



University of  
Massachusetts  
Amherst

## Postive Behavioral Interventions and Supports in Out of School Time: Providing Professional Development via Consultation and Performance Feedback

Item Type	dissertation
Authors	Hefter, Sheera
DOI	<a href="https://doi.org/10.7275/6895886.0">10.7275/6895886.0</a>
Download date	2024-11-10 11:28:07
Link to Item	<a href="https://hdl.handle.net/20.500.14394/19570">https://hdl.handle.net/20.500.14394/19570</a>

POSITIVE BEHAVIORAL INTERVENTIONS AND SUPPORTS IN OUT-OF-  
SCHOOL TIME: PROVIDING PROFESSIONAL DEVELOPMENT VIA  
CONSULTATION AND PERFORMANCE FEEDBACK

A Dissertation Presented

by

SHEERA HEFTER

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

DOCTOR OF PHILOSOPHY

May 2015

College of Education

© Copyright by Sheera Hefter 2015  
All Rights Reserved

POSITIVE BEHAVIORAL INTERVENTIONS AND SUPPORTS IN OUT-OF-SCHOOL TIME: PROVIDING PROFESSIONAL DEVELOPMENT VIA CONSULTATION AND PERFORMANCE FEEDBACK

A Dissertation Presented

By

SHEERA HEFTER

Approved as to style and content by:

---

Sara A. Whitcomb, Chairperson

---

Amanda M. Marcotte, Member

---

Christopher Overtree, Member

---

Christine B. McCormick, Dean  
College of Education

## DEDICATION

To Batsheva and Simcha—you are quite a pair. Thank you for your love and smiles.

## ACKNOWLEDGEMENTS

I wish to express my deep appreciation and gratitude to my dissertation committee chair, Sara Whitcomb, whose mentorship, support, and encouragement were invaluable throughout this process. Words cannot adequately express the influence you have had on my personal and professional development over the last five years. Thank you to my dissertation committee members Amanda M. Marcotte and Christopher Overtree for your enthusiasm, support, and feedback throughout the completion of this project. Your participation has enhanced this work. I would also like to acknowledge Anne Farrell and Melissa Collier-Meek for their interest and enthusiasm to share their initial work with me as I was beginning to conceptualize my study and looking for appropriate measures to use. I want to thank the undergraduate and graduate students who assisted in the data collection and data management throughout the course of the study and the participating after school program for welcoming me into your program and sharing your great work with me. Lastly, I wish to acknowledge the sacrifice and dedication that my family has made to enable me to reach this stage in my career.

## ABSTRACT

### POSITIVE BEHAVIORAL INTERVENTIONS AND SUPPORTS IN OUT-OF-SCHOOL TIME: PROVIDING PROFESSIONAL DEVELOPMENT VIA CONSULTATION AND PERFORMANCE FEEDBACK

MAY 2015

SHEERA HEFTER, B.A., STERN COLLEGE FOR WOMEN

M.S.Ed, FORDHAM UNIVERISTY

P.D., FORDHAM UNIVERSITY

M.Ed., UNIVERSITY OF MASSACHUSETTS AMHERST

Ph.D., UNIVERISTY OF MASSACHUSETTS AMHERST

Directed by: Dr. Sara Whitcomb

American youth are in need of supervision after the school day concludes. After School Programs (ASPs) provide students with safe and supportive venues that have the potential for encouraging student growth and development. ASPs across the country struggle to find high quality professionals to staff their programs; adequate training for these professionals is also limited. There is also significant evidence linking strong teacher-student relationships to both academic and social success. Positive Behavioral Interventions and Supports (PBIS) is a framework that has a strong evidence base to support success in promoting a proactive approach to behavior management within school settings. The purpose of this study was to examine the effect of two variables that can improve ASP staff professional development opportunities and the quality of staff-

student relationships in after-school settings: active supervision and consultation with performance feedback. A multiple-baseline design across five after-school counselors was utilized to evaluate the effects of an intervention involving training in PBIS as it relates to after school settings and visual performance feedback on the counselors' engagement in active supervision, provision of reinforcement, statements of correction, and statements of behavioral expectations during daily snack time. The study also examined counselor perceptions of utility and relevance of the training and feedback process. As expected based on previous research, the intervention was somewhat effective in increasing and sustaining high levels of active supervision amongst most counselors. Overall rates of reinforcement increased across all counselors, use of correction was less affected, and statements of behavior expectations remained low throughout the study. Results of the social validity measures indicated positive feelings about the relevance of the training, but mixed perceptions related to the specific application of the skills to snack time. Findings from the current study provide early evidence that after-school professionals would benefit from the opportunity to engage in professional development in the area of behavior management, when combined with consultation and performance feedback. Limitations of the study, contributions to the field, and directions for future research are presented.



## TABLE OF CONTENTS

	Page
ACKNOWLEDGEMENTS .....	v
ABSTRACT .....	vi
LIST OF TABLES .....	xi
LIST OF FIGURES .....	xii
CHAPTER	
1. STATEMENT OF THE PROBLEM .....	1
Overview .....	1
After-School Programs .....	2
Positive Behavioral Interventions and Supports .....	6
PBIS and Out-of-School Time .....	10
Consultation and Performance Feedback to Increase the Use of Evidence Based Practices .....	11
The Current Study .....	13
2. LITERATURE REVIEW .....	15
Overview .....	15
After School Programs .....	15
Positive Behavioral Interventions and Supports .....	25
PBIS in Out-of-School Time .....	31
Consultation .....	37
Performance Feedback .....	43
The Current Study .....	46
3. METHOD .....	49
Setting and Context .....	49
Participants .....	52
Independent Variable .....	53
Counselor Training .....	54
Performance Feedback .....	55
Treatment Integrity of Intervention .....	56
Dependent Variables .....	57
Move Scan Interact .....	57

Reinforcement.....	58
Correction .....	58
Behavior Expectations .....	58
Nuisance Behaviors .....	58
Data Collection Procedures.....	59
Inter-observer Agreement.....	59
Social Validity .....	61
Experimental Design and Procedure.....	61
Phase 1: Baseline .....	61
Phase 2: Training .....	62
Phase 3: Performance Feedback and Consultation.....	62
Phase 4: Maintenance .....	63
Data Analytic Plan .....	63
4. RESULTS .....	66
Data Analysis .....	66
Counselor Behavior .....	67
Active Supervision.....	68
Counselor A .....	69
Counselor B .....	70
Counselor C .....	71
Counselor D .....	71
Counselor E.....	72
Reinforcement.....	72
Counselor A .....	73
Counselor B .....	74
Counselor C .....	74
Counselor D .....	74
Counselor E.....	75
Correction .....	75
Counselor A .....	76
Counselor B .....	77
Counselor C .....	78
Counselor D .....	78
Counselor E.....	79

