & Allegra, 2015; 2000; Upshur et al., 2013; Upshur et al., 2017). While some studies have shown improvements in student social skills, emotion knowledge, disruptive behaviors, and academics, others have failed to document these differences as indicated by teachers. In addition, given the low-resource nature of the intended population, feasibility related to certain methods of curriculum implementation (e.g. graduate students, researchers, mental-health clinicians) over long periods of time, is also a concern.

After a year of Second Step implementation with urban preschool and Kindergarten students from ethnically diverse, low-income backgrounds (N=109), McMahon and colleagues (2000) found positive, yet varied, outcomes of the curriculum across the two grades. Based on teacher report, observation, and child interviews, overall, students developed a significant increase in skill knowledge and decrease was observed in challenging behaviors. Specifically, skill improvements were demonstrated through increased identification of emotions and facial expressions assessed via student interview (pre-test 6.533, post-test 9.05), but not through the social skill rating scale. In addition, verbal aggression decreased from .49 to .14, $\eta^2 = .19$, disruptive behavior decreased from .49 to .14, $\eta^2= .17$, and physical aggression decreased from .71 to .46, $\eta^2=.05$). Of note, although direct observation indicated a decrease in challenging behaviors, teacher reports
did not suggest improvements in challenging behaviors. One rationale for this could be the lack of sensitivity that outcome measures assessing behavior can present. Furthermore, teachers’ expectations of the students could have increased given their exposure to the curriculum. This dichotomy between observation and teacher report has also been found in a previous study (Grossman et al., 1997.) Limitations of this research include a rather transient and small population, lack of a control group, and large differences across preschool and kindergarten classrooms. In addition, this study utilized mental health staff and graduate students to help implement the curriculum, which is not likely feasible in most schools.

In 2012, Brown and colleagues conducted a study with a similar population to assess the effectiveness of School-Wide Second Step implemented with Pre-K-4th graders who were predominantly English Language Learners (ELL) (N=403). Teaching curriculum Units 1 through 3 (approximately 25 lessons) over the course of 8 months, results measured by the Knowledge Assessment of Second Step (KASS; Committee for Children, 2004) indicated that preschool students showed increased social and emotional knowledge (pre-test mean = 8.7, post-test mean = 18.75), and according to the Behavior Emotional Screening System (BESS; Kamphaus & Reynolds, 2007) demonstrated small and insignificant decreases in emotional and behavioral risk (pre-test mean = 57.7, post-test mean = 55.35). Although non-significant, this minute decrease is in contrast to the small increase in risk observed with all grade combined (combined risk pre-test mean = 52.54, combined risk post-test mean = 54.12). While improvements in social emotional knowledge have been shown to be a primary outcome of universal SEL curriculums, these findings are noteworthy in that this study was the first to demonstrate the effects of Second
Step with a majority Latino, English Language Learner population of low-socioeconomic status. Regarding the curriculum’s impact on behavioral outcomes, effects have been consistently varied across multiple studies. The increased risk behaviors indicated in this study overall could be attributed to improved student comprehension of the assessment language as well as increased self-awareness of their behaviors. Despite a strength of this study being the translation of key concepts for ELL preschool students into Spanish, limitations include the implementation of the curriculum by school psychology doctoral students, rather than school staff, a lack of fidelity data, and that results included in the current study were only derived from 165 of the 403 students.

Although substantial research exists regarding the implementation of Second Step with various ages, only one experimental design has investigated the effectiveness of the most recent version of Second Step at the early childhood level, the Second Step Early Learning curriculum (SSEL) (Upshur et al., 2017). In the 2-year randomized control trial of 31 preschool and head start classrooms, (n=16 SSEL, n=15 usual curriculum) results suggested that the SSEL curriculum (adapted to include executive functioning activities) may be more beneficial than other SEL curriculums in improving executive functioning (EF) and social emotional skills, especially prosocial problem solving skills. Of note, a study by Duncan and colleagues (2007) suggests that EF may better predict academic achievement than the presence of social-emotional skills. With a well stratified sample of 492 ethnically diverse and low-income children, significant improvements were observed in both EF and social-emotional skills, domains considered critical to school readiness for young children. However, stronger effect sizes were found for executive functioning skills (i.e. tasks related to attention, working memory, and inhibition) as compared to social-
emotional outcomes (i.e. prosocial problem solving skills), with minimal increases found for emotion knowledge. Such results could be attributed to the “treatment as usual” control groups utilizing a curriculum that also focused on social-emotional skill development, as opposed to executive functioning (Upshur et al., 2017). While this study has several strengths, including the generalizability across different types of pre-school settings, high fidelity, individual child assessment, and control for covariates such as gender, ethnicity, age, and family income (all of which only age played a mediating role), there are also mentionable limitations. These limitations include a substantial level of consultative support that might not be sustainable, the administration of some post-test measures prior to the end of the curriculum, and decreased level of implementation fidelity during the intervention treatment year.

A previous version of Second Step Early Learning (2002) failed to show changes in teacher reported social skills and problem behaviors, even after adjusting for baseline scores among control and treatment groups (Upshur et al., 2013). Researchers suggest these results may be due to the higher expectations teachers had for students in the control group and articulate a need for multiple methods of rating student behaviors beyond that of teacher ratings. Of significance, these authors did find improvements in classroom climate and teacher interaction skills, such as increased supervision and constructive reactions to challenging behavior. This effect was found to be supplemental to those classrooms that were already utilizing consultative supports for individual students and further advocates for the additive effects of universal curricula on positive classroom outcomes.
Overview of Universal SEL Programming Results

Although in general, the results of universal SEL programming often show statistically significant positive outcomes related to prosocial behaviors, findings suggest even the most prominent SEL programming has shown moderate to small effect sizes with even smaller follow-up outcomes (Moy et al., 2018). In addition, although skills work within a particular curriculum alone has been considered inadequate for optimal positive youth development, the effects of whole-school approaches have varied. While many endorse the desired benefits of a multi-tiered model, other meta-analyses of prevention programs (Durlak & Dupre, 2008; Durlak et al., 2011; Wilson & Lipsey, 2007) suggest this multi-component model may be increasingly difficult to implement and thus, less effective. Supplemental investigating into the “active ingredients” and sustainability mechanisms for high-quality implementation and lasting outcomes is also needed. In particular, methods in which to promote not only skill acquisition in the immediacy of the lesson, but generalization of those social-emotional skills to applied contexts where those skills are needed (Low, et al., 2016). For instance, though students may develop knowledge of social-emotional skills, a change in knowledge may not always translate to a change in reported children’s behavior (McMahon, Washburn, Felix, Yakin, Childrey, 2000).

In early childhood specifically, effects of universal SEL curricula, such as Second Step, have yet to be consistently solidified in their ability to significantly reduce challenging behaviors in diverse low-SES populations. Given these negligent, small, or even moderate effect sizes on student behaviors, integration of SEL programming with other critical practices, such as classroom management strategies, may be a promising avenue to promote generalization of SEL skills, providing practice opportunities and
reinforcement of skills across the day and school year, ultimately increasing intervention impact on student outcomes.

**Proactive Classroom Management in Early Childhood**

Primary prevention strategies targeted at the classroom level can be utilized to support all children in the facilitation of prosocial interactions and reduction of challenging behaviors (Hemmeter, Ostrosky, & Fox, 2006). While SEL curricula tend to be student-centered, proactive classroom management practices cited within a positive behavioral support model are often teacher-centered with a focus on teaching, prompting, and acknowledging behaviors. Prosocial skills are taught and reinforced, while maladaptive behaviors are responded to consistently and preventatively (Sugai & Horner, 2006).

In Head Start settings, children are often at increased risk for challenging behaviors, directly affecting their opportunities to access the benefits of an early childhood education. Many educators report that 40% of their students demonstrate one or more problem behaviors on a daily basis, with several students exhibiting over 6 behaviors daily (Willoughby et. al., 2001). In students with disabilities, studies have suggested behavior concerns to be 3 to 7 times that of typically developing students (Baker, Blacher, Crnic, & Edelbrock, 2002; Dykens, 2000). Acknowledging the challenging dynamic of preschool classrooms, it is no surprise that teaching quality and prosocial student behavior are highly correlated with teacher feelings of self-efficacy and job satisfaction (Klassen & Chiu, 2010). Moreover, a lack of classroom management skills is often linked to increasingly poor academic, social, and behavioral student outcomes (Reinke & Herman, 2002).

Given the higher prevalence of students with disabilities and challenging behaviors in inclusive Head Start classrooms, it is critical to consider the use of low-intensity positive
behavioral support strategies, such as pre-corrections, modeling, multiple opportunities to respond, error corrections, behavior specific praise, and tangible reinforcement (Landrum & Sweigart, 2014; Lane, Menzies, Ennis, & Oakes, 2015). Cited as effective and evidence-based for students with and without disabilities (Collins, Cook, Sweigart, & Evanovich, 2018; Myers, Freeman, Simonsen, & Sugai, 2017), these proactive classroom management strategies are largely advantageous for their use in inclusive early childhood classrooms.

While considerable research exists related to Positive Behavior Interventions and Supports (PBIS) in elementary settings, literature related to PBIS in preschool settings is sparse (Stormont, et. al., 2007). Acknowledging the importance of providing concrete strategies to add to a teacher’s “behavior toolbox,” a recent PBIS-based classroom management framework has been established (Reinke, et al., 2013). In this framework, proactive classroom management is defined with two primary practices 1) establishing and teaching routines and expectations and 2) providing behavior specific praise and error correction. In general, student performance increases when behavioral and academic expectations are clearly communicated (Evans & Weiss, 2014). Moreover, all students, especially those with special needs, require and benefit from multiple opportunities to practice new skills and corrective and supportive feedback (Myers, et al., 2017). Effective teaching involves the use of specific, positive praise statements when students meet expectations and specific error corrections with the expectation stated, when the student does not meet expectations (Office of Special Education Programs; OSEP, 2015).

Studies that have aimed to address positive behavior support within the classroom have found generally low levels of PBIS implementation at baseline. However, added consultation has shown to be an effective catalyst in increasing teacher use of classroom
PBIS practices at the preschool level, including defining and teaching of expectations, behavior specific praise, and a continuum of responses to appropriate and challenging behavior (Benedict et al., 2007; Steed, Pomerleau, Muscott & Rohde, 2013). Despite enhanced classroom positive behavior support strategies, evidence for reduction in challenging behaviors has been mixed, with mild improvements in challenging behaviors (Muscott et al., 2009) and academics (Carter & Norman, 2010). A lack of effect on challenging behavior has also been documented in one study (Benedict, et. al., 2007). Additional studies are needed to ascertain the effects of positive behavioral support strategies in diverse preschool classrooms.

In a comprehensive review of the early childhood literature, McLeod and colleagues (2017) identified several common practice elements to promote social, emotional, and behavioral outcomes in ECC classrooms. Regarding classroom management strategies, five experts in early childhood education identified modeling, pre-corrections, error corrections, opportunities to respond, praise, and tangible reinforcement as primarily “essential” elements found in evidence-based models to increase early social-emotional and behavioral competencies. Of note, these low-intensity strategies are consistent with other studies outlining common practice elements for decreasing disruptive behavior (Chorpita & Daleiden, 2009; Garland, Hawley, Brookman-Frazee, & Hurlburt, 2008; Simonsen, Fairbanks, Briesch, Myers, & Sugai, 2008), and increasing appropriate academic and social behavior (Simonson et al., 2008).

**Modeling**

Derived from Albert Bandura’s theory of social learning, students learn new patterns of behavior through observing the behavior of others and directly engaging in that
skill directly (Bandura & Walters, 1977). Accordingly, modeling is one of the most basic, yet highly effective, classroom management strategies to promote learning of expectations and new skills. A teacher utilizes modeling when they demonstrate or have a peer demonstrate, a new skill to promote student learning (McLeod, et. al., 2017). When teaching behavioral expectations or social emotional skills, it is particularly important that teachers model not only the skill, but the positive social consequences of engaging in the skill. For example, when modeling “waiting patiently” for a teacher to finish their conversation, the teacher would provide ample praise to the student, as well as appropriately meeting their initial need to engage in that behavior. Although modeling can be used through a variety of methods, modeling a desired behavior or skill directly before that behavior is expected can serve as a particularly effective form of modeling and a visual pre-correction.

**Pre-Corrections**

When giving a precorrection, teachers are prompting a desired behavior *before* starting a task or entering a new setting (VanDerHeyden et al. 2001). In general, students demonstrate reduced challenging behaviors when informed of the classroom expectations (McLeod et al., 2017), thus, maximizing classroom structure through the use of precorrections is a fundamental positive classroom management strategy. Precorrections can be provided visually, verbally, or through multiple modalities. For example, a teacher might state “Friends, in one minute we will be starting center time, remember only three friends (holds up three fingers) can be in one center at a time”. Ideally, precorrections are situated throughout the day to prevent the occurrence of challenging behaviors. However, precorrections can also be utilized in instances where challenging behaviors occur most
often; for instance, during transitions (Simonsen, Myers, & Deluca, 2010). Use of precorrections, especially when paired with active supervision, specific praise (Stormont et al., 2007), and other reinforcement, can reduce inappropriate behaviors and result in improved student behaviors across the classroom and other school settings (De Pry & Sugai, 2002; Myers et al., 2017; Oswald, Safran, & Johanson, 2005). In addition to informing students of expectations, effective classroom management involves incorporating a continuum of methods to engage students (Simonsen et al., 2010).

**Opportunities to Respond**

When a teacher provides an opportunity to respond (OTR), they are soliciting a students’ verbal, visual, or gestural response, directly facilitating practice of specific skills (McLeod, et al., 2017). Naturally, when students are engaged in responding to a question, they are less likely to engage in problem behaviors (Sutherland, Alder, Gunter, 2002). However, in order to maintain the reduction of challenging behaviors often associated with providing OTRs, prompts to students should be varied as well as the method through which they are responding. Direct instruction techniques and class-wide peer-tutoring have been shown to increase OTRs and engagement. While general verbal prompts of individual call and response are still considered opportunities to respond, efforts to diversify student response options could include walking to different sides of the room, touching their head or toes, using two different colored papers for true or false responses, or 1 or 2 fingers for closed response answers. While incorporating multiple OTRs is considered beneficial for all students, increased use of OTRs is also highly effective for students with emotional behavior disorders, improving the accuracy of their responses, decreasing disruptive behaviors, and increasing task engagement (Sutherland et al., 2002; Sutherland & Wehby,
Providing increased OTR also improves the likelihood that students will comprehend a social skill or concept in instances when several error corrections are needed.

**Error Corrections**

When providing multiple practice opportunities, teachers should also aim to incorporate a continuum of corrective responses; with varying degrees of maladaptive behavior requiring different levels of teacher redirection. For instance, a student having difficulty following directions might receive a brief, direct verbal prompt back to the expectation, while a student engaging in hitting and kicking behavior toward another student may warrant immediate separation, followed by multiple opportunities to rehearse how to handle “big” emotions. Quality error corrections should include expectation-based language involving the environmental context, ultimately directing the student back to the desired behavior (Myers et al., 2017). Error corrections that provide validation of the student may also be particularly useful in maintaining the teachers’ relationship with the student. For example, a teacher stating “Jay, I understand it’s hard to take turns; however, during center time we share our toys with our friends, that is being kind to others” would be a high quality error correction. Of note, it is important that the appropriate behavior is reinforced at a higher rate than the undesired behavior in order to be established as a replacement behavior (Alberto & Troutman, 2009). Although there are several ways to reinforce students, one of the most frequently used examples of evidence-based reinforcement is behavior specific praise.

**Behavior Specific Praise**

Decades of research have identified behavior specific praise (BSP) as a salient low-intensity strategy for students with disabilities (Lewis, Hudson, Richter, & Johnson, 2004),
including those with emotional behavior disorders (Allday, Hinkson-Lee, Hudson, Neilsen-Gatti, Kleinke, & Russel, 2012) as well as students without disabilities (Simonson, Fairbanks, Briesch, Myers, & Sugai, 2008). BSP is defined any contingent statement that indicates teacher approval of a desired behavior by providing descriptive feedback (Reinke, et al., 2008; Sutherland et al. 2002). Although behavior specific praise can be provided through written or verbal feedback, for research involving direct observations, BSP is primarily operationalized as verbal communication. Effective BSP involves an explicit explanation of the demonstrated expectation and is given in close proximity to the desired behavior. For example, “Luis, wonderful job keeping your own personal bubble in line, I can tell you are using your listening ears and being safe!” In order for BSP to be recognized as authentic by students, it should also be varied and considerate of the students’ preferences (Myers et al., 2017). For instance, while one student may prefer peer and adult attention, others may react negatively toward it. BSP is associated with a myriad of increases in desired behavioral and academic skills (Partin, Robertson, Maggin, Oliver, & Wehby, 2010) including increased student time on task, reduced student tardiness (Royer, Lane, Dunlap, Ennis, 2018), increased prosocial behaviors, and decreased challenging behaviors (Hemmeter, Snyder, Kinder, & Artman, 2011; Reinke, et al., 2013). While general praise can provide utility in building relationships, research suggests that general praise rarely leads to on-task behavior, understanding of a task, or increased self-confidence (Hattie & Timperley, 2007). Research varies on the exact ratio of BSP, however, praise should largely exceed the amount of reprimands given, somewhere in the range of 4:1 or 5:1 (Sugai & Horner, 2002). Accordingly, when teachers increase their behavior specific praise, their use of corrective statements or reprimands has also been
shown to decrease (Allday, et al., 2012). To supplement the use of BSP, tangible reinforcement is an additional positive support strategy that is often used to facilitate children’s engagement in appropriate prosocial behaviors.