Behavior Expectations .....	79
Social Validity .....	79
5. DISCUSSION .....	84
Overview .....	84
Summary of Findings.....	84
Limitations .....	87
Contribution to the Research Base.....	91
Future Directions .....	94
APPENDICES	
A. RECRUITMENT LETTER .....	105
B. INFORMED CONSENT .....	107
C. FEEDBACK FORM .....	109
D. FIDELITY CHECKLIST FOR FEEDBACK HANDOUT .....	110
E. SOCIAL VALIDITY SURVEY.....	111
REFERENCES .....	114

## LIST OF TABLES

Table	Page
1. Cohen's Kappa for all dependent measures.....	98
2. Descriptive statistics and Tau-u effect sizes for all dependent measures .....	99
3. Counselor responses on social validity survey. ....	100

## LIST OF FIGURES

Figure	Page
1. Percentage of time counselors engaged in active supervision .....	103
2 Frequency of counselor R and C statements per 10-minute observation.....	104

# CHAPTER 1

## STATEMENT OF THE PROBLEM

### Overview

After School Programs (ASPs) in the United States are serving an ever-increasing segment of the school-age population. These programs have the potential to provide unique opportunities to students in the areas of academic and social growth and development. Current research remains mixed on the evidence of the impact that After School Programs have on participating students. Of particular concern regarding the efficacy of these programs are the high rates of staff turnover, limited training available to staff at all levels, and the relatively large range of student ages grouped together. One promising technique for fostering positive school climate and supporting behavior management is that of Positive Behavioral Interventions and Supports (PBIS). PBIS is based upon the principles of behaviorism and includes features such as a statement of purpose, clearly defined behavioral expectations, procedures for explicitly teaching the expectations, strategies for preventing problem behaviors, and systems for collecting and using data to inform future decisions (Sugai & Horner, 2002). Thus far, limited research has been done to explore the use of PBIS strategies beyond the traditional school setting, and almost none in afterschool settings. The current study will add to the professional development literature base by examining the efficacy of a professional development program designed to support staff development, specific to ASP counselors, via direct training and the provision of performance feedback. ASP counselors will learn specific techniques to aid their management of challenging student behaviors and ways of preventing these behaviors from surfacing. Furthermore, ASP counselors will receive

ongoing feedback and support as they learn these new skills and techniques, further strengthening their own professional development and capacity to positively affect student behaviors.

### **After-School Programs**

What happens to students after their formal school day ends? Weisman and Gottfredson (2001) report that an estimated 7 million children in the US, between the ages of 5 and 14, are without adult supervision at some point after school hours. As more parents are required to work longer hours, and more students are members of single-parent families, there has continued to be an increase in extended day programs offered by schools across the United States and increased allocations of funding for such programs (DeAngelis & Rossi, 1997; Durlak & Weisberg, 2007). An after school program (ASP) professional is defined as “an individual who works with school-age children and youth in organized settings when they are not in school” (Nee, Howe, Schmidt, & Cole, 2006, p. 10). ASPs provide supervision and support for the children of working families, while supporting the development of academic and behavior skills (Gottfredson, Gertenblith, Soule, Womer, & Lu, 2004; Cosden, Morrison, Albanese, Macias, 2001). The National Center for Education Statistics reported that in 2008, nearly half of all public elementary schools offered at least one extended day program to their students and families (Parsad & Lewis, 2009). In 2001, nearly 20% of American public school students attended an ASP (Kleiner, Nolin, & Chapman, 2004). While the research in the overall effectiveness of extended day programs has been largely mixed or inconclusive (James-Burdumy et al, 2005), The American Youth Policy Forum (2006) reported that overall, students benefit from time engaged in structured opportunities for positive interactions with adults and

peers. Furthermore, unsupervised time puts children at risk for academic and behavioral problems (Weisman & Gottfredson, 2001).

Given the increased need and risks associated with unsupervised time, ASPs have become a more critical part of the array of services that students receive across the country (Rhodes, 2004). Moreover, ASPs can be settings where children form strong relationships with staff and peers; ASPs can also provide additional tutoring, guidance, and coaching to those students who attend (Rhodes, 2004).

At the federal level of government, The 21st Century Community Learning Centers (21<sup>st</sup> CCLC) program is authorized under Title IV, Part B, of the Elementary and Secondary Education Act, as amended by the No Child Left Behind Act of 2001. Since 2004, this program has allocated over 10 billion dollars in funding to state education agencies (US Department of Education, 2013). The 21<sup>st</sup> CCLC program was designed to support community-learning centers that would provide enrichment opportunities for students in high-poverty and low-performing schools specifically to help raise academic scores on high-stakes tests (US Department of Education, 2013).

An impact evaluation commissioned in 2003 by the Mathematica Policy Research Inc. reported that when comparing those students who participated in 21<sup>st</sup> CCLC programs to those who went home after school or participated in another type of ASP, no differences were found on most academic outcomes (James-Burdumy et al., 2005). Two main findings were reported in the social domain: (1) elementary school student participants in the treatment group were more likely than control group students to engage in negative behaviors but (2) also reported feeling safer than their control group counterparts (James-Burdumy et al., 2005). Overall findings of the evaluation are divided



into five areas: (1) the 21<sup>st</sup> CCLC program mostly serves low-income schools that enroll large proportions of minority students, (2) the most important program objectives include providing a safe setting and offering activities to help students improve academically; (3) program leadership is stable, but line staff turnover is high; (4) the average elementary school student attends two to three days a week while the average middle school student attends one day a week; (5) middle school students attend less frequently as the school year progresses and most do not return in the second year while elementary school students attend about the same throughout the year and are more likely to return in the second year (James-Burdumy et al., 2005).

In 2007, the state of Massachusetts commissioned a special report on After School and Out-of School Time. In their report, the Special Commission indicated that 20% of school-age children in Massachusetts participate in some type of ASP and that funding for these programs, while still well below what is needed, has continued to increase (Massachusetts Commission On Out of School Time (MCOOST, 2007). In an effort to improve comprehensive services for afterschool and out-of school time, the Commission identified five key elements that would be critical to future success: (1) increasing public awareness; (2) providing information and an increase in access; (3) promoting quality programs and quality resources; (4) fostering partnerships and collaborations; and (5) sustaining the effort to increase programs (MCOOST, 2007).

According to the Massachusetts Afterschool Partnership, the Senate and House FY2014 budget calls for 1.6 million dollars to be specifically allocated to After-school and Out-of-School Time Grants, an increase in funding as compared to previous years

(<http://www.massafterschool.org/policy.html>). ASPs are receiving large amounts of funding despite the mixed findings related to their positive impact.