**Tangible Reinforcement**

When utilizing tangible reinforcement, the teacher provides a representative reward as a result of an appropriate social, emotional, academic, and/or behavioral response (McLeod, et. al., 2017). Effective tangible reinforcement also includes BSP to ensure the student understands the specific behavior for which they are receiving the tangible item. In early childhood, frequent examples of tangible reinforcement include providing a sticker, stamp, or pom-pom in response to a desired prosocial behavior, such as taking turns, following directions, or helping another student. Tangible reinforcement has been shown to reduce disruptive behaviors (Conyers, Miltenberger, Romaniuk, Kopp, Himle, 2003) and increase cooperation and sharing behaviors, among the social interactions of preschool students (Andrews & Krantz, 1982; Guglielm & Tryon, 2001).

**Overview of Positive Classroom Management**

Overall, effective classroom management within a positive behavioral support framework aims to 1) maximize structure 2) teach and review expectations 3) incorporate multiple engagement opportunities 4) include strategies to acknowledge appropriate behavior, and 5) embed strategies to address inappropriate behaviors. Positive classroom management can reduce challenging behaviors and increase opportunities for access to and engagement in instruction (Reinke, et al., 2008). Similarly, SEL curriculums strive to enhance social-emotional competencies and decrease challenging behaviors through the teaching of replacement skills throughout the school year. Yet, despite the wide-range of
student need and corresponding preventative goals associated with both classroom management and SEL curriculums, the purposeful alignment of prevention frameworks and practices often fails to be a programmatic or classroom objective.

**Aligning Universal Classroom Management with Social Emotional Learning**

In many schools, attempting to remediate student mental health concern includes adopting a “program-for-every-problem” approach. Although well-intentioned, this approach often leads to an inefficient use of limited resources, resulting in fragmented service delivery, “wash out” effects for students, and failure of long-term sustainability (Bradshaw, Bottiani, Osher, & Sugai, 2014; Fixsen, Blasé, Naoom, & Wallace, 2009). In 2004, Zins and colleagues reported that nationally, schools were implementing a median of 14 practices to prevent problem behavior and create safe environments. Given the notable influx in new social emotional programming, it is likely this number has substantially increased. Accordingly, with such a high concentration of efforts, the fidelity, quality, and alignment in which these programs are implemented, also falls under scrutiny (Gottfredson & Gottfredson, 2001).

While SEL offers an explicit means through which to enhance core social emotional competencies and other protective factors, proactive classroom management strives to promote an environment that leads to teaching, prompting, and acknowledging prosocial behaviors learned in the SEL curriculum. Students exhibiting both internalizing and externalizing concerns often indicate a need to develop social and emotional competencies, yet, these same students also benefit from consistent, safe environments that encourage practice opportunities and reinforcement of those skills (Bradshaw, et al., 2014). Efforts to effectively address challenging behavior in early childhood have indicated that a
comprehensive approach to behavior support is needed (Fox, Carta, Dunlap, Strain, & Hemmeter, 2010; Fox, et al., 2003). Moreover, this approach should include specific instruction around behavioral expectations and social skills within a positively designed environment with healthy relationships.

In general, SEL and PBIS are considered to stem from two different theoretical frameworks. While PBIS often accredits its roots to behaviorism and is conceptualized through “teacher-centered” practices, SEL is derived from a more developmental and cognitive-behavioral orientation and is primarily delivered through a “student-centered” approach (Zins et al., 2004). Given the diverse theoretical basis, contention exists as to how, and if, the two models should be integrated. However, one could argue that a lack of programmatic and theoretical range fails to address the complex nature of multifaceted student needs (Domitrovich, et. al., 2010). To this point, SEL and PBIS models implemented in isolation have relatively moderate effects, which may be attributed to the number of comorbid symptoms and complex behaviors that exist within any given school environment (Bradshaw et al., 2014). Despite seemingly different theoretical underpinnings, growing research suggests both frameworks can be readily integrated in a complementary manner, enhancing student opportunities for practice, redirection to, and acknowledgement of social-emotional skills. It is not sufficient to hone in on student-centered SEL without consideration of the nature of the classroom environment and student-teacher interactions (Zins et al., 2004). Successful SEL occurs in contexts where students feel safe, supported, and know what is expected. Similarly, studies evaluating the outcomes of PBIS have failed to document reduction in internalizing symptoms (Sugai & Horner, 2002) as many SEL curriculum such as Second Step have. Thus, a universal
approach to student mental health should involve the alignment and purposeful integration of complementary practices to promote skill development across domains, more robustly meeting the needs of the student population (Cook et al, 2015). Acknowledging this, several researchers have begun to explore and document how facilitating the generalization of social-emotional skills relies heavily on educators conveying their expectations, creating opportunities, and providing behavior specific praise around those social-emotional competencies throughout the day (Fox et al., 2003; Cook et al., 2015; Denham, et al., 2004).

**Research Aligning SEL and Positive Classroom Management Strategies**

In one of the largest randomized control trials evaluating *Second Step* at the elementary level, Low and colleagues (2015) conducted a one-year study with kindergarten to 2nd grade students in 61 schools (321 teachers, 7300 students) across six school districts. Prior to the curriculum implementation, teachers received a one-hour training in *Second Step* as well as a three-hour training in classroom management strategies to facilitate generalizability of SEL skills. Classroom management strategies included those often associated with positive behavior support, including opportunities to respond, greetings at the door to pre-correct problem behavior, cueing to regain student attention, establishment of purposeful relationships, and teaching, modeling and reinforcing expected behaviors. All of these strategies were selected given their effectiveness in supporting student engagement and improved classroom behavior (Simonsen, et al., 2008; Sutherland & Wehby, 2001). In general, results suggested that improvements in main effect teacher-reported social and behavioral outcomes were minimal, with small effect sizes. However, in line with previous research (Durlak et al., 2011), significant increases were noted in social-emotional competence for students with the largest reported deficits in comparison
to their peers. Limitations of this study include the lack of on-going support across the year for implementation and the sole reliance on teacher-report behavior rating scales.

In a similar matched quasi-randomized study, Cook and colleagues (2015) conducted a more in-depth, yet smaller (N=191, 8 classrooms) study to assess the independent and additive effect of PBIS and SEL. Across two large elementary schools (average age = 9.8 years; 14.7% on an IEP) of primarily economically disadvantaged youth, four separate treatment conditions were included, (a) PBIS only (b) SEL only (c) PBIS-SEL Combined and (d) Business as usual control condition. Neither school had a history of implementing PBIS or SEL and few teachers reported prior experience in classroom management. Within the combined intervention group, Kenneth Merrell’s *Strong Kids* curriculum (Merrell, Carrizales, Feuerborn, Gueldner, & Tran, 2007) was utilized as a 12-week SEL intervention, while PBIS strategies were selected from the BEST model of implementation (Sprague & Golly, 2004). Aligned PBIS practices included affiliating behavioral expectations with SEL skills, effective pre-corrections of SEL skills, definitions and procedures for responding to minor and major behaviors, behavior specific praise to reinforce use of SEL skills, and a ticket system to acknowledge demonstration of expectations. Regarding outcome measures, researchers included brief questionnaires (7-items) to assess for both internalizing (SIBS; Cook, et al., 2011) and externalizing symptomology (SEBS, Cook, 2012).

Results indicated significant main effects on internalizing (p = <.01, n² = .10) and externalizing (p = <.01, n² = .16) symptoms for all intervention conditions. However, while both PBIS and SEL implemented in isolation indicated significant reductions in both internalizing and externalizing symptoms, pairwise comparisons indicate the combined
PBIS and SEL group led to additive effects in decreasing externalizing behaviors and internalizing symptoms as compared to SEL or PBIS implemented alone (Externalizing comparison SEL vs. COMBO $t = -2.71$, Cohen’s $d = .57$; Internalizing comparison SEL vs. COMBO $t = -1.64$, Cohen’s $d = .33$) (Externalizing comparison PBIS vs. COMBO $t = -2.75$, Cohen’s $d = .58$; Internalizing comparison PBIS vs. COMBO $t = -3.12$, Cohen’s $d = .64$). All three conditions (PBIS only, SEL only, and PBIS and SEL combined) were significantly larger than those students receiving treatment as usual. Lastly, and of great importance, this blended approach was endorsed as acceptable and feasible by classroom teachers as treatment integrity remained between 75-100% throughout the intervention.

Other examples of SEL and PBIS integration have included utilizing the Classroom Checkup (Reinke, et al., 2011) coaching model to provide a systematic framework in supporting teacher implementation to combine the PATHS curriculum and the PAX Good Behavior Game (Embry, 2002; Embry, Staatemeier, Richardson, Lauger, & Mitich, 2003). Results from the two studies investigating this particular SEL and PBIS combination in elementary settings (Domitrovich, et al., 2010; Reinke et al., 2012) found that the integration significantly improved student engagement and appropriate student behavior (Domitrovich et al., 2010) as well as classroom management and the overall environment (Reinke, et. al., 2012). Furthermore, use of this coaching model to promote integration was rated favorably by classroom teachers (Reinke, et. al., 2012). Although the previously described research includes promising examples of SEL and PBIS integration at the elementary and middle school level, additional empirical studies evaluating this integration and feasibility are needed in preschool settings.
In one targeted example of assessing the effects of aligning positive behavior support with social skills in an integrated preschool setting, Guglielmo and Tryon (2001) conducted a randomized group design to allow comparison of treatments. In Group A, \(n=19\) students experienced the combined condition of social skills lessons and classroom reinforcement of target behaviors. In Group B, \(n=19\) students experienced only classroom reinforcement of target behaviors, while in Group C \(n=20\) students served as the control condition. Across the three groups, observations indicated that the combination of the social skills training (16 days of 20-30 minute social skills lessons in the classroom) and positive reinforcement of the target skills (Group A), enhanced “sharing materials” and “joining a group activity” behaviors in those students with developmental delays. Final results indicated significantly more sharing \((d = 1.25)\) and joining a group \((d = 2.66)\) behaviors in the combined condition than in classrooms only receiving positive reinforcement for those skills (sharing, \(d = .94\)) as well as control classrooms. Of importance, this intervention was perceived positively by students and teachers. Limitations warranting further discussion include the finding that although students in the social skills plus reinforcement condition demonstrated increased behaviors related to joining a group \((d = 2.99)\), this improvement was only significant when compared to the control group and not to the reinforcement condition alone (e.g. social skills training did not add to the effects of reinforcement only for “being in a group” behavior). In addition, given that frequency data was not collected in the control classroom (Group C), it is difficult to discern whether their praise rates were different from Group A and B. Despite
these limitations, this study demonstrates the promising effects of positive reinforcement given throughout the week for target behaviors related to relevant social skills lessons.

Another more prominent example of integrated positive behavioral support strategies and social emotional learning in early childhood at the systems level is the *Pyramid Model for Promoting Young Children’s Social Emotional Competence* (Fox, et al., 2003). Within the *Pyramid Model*, the framework is divided into three tiers of increasing intensity. Designed to build social emotional competence as well as prevent and address challenging behaviors, the *Pyramid Model* is highly related to the PBIS framework found in K-12 settings. Accordingly, the model was designed to provide a continuum of promotion, prevention, and intervention strategies to organize and guide decision making (Fox, et al., 2010). Universal strategies within the *Pyramid Model* include creating supportive relationships between students, teachers, and families, as well as developing nurturing, high quality environments. Secondary practices involve explicit teaching of social-emotional skills, such as emotion identification and self-regulation, to all students, as well as in small groups. Lastly, the third tier refers to more intensive, individualized services for students, specifically surrounding the implementation of behavior support plans. All practices within the Pyramid Model are considered to be developmentally appropriate, research-informed practices intended for implementation in a wide variety of early childhood classrooms (Fox & Hemmeter, 2009).

While implementation of this comprehensive framework is ideal for positive behavioral and social-emotional development, research suggests this model is often difficult to consistently and fully implement without sustained support (Vanderhayden & Synder, 2006). Data from three studies involving the Pyramid Model (Artman 2010;
Hemmeter & Fox 2009; Snyder, Hemmeter & Fox 2015) found that in absence of ongoing training and support, educators were implementing less than 40% of the designated practices. Moreover, when educators were engaging in these practices, strategy use was primarily around those students with the most problem behaviors, rather than utilizing strategies to support the classroom as a whole (Fox, et al., 2011). Some studies have reported the strategies used least in the baseline condition, were often those in the prevention portion of the pyramid associated with building social emotional competencies (Fox, et al., 2011). Research suggests that implementation of universal preventative practices, such as those associated with PBIS classroom management, as well as explicit instruction regarding social emotional skills, has led to decreased challenging behaviors and an overall diminished need for intensive individualized interventions (Hemmeter, Snyder, Kinder, & Artman, 2011; Stormont et al., 2007). Acknowledging this, supplemental support is needed to facilitate purposeful and consistent implementation of these practices.

A Need for Supplemental Training and Support in Head Start

Although the menu of evidence-based interventions for social emotional learning and proactive classroom management continues to grow, a notable gap exists regarding the factors that ensure sufficient training and implementation fidelity. In general, educators in preK-12 classrooms tend to report inadequate preparation in classroom management and behavior in their college coursework and prior training (Reinke et al., 2011; Simonsen et al., 2014). However, Head Start teachers in particular report feeling ineffective at managing challenging behaviors and indicate the negative impact this has on job satisfaction (Buysee, Wesley, Keyes, & Baily, 1996), likely resulting in the increased teacher turnover rate that
is commonplace in Head Start settings. Many early childhood educators have expressed desire to receive implementation support regarding building children’s social and emotional competencies and reducing challenging behaviors (Fox et al., 2011; Hemmeter, Corso, Cheatham, 2006; Snell, et al., 2012). Moreover, given Head Starts’ policy of full inclusion, it is typical for a single classroom to have 5-10 students with Individualized Education Plans. Acknowledging the complexity of student need and a lack of proper support, the turnover rate for Head Start teachers remains consistently high. However, one promising study suggests that educators are 13 times more likely to implement classroom-based interventions, potentially limiting burnout, when given access to additional supports, such as a coach, or consultant (Driscoll, Wang, Mashburn, & Pianta, 2011).

While Head Start teachers tend to have less years of formal education than K-12 teachers (Son, Kwon, Jeon, & Hong, 2013), research indicates mixed reviews for the impact of teacher qualifications on student outcomes. For example, some studies suggest that on the job training is significantly related to program quality, even more than teacher education (Love, Meckstroth, & Sprachman, 1997). Similarly, a study by Son and colleagues (2013), comparing teacher qualifications to in-service training with coaching support noted favorable implications for the use of on-going follow-up training. While teachers with higher qualifications (education, degree, and years teaching) engaged in high quality teaching and social emotional practices, teachers with less education who received the on-going training provided similarly high-quality social-emotional, as well as parent-involvement practices. Overall, findings suggest that professional development, including a follow-up component, can be as effective as an early childhood education degree in improving students critical skills for school readiness. Additional large-scale studies have
found minimal effects sizes (.17) of teaching experience and other qualifications on student outcomes and classroom environments (Early et al., 2006; 2007; Greenwald, Wedges, & Laine, 1996). Given that these studies may not have accounted for all aspects of teacher qualifications, additional research is needed on particular components that may be most effective in predicting positive student outcomes. As a school psychologist enabling the implementation of preventative practices, it is also critical to contemplate the means through which professional development and ultimately, change in behavior, will be facilitated.

**Professional Development Critical Features and Theory of Change**

Although professional development can be presented through various methods, research asserts that effective professional development is comprised of certain key features. Across the literature, researchers emphasize the need for educator professional development to be 1) explicit and targeted and include, 2) multiple exemplars in relevant contexts, 3) explicit feedback regarding implementation, 4) goal setting and, 5) research suggesting the direct benefits for children (Bowman, Donovan, & Burns, 2000; Diamond, Justice, Siegler, & Snyder, 2013; Guskey, 2003; Snyder et al., 2011). Moreover, an abundance of studies articulate the importance of extending outside of the time-limited professional development session to include a form of on-going follow-up support with school staff (Fallon et al., 2015; Noell et al., 1997; 2005; Solomon et al., 2012; Speidel & Tharp, 1978; Tate, Thompson, & McKarchar, 2005).

Further analyzing the “active ingredients” of professional development studies in early childhood settings, Snyder, Hemmeter, and McLaughlin (2011) conducted a systematic literature review. Of the 256 studies used, 62% included a specified follow-up
component. Although this may appear high, there must be consideration of the nature of the majority of professional development conducted outside the purposes of research, which is likely much lower. Of the studies employing randomized experimental designs (n=19), the most common methods of facilitation included workshops (n=13) and live coaching (n=6) involving observations, modeling, and performance feedback. Similarly, when instructing teachers to employ proactive classroom management skills in particular (e.g. precorrections, opportunities to respond, and behavior specific praise) researchers indicate the need to incorporate three salient features; 1) explicit instruction with a range of examples of desired teacher behavior in various classroom conditions b) practice activities that facilitate teacher fluency in desired skills and c) strategies that enable self-management (e.g. reminders, self-monitoring, etc.). This skill training should also include discrete, targeted instruction with effective classroom management skills (Simonsen, et al., 2010), an area of strength for many school psychologists.

Incorporating several of these critical professional development elements, one of the most salient studies related to the current intervention, Cook and colleagues (2015) engaged in professional development with elementary educators regarding the implementation of SEL and PBIS over two in-service training days. Training included a theoretical rationale and description of both frameworks, reasoning for programmatic integration, as well as utilizing a “tell-show-do” approach (Birman, Desimone, Porter, Garet, 2000) and “how to” scripts describing key implementation details for aligning practices between the frameworks. In particular, educators were given several examples of how to use behavior specific praise and precorrections to increase the development and maintenance of SEL skills. Teachers were further taught how modeling and providing
corrective feedback related to SEL skills could increase students’ connection to the PBIS expectations.