Approaching ASPs from a different angle than the traditional academic focus, Durlak and Weisberg's (2007) meta-analysis reviewed ASPs and the impact they have on social and emotional development of youth, with relevant and important findings. Researchers defined ASPs as "one or more activities that (1) operated during at least part of the school year; (2) occurred outside of normal school hours; and (3) were supervised or in some way monitored by adults" (Durlak and Weisberg, 2007, p. 12) and reported on 73 programs that were reviewed and analyzed to evaluate the effects of each program. Overall, researchers found that "youth who participate in after-school programs improve significantly in three major areas: feelings and attitudes, indicators of behavioral adjustment, and school performance" (Durlak & Weisberg, 2007, p. 19). In their review of programs, it also became clear that programs using evidence-based skill oriented approaches were consistently successful in providing numerous, measurable benefits for their participants (Durlak & Weisberg, 2007). Specifically, those who participated in ASPs demonstrated improvement in the areas of feelings, attitudes, positive social behaviors, and school performance: specifically attendance, grades, and scores on academic achievement tests (Durlak & Weisberg, 2007). They also found that programs using evidence-based skill training were the only ones that were linked with positive outcomes (Durlak & Weisberg, 2007).

ASPs have become a common part of the lives of American school children. As such, the government continues to invest significant resources to support students after the formal school day concludes. Results of federal, state, and privately commissioned

reports indicate mixed findings on the academic value these programs provide, and that student's social and emotional development is positively supported. Based on current findings, ASP providers would be well advised to make sure that their programs are using evidence-based techniques for supporting the social and emotional development of their participants. One such evidence-based practice is known as Positive Behavioral Interventions and Supports (PBIS).

### **Positive Behavioral Interventions and Supports**

Beginning in the 1980s researchers identified a need for improvement in the area of implementing and documenting effective interventions to support students with behavioral disorders (Walker et al., 1996; Sugai & Simonsen, 2012). Researchers at the University of Oregon specifically identified promising practices that suggested attention be directed toward prevention, data-based decision making, school-wide systems, explicit instructions, and professional development in an effort to improve student behavior and school climate overall (Lewis & Sugai, 1999). In the 1990s the National Center for Positive Behavioral Interventions and Supports was established through the US Department of Education, Office of Special Education Programs (Sugai and Simonsen, 2012). In the Individuals with Disabilities Act (IDEA) (2004), Congress stated that positive behavioral interventions and supports (PBIS) should be considered for use with children whose behaviors are negatively affecting their ability to learn. Sugai and Simonson (2012) reported that the National Technical Assistance Centers on Positive Behavioral Interventions and Supports directs professional development and provides technical assistance to more than 16,000 schools in the United States. It is important to

note that PBIS is not a stand-alone curriculum or packaged program, but rather a philosophy or approach to managing student behavior effectively.

Currently, PBIS is defined as a framework for applying a “behaviorally based systems approach to enhance the capacity of schools, families, and communities to design effective environments that improve the fit or link between research-validated practices and the environments in which teaching and learning occur” (Sugai et al., 2000, p.133). “Positive behaviors” can include skills that students employ, which increase their chances for success in their environments (Carr et al., 2002). “Supports” includes “all those educational methods that can be used to teach, strengthen, and expand positive behavior and all those systems change methods that can be used to increase opportunities for the display of positive behavior” (Carr et al., 2002, p. 4). PBIS is a framework for working with students that is focused on increasing the positive aspects of student behavior and decreasing challenging behaviors.

Sugai and Horner (2002) identify four critical elements to school wide PBIS (SWPBIS): (1) acknowledgements and considerations of outcomes, (2) sustained use of evidence-based practices, (3) the use of data to guide decision making, and (4) the consideration of the systems that are needed to support the first outcomes, practices, and data-based decisions.

When considering outcomes, school leadership needs to consider which outcomes, such as academic achievement and social competence, are valued by students, teachers, families, and other relevant stakeholders. Sugai and Horner (2002) emphasized that it is the sustained use of evidence-based practices that is critical for school leaders to consider. Leaders must be dedicated to leaving behind old practices if they have been

shown to be ineffective, but also resist the temptation to quickly abandon supported practices whenever they learn of a newer program or curriculum. In the area of data-based decision making, PBIS relies heavily on the collection of data at the individual, classroom, and school levels across different contexts along with multiple outcome measures. Lastly, PBIS requires that systems be carefully considered to make sure that all staff can implement each of the practices in a feasible and sustainable way.

In their review of the effectiveness of PBIS, Sugai and Horner (2002) identified six features common to effective programs within a traditional school setting: (1) the creation of a statement of purpose, including the objectives and rationale for a school-wide system of discipline. This statement is most effective when the focus is on staff and students, when it is relevant to all school settings, and connects academic as well as behavioral outcomes; (2) the establishment of clearly defined expectations that include specific examples and encourage consistent communication among staff and students in all school settings; (3) the establishment of a method and means for staff to teach students the behavioral expectations, routines, and consequences—both positive and negative; (4) delineating organized steps for empowering students to comply with the expected behaviors, taking into account frequency, predictability, and tangible (or intangible) nature of feedback; minor infractions to more significant infractions, and (6) established protocol and method for data management and informed decision-making (Sugai & Horner, 2002).

Sugai and Simonsen (2012) reported that there are three states in the United States where more than 60% of the schools are currently implementing PBIS. Nine states have implemented PBIS in almost half of their schools and sixteen states have implemented

PBIS in more than a third of their schools. For those schools with effective PBIS implementations, more than 80% of their staff and students can articulate the behavioral expectations for a specific setting in their school. Further, there are high rates of positive acknowledgment; at least 70% of the students will not have experienced an office discipline referral during the course of the school year, and the school has protocols in place to ensure that school-wide data are reviewed regularly and used to guide decision-making (Sugai & Simonsen, 2012; Lewis & Sugai, 1999).

With the expanding reach of PBIS and implementation across the United States, there has been an increase in research studies aimed at demonstrating the efficacy of PBIS. Horner et al. (2009) conducted a randomized wait-list controlled trial in schools where training and technical assistance were provided over a 3-year time period, to determine (1) if there is a functional relationship between the implementation of PBIS and/or the fidelity of PBIS prevention practices at the elementary school level, (2) improved perceptions of safety, (3) reduced office referrals, and (4) improvements in third-grade reading achievement scores. Initial findings indicated that schools adopting PBIS were reported to be implementing PBIS with high fidelity, were perceived as safer, and reported an increase in third grade reading performance (Horner et al., 2009).

Bradshaw, Mitchell, and Leaf (2010) conducted a five-year longitudinal, randomized, controlled, trial across 37 elementary schools and documented that implementation of PBIS correlated with a decrease in office discipline referrals and suspensions for elementary school students. In additional analysis of the same data set, schools implementing PBIS reported significant improvements in staff perceptions of the school's overall organizational health (Bradshaw, Koth, Bevans, Ialongo, & Leaf, 2008)

and a decrease in student need for the use of school-based counseling services (Bradshaw, et al., 2010). PBIS is an approach that can be used by schools to help in managing challenging student behaviors and improve school culture while, at the correlational level, also improve academics for students.