While several effective methods may be incorporated in an initial training session, without follow-up in the classroom context, it is unlikely that teacher behavior, implementation fidelity, or intervention outcomes will improve (McGee, 2008, Snyder & Wolfe, 2008; Fixsen, Naoom, Blasé, Freidman, & Wallace, 2005). Although this discrepancy is likely due to a limited amount of school resources, familiarity with previous professional development methods, and fear of teacher pushback, the “train and hope” model of professional development has proven consistently ineffective (Cook & Odem, 2013), particularly in early childhood contexts (Snyder & Wolfe, 2008). However, research has found behavioral consultation to be a potentially efficacious method through which to reduce racial disproportionality in schools (Gilliam & Shabar, 2006).

**Behavioral Consultation**

Among the many types of consultation, behavioral consultation has been consistently indicated as the preferred method of consultation by school psychologists (Butler, Weaver, Doggett, & Watson, 2007). Although several factors may play a role, amendments to IDEA suggest that school psychologists have augmented responsibilities in the realm of positive behavioral supports at the universal, classroom, and individual level (Drasgow & Yell, 2001.) Moreover, given the functional nature of behavioral consultation and the effectiveness of using behavioral interventions in school settings, consultation has become critical to the role of school psychologists (Fagan & Wise, 2000). The primary goal of behavioral consultation is to enhance the consultee’s ability to use behavioral principles not only with one student, but with other students in similar situations, with
minimal or no support from the consultant (Butler et al., 2007). In essence, behavioral consultation is often an influential method to facilitate generalizability of classroom management skills across the entire classroom context.

Behavioral consultation is characterized by the belief that all behaviors are learned and employs a systematic problem-solving approach to determine needs and goals. Following this, the consultant and consultee are able to collaborate to design and implement an appropriate intervention plan to reach those goals (Bergan, 1977). The four-step problem solving process of behavioral consultation often includes 1) problem identification, 2) problem analysis, 3) plan implementation, and 4) plan evaluation (Bergan, 1977; Bergan & Kratochwill, 1990). Ultimately, a behavioral consultant aims to help consultees (i.e. teachers) learn behavioral principles to support their students by considering alterable variables that can be made to the students’ skill set, the teacher’s skillset, and the environment. During the problem identification phase, problems are prioritized and described in observable, measurable, and quantifiable terms. In the next phase of problem analysis, the consultant engages in an analysis of the environmental system, collecting baseline data to identify antecedents and consequences to determine behavioral function and appropriate behavioral goals. The student’s environment is considered a pivotal entry point for initiating positive change. Prior to determining an appropriate implementation plan, there is consideration of consultee strengths and weaknesses to ensure feasibility. During plan implementation, the intervention is implemented on a consistent schedule by the consultee. The last stage of behavioral consultation involves evaluation of the effects of implementation, which is informed by the level of implementation fidelity and client outcomes (Bergan, 1977; Bergan & Kratochwill,
1990). Of note, behavioral consultation theory asserts that in order to change one individual’s behavior, others interacting with that same environment must also change their behavior (Henning-Stout, 1993). Given this, barriers with behavioral consultation among teachers are not uncommon and should be readily addressed prior to beginning the consultative process (Witt, 1986; Butler et al., 2007).

Increasing the use of behavioral consultation has been deemed a necessary preventative approach in preschool settings (Gilliam, 2005; Gilliam & Shabar, 2006; LeBel & Chafouleas, 2010) and has been shown to be an effective mode of intervention to improve teacher instruction, behavior specific praise, and decrease disruptive behaviors (Dufrene et al., 2012) as well to promote social competence, and teacher self-efficacy (Shernoff & Kratochwill, 2007). However, additional research suggests adding performance feedback within the framework of behavioral consultation, can be more effective than comprehensive training and/or behavioral consultation alone in facilitating implementation fidelity (Fallen et al., 2015; Noell, et al., 1997; Noell et al., 2000, Noell et al., 2005; Solomon et al., 2012).

**Performance Feedback**

Performance feedback has been identified as one of the most promising avenues in consultation to support implementation of evidence-based practices (Noell, et al 1997; Noell et al 2005; Solomon et al., 2012; Fallon et al., 2015). In general, performance feedback has been defined as providing on-going, objective responses regarding specific target behaviors (Noell, et al., 1997; Reinke, et al., 2008). Considered to be at the forefront of performance feedback literature, Noell and colleagues, as well as several others, have demonstrated the advantages of using PF in schools within a consultative framework to
increase the fidelity of behavioral interventions (Fallon et al., 2015; Noell, et al., 1997; Noell et al., 2000; Noell et al., 2005; Solomon et. al., 2012).

**Structure of Performance Feedback**

Although the literature base surrounding performance feedback continues to grow, the specific elements that comprise performance feedback tend to be differentiated across studies (Fallon et al., 2015), making it difficult to identify clear facilitators of behavior change. In the research examined, Fallon and colleagues (2015) found that the majority of studies using performance feedback included in-person verbal feedback. In addition, more than half of the studies incorporated use of visual graphical representation and utilized a problem solving framework. Given the high prevalence of these three elements, authors suggest that verbal communication, graphical representation, and problem solving may represent the basic foundations of performance feedback. However, other studies incorporating goal setting, praise, discussion of barriers to implementation, and verbatim examples, were also included. Acknowledging this, additional research regarding the particular elements that may be most effective, and perhaps for who, is warranted.

When engaging in performance feedback to improve use of classroom management strategies, the majority of literature advocates for the use of a problem solving framework similar to the following: 1.) Selecting an instructional practice 2) Identifying critical components of the selected practice 3) Setting a reasonable goal for using the selected practice 4) Implementing the practice and begin performance feedback 5) Monitoring progress and adjusting as needed (Collins, Sweigart, Landrum, & Cook, 2017). In addition, adherence, quality, and dosage have also been identified as key variables to consider when
designing and delivering performance feedback (Power et al., 2005; Sanetti & Kratochwill, 2009).

Of the abundance of studies exploring the effectiveness of performance feedback, the ideal frequency with which to provide the intervention still appears somewhat ambiguous. For instance, feedback given immediately (Rodriguez, Loman, & Horner, 2009) within 24 hours (Codding, Livanis, Pace, & Vaca, 2008), weekly (Casey & McWilliam, 2008), biweekly (Codding, Feinberg, Dunn, & Pace, 2005), or once a month, have all had relatively similar moderate to strong effects on observed behaviors (Fallon et al., 2015.) Related questions regarding the appropriate “dosage” of performance feedback have further been explored. For instance, negative reinforcement or a response-to-intervention approach, have been utilized with performance feedback interventions, decreasing the time commitment of sessions needed for teachers who meet a certain criterion of implementation, or increasing the amount of support provided for those teachers that continue to demonstrate low or decreased implementation (DiGennaro, Martens, & McIntyre, 2005; Myers, Simonsen, & Sugai, 2011, Hemmeter et al., 2015). Across the performance feedback literature, generally low levels of intervention implementation during have been observed during baseline (Solomon et al., 2012).

Research has also investigated the modality through which performance feedback is presented, including the supplemental benefits of graphic visual representation (Reinke, et al., 2007; Reinke, et al., 2008; Hagermoser Sanetti, Luiselli, & Handler, 2007), video feedback (Codding & Smyth, 2008), public feedback (Duhon, Mesmer, Gregerson, & Witt, 2009), and email (Hemmeter, Snyder, Kinder, & Artman, 2011). While various components of performance feedback merit further investigation to determine
individualized effects, the benefits of graphic feedback combined with verbal performance feedback have been consistently documented (Hagermoser et al., 2007; Noell et al., 2005; Reinke, et al., 2007; Reinke, et al., 2008). Utilizing a single-subject reversal design, Hagermoser and colleagues (2007) investigated the advantages of using verbal feedback with added graphical feedback as compared to verbal feedback alone. Participants included four second grade teachers or aides in their implementation of a student’s behavior support plan. Employing a response to intervention approach, when implementation dropped below 80% for three consecutive days, teachers were provided a graph and verbal feedback regarding plan implementation, corrective feedback, and had any questions answered. In general, results suggested that verbal performance feedback alone had little effect beyond baseline levels in improving implementation, while graphical performance feedback significantly improved plan implementation. Furthermore, student behavior during school activities improved in accordance with increased plan implementation. These findings are in line with the seminal research by Noell and colleagues (2005) documenting the effects of performance feedback with graphical representation as a more efficacious behavioral consultation follow-up strategy for IEP plan implementation ($\eta^2=.81$) than follow-up meetings with no feedback provided, weekly behavioral consultation interviews, and behavioral consultation with an emphasis on treatment fidelity. Of importance, both of these studies (Hagermoser, et al 2007; Noell et al., 2005) further demonstrate the advantage of providing visual performance feedback directly after an observation to avoid the common barrier of scheduling supplemental consultation meetings.

Although performance feedback if often used to support the implementation of IEP goals (Sanetti, et al., 2007; Noell et al., 2005) the benefits of using PF for implementation of social-
emotional and classroom management frameworks (Fox et al., 2011; Hemmeter et al., 2015; 2016; Reinke et al., 2014) have also been documented. In addition, PF has been employed to facilitate the use of specific behavioral strategies, such as opportunities to respond, pre-corrections, behavior specific praise, (Hemmeter et al., 2011; Reinke, et al., 2007; Reinke, et al., 2008; Simonsen, et al., 2010; Stormont et al., 2007) and classroom reinforcement systems (Noell et al., 1997; Sanetti, Chafouleas, Fallon, & Jaffrey, 2014).

**Studies using Coaching with Performance Feedback to Improve Implementation of Social-Emotional and Classroom Management Frameworks**

Indeed, coaching with performance feedback has become an increasingly utilized competency driver to facilitate the implementation of evidence-based practices in early childhood, including social emotional and classroom management frameworks such as the *Pyramid Model* (Fox, et al., 2011; Hemmeter et al., 2016) and the *Incredible Years* (Reinke, Stormont, Herman & Newcomer, 2014).

Aimed at strengthening their previous research that found practice-based coaching with performance feedback supported positive teacher outcomes (Fox et al., 2011), Hemmeter and colleagues conducted the first experimental study of the coaching related to the *Pyramid Model*, assessing both teacher and student outcomes. Within this study, authors found Head Start teachers receiving practice based coaching (n=20) demonstrated *Pyramid Model* implementation nearly two standard deviations above those teachers in the control group (n=20) (69.9% versus 44.2%). Furthermore, their students demonstrated improved social skills and reduced challenging behaviors, as compared to those in the control condition (Hemmeter, Snyder, Fox & Algina, 2016). Limitations of this study include observation of a few focal children and a failure to observe during explicit times.
of challenging behavior, as well as the participation of highly qualified, certified teachers, which is not likely representative of all early childhood educators.

Similarly, in 2014, Reinke, Stormont, Herman and Newcomer investigated the results of utilizing performance feedback within ongoing coaching sessions to support implementation of the Incredible Years Teacher Classroom Management program. During these performance feedback coaching sessions, educators learned proactive strategies including promoting desired student behavior through praise and rewards, building positive student-teacher relationships, and decreasing negative student behavior through planned ignoring, time out, and explicit use of reprimands. Overall, results indicated a significant effect between the amount of coaching a teacher received, and their rate of implementation of classroom management practices. In comparison, implementation decreased over time for those who received less coaching sessions.

While ample training and coaching to support implementation of a complex framework, such as the Pyramid Model or a classroom management program such as the Incredible Years may be beneficial for improving implementation, feasibility is primary concern (Fox et al., 2011; Hemmeter et al., 2016; Reinke et al., 2014). Acknowledging this, increasing implementation of a few high impact practices dually embedded within these frameworks, may be most salient and effective for early childhood educators in improving teacher and student outcomes.

**Studies using Consultation and Performance Feedback to Increase Specific Proactive Classroom Management Strategies**

In a study seeking to investigate the efficacy of performance feedback (PF) on specific components of PBIS in Head Start classrooms, as well as overall challenging
behaviors, Stormont and colleagues (2007) conducted a multiple baseline design. Utilizing a 30-minute teacher training, researchers introduced the intended PF intervention as a means to increase praise and precorrection statements with intended reductions on student behaviors. Conducting daily observations (13-15 total) and then employing brief, 5 minute performance feedback sessions, researchers engaged in PF sessions with three teachers regarding their use of the identified target skills. Observations suggested all teacher’s increased use of pre-corrections at the beginning of the lesson, as well as improvements in praise, led to a decrease in overall student problem behaviors (e.g. off task, oppositional, disruptive, and aggressive). In addition to a functional relationship demonstrated by the consistent increase in praise level and decreased behavior level, all three teachers rated performance feedback with high social validity, indicating the effectiveness of the intervention in reducing behavior problems and their high likelihood of applying strategies to other settings. Notable limitations of this study include two of the teachers implementing this intervention at different times in one classroom, the inability to disaggregate the effects of praise as compared to precorrections, no visual graphical feedback, and difficulty collecting challenging behavioral data on the entire classroom, likely underestimating the actual occurrence of student behavior. Similarly, in 2011 Hemmeter and colleagues investigated the effects of performance feedback provided via email on preschool teacher’s use of descriptive praise and found that although teacher strategy use increased, minimal decreases were observed with challenging behaviors and no changes were indicated with classroom engagement.

Seeking to further understand the benefits of classroom-focused consultation with PF as compared to consultation for individual students (Reinke, et al., 2007), Reinke and
colleagues conducted a follow-up study in 2008. Compared to their previous study which found little to no effects for group consultation and positive effects for PF, researchers employed the newly developed Classroom Check-up model, implementing class-wide behavioral consultation with visual performance feedback, to increase teacher specific praise and reduce challenging behaviors. Once in the intervention phase, teachers were provided daily performance feedback via graphical representation based on the previous observations (10 minutes observing per day). All four teachers were trained to interpret the graphs, allowing the data to be handed off to the teacher daily, rather than requiring additional time. Results suggest that the Classroom Check-up Model, in addition to performance feedback, significantly increased teachers’ use of general praise, specific praise, and decreased use of reprimands. Reductions in disruptions were also observed throughout the classrooms. At follow-up, three teachers maintained their rate of praise; however, one teacher did demonstrate a downward trend, with few additional data points collected. Of note, three of the four teachers also reported that their efficacy regarding use of classroom management strategies increased. This finding is significant given that teachers who have increased self-efficacy of strategies are more likely to utilize these skills in the future (Tucker et al., 2005). Limitations meriting further consideration include variable rates of interobserver agreement, self-selection of teacher participants, and relatively short observation periods. In summary, these findings are commensurate with research emphasizing the significance of utilizing performance feedback to facilitate preventative practices (Noell, Duhon, Gatti & Connell, 2002; Noell et al., 2005) and the feasibility and social validity of targeting specific behavioral strategies.
Effective teacher training and strategic effort is needed to provide universal and complementary mental health and behavioral supports in early childhood (Hemmeter et al., 2016). While traditionally in early childhood, school psychologists have been restricted to special education eligibility testing (Albritton, et al., 2019) with highly developed skills in prevention and consultation, school psychologists are well-positioned for facilitating school readiness supports for all students. Surmounting research has investigated the effectiveness of Second Step (Upshur et al., 2107; Moy et al., 2018), positive behavioral support classroom management strategies (Reinke et al 2011; Simonson et al., 2008) and performance feedback (Solomon, et al., 2012; Fallon et al., 2015). However, outcomes of these interventions and methods with a preschool population remain somewhat ambiguous, often with little to no significant effect sizes related to decreasing student challenging behaviors (McMahon & Washburn, 2003; Moy & Hazen, 2018; Stormont et al., 2007). Significant limitations also exist regarding alignment of these preventative practices. Although some research has examined the efficacy of professional development workshops and performance feedback to support implementation of the Pyramid Model (Fox et al., 2011; Hemmeter et al., 2016) these preschool studies experienced significant challenges with feasibility, aiming to implement dozens of social emotional and behavioral practices across an entire framework with extensive training time required. In comparison, early childhood research aligning a social skills curriculum with reinforcement of two target skills was limited in scope and demonstrated minimal effects on student outcomes (Guglielmo & Tryon, 2001).
Current Study

Effective teacher training and strategic effort is needed to provide universal and complementary mental health and behavioral supports in early childhood (Hemmeter et al., 2016). Surmounting research has investigated the effectiveness of Second Step (Upshur et al., 2017; Moy et al., 2018), positive behavioral support classroom management strategies (Reinke et al 2011; Simonson et al., 2008) and performance feedback (Solomon, et al., 2012; Fallon et al., 2015). However, outcomes of these interventions and method with a preschool population remain somewhat ambiguous (McMahon & Washburn, 2003; Moy & Hazen, 2018; Stormont et al., 2007).