### **PBIS and Out-of-School Time**

Research to examine the use of PBIS strategies in non-classroom settings has continued to grow as this model has been adopted in thousands of schools across the country. One particular school setting that has been examined is the use of PBIS strategies at recess time (Lewis, Colvin, & Sugai, 2000; Todd, Haugen, Anderson, & Spriggs, 2002). The results of the Lewis et al. (2000) study support the hypothesis that using the principles consistent with PBIS, such as active supervision, explicit instruction, and pro-active instruction can reduce problem behaviors during recess. Todd et al. (2002) went further and suggested that, by taking a systematic approach to teaching recess behaviors, student behavior would be positively impacted across multiple settings. Their findings further supported the position that school-wide change is most effective when the PBIS principles and strategies are integrated into all school settings in both academic and social domains (Lewis & Sugai, 1999; Todd et al., 2002).

One of the critical domains identified by the Massachusetts Special Commission on Afterschool and Out of School Time (2007) included fostering community partnerships, especially those that increase communication and collaboration between school, afterschool, and out-of-school time programs in an effort to maximize student benefit from each setting. In the previously cited studies, classroom teachers were involved in affecting student behavior and teaching expectations. When considering the

adoption of PBIS to settings beyond the school day, McKevitt, Dempsey, Ternus, & Shriver (2012) identified unique challenges to out-of-school-time settings. McKevitt and colleagues (2012) explain that, in out-of-school time settings, e.g., afterschool programs or summer camps, staff often have differing philosophies about behavior management, varying opinions and comforts with rewards, and there are often high rates of staff turnover. Durlak and Weisberg (2007) found additional challenges including trouble with training, lack of funds, limited time with children, unusually large range of ages in programs, and limited effective leadership. Two particularly effective interventions that can improve the quality of teacher-student relationships and reduce problem behaviors in school settings are active supervision strategies and consultation with performance feedback (DePry & Sugai, 2002; Noell, Duhon, Gatti, & Connell, 1997; Hemmeter, Snyder, Kincaid, & Artman, 2011; Stormont, Smith, & Lewis, 2007; Colvin, Sugai, Good III, & Lee, 1997; Reinke, Lewis-Palmer and Martin, 2007). These techniques could be helpful in providing support for ASP staff and for students during out-of-school time.

### **Consultation and Performance Feedback to Increase the Use of Evidence Based Practices**

Performance Feedback (PF) has been defined as a process of “monitoring a behavior that is the focus of concern and providing feedback to the individual regarding that behavior” (Noell et al., 2005, p. 88). Reinke et al., (2007) add to this definition and describe feedback as data-based, objective, and based on the current performance of a specific targeted behavior. Because of these features, PF can be a quick and useful method for increasing teacher use of specific classroom-based strategies (Reinke et al., 2007). In the context of school-based consultation, PF is often linked to a desire for an



increase in the treatment integrity of a particular intervention—either behavioral or academic (Solomon, Klein & Politylo, 2012).

In their 2012 meta-analysis observing the effect of PF on treatment integrity, Solomon et al., (2012) found that the use of PF resulted in significant behavior change regardless of the specific dependent variables, types of interventions, or grade levels. Noell et al. (2005) also found that in some cases treatment integrity improved only when traditional methods of consultation were specifically paired with PF. Reinke, Lewis-Palmer, and Merrell (2008) echoed these findings in a study that demonstrated support for PF and its role in changing behavior when used together with one-time training and consultation related to increasing teacher use of behavior specific praise. The inclusion of PF was found to make a significant difference in teacher behavior, not only in regard to the specific students being targeted in the classroom, but also to the class overall (Reinke et al., 2008). PF has also demonstrated social validity given its brevity and ease of understanding (Reinke et al., 2007).

A challenge in consultation is often lack of time for weekly meetings, and the provision of PF, specifically when presented visually as a way to supplement in-person meetings was found to be effective and well received by classroom teachers (Reinke et al., 2007). Specific to the domain of PBIS, Stormont et al. (2007) found that the inclusion of PF increased teacher implementation of pre-correction statements and praise within a PBIS initiative by as much as 70-80% in an early childhood setting. More broadly, Hemmeter et al. (2011) found that professional development involving initial training followed by PF increases teacher use of evidence-based behavior support strategies related to working with students who demonstrate challenging behaviors.

## The Current Study

The current study will include examination of one aspect of the application of PBIS in an afterschool setting—specifically the impact that training has on an ASP provider and the use of PBIS active supervision strategies on student behavior. While previous work has examined federally funded, after-school programs or those in low-performing schools, this study took place in a typically-performing, suburban, moderately diverse elementary school that hosts a program run by the town Department of Leisure Services. The study attempted to answer the broad question of: Is there a functional relationship between the provision of training in the area of active supervision with performance feedback and the use of evidence-based active supervision practices? There has been some initial pilot work in developing measures of quality and implementation of PBIS in federally-funded afterschool settings in the state of Connecticut (Farrell, Collier-Meek, & Pons, 2014), and this study aims to provide a new setting in which to test preliminary measurement tools and add to this new domain of PBIS research. Specifically this study examined several research questions: (1) Does professional development increase ASP counselor’s use of active supervision practices during snack time? (2) Does professional development increase ASP counselor’s use of reinforcement and statements of behavior expectations while decreasing their reliance on corrective statements to manage student behavior during snack time? (3) Does professional development with the addition of performance feedback increase ASP counselor’s use of active supervision practices during snack time? (4) Does professional development with performance feedback increase ASP counselor’s use of reinforcement and statements of behavior expectations while decreasing their reliance on corrective statements to manage

student behavior during snack time? (5) Are changes in the rates of supervision, provision of reinforcement, behavior expectations and corrections maintained upon termination of performance feedback and consultation? (6) Do counselors perceive the training and feedback to be an effective and practical means of improving student behavior during snack time? and (7) Do counselors perceive the training and its content to be a relevant strategy for supporting positive student behaviors during in an after-school setting? The author hypothesized that the provision of professional development would increase ASP counselor use of active supervision practices, likely to a moderate degree initially, and would increase more significantly with the instruction of consultation with performance feedback. Second, the author hypothesized that with training, and subsequent consultation and performance feedback, ASP counselors would increase their use of reinforcement and statements of behavior expectation, and reduce their reliance on statements of correction. Third, the author hypothesized that changes in behavior would not be maintained following the termination of consultation and performance feedback (Witt, Noell, LaFluer, & Mortenson, 1997). Finally, the author hypothesized that the counselors would find the training and its content relevant to their work and a helpful strategy to implement in both after-school settings and similar informal environments within which the staff often works (e.g., summer camp).

Previous research relating to after-school programs, the effectiveness of PBIS, areas outside of the school day where PBIS has been applied, and the use of performance feedback and consultation with school professionals have been reviewed and the details are presented in Chapter 2.

## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **Overview**

The histories of after school programs (ASPs) and Positive Behavior Interventions and Supports (PBIS) are rich and critical in helping to understand how these two areas can be combined to support students in our schools. In this chapter, we review existing literature on the efficacy of ASPs, the development and expansion of PBIS, the limited initial research that has taken place on PBIS in out-of-school-time, and the efficacy of consultation and performance feedback on both teacher behavior and student outcomes. A deeper understanding of these individual components will clarify how these distinct areas came together to support the current study.