The current study adds to the literature by conceptualizing outcomes of a brief teacher training and weekly performance feedback sessions to align relevant Second Step lessons with specific positive behavioral classroom management strategies. Drawing from research integrating SEL and PBIS at the elementary level with on-going consultation (Bradshaw, 2014; Cook et al., 2015; Domitrovich, et al., 2010; Reinke et al., 2012), this study expanded the role of the school psychologist to early childhood settings to determine effects on teacher aligned implementation, as well as student behaviors. The present research aimed to align weekly Second Step lessons with positive behavioral classroom management by increasing the prompts, opportunities for practice, and reinforcement provided for relevant social-emotional skills, outside of targeted lessons. This study investigated the following research questions: 1) Is there a functional relation between the introduction of consultation with performance feedback and teacher implementation of aligned classroom management strategies with Second Step? 2) Is there a functional relation between the aligned classroom management strategies with Second Step?
Second Step and decreased challenging behavior? 3) Does consultation with performance feedback increase feelings of teacher efficacy for classroom management? 4) Do teachers find this alignment to be a socially valid approach?
CHAPTER 3

METHOD

Participants and Setting

Teacher Participants

Four, full-day Head Start teachers and their classrooms from an urban setting in Western Massachusetts participated in the present study. Although all classroom teachers were situated within the same Head Start program, classrooms were located in several surrounding towns. After receiving dissertation committee review and approval from the University of Massachusetts Amherst Institutional Review Board (IRB), the director of the Head Start largely encouraged participation in the consultation intervention program-wide for all four full-day classrooms, with voluntary teacher consent regarding collection of their data for research purposes (See Appendix I). Teacher demographic information regarding years of experience, ethnicity, age, and gender was collected. All four teachers were female between the ages of 23 to 41 years old. Two were from Euro-American ethnic backgrounds with the additional two from Hispanic backgrounds. Years of teaching experience varied widely with 3 years, 5 years, 17 years, and 21 years teaching. Of note, all of the teacher’s experience in the current Head Start setting was less than 3 years. While all teachers had some exposure implementing the Second Step and the program has endorsed the Pyramid Model, consistent implementation and explicit alignment of the SEL curriculum with other preventative classroom management practices had been identified as a needed area for growth.
**Student Participants**

Student participants (n = 73) included those in the four full-day Head Start classrooms with teachers participating in the current intervention. The four classrooms were comprised of approximately 17-20 students between the ages of 3-5 years old (56% male, 44% female). These full-day classrooms have been determined to have the highest level of need within the Head Start program due to increased special education classification and extended length of the school day. Students on Individualized Education Plans (IEPs) or Individual Family Service Plans (IFSPs) ranged from 1-10, with an average of six students in each classroom receiving individualized services. Student ethnicity varied with 56% Hispanic, 22% African American, 14% Biracial, and 8% White. Average annual family income ranged from $14,638 - $22,196. Active consent was obtained from the Head Start program director regarding collection of observational classroom data. In addition, passive parent consent with option for exclusion was distributed to all students to take home in either English or Spanish, based on the families primary language (See Appendices J and K).

**Design**

The current study employed a multiple-baseline design across four teachers to examine the effect of consultation with performance feedback on alignment of proactive classroom management strategies with Second Step lessons. The first three teachers in the study were introduced concurrently, while the fourth teacher was non-current due to beginning the baseline phase later than others. In a concurrent multiple-baseline design, the independent variable is temporally applied in staggered phase changes across participants, settings, or behaviors (Kazdin, 2011). Accordingly, experimental control was
determined by a significant change in data corresponding with the introduction of the independent variable across several phases, along with the consideration of threats to internal and external validity (Christ, 2007; Kazdin, 2011). Throughout the applied behavior analysis literature, several studies have employed a multiple-baseline design to assess the effects of consultation on teacher implementation of behavioral strategies (Bethune, 2017; Myers, et al., 2011; Stormont et al., 2007; Reinke et al., 2014) and challenging behavior (Dufrene et al., 2012; Dufrene, Lestremau, & Zoder-Martell, 2014). In the present study, the intervention was first implemented with the teacher who demonstrated the lowest level stable baseline data (Bethune, 2017; Horner et al., 2005). In order to uphold rigor in multiple-baseline methodology, the introduction of the intervention phase was primarily dependent on the stability of the teacher’s baseline data, rather than predetermined time intervals (Kazdin, 2011). When at least three data points indicated a clear alteration in level, trend, or variability for the most recent teacher in the intervention phase, the next teacher with the lowest stable baseline data began the intervention phase. The order for subsequent teacher participants was determined using the same processes (Kazdin, 2011). Due to the time-frame of the study, teacher baseline stability was used to determine introduction of the intervention phase, as compared to also requiring maintenance of stability for student behavior. Multiple baseline designs are advantageous in that they do not require withdrawal of the intervention phase. In addition, the sequential method of implementation is similar to teachers’ typical practice, the design is relatively easy to use, and generalization is monitored throughout using formative assessment (Kratochwill, et al., 2010). Disadvantages associated with multiple-baseline designs include ethical implications of delaying intervention for latter participants,
interdependence of baselines across participants, and potential inconsistent effects of the intervention (e.g. certain behaviors altered when others are not) (Kazdin, 2011; Kratochwill, et. al., 2010). Adhering to What Works Clearing House guidelines for determining a causal relationship, the current study exceeded criteria by including eight phases across four participants (Kratochwill, et al., 2011).

**Dependent Variables**

**Aligned Classroom Management Strategies**

As a primary dependent variable, classroom management strategies were listed under one of three categories; Anticipate, Remind, or Reinforce. This framework is consistent with another current early childhood social emotional learning curriculum for promoting generalization of social emotional competencies (Whitcomb & Damico, 2016). *Anticipate* strategies included 1) Modeling 2) Precorrections; *Remind* strategies included 3) Providing students opportunities to practice new skills, 4) Validation and Redirection; and *Reinforce* strategies included 5) Behavior specific praise, and 6) Tangible reinforcement. See Table 1 for a description of classroom management strategy definitions. In particular, aligned classroom management strategies were defined as strategies specifically related to the current Second Step skill of the week, or, the Second Step skill from the previous week. For instance, if “Identification of happy and sad feelings” was the skill of the week, and “Asking for what you need or want” was the skill from the previous week, any classroom management strategies related to these two skills would be considered aligned. Examples of aligned classroom management strategies with these lessons could include, “Show me a thumbs up if you think the girl in the story is feeling happy, or a thumbs down if you think she is feeling sad” (Opportunity to Respond). In addition,
“Jeremiah, nice job raising your hand to ask when you needed more juice” (Behavior Specific Praise). Classroom management strategies encouraging use of Second Step lessons outside of the current or previous week were also recorded by the primary investigator however, these instances were noted in a separate area and were not included in analyses as aligned classroom management strategies given the focus on reinforcing skill use with the most recently learned lessons. Furthermore, although only eight Second Step lessons were selected for the current study, classroom management strategies referencing lessons not included within this study were also indicated (e.g. Validate and Redirect for the Second Step lesson “Accidents”. “It’s okay Cayden, I see you’re upset; accidents happen, how can I help?”).
Challenging Behaviors

The presence of challenging behaviors within the entire classroom was also assessed with the classroom observation form. To maintain consistency in comparison of challenging behaviors across time, each teacher was observed at the same time each day, primarily during a routine they self-identified as most challenging with time for performance feedback after. The observer collecting data utilized scanning to move around the room to ensure that all students were observed. Challenging behaviors were defined as a student demonstrating any one of the following behaviors: disruptive, oppositional, aggressive, and other forms of externalizing behavior. Specific problem behaviors included a) taking materials from another child b) yelling c) hitting d) refusing to comply with head teacher direction after 2 requests e) spitting f) teasing g) swearing h) throwing objects i) kicking j) crying k) refusing to let another child play with them l) running around classroom m) putting hands on another child and/or pushing n) blurring out during a lesson. These data were then shared with the teacher during performance feedback sessions via visual graphic representation as the percentage of intervals challenging behavior occurred (e.g. behavior occurred during 40% of intervals over a 30 minute periods).

Measures

Classroom Observation Form

The classroom observation form was intentionally designed for this study to assess the occurrence of classroom management strategies aligned with Second Step lessons, as well as challenging student behaviors. Over a 30-minute time period, this study used a combined recording method of partial interval with one-minute intervals to indicate the presence of student challenging behaviors. For aligned classroom management strategies,
a frequency count within partial interval was employed using one-minute intervals. This form tracked classroom setting, activity, as well as the current and previous week’s Second Step lesson. In addition, teacher use of strategies related to Second Step lessons in general (beyond the current or previous week’s lesson) was also accounted for via frequency count with qualitative indication of the referenced lesson. See Appendix A.

**Procedures**

**Overview**

A local Head Start agency was contacted to evaluate interest of the proposed project. An introductory meeting was then held with the agency director, educational representative, and primary investigator to provide information regarding the study purpose, plan, and procedures. Given committee and IRB approval, it was decided that this project would be encouraged as professional development for selected full-day classrooms and that teachers would receive compensation if they choose to participate in the research portion of the study ($200). An initial meeting was then held with full-day teachers, site directors and head start clinicians. During this meeting, the primary investigator presented the rationale for the current research, as well as the study overview (e.g. training opportunity for improved classroom management and aligning prevention efforts), and their role as a collaborative consultant. Following, consent forms were clearly explained and administered for teachers (See Appendix I). If teachers consented, they were also given passive consent forms for students’ parents in both Spanish and English (See Appendix J and K). Teachers then identified their top three challenging routines and were asked to consider their availability for a 15-minute performance feedback session afterwards. Although current program policy within the Head Start involved teaching of weekly
Second Step lessons, teachers were asked to ensure they are regularly delivering these lessons at the beginning of the week prior to beginning baseline observations and distributing passive parent consent.

Two weeks following dissemination of the passive student consent forms, baseline data were collected by the primary investigator in all four classrooms through observations, two times per week. Once a stable pattern had been established, the first teacher received a 1-hour, one-on-one skill-based training on how to align specific classroom management strategies with Second Step lessons. The teacher also filled out a form indicating their current implementation of Second Step. Following the professional development training, the first teacher was provided with weekly 15-minute performance feedback sessions, immediately after classroom observation. Throughout this first intervention period, baseline data continued to be gathered from the other three teachers. Depending on the order in which teachers obtained baseline stability or demonstrated low implementation, the intervention condition was implemented accordingly in a temporally staggered manner. Teachers did not begin the intervention phase of professional development or performance feedback until a relatively stable baseline had been established.

**Observation procedures**

Classroom observations were conducted twice a week for 30 minutes during a predetermined time period in each classroom. Observations were scheduled primarily during one consistent routine that the teacher identified as most challenging and had time for performance feedback after. All observations assessed teacher demonstration of classroom management strategies directly related to the weekly (or previous week’s) SEL lessons, as well as student challenging behaviors. Prior to conducting an observation,
during the baseline phase, the observer asked the teacher which SEL lesson has been taught for the week and the previous week before in an attempt to discern aligned strategies and level of implementation.

Baseline data collection occurred twice per week with at least 5 baseline data points used to conduct a within-phase analysis. In order to begin the intervention phase, at least 3 consecutive baseline date points needed to remain stable or demonstrate a downward trend (Horner et. al., 2005; Kratochwill et. al., 2010). During this phase, observations recorded the frequency of classroom management strategies aligned with the SEL curriculum and challenging behaviors. Teachers did not receive the professional development or performance feedback sessions on how to align behavioral strategies to Second Step lessons during the baseline phase.

During the intervention phase, teachers progressed through a selected sequence of Second Step lessons and were provided performance feedback, weekly emails, and visuals of the current and previous week’s Second Step lesson to serve as a reminder for teachers to prompt their tendency to anticipate, remind, and reinforce these skills. In these observations, researchers assessed the occurrence of challenging behaviors as well as the frequency with which the teacher was able to align the strategies with the current or previous week’s lesson. Utilizing a classroom management strategy related to any previous Second Step lesson taught during the intervention period was also recorded, but was not indicated as aligned due to the lack of recency. For instance, although the current lesson of the week may be “Managing waiting”, the observer counted strategies related to the Second Step lesson of “Focusing attention” as reference to other second step lessons, this was not included in the graphical representation provided in the results.
Inter-Observer Agreement

Inter-observer agreement (IOA) was collected by five school psychology doctoral students trained by the primary investigator. Training included a 1-hour individual presentation regarding the rationale, definitions, and measurement tool for the current study. During this time, IOA research assistants were given several video examples of classroom management strategies aligned with second step lessons, in addition to challenging behaviors. Following, all IOA research assistants were asked to identify each skill, lesson, or behavior appropriately. Corrective feedback was provided if necessary to obtain 100% accuracy in the training video ratings by the conclusion of the training. Surpassing What Works Clearinghouse guidelines (Kratochwill, et. al., 2010), inter-observer observations occurred for approximately 33% percent of observations in each teacher’s baseline and intervention phase. Overall IOA was then calculated using Cohen’s Kappa. This statistic is considered to be a more robust measure of IOA than simple percent agreement given that it considers the likelihood that raters would agree by chance in the calculation of IOA. Cohen suggested the Kappa be interpreted with the following criteria: ≤ 0 no agreement, 0.01-0.2 slight agreement, 0.20-0.40 fair agreement, 0.41 – 0.60 moderate agreement, 0.61-.81 substantial agreement, 0.81-0.99 as near perfect agreement, and 1.00 as perfect agreement.

Independent Variables

Consultant Background

The primary interventionist in the current study was a doctoral candidate in school psychology and has ample training in prevention, social-emotional learning, consultation, and positive behavioral interventions and supports (PBIS). For the last two-years, the
interventionist has worked as an PBIS consultant in several districts, with three of these settings at the early childhood level. In this role, the consultant has worked to facilitate implementation of positive behavioral supports and social emotional learning at the individual, classroom, and systems level – as well as conducting several related trainings for classroom teachers and administration. Experience as an in-home behavioral therapist and certification as a behaviorally-based parent training facilitator has also informed the interventionist’s abilities to deliver effective behavioral consultation and performance feedback.

**Selection of Second Step Lessons**

A select number of *Second Step* lessons were chosen for the current intervention based on general relevance to the majority classroom population, the likelihood of ability to use/reinforce skills multiple times per day, and their breadth across the multiple domains of the SEL curriculum (see Table 2). Teachers were asked to implement the *Second Step* lessons starting at the beginning of the week to ensure that at least one lesson had been taught before the first weekly observation was conducted. Selected lessons were delivered in numerical order to coincide with the larger *Second Step* curriculum as closely as possible. For instance, lesson 7 was taught before lesson 12; however, lessons 8 through 11 were not included in the current intervention. Although ten lessons were initially selected for the intervention phase of the study, only eight lessons were able to taught due to teacher vacations and absences.
Teacher Professional Development Session

Following a sufficient number of stable baseline observations and prior to beginning weekly performance feedback consultation sessions, teachers participated in a 1-hour, one-on-one professional development session with the primary investigator. At the beginning of the training session, teachers were asked to report on their current implementation of Second Step lessons and any perceived barriers to implementation (See Appendix C). The primary investigator then provided explicit instruction on how to align behaviorally oriented classroom management strategies with Second Step lessons. Given the current Head Start program’s endorsement of the Pyramid Model and previous teacher trainings, all teachers had some familiarity with the given strategies. Using an Anticipate, Remind, Reinforce framework, aligned classroom strategies were taught accordingly: 1) Modeling (anticipate) 2) Providing precorrections (anticipate), 3) Opportunities to Respond (remind), 4) Validation and redirection (remind), 5) Providing behavior specific praise (reinforce) and 6) Tangible reinforcers (reinforce). These classroom management strategies have been commonly identified in the early childhood literature and rated by experts in the

### Table 2: Selected Second Step Lessons

<table>
<thead>
<tr>
<th>Category</th>
<th>Lessons</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Skills for Learning</strong></td>
<td>技能学习</td>
</tr>
<tr>
<td>Focusing Attention (Lesson 3)</td>
<td>聚焦注意力 (Lesson 3)</td>
</tr>
<tr>
<td>Following Directions (Lesson 5)</td>
<td>遵循指示 (Lesson 5)</td>
</tr>
<tr>
<td>Asking for what you need or want (Lesson 6)</td>
<td>请求你所需要或想要的 (Lesson 6)</td>
</tr>
<tr>
<td><strong>Empathy</strong></td>
<td>同理心 (Empathy)</td>
</tr>
<tr>
<td>Identifying happy and sad feelings (Lesson 7)</td>
<td>识别快乐和悲伤的感觉 (Lesson 7)</td>
</tr>
<tr>
<td>Caring and helping (Lesson 12)</td>
<td>关心和帮助 (Lesson 12)</td>
</tr>
<tr>
<td><strong>Emotion Management</strong></td>
<td>情感管理 (Emotion Management)</td>
</tr>
<tr>
<td>Managing anger (Lesson 17)</td>
<td>管理愤怒 (Lesson 17)</td>
</tr>
<tr>
<td>Managing waiting (Lesson 18)</td>
<td>管理等待 (Lesson 18)</td>
</tr>
<tr>
<td><strong>Friendship Skills &amp; Problem Solving</strong></td>
<td>朋友技能和问题解决 (Friendship Skills &amp; Problem Solving)</td>
</tr>
<tr>
<td>Fair ways to play (Lesson 19)</td>
<td>公平玩耍 (Lesson 19)</td>
</tr>
<tr>
<td>Having fun with friends (Lesson 20)</td>
<td>与朋友一起玩得开心 (Lesson 20)</td>
</tr>
<tr>
<td>Saying the problem (Lesson 23)</td>
<td>说问题 (Lesson 23)</td>
</tr>
</tbody>
</table>
field as either useful or essential for improving social, emotional, and behavioral outcomes in the classroom (Fox et al., 2003; McLeod, et al., 2017). Notably, when children are provided prompts, opportunities to practice, and positive reinforcement for use of social emotional skills, they are more likely to generalize these competencies across several domains (Cook et al., 2015; Durlak et al., 2011; Wanless & Domitrovich, 2015).

The training session included 1) An overview of study purpose and procedures 2) Description of Anticipate, Remind, Reinforce framework 3) Definition of classroom management strategies 4) Skill steps 5) Multiple examples and non-examples including videos of strategies aligned with Second Step lessons 6) Numerous practice opportunities identifying aligned strategies in classroom videos with corrective feedback provided as necessary. This format of professional development is consistent with the instructional hierarchy (Haring, Lovitt, Eaton, & Hansen, 1978) and previous literature that found increases in teacher implementation of early childhood practices (Diamond, Justice, Siegler, & Synder, 2013; Hemmeter, et al., 2016).