#### **After School Programs**

The prevalence of research related to efficacy of ASPs has largely increased due to changes in federal legislation and to federal and state budget allocations to programs such as the 21<sup>st</sup> Century Community Learning Centers, Boys and Girls' Clubs, YMCA's, and others (James-Burdumy et al., 2005; Alliance, 2009; MCOOST, 2007). Most of the work to-date has been focused on evaluating program efficacy or the efficacy of a program in buffering a specific risk factor, such as delinquency. A background summary on ASPs is presented below. As early as World War II (Tuttle, 1995), ASPs have been referenced as a solution for providing adult supervision to children in after school hour settings. Weisman and Gotfredson (2001) examined this theory more specifically by looking at the efficacy of after school programs in reducing juvenile delinquency. The researchers utilized existing data from eight after school programs servicing grades 4-8

that were part of the Maryland After School Community Grant Program. The study examined two outcomes related to student behavior: program withdrawal and program attendance. Weisman and Gottfredson (2001) reported that initially one-third of the students who had registered had dropped out (range 11%-53%). When comparing students who stayed with those who left before the end of the school year, the researchers found significant differences in three domains for the latter group: peer drug models, number of days a student was absent, and extent of chaos in their home or neighborhood. Further, researchers found a strong correlation between increased parental supervision and increased attendance. By contrast, easy access to drugs and social disorganization were strongly associated with decreased attendance. At the end of the study, researchers asked those students who withdrew why they no longer attended their programs. Major themes that emerged included students who believed that the programs were boring, they left to go to other schools, or they did not have reliable transportation.

Weisman and Gottfredson's (2001) research suggests that after school programs, are in reality, serving a population that is lower risk than was originally intended. That is, those with greater parental supervision are attending, while those who are at greater risk for drug abuse, or are living in disorganized homes are less likely to attend consistently if at all. Results of their work highlight the extra effort that ASPs have to make to ensure that their most at-risk students are being helped. Finally, student feedback that the ASPs were boring would also need to be addressed by the individual programs to encourage students to register and attend consistently.

Gottfredson et al., (2004) examined the role of ASPs in reducing delinquency. Researchers examined fourteen ASPs funded by the Federal Safe and Drug-Free Schools

and Communities Program. For the evaluation, three programs used a control group design by placing some students on a waiting list to participate, while the other eleven programs selected a comparison group design where students were placed in a treatment, waiting list, or comparison group. Students completed a survey at the start and end of the school year that asked them about topics related to rebellious and delinquent behavior, drug use, and peer relationships. In addition, the survey provided a measure of unsupervised after-school time. Researchers used structural equation modeling to evaluate the relationship between problem behaviors and a propensity for engaging in at-risk behaviors. Over 70% of all participants reported that they are unsupervised after the formal school day ends, some for more than ten hours per week.

Those who participated in an ASP in this study were more likely to consider not using drugs, but were no more likely to have more developed social skills or positive peer interactions. Specifically with regard to delinquency for middle school students, ASP participation was correlated with a reduction in delinquent behavior partially due to an increase in the students' choice to avoid drugs and more opportunities for positive peer interactions. For those programs that dedicated more time to teaching social skills and character development, students had a greater likelihood of reducing delinquent behaviors. It is interesting to note that across all groups, elementary school programs did not emphasize either social skills or character development to the same extent as those in middle school. Overall, the study provided support for the hypothesis that ASPs can be considered a prevention tool for reducing delinquent behavior. Further, ASPs may be even more effective when they incorporate instruction that relates to helping change students attitudes toward substance abuse and resisting negative peer pressure.

One important component of ASPs that is discussed in the literature is the role of the relationships between staff and student participants. Rhodes (2004) points out that ASPs are uniquely suited to support the development of relationships between the generations. Because the ASP staff have fewer demands on their time as compared to classroom teachers, they are able to engage in different types of activities and conversations that can help foster these unique relationships. Rhodes (2004) continues by suggesting that the staff at ASPs are typically closer in age to the students than their teachers and are often from the same community. Related to the findings of Gottfredson et al. (2004), Rhodes (2004) highlights the role of the ASP professional as a mentor and bridge from the neighborhood to the opportunities that are available in the wider community. In his research, Rhodes (2004) supported the hypothesis that the staff play a significant role in the effectiveness of an ASP, in terms of the social skill development of participants, providing opportunities for improving their use of conversational skills, and being positive role models for youth. With regard to improving social and emotional development, Rhodes (2004) offers insight about the value that consistent positive and accepting interactions can have on students. He suggests that ASP staff are uniquely positioned to model positive adult communication and effective strategies for conflict resolution. Rhodes, Grossman, and Resch (2000) found that the positive relationships that are established with volunteers have a positive impact on youth perceptions of the relationships they have with their parents, their own self-worth, and even academic achievement.

The 21<sup>st</sup> Century Community Learning Centers (21<sup>st</sup> CCLC) are a federally funded after school initiative that provide grant funding to school districts to support

enhancing services for students who are in high-poverty and low-performing schools, specifically in academic domains (USDOE, 2013). James-Burdumy et al. (2005) presented the results of an impact evaluation of the 21<sup>st</sup> CCLC using 26 schools in 12 school districts across the United States. James-Burdumy et al. (2005) were specifically trying to answer questions related to an improvement in student academic outcomes, supervision and safety after school, and social and emotional development. Their evaluation also looked at which groups of students gained the most from each program while they highlighted the unique features of each program. The evaluation utilized both an impact evaluation and an implementation study across the participating elementary and middle schools. The researchers report that a typical 21<sup>st</sup> CCLC is open every weekday for three hours per day, though most students attend only one or two days per week. Attendance is also reported to drop significantly as the year progresses, though more for middle school than elementary students who attend more consistently throughout the year. A typical center sees 85 students, and in the first hour provides a snack and time for homework. The center is staffed by a combination of certified teachers and aides. After completing the homework session, most students then transition to other academic activities (e.g., computer labs or additional instruction to clarify school day work). In some cases, there are also opportunities for extra-curricular activities like art, music, or martial arts.

In the first year of the study, the researchers collected baseline and follow-up data for 1,000 elementary school students and 4,300 middle schools students. In the second year, a second group of elementary school students was added, the first group of elementary school students provided their second follow-up data collection, and the



middle school students provided both their second and last data point. In the third, and last, year of the evaluation, the remaining elementary school data were collected for both groups of elementary students. Students in the control group were identified as having either gone home after school or having attended another after school program.

The results of the impact evaluation identified meaningful results in the following areas. In the area of supervision after school, the data indicated that 21<sup>st</sup> CCLC students were more likely to be with non-parent adults and those who participated in the 21<sup>st</sup> CCLC demonstrated no differences with regard to the frequency with which students were responsible to look after themselves (James-Burdumy et al., 2005). In the area of academic achievement, there were no meaningful differences noted between the 21<sup>st</sup> CCLC and the control group, i.e., test scores showed no observable difference, nor was time reported to have spent on homework or class preparation, or attendance. In the area of safety, 21<sup>st</sup> CCLC students reported feeling safer after school as compared to control group students. In the area of negative behaviors, those enrolled in the 21<sup>st</sup> CCLC programs were more likely to engage in negative behaviors during school hours than control group students. In the area of developmental outcomes, students in 21<sup>st</sup> CCLC programs were less likely to endorse items that indicated positive ratings with regard to working well on a team as compared to their control group counterparts. In the area of parent outcomes, there was no meaningful impact found on parent involvement, PTO meetings, or other volunteer opportunities when comparing the two groups.

In addressing the implementation evaluation, researchers noted significant variability in both the activities and the types of services that are available in the 21<sup>st</sup> CCLC, with the exception of homework support provided by all centers. The report states

that over the two years that implementation was monitored, the program leadership remained largely unchanged. This observation stands in contrast to the program staff, which reported at least 30% turnover in coordinators, and up to 66% of center staff changes in the same two years. The evaluation did not determine the causes for these high rates of turnover, but suggested that low wages and a high level of burnout may be related to the additional demands of the ASP following an active day of teaching.

In 2009, The America After 3PM (AA3) study, an in-depth analysis of how children spend their time after school, was published based on the responses of 30,000 households across the country (Alliance, 2009). Key findings of the evaluation indicated that more than 25% of all American students, almost 5 million elementary and middle schools students, have some unsupervised time after the formal school day ends. While ASPs were also perceived to have improved in comparison to earlier studies, the AA3 report indicated that, for many parents, the reasons for not participating were due to financial barriers or lack of availability in their area. Most importantly, parents across the US perceive ASPs as a vital service. Parents cite safety, opportunities for improving social skills, and providing venues for keeping children and young adults both physically active and academically engaged as the primary benefits of their child's participation in ASPs. The AA3 report indicates that 89% of parents were satisfied with the program that their child attended, 90% indicated that there ought to be a place for students to go after school, and 83% believed that public funding should be allocated to support ASPs.

The same year that the AA3 report was published, the National Center for Education Statistics, Institute of Education Sciences, specifically reported on ASPs in public school settings. Parsad and Lewis (2009) reported that 56% of public elementary

schools in the United States hosted at least one ASP in 2008, 10% of which were 21<sup>st</sup> CCLC programs. Of the over 4 million students that were reported to have been enrolled in any formal ASP (including dual enrollments), one-third were enrolled in a fee-based, stand-alone, day care or stand-alone, academically oriented program while the remaining two-thirds were split between a 21<sup>st</sup> CCLC program, or another type of stand-alone program not already accounted for. A unique finding of this report was that just over 20% of the elementary schools reported that they provided at least two ASPs, meaning that students could be dual-enrolled in multiple programs, or that there were different programs for different interests, for example, academic or social. Finally, 10% of the elementary schools reported that they offered supplemental, educational services as part of their after school programming.

ASP's are making a difference in the lives of an ever-increasing number of American youth. It is the people however, not the programs, who are most significantly determining the quality and effectiveness of the ASP. The variability in the positive outcomes presented above may be due, at least in part, to the caliber and consistency of the staff members. (Asher, 2012; Naftzger et al., 2007; Intercultural Center for Research in Education (ICRE) & National Institute on Out-Of-School Time (NIOST), 2005; Nee et al., 2006). It is critical to understand who is staffing these important programs. In their research on ASP staff and quality programs, Naftzger et al. (2007) identify five models of staffing that include school-day teachers, school-day non-teachers, individuals with some or no college, and college-educated individuals that are not teachers, all in differing combinations. Regardless of the specifics of background, it is the staffing of the programs that can be a determining factor in whether a program is effective or merely mediocre

(Naftzger et al., 2007). Within the context of the 21<sup>st</sup> CCLC's, Naftzger et al. (2007) reported that school day teachers are the highest proportion of all ASP staff. According to the Massachusetts After-School Research Study (ICRE & NIOST, 2005), ASPs employ paid and unpaid staff, community volunteers, high school tutors, and other adult specialists. Nee et al. (2006) reported that there are variations in educational background of ASP professionals specifically for those over 22 years of age: just over half have at least a two-year degree, with only one-quarter listing high school as their highest completed degree. A report by School's Out Washington (School's Out Washington (SOW), 2008) echoes this position: in order for a program to increase participant self-esteem and academic performance, and also decrease risky behaviors, "programs must have trained and educated staff" (p.1). Pearson, Russell, and Reisner (2007) reported a positive correlation between high levels of compensation for directors, advanced educational credentials, and higher levels of retention. In their report on high performing ASPs, Birmingham et al. (2005) reported that, in their review of ten high-performing programs, that "a strong, experienced, leader/manager supported by a trained and supervised staff" (p. i) developed ties to the communities served, arranged orientations, organized regular staff meetings, and shared consistent communication about the program vision to staff.

In the state of Washington, as in other states, the profession of afterschool and youth development (AYD) does not provide a model for training or educating workers with the skills they need to provide high quality services. Low wages, high staff turnover, and limited recognition of their professional status are additional factors that contribute to the challenges of professional development for the field of AYD (SOW, 2008; McKevitt

et al., 2012; Asher, 2012, Nee et al., 2006). Further, ASP professionals, even those working full-time, report limited access to benefits: 21.8% do not receive any benefits, slightly more than 40% receive retirement benefits, more than 50% have access to medical insurance and sick days (Nee et al., 2006).

The School's Out Washington (2008) report proposed a framework for improving the training provided to those in the field of AYD via seven elements: (1) measuring the outcomes related to student improvement as a result of AYD professional development, (2) identifying core skills that clarify the essential knowledge and skills that AYD professionals must have to excel in their field, (3) clarify the definition and role of AYD professionals both within and outside the world of after-school and youth programming, (4) establish the potential pathways for growth and development that AYD professionals can take within the profession, (5) formalize training opportunities for staff, (6) establish a centralized database of AYD professionals with documentation of all training and education completed, and (7) engage in regular quality reviews. It is the position of the committee that these seven elements will help to provide the profession with a stronger foundation, and consequently contribute to improving the quality of the programming provided. In their evaluation of ASP workers, Nee et al. (2006) reported similar findings that "a large number of well-educated staff and a core of experienced workers committed to the profession underscore the need to create a structure for establishing qualifications and a path for advancement"(p.1).

Similar to research in education, The After-School Corporation (TASC, 2010) reported that the skills of OST (Out-of-School Time) professionals are linked to student outcomes, just as teacher skills are linked to student outcomes. The challenge is that OST

professionals often do not have access to the same systems of support that provide training and development within the in-school profession.

The After-School Corporation (TASC, 2010) report further emphasized that ASP professionals need partnerships with institutions of high education, and specifically colleges of education, in order to provide a venue for fieldwork for training in areas such as student teaching or family counseling. TASC reported that the barriers to partnerships with higher education included the lack of standard competencies for staff in different positions, and the lack of standards in program quality. Beyond partnerships with institutes of higher education, Nee et al. (2006) indicated that while ASP professionals believe that training is important, there are few opportunities available in both urban and rural settings. In his review of the staffing needs of ASPs, Asher (2012) reported that, with limited funding, it is important to prioritize the professional development needs of those who have a long-term commitment to the field over those who see their positions as more transient. It was with a focus towards strengthening an existing university-school partnership and supporting front-line workers that the idea for the current study was conceived.