Each teacher was also given a folder with all materials, including scripts of how to utilize these strategies and align these with Second Step lessons. For example, if the Second Step lesson of the week is “Asking for what you need” a script incorporating behavior specific praise included “Julio, thank you for raising your hand to tell me that you needed a drink. That is a great way to ask for what you need!” See Table 3 for an additional example material on alignment of strategies with the SEL curriculum. During this training session, the teachers were asked not to discuss the explicit purpose of the study with other teachers who had not yet entered the intervention condition. Likelihood of diffusion of treatment was also low given the different site locations across multiple towns. After
Table 3: Classroom Management Strategies Aligned with Example Second Step Lesson

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Modeling</strong></td>
<td>“It’s hard when I have to wait but I usually take three deep breaths like this and pay attention for when it’s my turn”</td>
</tr>
<tr>
<td><strong>Precorrection</strong></td>
<td>“It’s rug time! I am looking for who’s waiting quietly which means legs sitting criss-cross and voices at level zero before we get started.”</td>
</tr>
<tr>
<td><strong>Opportunities to Respond</strong></td>
<td>“Let’s practice our think time and wait for 10 seconds, do you think we can do it?”</td>
</tr>
<tr>
<td><strong>Validate &amp; Redirect</strong></td>
<td>“I know it’s hard to wait but I need you to wait 1 more minute for Julio to be done, try counting to yourself like we practiced”</td>
</tr>
<tr>
<td><strong>Behavior specific praise</strong></td>
<td>“Joey, nice job waiting your turn to play with the puzzle”</td>
</tr>
<tr>
<td><strong>Tangible Reinforcement</strong></td>
<td>“Way to go Jose, you earned a heart sticker for waiting while I was talking to Miss Tina”</td>
</tr>
</tbody>
</table>

Completion of the professional development training, teachers implemented the first selected Second Step lesson in the curriculum prior to the start of the first intervention observation (e.g. lesson 3).

**Performance Feedback Sessions**

Derived from a behavioral consultation framework, performance feedback sessions began shortly after the professional development session had occurred (2-5 days). Performance feedback sessions were conducted weekly for approximately 15 minutes immediately following one of the two classroom observations. Sessions were structured as follows: 1) Problem identification – visual feedback reviewing graph of aligned classroom management implementation and challenging behavior 2) Verbal feedback on progress toward goals – identifying three specific strengths and three areas for improvement 3) Problem Analysis – discussing rationale for low skill implementation and strategies to increase implementation 4) Plan Development – weekly goal setting and modeling of
strategies 5) Answering questions 6) Completing fidelity checklist for consultation session 7) Rating of self-efficacy regarding classroom management skills. This format is relatively consistent with a recent study that used teacher consultation to facilitate delivery of *Second Step* in a Head Start setting (Upshur, et al., 2017) and the primary components deemed critical for evidence-based performance feedback (Fallon et. al., 2015). See Appendix D.

Prior to the next observation, teachers were sent an email with the relevant weekly *Second Step* lessons, their set goal (e.g. 10 specific praise statements related to following directions, 5 instances of tangible reinforcement for the students asking for what they need), and several example scripts of how they could align all six strategies with the weekly lessons. See Appendix G. During the last performance feedback session, teachers were asked to fill out a form related to *Second Step* implementation after the intervention, as well as social validity.

**Integrity of Training Session and Performance Feedback Sessions**

Fidelity of professional development and performance feedback sessions were evaluated using self-report integrity checklists. Professional development implementation check list items included (a) Overview of study purpose and procedures (b) Completion of *Second Step* implementation form, and a (c) Description of the anticipate, remind, and reinforce framework. For each of the six classroom management strategies, the following items were further included in the session (d) Definition of skill (e) Explicit skill steps provided (f) Multiple opportunities to practice, and (g) employed corrective feedback. For performance feedback sessions, the following components were procedurally evaluated (a) Visual feedback – review of strategy implementation and challenging behaviors over time (b) Verbal feedback – review of 3 strengths and 3 areas for improvement (c) Problem
analysis – explanation of why problem is happening and plan to increase strategy us (d)

Plan development – goal setting (e) Rating of self-efficacy. At the end of all intervention phases, percentage of fidelity checklist was averaged for accuracy. See Appendix B and E.

**Social Validity**

When assessing social validity, questions were administered with response options on a five point likert scale from (1) strongly disagree to (5) strongly agree and included questions related to the following: Does consultation and performance feedback increase feelings of teacher efficacy for classroom management? Do teachers believe alignment and increased implementation will promote positive student outcomes as compared to implementing Second Step alone? Do teachers believe these aligned practices are sustainable? Questions were constructed in a manner similar to following: “This consultation model made me feel increased efficacy around my classroom management skills”. Response options were chosen from a 5 point likert rating scale 1) Strongly disagree 2) Somewhat disagree 3) Neither agree nor disagree 4) Somewhat agree 5) Strongly agree. See Appendix F.
CHAPTER 4

RESULTS

Aligned Classroom Management Strategies

Results from observational data from the four classroom teachers indicate that the training plus performance feedback intervention was successful in increasing teacher use of aligned classroom management strategies with weekly Second Step lessons across all teachers (See Tables 4-7 and Figure 1). Almost immediately upon introduction of the intervention, teachers began increasing their use of classroom management strategies related to the current second step lesson of the week or the week prior. In particular, average teacher use of aligned classroom management strategies increased by 20% for the first teacher, 42% for the second teacher, 22% for the third teacher and 48% for the fourth and final teacher (33% total average). Visual analysis across teachers indicates an increase in level and trend during intervention, with relatively few overlapping data points with baseline phases. Average frequency of aligned classroom management strategies encouraging Second Step as well as Second Step language in general was further recorded for each teacher during the baseline and intervention phases of (See Table 5). Overall results suggest that, on average, teachers increased the number of times, and rate, (See Table 6) in which they used strategies related to all Second Step lessons after beginning the intervention phase.

Tau-U analysis was further applied to demonstrate effect sizes between study phases, allowing for supplemental objectivity and precision beyond visual analysis. Tau-U is a non-parametric technique that has been employed in experimental single-case designs with promising results (Brossart, Laird, & Armstrong, 2018). By utilizing Tau-U, derived
coefficients allow for statistical analysis of within-phase and across-phase trend data by highlighting variance associated with trend and level. Within this study, it also facilitated the ability to control for undesirable baseline trend (Parker, Vannest, Davis & Sauber, 2011) with teacher four. Tau-U ranges from -1 to 1 with coefficients with a p-value <.05 indicating clinical significance. In the current study, Tau-U analyses suggest a statistically significant effect size of the intervention on teachers’ aligned SEL strategy usage (Tau-U correlation = .94, p-value = <.000, 95% CI = .67 - 1) (See Table 7). During this increase in strategy use, the most commonly observed aligned classroom management strategies included 1) providing an opportunity to respond 2) validation and redirection and 3) behavior specific praise. Tangible reinforcement and precorrections were the aligned strategies observed least often.

**Challenging Behaviors**

Data suggest this intervention had limited effects on challenging classroom behaviors. Two classrooms demonstrated a significant decrease in challenging behavior (Tau-U correlation = -.68 and -.63). In contrast, the other two classrooms were observed to show small, non-significant increase in challenging behaviors (Tau-U correlation = .1). Overall, challenging behaviors decreased by approximately 16% for the first teacher in the intervention, increased by 3% for teacher #2 and teacher #3, and decreased by 19% for teacher #4 (See Table 4). Given that a functional effect was not observed across three participants, in addition to a small effect size (Tau-U correlation = -.20, p-value =.15, 95% CI = .46 - .07), it cannot be concluded that this intervention had a significant impact on the reduction of challenging behaviors across classrooms. Although some classrooms experienced a higher level of, and different, problem behaviors than others, the most
common challenging behaviors included running around the classroom, yelling, crying, non-compliance, and students engaging in physical contact (e.g. hitting, pushing, etc.).

Individual classroom outcomes are further described.
Figure 1: Percentage of Intervals Observed with Aligned Classroom Management Strategies and Challenging Behaviors
Classroom Results

Teacher One

During baseline, teacher one demonstrated aligned classroom management strategies at a significantly low level with a few instances of aligned strategy use approaching the intervention phase. Of note, this slight 7% increase prior to the intervention phase (equivalent to two minutes of strategy usage during the observed 30 minutes) is not considered meaningfully variable (Tau-U trend = 0.20). Regarding challenging behaviors for teacher one, while the trend of behaviors is generally stable in the baseline phase, there was an insignificant increase in trend mid-way through baseline observations (Tau-U trend = -0.13).

In the intervention phase, teacher one’s use of aligned classroom management strategies showed an immediate yet gradual increase in trend, followed by a pattern of decreasing and then increasing trend. The percentage of intervals, as well as the frequency in which aligned strategies were observed, increased between phases (pre mean = 2.83% of intervals; frequency = 0.83,  post mean = 22.5% of intervals; frequency = 10.36). Regarding rate of aligned strategy use, teacher one’s strategies increased from 0.03 aligned strategies per minute in baseline, to a rate of 0.35 per minute during the intervention phase. All observed strategy use was higher in the intervention condition than observed in baseline with no overlap between phases. Challenging behaviors indicated a gradual decrease in trend and level (pre mean = 51.2% of intervals,  post mean = 35.2% of intervals) with increases in trend mid-intervention. Of significance, although challenging behaviors showed a large amount of variability over the intervention phase, these increases in behavior were seen when aligned strategy use was low, whereas the lowest challenging
behaviors were observed during times the teacher implemented the largest amount of classroom management strategies. As compared to baseline, this teacher also demonstrated an increased frequency and rate per minute in language related to previous and future Second Step lessons outside of the current week’s lesson (pre mean = 6.7, post mean = 11.6; 0.22 per minute to 0.39 per minute). Overall, teacher one exhibited a significant increase in their use of aligned classroom management strategies and a significant reduction was observed in classroom behaviors (Aligned Strategy Use Tau-U phase contrast = 1; Challenging Behaviors Tau-U phase contrast = -0.70).

**Teacher Two**

Observations from implementation of aligned classroom management strategies in baseline for teacher two indicated some variability during the first few weeks of data collection. However, approaching the intervention phase, teacher use of aligned strategies demonstrated more of a flat and consistent trend (Tau-U trend = -0.25). Challenging behaviors showed a general increase in trend throughout baseline (Tau-U trend = 0.36).

When in intervention phase, this teacher demonstrated an immediate positive trend in aligned strategy use with a notable increase in level (pre mean = 7.4% of intervals; frequency = 3.22, post mean = 48.9% of intervals; frequency = 34.36). In terms of rate, teacher two’s aligned strategy use increased from 0.11 per minute in the baseline phase, to a rate of 1.15 per minute in intervention. Although variability is rather high regarding strategy use in the intervention condition, all intervention observations indicated higher strategy use as compared to the baseline phase (i.e. no overlapping data points). Of, note, the observed routine for teacher two often included direct instruction, perhaps providing increased opportunities to facilitate student responses, as compared to routines observed
with the other teachers. Challenging behaviors observed in the intervention condition were
highly variable with significant increases and decreases in trend (pre mean = 37.4% of
intervals, post mean = 40.1% of intervals). Although there was a slight increase
documented for challenging behaviors, this 2.6% increase is not considered significant in
that it is equivalent to an additional one challenging behavior observed across a 30 minute
observation period. As compared to baseline, this teacher also demonstrated an increased
frequency and rate per minute incorporating language related to previous and future Second
Step lessons (pre mean = 7.3, post mean = 18.2; 0.24 per minute to 0.61 per minute).
Overall, this teacher demonstrated a significant increase in aligned strategy use with no
observed decrease in student challenging behaviors (Aligned Strategy Use Tau-\(U\) phase
contrast = 0.98; Challenging Behaviors Tau-\(U\) phase contrast= 0.10).

**Teacher Three**

Baseline data indicate that teacher three demonstrated low aligned strategy use
overall with some variability, particularly in the beginning of baseline data collection.
However, when approaching intervention, the level of strategy use was more consistent
with less variability (Tau-\(U\) trend = -0.11). The level of challenging behaviors during
baseline observations was high with large amounts of variability throughout and no
apparent trend (Tau-\(U\) trend = 0.11).

In the intervention phase, aligned strategy use showed an immediate increase in trend
followed by a period of stability and then decreased to near baseline levels at the end of
intervention. Of note, average increase in aligned strategy use throughout the intervention
phase is high (pre mean = 5.3% of intervals, frequency = 1.9, post mean = 27.5% of
intervals, frequency = 13). Teacher three’s aligned strategy use increased from 0.06 per
minute in baseline to a rate of 0.43 per minute in the intervention phase. Challenging behaviors during the intervention phase showed high variability with no apparent trend. The amount of challenging behaviors observed during intervention were similar to those observed during the baseline phase (e.g. high overlap in data) with a minor decrease in overall level (pre mean = 47.3% of intervals, post mean = 40.1% of intervals). This teacher further improved their frequency and rate incorporating language related to previous or future Second Step lessons (pre mean = 2.7, post mean = 6.6; 0.09 per minute to 0.22 per minute). Overall, teacher three demonstrated an increase in aligned strategy use. Moreover, although challenging behaviors did show a slight increase, it was not considered clinically significant (Aligned Strategy Use Tau-U phase contrast = .80; Challenging Behaviors Tau-U phase contrast = .11).

**Teacher Four**

During teacher four’s baseline observations, data indicate generally low levels of aligned classroom management strategy implementation with one observed instance of higher strategy use on the second observation (Tau-U trend = -.18). Level of challenging behaviors was high during baseline and indicates a large amount of variability throughout the initial phase (Tau-U trend = -.46). Given this variability, baseline data were corrected with Tau-U analysis.

When the intervention was introduced, data demonstrate a clear and immediate increase in trend and level for aligned strategy use (pre mean = 4.63% of intervals; frequency = 2), post mean = 52.9% of intervals; frequency = 36.9). Teacher four’s aligned strategy use increased from .07 per minute in baseline to a rate of 1.23 per minute in the intervention phase. Challenging behaviors generally show a gradual decrease in trend and
nearly half the level observed during baseline (pre mean = 46.0% of intervals, post mean = 26.6% of intervals). Two instances of overlap in baseline and intervention phase data are indicated. This teacher also increased their frequency of language related to previous or future Second Step lessons (pre mean = 3.1, post mean = 15.0; 0.10 to a rate of 0.50). Overall, teacher four demonstrated a significant increase in aligned strategy implementation and a moderate reduction in challenging behaviors (Aligned Strategy Use Tau-U phase contrast = 1; Challenging Behaviors Tau-U phase contrast = -.39).

Table 4: Mean Comparisons

<table>
<thead>
<tr>
<th>Teacher #</th>
<th>Pre – Aligned Strategy Use Percent of Intervals Observed</th>
<th>Post – Aligned Strategy Use Percent of Intervals Observed</th>
<th>Mean Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher #1</td>
<td>2.8%</td>
<td>22.5%</td>
<td>+19.7%</td>
</tr>
<tr>
<td>Teacher #2</td>
<td>7.4%</td>
<td>48.9%</td>
<td>+41.5%</td>
</tr>
<tr>
<td>Teacher #3</td>
<td>5.3%</td>
<td>27.5%</td>
<td>+22.2%</td>
</tr>
<tr>
<td>Teacher #4</td>
<td>4.6%</td>
<td>52.9%</td>
<td>+48.3%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Teacher #</th>
<th>Pre – Challenging Behaviors</th>
<th>Post – Challenging Behaviors</th>
<th>Mean Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher #1</td>
<td>51.2%</td>
<td>35.2%</td>
<td>-16%</td>
</tr>
<tr>
<td>Teacher #2</td>
<td>37.4%</td>
<td>40.1%</td>
<td>+2.7%</td>
</tr>
<tr>
<td>Teacher #3</td>
<td>47.3%</td>
<td>50.0%</td>
<td>+2.7%</td>
</tr>
<tr>
<td>Teacher #4</td>
<td>46.0%</td>
<td>26.6%</td>
<td>-19.4%</td>
</tr>
</tbody>
</table>

Table 5: Frequency of Second Step Strategy Use

<table>
<thead>
<tr>
<th>Teacher #</th>
<th>Pre - Average frequency (#) of aligned strategies implemented per observation</th>
<th>Post - Average frequency (#) of aligned strategies implemented per observation</th>
<th>Pre – Average frequency of other Second Step lessons referred to outside of current week’s lessons per observation</th>
<th>Post - Average frequency of other Second Step lessons referred to outside of current week’s lessons per observation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher #1</td>
<td>0.83</td>
<td>10.36</td>
<td>6.67</td>
<td>11.57</td>
</tr>
<tr>
<td>Teacher #2</td>
<td>3.22</td>
<td>34.36</td>
<td>7.33</td>
<td>18.21</td>
</tr>
<tr>
<td>Teacher #3</td>
<td>1.90</td>
<td>13.00</td>
<td>2.70</td>
<td>6.56</td>
</tr>
<tr>
<td>Teacher #4</td>
<td>2.00</td>
<td>36.86</td>
<td>3.13</td>
<td>15.00</td>
</tr>
</tbody>
</table>
### Table 6: Rate of Second Step Strategy Use

<table>
<thead>
<tr>
<th></th>
<th>Pre - Rate of Aligned Strategy Use per Minute</th>
<th>Post - Rate of Aligned Strategy Use per Minute</th>
<th>Pre - Rate of Second Step lessons referred to outside of current weeks lessons per minute</th>
<th>Post - Rate of Second Step lessons referred to outside of current weeks lessons per minute</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher #1</td>
<td>0.03</td>
<td>0.35</td>
<td>0.22</td>
<td>0.39</td>
</tr>
<tr>
<td>Teacher #2</td>
<td>0.11</td>
<td>1.15</td>
<td>0.24</td>
<td>0.61</td>
</tr>
<tr>
<td>Teacher #3</td>
<td>0.06</td>
<td>0.43</td>
<td>0.09</td>
<td>0.22</td>
</tr>
<tr>
<td>Teacher #4</td>
<td>0.07</td>
<td>1.23</td>
<td>0.10</td>
<td>0.50</td>
</tr>
</tbody>
</table>

### Table 7: Tau-U Analysis

<table>
<thead>
<tr>
<th></th>
<th>Within Phase Aligned Strategy Use</th>
<th>Phase Contrast Aligned Strategy Use</th>
<th>Within Phase Challenging Behaviors</th>
<th>Phase Contrast Challenging Behaviors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher #1</td>
<td>0.20</td>
<td>1.00</td>
<td>-0.13</td>
<td>-0.70</td>
</tr>
<tr>
<td>Teacher #2</td>
<td>-0.25</td>
<td>.98</td>
<td>0.36</td>
<td>0.10</td>
</tr>
<tr>
<td>Teacher #3</td>
<td>-0.11</td>
<td>0.80</td>
<td>0.11</td>
<td>0.11</td>
</tr>
<tr>
<td>Teacher #4</td>
<td>-0.18</td>
<td>1.00</td>
<td>-0.46</td>
<td>-0.39</td>
</tr>
</tbody>
</table>

**Tau-U Effect Size**

|            | **0.94*** | p-value = <.000 | -0.20 |

**Confidence Interval (95%)**

|            | .67 – 1.00 | .48 - .07 |

*Denotes significance*
Inter-Observable Agreement (IOA)

Inter-observer agreement (IOA) was calculated using Cohen’s Kappa to discern the level of agreement between raters. When rating teacher’s use of aligned strategies, Cohen’s Kappa (κ) ranged from 0.73 to 0.86 across all classrooms, indicating substantial agreement between raters. Regarding observation of challenging behaviors, Kappa ranged from 0.62 to 0.78, also falling in the substantial range of rater agreement. These results suggest that interpretations drawn from the data collected can be discerned with a substantial level of certainty.