As part of the existing partnership related to the provision of technical assistance in PBIS by the author, her advisor, and colleagues, supporting the ASP and, its counselors in particular, was a unique and meaningful expansion of services for a school already implementing PBIS with fidelity. Training in PBIS would be meaningful for the counselors, familiar to the students, and likely helpful in framing the relationship between the staff and students within a positive context (Osher et al., 2008).

### **Positive Behavioral Interventions and Supports**

Positive Behavior Interventions and Supports (PBIS) is defined as “a general term that refers to the application of positive behavioral interventions and systems to achieve socially important behavior change” (Sugai et al., 2000 p.7). While initially individual- and classroom-centered, there has been an increasing interest to explore the efficacy of PBIS across the entire school over the last decade leading to the expanded moniker, School Wide Positive Behavior Interventions and Supports (SWPBIS; Sugai & Simonsen, 2012). Before discussing the potential application of SWPBIS to ASPs, a more thorough background on SWPBIS will be helpful.

The challenges that school staff experience related to behavior management have been emphasized as an area in need of significant support (Colvin, Kameenui, & Sugai 1993; Sugai et al., 2000; Bradshaw et al., 2010). Traditional models of managing challenging behaviors have been reactive (Colvin et al., 1993), and those that have been proactive often consisted of pre-packaged behavior management programming; these programs often lack support in providing a model that will apply to all students in the school (Colvin et al., 1993). SWPBIS by contrast provides a framework, not a curriculum, “for establishing the social culture and individualized behavior supports needed for a school to be a safe and effective learning environment for all students” (Sugai & Horner, 2009, p. 309). Within this framework, schools take time to provide direct instruction in the positive language of behavior expectations and consequences, across all school settings, with meaningful collection and use of data used to inform decision-making as they adjust the specifics to maximize student outcomes (Sugai & Horner, 2009).

Horner et al. (2009) demonstrated the positive effects that training and technical assistance in SWPBIS can have on a school and its students in important domains such as school safety and academic outcomes. Horner et al. (2009) conducted a randomized, wait-list, controlled trial to examine the effects of SWPBIS on elementary schools in two states that had been receiving training and technical assistance for more than 5 years from experts in SWPBIS. For each state involved in the study, the first 30 schools to meet a series of program criteria—including the state’s ability to provide whole-school training in PBIS and self-nomination applications completed by school administration, were selected for inclusion in the study and were then randomly assigned to either a treatment or control/delay group. The treatment group received SWPBIS training at Time 1 (T1), and the control group was to receive the training one year later, at Time 2 (T2). Within each set of schools, measurement occurred at T1 before any training was initiated. Data were collected again after the treatment group received one year of training and support, and data collection continued after the control/delay group received their training (T3). At each point of measurement, 4 measures were administered to determine (1) what features of SWPBIS were already in place in the school, (2) levels of school safety, (3) frequency of office discipline referrals, and (4) levels of academic achievement on standardized measures.

At T1, each participating school was evaluated on each factor. Following the data collection, treatment group schools received training and technical assistance from state personnel in SWPBIS for three to eight days over a two-year period of time.

On the measure of implementation, the data indicated that implementation in treatment schools increased significantly between T1 and T2 as compared to the



control/delay group. In the area of school safety, there was a significant reduction in the measures of risk factors between the treatment and control groups at time 2. No pre-test data were available on the measure of office discipline referrals (ODRs) issued due to the low validity of the reporting at baseline. No formal analysis could therefore be computed, but low levels of ODR reporting followed the training and technical assistance. On the measure of academic outcomes, there was a significant difference found between T1 and T2 for the Treatment group and between the Treatment and Control/Delay groups at T2. These effects were small though and the researchers advised caution in attributing any of the changes to be significantly influenced by the use of SWPBIS.

Bradshaw et al., (2010) extended research on SWPBIS by analyzing the effects of SWPBIS on both behavior and academic outcomes across five years of longitudinal data from public elementary schools in the South Atlantic United States. Thirty-seven public elementary schools from five districts volunteered to participate in the study. The schools were matched on a subset of baseline demographics and then randomly assigned to either the intervention condition or the comparison condition. Those in the treatment condition received training in the summer by one of the founding experts in PBIS and formed internal school based teams to support the implementation of SWPBIS. The staff were trained in the background of SWPBIS with particular emphasis on developing a training plan for professional development for the remaining school staff. The school teams also received additional booster training to ensure high levels of implementation fidelity.

Two measures were used to examine the effectiveness of SWPBIS and three measures were used to obtain student outcomes. Analyses of data related to the extent to

which SWPBIS was implemented in the school indicated a significant intervention effect. Furthermore, strong correlational effects were observed relative to the effect of training on SWPBIS implementation. On the student outcome measures, the results indicated that, over the course of the study, the overall percentage of students with any type of ODR (major or minor) decreased significantly. On the measure of suspensions, non-significant results were found for the comparison schools while significant differences were observed for the SWPBIS sites, meaning that suspension rates decreased for the treatment schools over time. Finally, in the area of school achievement, there was an overall increase for students scoring in the proficient and advanced ranges on both math and reading tests. T-tests were computed to compare the gains between the students in the SWPBIS schools and those in the comparison schools; no statistically, significant gains between the third grade math and fifth grade reading scores were noted.

Highlights of the data analysis revealed that training has the most significant effect on teaching the behavioral expectations and managing behavior. It is also interesting that there was some suspected diffusion with regard to potential places where improvement in responses to discipline or behavior management could have been made. It was also noted that there are features of SWPBIS that were well established for both groups at baseline but only remained established for the treatment group at T2 and T3. This suggests that, while the comparison schools implemented particular features of SWPBIS, there was not adequate training or support to sustain these positive components.

Beyond individual student outcomes, class-wide improvements, and positive teacher reports, Bradshaw et al., (2008) examined the effects of SWPBIS on overall

school organizational health. Bradshaw and colleagues provided the first longitudinal, randomized, controlled trial to study the effect of PBIS training on how staff perceive the overall health of the school. School organization health has been correlated with positive outcomes for both staff and students.

Bradshaw et al. (2008) collected data from 2,507 staff members from thirty-seven participating elementary schools. The staff members completed a demographic survey and also completed the Organization Health Inventory for Elementary Schools (OHI; Hoy & Fedman, 1987). The OHI asks staff to share their perception on five areas that are considered to contribute to a healthy school: institutional integrity, staff affiliation, academic emphasis, collegial leadership, and resource influence.