**Table 8: Inter-Observable Agreement Cohen’s Kappa**

<table>
<thead>
<tr>
<th>Teacher #1</th>
<th>Aligned Strategies IOA (κ)</th>
<th>Challenging Behaviors IOA (κ)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Average K = 0.78</td>
<td>Average K = .65</td>
</tr>
<tr>
<td></td>
<td>Substantial</td>
<td>Substantial</td>
</tr>
<tr>
<td>Teacher #2</td>
<td>Average K = .73</td>
<td>Average K = .78</td>
</tr>
<tr>
<td></td>
<td>Substantial</td>
<td>Substantial</td>
</tr>
<tr>
<td>Teacher #3</td>
<td>Average K = .86</td>
<td>Average K = .62</td>
</tr>
<tr>
<td></td>
<td>Substantial</td>
<td>Substantial</td>
</tr>
<tr>
<td>Teacher #4</td>
<td>Average K = .74</td>
<td>Average K = .65</td>
</tr>
<tr>
<td></td>
<td>Substantial</td>
<td>Substantial</td>
</tr>
</tbody>
</table>

Pre and Post Second Step Implementation

Prior to the intervention, all teachers indicated implementing Second Step lessons two days per week. However, implementation was observed and later reported from the teacher to be structured somewhat differently. Of note, according to the implementation guidelines, Early Childhood Second Step lessons are intended to be taught every day of the week (5 mini lessons provided related to one Second Step weekly lesson). When teachers were asked before the intervention if they felt confident about their ability to implement Second Step lessons, results yielded mixed reports. While one teacher indicated that yes,
she felt confident due to high student engagement with the lessons, others reported feeling less confident in their implementation. Common reasons included perceiving students to not be enjoying the lessons, and the amount of time needed to become familiar with the puppet use and facilitating engagement. Regarding the appropriateness of prior training teachers had received on Second Step, two teachers reported that they felt they had received sufficient support for implementation while others noted feeling that they did not have adequate training.

When completing the Second Step implementation form after the intervention phase, two teachers reported to be combining two or three smaller lessons into one weekly lesson. Another teacher indicated she was combining two or three smaller lessons into two weekly lessons, and the final teacher reported she was integrating two smaller lessons into one weekly lesson and modeling the concept in relatable scenarios all five days of the week. One teacher noted that although she was implementing the lessons 2 times per week, she, along with another teacher indicated they would like to teach lessons 3-4 times per week, noting “No amount of social-emotional help is too much” and so that, “students would have a fresh knowledge of what we’re talking about for the week”. The other two teachers indicated feeling that the two times per week was sufficient. Reported barriers to implementation of Second Step most often included handling challenging behaviors during the teaching of lessons, maintaining student attention, lack of time and staff, as well as the students’ ability to understand the vocabulary associated with Second Step lessons (high English learner population). Time for lesson implementation varied from 5-20 minutes.
Social Validity

All teachers reported their students benefited from receiving the current Second Step curriculum on the Second Step implementation survey. Educators noted that students benefit from Second Step through learning and practicing critical skills, such as waiting and anger management, that they may not get at home and that, the curriculum helps them learn how to be helpful in the classroom and to improve follow directions. Further advantages reported included, students’ enhanced ability to manage their own emotions, increased use of verbal communication as compared to physical aggression, and an overall ability to demonstrate learned concepts and improved classroom climate. When asked what teachers wished could be different about the Second Step curriculum, some teachers indicated a desire for additional lessons and increased options when incorporating puppets, others reported feeling content with lessons, while some acknowledged that certain lessons could be dense with information.

Employing formative measurement, during each performance feedback session in the intervention phase, teachers reported that they “agreed” or “strongly agreed” that the current intervention made them feel increased self-efficacy and confidence around their classroom management skills. Multiple teachers further shared during interactions with the primary investigator that the intervention was “helpful” and was perceived to be effective in reducing maladaptive classroom behaviors, particularly around challenging classroom routines, such as transitioning in from recess and after lunch. Of note, this was most often reported from newer classroom teachers who might not have been exposed to several of the classroom management strategies taught. One of the more experienced teachers reported that additional studies such as this are needed to support increased focus on social
emotional development for Head Start students. On the social validity survey, all teachers indicated they “agreed” or “strongly agreed” with questions related to the current intervention’s significance for student outcomes, feasibility, sustainability, and their increased efficacy for classroom management. All teachers also indicated they “agreed” or “strongly agreed” that they liked the procedures used in the intervention, that it was beneficial, and that alignment and increased implementation of classroom management strategies with the Second Step lessons will promote more positive student outcomes, as compared to implementing Second Step lessons alone. Although some teachers reported that this intervention led to a perceived reduction in challenging behaviors, one exception to this was one teacher reporting that she “neither agreed nor disagreed” with the statement that aligning classroom management strategies with Second Step lesson reduced challenging behaviors. Of note, data analysis that suggests there was no significant reduction in challenging behaviors overall as a result on the current intervention.

Table 9: Social Validity

<table>
<thead>
<tr>
<th></th>
<th>Teacher #1</th>
<th>Teacher #2</th>
<th>Teacher #3</th>
<th>Teacher #4</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.) This consultation model (professional development session and performance feedback) was an acceptable intervention for aligning my classroom management skills with Second Step lessons.</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>2.) This consultation model made me feel increased efficacy around my classroom management skills.</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>4</td>
<td>4.75</td>
</tr>
<tr>
<td>3.) Integrating prevention efforts, such as aligning classroom management strategies with Second Step lessons, is important.</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>---</td>
<td>----------------------------------------------------------------</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>4.)</td>
<td>I liked the procedures used in the consultation model.</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>5.)</td>
<td>Aligning classroom management strategies with Second Step lessons increases students’ generalization of social emotional competencies.</td>
<td>5</td>
<td>5</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6.)</td>
<td>Aligning classroom management strategies to Second Step lessons reduced challenging behaviors.</td>
<td>5</td>
<td>5</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>7.)</td>
<td>I believe alignment and increased implementation of classroom management strategies with the Second Step lessons will promote more positive student outcomes as compared to implementing Second Step lessons alone.</td>
<td>5</td>
<td>5</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>8.)</td>
<td>This invention was meaningful for the students in my classroom.</td>
<td>5</td>
<td>5</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>9.)</td>
<td>I believe these aligned classroom management strategies are sustainable.</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>10.)</td>
<td>Overall, the consultation was beneficial.</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>

**Treatment Integrity**

**Professional Development Session Treatment Integrity**

Treatment integrity data was collected via the self-report from the primary investigator regarding the implementation of each teacher’s one hour professional development session prior to beginning the on-going consultation. All professional development sessions were rated with 100% implementation fidelity with minor adjustments made to the level of skill description based on the teacher’s familiarity with the skill. Every teacher training session included an introduction to the study purpose and procedures as well as a description of the anticipate, remind, reinforce framework.
Proceeding this, all skill definitions and explicit steps were provided in the same order, with multiple examples, opportunities to practice, and corrective feedback.

**Performance Feedback Treatment Integrity**

Fidelity of individual teacher performance feedback sessions ranged from 94-97% implementation, with an overall 95% implementation. At times, only one or two areas of strength or improvement were identified instead of the designated three. Moreover, in the few instances where visual feedback was not immediately reviewed due to the context of the environment (i.e. outside) these graphs were emailed to the teacher with a brief description for interpretation. In general, visual and verbal feedback were consistently provided in addition to problem analysis and plan development. These components of performance feedback are considered critical to the behavioral consultation framework. Lastly, teachers were consistently asked to rate their perception of self-efficacy regarding classroom management after each performance feedback session.
CHAPTER 5
DISCUSSION

There is a critical need to support young children at-risk for early school failure due to behavioral and emotional challenges. Although research regarding social-emotional learning and positive behavioral support classroom management strategies continues to grow, methods for feasible implementation of aligned practices remains relatively limited, particularly in preschool settings. Given the moderate effects that SEL and PBIS frameworks are shown to have in isolation, further models of integration at the classroom level are needed. By supporting teachers’ ability to generalize social-emotional skills into daily routines, students are more likely to meet expectations across the school day (Bradshaw et al., 2014). Moreover, acknowledging the numerous responsibilities and behavioral challenges in integrated preschool settings, low intensity classroom management strategies with on-going support for alignment and implementation is imperative. The current study adds to the literature by using consultation with performance feedback to align classroom management strategies with a social emotional learning curriculum in Head Start. In addition, it aims to expand the role of the school psychologist to facilitate preventative practices in preschool settings. The purpose of this research was to understand the effects of a brief professional development and weekly performance feedback on teacher implementation of aligned SEL lessons and classroom management practices, and on student challenging behaviors.

Interpretation of Findings

Overall findings suggest that a 1-hour professional development session followed by weekly consultative support with performance feedback significantly increased teacher
use of classroom management strategies aligned with the relevant social emotional learning lessons of the week. This functional relationship between direct observation and performance feedback on teacher strategy use further indicated a relatively immediate impact, with aligned strategy use increasing shortly after the intervention was introduced. Given this, students received explicit Second Step lessons and were also encouraged to practice, were redirected to, and were praised for using recently learned social emotional skills multiple times throughout the week. Results further suggest that teachers increased their use of language related to all Second Step lessons in general. Thus, in addition to anticipating, reminding, and reinforcing the current and previous week’s Second Step lesson, students were also prompted for skills from other Second Step lessons that were taught in weeks prior, or that would be taught in the future.

Regarding the intervention’s effectiveness on challenging behaviors, although two out of four classrooms had a reduction in challenging behavior, this change was not at the level of significance to determine that this intervention was effective in reducing student challenging behaviors across at least three participants. Reasons for this finding could vary. Although there are numerous benefits to conducting research in inclusive preschool settings with children, with and without disabilities, this universal intervention was not intended to provide the necessary level of support to remediate all challenging behaviors with students with disabilities, such as those children with autism, with whom individualized education plans may be needed. Moreover, given the measurement of classroom behaviors as a whole, as was done previously (Stormont et al., 2007) it is difficult to discern if classroom behaviors would have decreased more significantly if behaviors were calculated based on a selection of a few students in the classroom as rather
than the classroom in its entirety. Of interest, Hemmeter and colleagues (2016) did find significant improvements in student social skills and challenging behaviors as a result of teacher coaching with practices from the *Pyramid Model* when only select target students were chosen.

While there are certainly limitations to measuring challenging behaviors through this targeted method, social-emotional curriculums have also been shown to have the largest effects on students with more risk behaviors (Durlak et al., 2011), suggesting that these high need students should not be excluded. The scope of this integrated class-wide intervention is further justified in that children who require more intensive tier II and III interventions, also benefit from receiving tier I intervention. Of note, the majority of literature surrounding performance feedback in early childhood has shown its effectiveness on increased teacher implementation, as was found within this study; however, results for student outcomes have continued to be mixed (Carter & Van Norman, 2010; Hemmeter, et al., 2015; Solomon et al., 2012). In addition, one meta-analysis suggests the effects of *Second Step* on student outcomes may be a stronger predictor of knowledge of violence and other emotion knowledge targeted with the curriculum, rather than a direct facilitator to reduce antisocial behaviors (Moy, et al., 2018). Despite this, findings from the current study suggest performance feedback as a method to align SEL and classroom management may have promising effects on student outcomes and should continue to be investigated to further ascertain key facilitators of growth.

This research also explored the extent that this intervention of consultation and performance feedback increased teacher feelings of self-efficacy for classroom management. Designed as a formative measure, teacher ratings at the end of each
performance feedback session indicated they agreed or strongly agreed that they felt increased self-efficacy around their classroom management skills. Limitations around these results include a potential ceiling effect and reactivity effect when completing formative ratings of self-efficacy at the end of consultation sessions. In addition, when completing social validity questionnaires, all teachers indicated they strongly agreed this consultation model increased their feelings of efficacy around their classroom management skills and felt that increased alignment and implementation of classroom management strategies with the *Second Step* curriculum would promote additional positive student outcomes, as compared to implementing *Second Step* alone. Although supplemental controlled studies similar to Cook and colleagues (2015) are needed to further discern additive effects of integrated SEL and positive behavioral support classroom practices as compared to either framework alone, results from this study suggest teachers believe that the alignment will enhance student outcomes even further. Regarding maintenance of this intervention, all teachers agreed or strongly agreed that use of these classroom management practices aligned with the current social emotional curriculum was sustainable.

**Impact**

Ample research suggests that children in Head Start settings are at increased risk for mental health and behavioral concerns, moreover, Head Start teachers often report receiving minimal training in classroom management and in supporting the social-emotional needs of these students. Given this, applied performance feedback for an integrated universal intervention such as this is needed to address discrepancies in teacher training and to preventatively approach the social-emotional and behavioral needs of all students.
This study is the first to explicitly align the Second Step SEL curriculum with behavioral classroom management strategies in a Head Start setting using behavioral consultation with weekly performance feedback. Although performance feedback has shown to be effective as a means to enhance implementation fidelity of school interventions (Fallon et al., 2015; Solomon et al., 2012), particularly visual graphical feedback (Hagermoser-Sanetti et al., 2007, Noell et al., 2005; Reinke, et al., 2007; Reinke, et al., 2008) this study further advocates its ability to support the blended approach of aligning preventative practices through a relatively efficient and effective means. Moreover, the increased self-efficacy teachers endorsed around their classroom management skills as a result of this intervention suggests that in the future, teachers may be more likely to increase instructional practices, positive classroom management, student achievement and motivation, and implementation of other new interventions (Han & Weiss, 2005).

Given the dual theoretical perspective of the study, an integrated intervention such as this applied long-term may have the ability to impact both internalizing and externalizing behaviors of students and improve teachers’ ability to not only teach a social-emotional curriculum, but to embed those critical skills into the structure of the classroom, providing directions and corrections, and the means through which students are acknowledged. This blended approach encourages early childhood settings and teachers to purposely integrate, rather, than fragment the many practices and initiatives that are often placed upon them. In addition, it emphasizes the fluidity that is needed in the teaching of social-emotional skills, to capitalize on “teachable moments”, and to anticipate and encourage use of skills throughout day-to-day routines. Given that prerequisite conditions for learning have been noted to consist of physical and emotional safety, high expectations, teaching social-
emotional core competencies throughout daily classroom instruction, and school connections, rationale for this integration is evident (Bradshaw et al., 2014).

**Implications for Practice**

Although other studies have investigated the effects of providing intensive coaching on implementation of numerous practices to support social-emotional and behavioral development, this research has not shown a direct alignment between practices and often consists of days of professional development and time-demanding coaching procedures (Fox et al., 2011; Hemmeter et al., 2015; Hemmeter, et al., 2016). On the contrary, other schools are unable to provide the resources and time for teacher training and observations, leading some teachers to end up in “professional isolation” with a lack of clear and formative feedback regarding their professional performance in the classroom (Hershfeldt, et al., 2012). The current method of consultation and performance feedback provides a promising intervention to support the effectiveness of, and access to, direct teacher training.

Findings from this study suggest that a relatively simple intervention done in the classroom context can quickly increase teacher strategy use to support the generalization of social and emotional strategies, providing multiple opportunities to anticipate, to remind, and to reinforce students in the process of gaining these critical skills. For instance, weekly performance feedback helped one teacher move from engaging in repeated instruction of *Second Step* lessons, to integrating prompting of the skills into authentic student interactions, such as redirecting a student to use belly breaths and problem solving to manage the anger that arose from another student taking their seat, or praising the helping behavior of a child showing a new student how to sit on the rug. By facilitating the more
natural development and usage of skills, teachers are able to promote an environment that is conducive to preventative responses and ideal practice opportunities for social-emotional skills. Of note, teachers are also less likely to engage in reprimanding and punitive responses to student behavior.

Furthermore, while the frameworks of positive behavioral interventions support and social-emotional learning are often considered “best practice”, the large menu of options can often seem overwhelming to schools. Acknowledging such, this study outlined specific practices for aligning six high-impact, low-intensity classroom management strategies derived from a positive behavioral framework with targeted lessons from the well-researched Second Step social-emotional curriculum. Given that these frameworks have also been primarily researched in elementary settings, this study further ensures and provides a smaller menu of practices that are developmentally appropriate for preschool settings. Ultimately, this research advocates for the feasibility of purposeful integration of universal preventative practices within a larger multi-tiered system of support (MTSS) to increase teachers use of practices deemed beneficial to supporting students’ social, emotional, and behavioral growth.

Given school psychologist’s expertise in the areas of MTSS, consultation, SEL, and classroom management, this intervention positions school psychologists in a preventative consultative role outside of the traditional testing role in early childhood. By supporting teachers and students at the classroom level, student access to services is significantly expanded from those services that might be only provided individually. Moreover, increased attention to teacher training to support universal student social and emotional growth and manage classroom behaviors effectively may have positive implications for
reducing the achievement gap that often exists for children from diverse low socioeconomic backgrounds (Albritton, Matthews, & Anhalt, 2019). By providing teachers concrete strategies, as well as building student’s social-emotional competencies over time, challenging behaviors are likely to decrease, while access to instruction is enhanced (Gilliam, Maupin, & Reyes, 2016; Gilliam, 2005).

While this study looked at the impact of SEL aligned with behavioral management strategies at the classroom level, a similar intervention at the larger program-level may look slightly different and produce distinctive results. Moreover, integration requires thoughtful consideration of target components to blend to create a complementary framework. At the program-level, integration should be structured from a plan based on the needs of the school system and a focus on the alignment of activities, language, and goals (Bradshaw, et al., 2014). For example, the school may choose to make program expectations for each setting linked to the SEL curriculum’s unit concepts, communicate the weekly skills and larger competency goals of the curriculum to all parents, develop a school-wide reinforcement system related to specific skills taught in the SEL curriculum, and naturally, require all classrooms to teach the SEL curriculum and to receive coaching on alignment with classroom management. Of note, due to the multifaceted nature of school-wide programming, these larger program prevention-based systems will not be as effective if ineffective management practices are present at the classroom level (Reinke et. al., 2013).

At the school-wide level, school psychologists may also have to implement the intervention in phases, potentially requiring an additional mental health professional to support implementation.
Although this research incorporated nearly two months of weekly performance feedback for some teachers, given the nature of the design, in a typical preschool setting without research resources, a similar intervention may provide only a few weeks of performance feedback, may employ a probe method sporadically choosing when to provide feedback, or may provide performance feedback through a response-to-intervention approach, when a teacher expresses a desire for additional support or when it is observed that they are not meeting certain criteria. Although for research purposes, a standardized method of performance feedback is preferred, practical applications of this intervention may involve gauging the performance feedback preference of teachers (in-person, email, combination, frequency) to facilitate even larger buy-in.

**Limitations**

While these outcomes suggest several promising implications, they are not without limitations. A first limitation involves reactive experimental arrangements (Kazdin, 2011). Although direct observation and performance feedback are often salient methods to facilitate increased teacher implementation, large consideration must be given to reactivity that occurs with teacher behavior as a result of being observed and provided feedback on a regular schedule. Additional randomized observations by other researchers, as well as video recording methods without an observer directly present, may lessen this reactivity and further strengthen research conclusions.

A second limitation that may have weakened the intervention’s effect on challenging behaviors was the method of observing the target population, potentially limiting generality across subjects. Recognizing the current study as a universal, tier I intervention, it is not expected to effectively address the challenging behaviors of all
students, particularly for those on IEPs. However, given the interest in assessing overall classroom challenging behaviors, the presence of one student having a challenging behavior while the majority of the class was following expectations, was still recorded as a challenging behavior occurring during that time. In the future, it is recommended that all students continue to be included in the universal intervention; however, to measure the effectiveness of a tier I intervention such as this, it may be a more accurate depiction of overall classroom effectiveness to not include those few students with significant behavior challenges in the data collection. Moreover, this intervention may be increasingly advantageous for student behavior if it was implemented at the beginning of year due to the new learning of routines and expected behaviors early on.

Selection threat may also be present in this study due to some teachers being increasingly familiar with Second Step lessons, classroom management, or Pyramid model strategies over others. Given the diversity among years of teaching experience in the current study, it is somewhat challenging to avoid this threat to internal validity. Although all teachers reported that they had taught less than three years at the current Head Start program, they indicated having various levels of exposure to the aforementioned strategies. Given this, a potential threat to generality across subjects (e.g. teachers) also exists, as some teachers may have more exposure to social emotional learning and positive behavioral classroom management strategies than others, potentially facilitating their ability to incorporate strategies readily.

A further limitation involves ambiguity around the amount of classroom management skill use needed to observe a change in challenging behaviors. There is limited research and lack of professional standards on the optimal rate of using each
behavioral skill to see meaningful student behavior change (Simonson et al. 2010). Although in general, increased use of precorrections, praise, and facilitating opportunities to respond, is better than fewer, it is difficult to discern the amount of usage that would be clinically relevant to the school context and student outcomes (Simonson et al., 2010). Likewise, variability may exist regarding each *Second Step* lessons to be incorporated into the general classroom context. For instance, while using behavior specific praise for students following directions might be relatively simple lesson to incorporate multiple times in an observation, asking students to identify happy or sad feelings might be slightly more difficult, leading to less observed aligned strategies. To allow for additional opportunities to anticipate, remind, and reinforce skills throughout the week, it may have been beneficial to align classroom management strategy use with the larger *Second Step* units in general (i.e. emotion management), as compared to the current week or previous week’s *Second Step* lesson (i.e. managing anger or managing waiting). Doing so may have increased the number of target skills to prompt and observe for with students that would be counted as directly aligned.

A further limitation to assessing intervention effectiveness is the lack of time for additional intervention time and follow-up maintenance phase. Given that the intervention period was relatively short, particularly for the last two teachers, Additional follow-up data may have allowed for strengthened conclusions of generality across time. Such data would aid in discerning whether aligned strategies could be sustained, and if challenging behaviors may have decreased further if additional time was added to the intervention period.
As lastly, as is common with the majority of school-based research, the nature of the school setting is busy and dynamic, requiring reasonable adaptability. For instance, one of the initial teacher participants had to discontinue the study due to unforeseen circumstances and a new fourth teacher needed to be recruited, starting slightly later than the others. In addition, given a typical preschool environment, it was often difficult to have an uninterrupted consultation sessions in a quiet space, which may have resulted in somewhat fragmented sessions where the teacher may not have been fully able to attend to the problem solving aspects of the performance feedback. Moreover, due to various teacher absences and vacations throughout the summer, some data points during the intervention phases were not able to be collected and resulted in a slightly shorter intervention phase than planned.

**Future Research**

Given the preliminary nature of this study, additional research should investigate similar research questions while ensuring implementation fidelity of all lessons in the *Second Step* curriculum, in addition to the targeted lessons that were selected for the current 3 month study. Allowing full implementation of the entire curriculum is increasingly likely to facilitate more positive student outcomes. A comparable study with a longer duration may further facilitate positive changes in student behavior as a result of increased exposure to the social emotional curriculum and aligned classroom management strategies, allowing numerous student practice opportunities for skill development throughout their school day, week, and year. Moreover, for long-term feasibility purposes, after teachers have achieved a consistently high rate of aligned classroom management practices with the weekly *Second Step* lessons, it may be beneficial to fade on-going consultative support and provide
supplemental follow-up at periodic intervals as has been done in a similar study though a multiple baseline probe design (Hemmeter et al., 2015).

In addition, supplemental research is needed regarding the type of measure that may be most appropriate for measuring short-term and long-term prevention outcomes associated with many SEL curriculums. Current standardized measures of behavior may not fully capture all intended outcomes over time and the extent of the effectiveness of the program, for instance, many SEL curricula do not have their own assessment measures beyond that of emotion knowledge (Greenberg & Abenavoli, 2017). Similarly, while the five core CASEL competencies associated with social emotional learning have been well established, the majority of outcome measures evaluating these curriculums, do not neatly fit into these categories (Moy et al., 2018). As such, meta-analyses aggregating multiple studies often develop a new factor structure, potentially limiting their comparisons to each other. Further research is needed to explore the individual efficacy of the various components of SEL curriculums, as some may result in augmented student outcomes over others. Given this, additional studies may look into assessing the efficacy of different SEL curriculums other than Second Step or choose to align alternative lessons with different target classroom management strategies.

Additional research is further warranted to assess the effectiveness of each component of the training, consultation, and performance feedback. For instance, discerning whether the 1-hour teacher professional development session is needed in addition to the weekly performance feedback to affect change, or if one component might be sufficient. Further methods to enhance the presentation and feasibility of on-going visual performance feedback intervention may also be beneficial. For example, although the
response of teachers to visual feedback was primarily positive, at times, it was apparent that the novelty of the visual performance feedback may have diminished after several weeks.

Lastly, supplemental studies should investigate for whom this training intervention is most effective. Research is needed to discern if this intervention may be more appropriate and more effective for new teachers who are still developing their classroom management strategies, or for more experienced teachers who may have already internalized several classroom management strategies and may find it more easy to integrate strategies with an SEL curriculum. While most behavioral strategies are simple in nature, the consistent and purposeful implementation of strategies aligned with an SEL curriculum often requires forethought and follow-through.

**Summary**

By aligning the implementation of universal prevention practices in Head Start settings, schools can “optimize” their resources, potentially decreasing the number of students requiring more intensive support later on (Bradshaw et al., 2014). Furthermore, by creating a set of common expectations, a shared language, and consistent responses to supporting students’ social, emotional, and behavioral growth, teachers can cultivate an environment and routines that are conducive to student success. The current study suggests that a brief professional development session followed by weekly consultation with performance feedback is an effective means to facilitate the preventative involvement of school psychologists in preschool settings. Overall, results indicate that this intervention increased teacher self-efficacy as well as facilitated alignment of classroom management strategies with a social emotional curriculum, providing additional opportunities for
anticipating, reminding, and reinforcing of social-emotional skills throughout the school day.
# APPENDIX A

## OBSERVATION FORM

<table>
<thead>
<tr>
<th>Classroom Observation Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher:</td>
</tr>
<tr>
<td>Activity:</td>
</tr>
</tbody>
</table>

**Second Step** lesson of the week:

<table>
<thead>
<tr>
<th>Previous week's Second Step lesson:</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-1</td>
</tr>
</tbody>
</table>

**Partial Interval**
Challenging Behavior
(Place X if behavior occurred at all during interval)

**Frequency/Type**
Aligned Classroom Management Strategies

**Aligned Classroom Management Strategies**

<table>
<thead>
<tr>
<th>Anticipate</th>
<th>Remind</th>
<th>Reinforce</th>
</tr>
</thead>
<tbody>
<tr>
<td>M = Modeling of SEL skill</td>
<td>V &amp; R = Validation and redirection to SEL skill</td>
<td>BSP = Behavior Specific Praise of SEL skill</td>
</tr>
<tr>
<td>P = Precorrection to SEL skill</td>
<td>OTR = Opportunity to respond or practice SEL skill</td>
<td>TR = Tangible reinforcement for SEL skill</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Partial Interval</th>
<th>Challenging Behavior</th>
<th>Frequency/Type</th>
<th>Aligned Classroom Management Strategies</th>
</tr>
</thead>
</table>

**Total aligned classroom management strategies used/percentage of intervals:**

**Total number of intervals with challenging behavior/percentage:**

**Frequency of other Second Step referred to outside of current/previous weeks’ lessons:**

**Second Step Language/Lessons referred to outside of current/previous weeks’ lessons:**
Teacher ID:

<table>
<thead>
<tr>
<th>Overview of study purpose and procedures</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Completion of <em>Second Step</em> Implementation Form</td>
<td></td>
</tr>
<tr>
<td>Description of Anticipate, Remind, Reinforce Framework</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Classroom Management Strategy:</th>
<th>Definition of Skill Provided</th>
<th>Explicit Skill Steps provided</th>
<th>Multiple Examples and Non-Examples provided as related to <em>Second Step</em></th>
<th>Multiple Opportunities to Practice provided as related to <em>Second Step</em></th>
<th>Corrective Feedback provided as related to <em>Second Step</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>Modeling</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Precorrection</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opportunities to Respond</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Validate &amp; Redirect</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Behavior Specific Praise</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tangible Reinforcement</td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>Barriers to Consultation Addressed</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
APPENDIX C
SECOND STEP IMPLEMENTATION FORM

Teacher ID:

Date:

Aligning Classroom Management with Second Step

Second Step Implementation

Currently, how often do you conduct Second Step Lessons?

a) Never  
b) Twice a year  
c) Once every 3-4 months  
d) Once a month  
e) Once every 2 weeks  
f) Once per week  
g) Two times per week  
h) 3-4 times per week  
i) Everyday

If possible, how often would you like to conduct Second Step Lessons?

a) Never  
b) Twice a year  
c) Once every 3-4 months  
d) Once a month  
e) Once every 2 weeks  
f) Once per week  
g) Two times per week  
h) 3-4 times per week  
i) Everyday

Why?

How long do these lessons usually last?

a) 5-10 mins  
b) 15-20 mins  
c) 30 mins  
d) 45 mins  
e) 1 hour
Do you feel confident implementing *Second Step* lessons?

Do you feel like you received enough support for implementing *Second Step* in your classroom?

What are some of the barriers to implementing *Second Step* consistently?

What do you wish was different about *Second Step* Lessons?

Do you feel like your students’ benefit from *Second Step* lessons? How?
APPENDIX D

PERFORMANCE FEEDBACK FORM

Aligning Classroom Management with Second Step Performance Feedback Session

Date:

Teacher:

Second Step Lesson of the Week:

Second Step Lesson from Previous Week:

1.) Problem Identification: Review visual graph of aligned classroom management implementation and challenging behavior.

What do you notice about your use of classroom management strategies?

What do you notice about challenging behaviors?

2.) Feedback on progress toward goals:

Identify three specific strengths:

1.)
2.)
3.)

Identify areas for improvement:

1.)
2.)
3.)

3.) Problem Analysis:
What skill(s) do you feel least comfortable implementing? Why?

What can we do to increase use of strategies? What other supports do you need?

4.) Plan Development: Weekly goal setting
Which type of strategy would be most beneficial to increase?

By how much?

What is that going to look like?

Aligned classroom strategies modeled/examples provided.

This consultation model made me feel increased efficacy around my classroom management skills.

   a. Strongly disagree
   b. Disagree
   c. Neither agree nor disagree
   d. Agree
   e. Strongly agree

5). Do you have any questions?

6) Complete fidelity checklist for consultation session.
APPENDIX E

PERFORMANCE FEEDBACK FIDELITY FORM

<table>
<thead>
<tr>
<th>Performance Feedback Fidelity Form</th>
<th>Step 1: Visual feedback: Review graph of implementation and challenging behavior</th>
<th>Step 2: Verbal feedback: 3 strengths and areas for improvement identified</th>
<th>Step 3: Problem Analysis Why is the problem happening? How to increase strategy use?</th>
<th>Step 4: Plan development – weekly goal setting. Desired goals modeled/examples provided.</th>
<th>Step 5: Answer any questions</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Place check if step was completed.</em></td>
<td></td>
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<td></td>
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<td></td>
</tr>
</tbody>
</table>

| Teacher:                         |                                                                 |                                                               |                                                                                 |                                                                                                |                                                 |
| Session #:                       |                                                                 |                                                               |                                                                                 |                                                                                                |                                                 |
| Date:                            |                                                                 |                                                               |                                                                                 |                                                                                                |                                                 |
| Session #:                       |                                                                 |                                                               |                                                                                 |                                                                                                |                                                 |
| Date:                            |                                                                 |                                                               |                                                                                 |                                                                                                |                                                 |
| Session #:                       |                                                                 |                                                               |                                                                                 |                                                                                                |                                                 |
| Date:                            |                                                                 |                                                               |                                                                                 |                                                                                                |                                                 |
| Session #:                       |                                                                 |                                                               |                                                                                 |                                                                                                |                                                 |
| Date:                            |                                                                 |                                                               |                                                                                 |                                                                                                |                                                 |
| Session #:                       |                                                                 |                                                               |                                                                                 |                                                                                                |                                                 |
| Date:                            |                                                                 |                                                               |                                                                                 |                                                                                                |                                                 |
| Session #:                       |                                                                 |                                                               |                                                                                 |                                                                                                |                                                 |
| Date:                            |                                                                 |                                                               |                                                                                 |                                                                                                |                                                 |
| Session #:                       |                                                                 |                                                               |                                                                                 |                                                                                                |                                                 |
| Date:                            |                                                                 |                                                               |                                                                                 |                                                                                                |                                                 |
| Session #:                       |                                                                 |                                                               |                                                                                 |                                                                                                |                                                 |
| Date:                            |                                                                 |                                                               |                                                                                 |                                                                                                |                                                 |

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APPENDIX F

ALIGNING CLASSROOM MANAGEMENT WITH SECOND STEP

SOCIAL VALIDITY FORM

Teacher ID:

1.) This consultation model (professional development session and performance feedback) was an acceptable intervention for aligning my classroom management skills with Second Step lessons.
   a) Strongly disagree
   b) Disagree
   c) Neither agree nor disagree
   d) Agree
   e) Strongly agree

11.) This consultation model made me feel increased efficacy around my classroom management skills.
    a. Strongly disagree
    b. Disagree
    c. Neither agree nor disagree
    d. Agree
    e. Strongly agree

12.) Integrating prevention efforts, such as aligning classroom management strategies with Second Step lessons, is important.
    a. Strongly disagree
    b. Disagree
    c. Neither agree nor disagree
    d. Agree
    e. Strongly agree

13.) I liked the procedures used in the consultation model.
    a. Strongly disagree
    b. Disagree
    c. Neither agree nor disagree
    d. Agree
    e. Strongly agree

14.) Aligning classroom management strategies with Second Step lessons increases students’ generalization of social emotional competencies.
    a. Strongly disagree
    b. Disagree
    c. Neither agree nor disagree
15.) Aligning classroom management strategies to Second Step lessons reduced challenging behaviors.
   a. Strongly disagree
   b. Disagree
   c. Neither agree nor disagree
   d. Agree
   e. Strongly agree

16.) I believe alignment and increased implementation of classroom management strategies with the Second Step lessons will promote more positive student outcomes as compared to implementing Second Step lessons alone.
   a. Strongly disagree
   b. Disagree
   c. Neither agree nor disagree
   d. Agree
   e. Strongly agree

17.) This invention was meaningful for the students in my classroom.
   a. Strongly disagree
   b. Disagree
   c. Neither agree nor disagree
   d. Agree
   e. Strongly agree

18.) I believe these aligned classroom management strategies are sustainable.
   a. Strongly disagree
   b. Disagree
   c. Neither agree nor disagree
   d. Agree
   e. Strongly agree

10.) Overall, the consultation was beneficial.
    a. Strongly disagree
    b. Disagree
    c. Neither agree nor disagree
    d. Agree
    e. Strongly agree

What suggestions do you have for improvement for the future?
APPENDIX G

EXAMPLE PERFORMANCE FEEDBACK EMAIL

Hi Ms. XXX,

Hope you had a good weekend! See below for the relevant second step lessons and goals -

This week’s Second Step Lesson: “Managing Anger”
Previous week’s Second Step Lesson: “Caring & Helping”

Goal: Increasing tangible reinforcement (stickers/stamps) to students who are being caring/helping or demonstrate managing their anger (Goal=15 stickers)

Second Step Lesson #12: Caring & Helping EXAMPLES:
- **Modeling:** “Friends, Kimberly is talking so I’m listening to her to know how to help, that’s how we show others we care.”
- **Pre-Correction:** “Remember, you can show others you care by listening to them and helping them out during the day, I’m going to be looking for friends who are showing they are good helpers during center time.”
- **Opportunities to Respond:** “Friends, who can raise a quiet hand and tell me one of the ways we can show one of our friends or teachers that we care about them?”
- **Validate & Redirect:** “Luis, I know sometimes it’s hard to help out; however, in this classroom we all work together.”
- **Behavior Specific Praise:** “Nice job offering to help rebuild Liam’s tower with him after it fell George, that was very caring of you.”
- **Tangible Reinforcement:** “Thank you for helping out Tim when he spilled his drink, that was such a caring thing to do. You can add one piece to fill our classroom bucket!”

Second Step Lesson #17: Managing Anger EXAMPLES:
- **Modeling:** “Friends, even though I may be angry, I know it’s never okay to say hurtful things to others. When I’m upset I usually try to take three deep belly breaths like this.”
- **Pre-Correction:** “We are going to have a great day today! Remember, if you get upset during the day, you can go over to our calming corner/chair to help calm our bodies”
- **Opportunities to Respond:** “Friends, thumbs up if you think it’s okay if we say hurtful things to others when we’re upset. Why do you disagree? What are some other things we could do if we’re angry?”
- **Validate & Redirect:** “Ben, I can understand that when you’re angry you don’t feel good but it’s never okay to say mean things to other friends. Let’s come over to the calming corner to take 3 deep breaths.”
- **Behavior Specific Praise:** “Keegan, thank you for walking away when you were angry at Gabriel instead of hitting. We know it’s never okay to hurt our friends even when we’re angry and you made a good choice.”
- **Tangible Reinforcement:** “Lena, nice job taking three deep breaths and walking away when you were upset, that is a safe way to deal with being mad (provide sticker/stamp).

Thank you!
APPENDIX H

RECRUITMENT EMAIL

Dear Head Start teachers,

Are you a full-day teacher who wants more strategies to support your students behaviors in the classroom?

My name is Jessica Kemp, and I am a doctoral student in the School Psychology program at The University of Massachusetts Amherst. I am working on a study in collaboration with Dr. Sara Whitcomb and we are hoping to learn more about the benefits of consultation and performance feedback in helping to support Head Start teachers. Specifically, we are seeking to provide ongoing support around the use of classroom management strategies and aligning prevention efforts that might already be in place, to reduce challenging student behaviors.

If you are interested in participating, have questions about this project or if you have a research-related problem, please contact Jessica Kemp at Jkemp@umass.edu or Sara Whitcomb at swhitcomb@educ.umass.edu.

If you have any questions concerning your rights as a research subject, you may contact the University of Massachusetts Amherst Human Research Protection Office (HRPO) at (413) 545-3428 or humansubjects@ora.umass.edu.
APPENDIX I

TEACHER CONSENT FORM FOR PARTICIPATION IN A RESEARCH STUDY

University of Massachusetts Amherst

Researcher(s): Jessica Kemp, M.Ed. and Sara Whitcomb, Ph.D.
Study Title: Strengthening Prevention Outcomes – HCS Head Start Study

WHAT IS THIS FORM?
This form is called a Consent Form. It will give you information about the study so you can make an informed decision about participation in this research. We encourage you to take some time to think this over and ask questions now and at any other time. If you decide to participate, you will be asked to sign this form and you will be given a copy for your records.

WHAT ARE SOME OF THE IMPORTANT ASPECTS OF THIS RESEARCH STUDY THAT I SHOULD BE AWARE OF?
You are invited to participate in a research study exploring the benefits of providing ongoing consultative supports to Head Start teachers to increase classroom management and align prevention efforts. This study is being conducted by Jessica Kemp, M.Ed., and Sara Whitcomb, Ph.D. from the University of Massachusetts Amherst. You were selected to participate because you are a full-day educator within Holyoke, Chicopee, Springfield (HCS) Head Start. Your consent to participate in this study for research purposes is entirely voluntary and you can withdrawal at any time.

If you agree to take part in this study, you will be provided ongoing consultative support and performance feedback for several weeks to help promote a positive classroom environment. In addition, de-identified data would be used to help determine the effectiveness for children and teachers across other Head Start settings. Although your participation in the research component of this professional development is voluntary, ongoing consultative support will still be provided in order to strengthen the preventative objectives of the Head Start program. Benefits and risks are disclosed below.

WHO CAN PARTICIPATE IN THIS RESEARCH STUDY?
Any full-day Head Start educator.

WHERE WILL THIS RESEARCH STUDY TAKE PLACE AND HOW MANY PEOPLE WILL PARTICIPATE?
This study will take place in Holyoke, Chicopee, Springfield (HCS) Head Start classrooms and four full-day Head Start educators are needed for participation.

WHAT WILL I BE ASKED TO DO AND HOW MUCH TIME WILL IT TAKE?
If you agree to take part in this study, you will be provided will a one-hour professional development training on classroom management and ongoing consultative support and
performance feedback. This will include a weekly 15-20 minute feedback session based on observations two times per week (30 mins) for twelve weeks to help promote a positive classroom environment. Feedback will only be provided for a portion of the 12 week study duration. In addition, de-identified data would be used to help determine the effectiveness for children and teachers across other Head Start settings.

During this study, you will be asked to share information on Second Step implementation and barriers, reflect on your experience with the performance feedback and use of strategies, and answer questions related to the usefulness and sustainability of the practices. You may skip any question you feel uncomfortable answering.

**WILL BEING IN THIS RESEARCH STUDY HELP ME IN ANY WAY?**
Although there are no direct benefits to participants from engaging in this study. Intended benefits from this study include problem solving consultative support to address barriers and increase implementation of classroom management strategies, as well as contribution to critical prevention research.

**WHAT ARE MY RISKS OF BEING IN THIS RESEARCH STUDY?**
Although this research is considered to have minimal risks, in the case that performance feedback causes potential frustration or discomfort, the participant will be encouraged to convey their suggestions for more appropriate support and the consultant will validate and engage in affirming problem solving processes. Additional supports will be provided as requested including a mental health crisis support hotline: 1-877-870-HOPE (4673)

No Head Start personnel or administration will be informed who is participating in the research component of the provided and who is not. Provided services will be similar for all teachers regardless of research participation, therefore, the Head Start administration will not be able to differentiate among those participating in research and those who are not and there is no active concern regarding employment. Given that the risk of breach of confidentiality always exists, we have taken the steps to minimize this risk as outlined below.

**HOW WILL MY PERSONAL INFORMATION BE PROTECTED?**
Your privacy and confidentiality is important to us. The following procedures will be used to protect the confidentiality of your study records. As a teacher, you will be assigned a random identification number and no names will be used on any study forms (aside from consent). All student data regarding class-wide challenging behaviors will be aggregated and never identified with individual student names. Classrooms will be assigned random numbers. All performance feedback data will be scanned and stored online in a secured online database (Box) through the University of Massachusetts Amherst. This will also include data given to the primary investigator by the Head Start clinical director including teacher names, years of experience, and classroom characteristics (male/female ratio, number of students on IEPs). No individual student data will be collected from the Head Start Clinical director, rather, classroom data will be reported to the primary investigator as an averaged whole. All scanned files will be shredded. All online files, will remain password accessible for 3 years. All consent forms will be stored in a separate folder and locked a file cabinet in the school psychology assessment room. This room also has a locked door and is also restricted to school psychology student and faculty use only. At the conclusion of this study, the researchers may publish their findings. Information will be
presented in summary format and you will not be identified in any publications or presentations. No information will be used for research in the future.

**WILL I BE GIVEN ANY MONEY OR OTHER COMPENSATION FOR BEING IN THIS RESEARCH STUDY?**
The Director of Clinical Services at the Head Start has agreed to provide the primary investigator with classroom supplies to give to all teachers participating in the research component at the conclusion of the study (no direct identification). Pending grant approval, additional compensation may also be provided.

**WHO CAN I TALK TO IF I HAVE QUESTIONS?**
If you have questions about this project or if you have a research-related problem, you may contact Jessica Kemp at Jkemp@umass.edu or Sara Whitcomb at swhitcomb@educ.umass.edu. If you have any questions concerning your rights as a research subject, you may contact the University of Massachusetts Amherst Human Research Protection Office (HRPO) at (413) 545-3428 or humansubjects@ora.umass.edu.

**WHAT HAPPENS IF I SAY YES, BUT I CHANGE MY MIND LATER?**
You do not have to be in this study if you do not want to. If you agree to be in the study, but later change your mind, you may drop out at any time. There are no penalties or consequences of any kind if you decide that you do not want to participate. You will be notified of all significant new findings during the course of the study that may affect your willingness to continue.

**SUBJECT STATEMENT OF VOLUNTARY CONSENT**
When signing this form I am agreeing to voluntarily enter this study. I have had a chance to read this consent form, and it was explained to me in a language which I use. I have had the opportunity to ask questions and have received satisfactory answers. I have been informed that I can withdraw at any time. A copy of this signed Informed Consent Form has been given to me.”

________________________  ____________________  ____________
Participant Signature:  Print Name:  Date:

By signing below I indicate that the participant has read and, to the best of my knowledge, understands the details contained in this document and have been given a copy.

________________________  ____________________  ____________
Signature of Person Obtaining Consent  Print Name:  Date:
APPENDIX J

CONSENT FORM FOR MINOR PARTICIPATION IN A RESEARCH STUDY
PARENT/GUARDIAN FORM

UNIVERSITY OF MASSACHUSETTS AMHERST

Researcher(s): Jessica Kemp, M.Ed.
Sara Whitcomb, Ph.D.

Study Title: Strengthening Prevention Outcomes – HCS Head Start Study

Researchers from the University of Massachusetts Amherst are conducting a study to improve teacher and student outcomes in HCS Head Start full-day classrooms. Your child was selected as a possible participant in this study because they are currently enrolled in a full-day HCS Head Start classroom in which the teacher has chosen to receive additional support to strengthen positive student outcomes. Your child’s participation in this research study is voluntary.

What are some of the important aspects of this research study that I should be aware of as a parent?

While the main focus will be working with teachers to support their use of positive classroom management strategies, we are also interested in collecting data on all students’ behaviors as a whole within the classroom setting to determine if the support is effective. This study is expected to last for 12 weeks. No foreseeable risks or direct benefits are associated with your child and this study. No identifying information will be collected on your child.

Why is this study being done?
This study is being conducted to explore the benefits of on-going teacher consultation on classroom management practices and a positive classroom environment.

Where will this research study take place and how many people will participate?
This study will take place during the school day within four full-day HCS Head Start classrooms. Information on this study is being sent home to all students in these classrooms.

What will happen if my child takes part in this research study?
If you agree to allow your child to participate, no identifying information on your child will be collected, rather, we will look at the classroom as whole as report any challenging behavior to determine effectiveness of supports provided to the teacher. Your child will not be asked to do anything or go about their day at school any differently.

Are there any potential risks or benefits that my child might experience from participating in this study?
No foreseeable risks or direct benefits are associated with your child and this study. Potential intended benefits could be an increase in social emotional competencies and reduced challenging behaviors in the school setting.
What other choices do I/my child have if my child does not participate?
If your child does not participate, when conducting classroom observations, the observer will avoid collecting data on their behaviors and focus on the other students’ in the classroom.

How will my child’s personal information be protected?
Your child’s privacy and confidentiality is important to us. No identifying information will be collected on your child (aside from this consent form if you say no to participation); however, all data related to the study will be kept in a secure online platform with restricted access or in a locked file cabinet separate from the research data. Information will be presented in summary format and you will not be identified in any publications or presentations. No information will be used for research in the future.

What happens if I say yes, but change my mind later?
You can choose whether or not you want your child to be in this study, and you may withdraw your permission and discontinue your child’s participation at any time.

Who can I contact if I have questions about this study?
If you have questions about this project or if you have a research-related problem, you may contact Jessica Kemp at Jkemp@umass.edu or Sara Whitcomb at swhitcomb@educ.umass.edu. If you have any questions concerning your rights as a research subject, you may contact the University of Massachusetts Amherst Human Research Protection Office (HRPO) at (413) 545-3428 or humansubjects@ora.umass.edu.

If you agree to allow your child to participate in this study, no further action is required (you do not need to sign this form unless you do not want your child to participate).

Parent’s Statement to Request NO Participation.
By signing this form I am stating I do not want data to be collected on my child to determine if this classroom support was effective (they will be excluded from these larger classroom observations). I have had a chance to read this Parent Permission Form, and it was explained to me in a language which I use. I have had the opportunity to ask questions and have received satisfactory answers. I have been informed that my child can withdraw at any time. A copy of this signed Parent Permission Form will be given to you if returned.

Please return this form by __________ (two weeks from distributed date). Thank you!

Name of Child
Name of Parent or Legal Guardian

Signature of Parent or Legal Guardian

Date
Formulario de Consentimiento para Participar en un Estudio de Investigación

Formulario para Padres

UNIVERSITY OF MASSACHUSETTS AMHERST

Investigador(es): Jessica Kemp, M.Ed.
Sara Whitcomb, Ph.D.

Título del Estudio: Strengthening Prevention Outcomes – HCS Head Start Study

Estimado Padre o Guardian,

Investigadores de la Universidad de Massachusetts Amherst están llevando a cabo un estudio para mejorar los resultados de maestros y estudiantes en los salones de día completo de Head Start de HCS. Si bien el enfoque principal será trabajar con los maestros para apoyar su uso de estrategias positivas de manejo del salon, también estamos interesados en recopilar datos sobre el comportamiento de todos los estudiantes en su conjunto dentro del salon para determinar si el apoyo es efectivo.

Nos esperamos que estos datos nos ayuden a comprender mejor los resultados de este apoyo consultivo para mejorar el uso de las estrategias de gestión del salon por parte de los maestros y crear ambientes del salon más positivos.

No se recogerán los nombres de los alumnos ni los detalles de identificación el salon. Además, su consentimiento y la participación de sus estudiantes en la investigación son completamente voluntarios. No hay recompensa por participar o consecuencia por no participar. Los riesgos asociados con la participación en el estudio no son mayores que los de la vida diaria.

Solo el investigador principal y la facultad de apoyo tendrán acceso al conjunto de datos original. Los resultados confidenciales también pueden presentarse en una conferencia o publicarse. Para más información sobre esta evaluación, por favor póngase en contacto con Jessica Kemp al Jkemp@umass.edu o Sara Whitcomb al whitcomb@umass.edu.

Si tiene alguna pregunta sobre sus derechos o el derecho de su hijo como participante en una investigación, puede comunicarse con la Junta de Revisión Institucional de la Universidad de Massachusetts al 413-545-3428.

Si está de acuerdo con la observación en el aula de su hijo para determinar la efectividad de este estudio para mejorar los comportamientos en el salon, no es necesario tomar ninguna otra medida, no es necesario que firme. No se recopilará información de
identificación sobre su hijo, sino que veremos el salon como un todo. Si NO desea que se recopile información sobre su hijo, firme y envíe el formulario a continuación. También se le proporcionará una copia de este formulario.

No, no quiero que se recopilen datos sobre mi hijo para determinar si este apoyo en el aula fue efectivo (serán excluidos de estas observaciones de los salones más grandes).

Firma: ____________________________________________________

Nombre (por favor imprimir): __________________________________________

Fecha: ________________________________________________________
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