For this study, the data were collected annually in the springtime before the randomization and subsequent training took place. Additional data collection took place the following spring as well. After baseline analysis confirmed there were no significant differences between the schools in the two conditions, the researchers looked at whether there was an impact on organization health as a result of the SWPBIS training and support. The results of the hierarchical linear model analysis revealed that SWPBIS had a positive and significant effect on the growth of the overall organizational health of the participating schools.

SWPBIS has a strong research base for improving behavior outcomes and improving the overall organization health of school systems. With an increase in the number of students attending ASPs, and school-based ASPs specifically—either school-sponsored or not, the question has been raised: Can features of SWPBIS be extended to

ASPs, that support the same students who are benefiting from SWPBIS during their school day?

### **PBIS in Out-of-School Time**

There is a rich body of evidence that demonstrates the benefits that ASPs have on the social and emotional development of American schoolchildren (Palmer, Anderson, & Sabatelli, 2009; Durlak & Weissberg, 2007, Little, Wimer, & Weiss, 2008). Durlak and Weissberg (2007), in their meta-analysis on afterschool programs and social and emotional development, identified the following four core features of high quality programming that were highly correlated with positive outcomes for students: (1) sequenced activities, (2) active learning, (3) focus on developing social skills, and (4) explicit targeting of the specific identified skill. Using the acronym “SAFE”, Durlak and Weissberg (2007) compared the effectiveness of those programs that were examples of SAFE criteria and those that were not, on outcomes that included self-perception, positive social behaviors, problem behaviors, drug use, and school grades. Across all domains, those using the SAFE criteria demonstrated positive results while those that did not use SAFE did not show positive results.

Despite their findings, it is important to remember that while ASPs have a diverse student population, programs like the 21<sup>st</sup> Century Community Learning Centers are only established in high-risk, high-poverty districts, thus increasing the number of students at-risk for behavior and academic problems who are involved in ASPs (Farrell et al., 2013). As evidenced by Horner et al. (2009), there is strong evidence to support the claims that PBIS reduces the frequencies of challenging behaviors of all students, including, but not limited to those at-risk.

In ASPs where the routines are often less structured, expectations are not explicit, and there is often a large part of the time spent outside of the classroom. In programs that are not exclusively academically focused, the frequency of problem behaviors is likely to increase (Newcomer, Colvin, & Lewis, 2009; Farrell et al., 2013). In fact, it is estimated that roughly half of all problem behaviors that are reported for follow-up action occur, or originate in non-classroom settings (Newcomer et al., 2009; Todd et al., 2002).

In their work on supporting students during out-of-school time, McKeivitt et al. (2012) and others have reported that the ASP staff can range from certified teachers to college students or volunteers; these individuals can display a range of philosophies about student behavior management and are provided with limited training for working with students in an ASP setting (Rhodes, 2004; Vandell & Shumow, 1999; Farrell et al., 2013).

Thus far, there has been very limited research specific to the use of PBIS in ASPs. Todd et al. (2002) examined the use of PBIS in non-classroom settings during the school day, and Lewis et al., (2000) examined the use of PBIS strategies, such as active supervision and pre-correction during transition to recess with mixed success. Nelson, Colvin, and Smith (1996) found success using PBIS strategies before and after school, in the common areas of an urban elementary school.

Looking to determine the effect of “using an instructional approach to establish clear standards for the social behavior of elementary school children in the common areas of school” (Nelson et al., 1996, p.11), teachers delivered direct instruction to the students regarding the expectations for the school time, including arrival and dismissal, and a before-school session. These settings were selected in response to staff reports of

increased frequency of incidents during these times of day. Nelson et al. (1996) explain that the instructional approach of establishing expectations in common spaces in school is important because it helps children from the perspective of predictability which in turn promotes pro-social behaviors, and also because the common areas often have fewer adult supervision, and many of those who are supervising often lack advanced training in behavior management.

In their study, Nelson et al. (1996) conducted observations during the instructional sessions, the school-breakfast condition, and the before-school condition. The school implemented Project PREPARE (Colvin, et al., 1993), and followed an agreed upon protocol that included (1) developing a goal statement with a rationale, (2) creating behavior expectations, (3) instructional procedures for teaching the behavior expectations, (4) a maintenance procedures, and (5) correction procedures. Two dependent measures were used to measure the effects of the program. The first checklist looked at six domains of social interactions such as positive child social behavior, isolation, and positive adults social behavior. The second measure examined office discipline referrals (ODRs) during the two session times. The 10-minute observations took place over the course of two months, with four to five sessions observed each week. This study utilized a multiple baseline design across settings, to examine the effect of the training program on the behaviors during the school-breakfast and before-school times. At baseline, the students were supervised using whatever techniques they were used to using, for example, redirecting, reprimands, time-out, and office discipline referrals. During the intervention phase, the teachers in the classroom delivered instructional programs for one class period at a time that was convenient for them. During this phase,

the school staff who supervised the students used similar behavior management techniques as during the baseline phase. Throughout the study, the school staff were blind to the purpose or conditions of the study.

For this study, the authors were looking at the effects of the instructional programs on social behavior and disciplinary action. For both settings, the rate of positive behaviors increased during phase two by over 50%, for the school-breakfast setting, and for the before-school setting. In the domain of disruptive behavior, rates of disruptive behavior decreased during the intervention phase by roughly 50%. ODR issuances decreased significantly as well. This study lends support to the hypothesis that a proactive approach of establishing standards and teaching expectations can help to increase positive behaviors and decrease office discipline referrals in common areas of school.

Nelson et al. (1996) is an important example of using PBIS strategies in informal settings. The closest research published to-date that goes beyond the school day however, includes one study that took place in a summer camp (McKevitt et al., 2012) and the initial work in Connecticut by Farrell and colleagues that was specific to the 21<sup>st</sup> CCLC (Charles, 2013).

McKevitt et al. (2012) described two case studies that illustrate the use of PBIS strategies in a community-based summer program. In the first case, the program took place in an urban elementary school for girls ages 5-12 from low-income neighborhoods. Students attended five days per week for 8 weeks and participated in enrichment activities and field trips as part of the program. All staff received training in PBIS from the research team and provided booster training session as well. Participants were taught the program's expectations, "Be Safe. Be Respectful. Be Responsible", and were

involved in defining the expectations in specific settings across the program. Campers were acknowledged via “Camper Cash” rewards at the end of daily sessions for meeting expectations and could redeem the cash at the end of the eight weeks. Negative behaviors were tracked via an incident log. Direct observations took place whereby independent observers tracked the provision of positive reinforcement to campers. During the baseline phase, data were collected in the first two weeks before PBIS strategies had been implemented. In the intervention phase, staff explicitly taught the expectations, and placed posters in each setting to remind campers of the expectations. Upon examination of the behavior incident log, it was revealed that behavior incidents increased in the first three weeks, and then declined during weeks four and five. It is important to note though that there was a sharp increase in problem behaviors just after the PBIS program was implemented, and that even at its lowest levels, the frequency of problem behaviors was higher during the intervention phase than during baseline. The provision of positive reinforcement increased during the intervention phase, with an increasing trend throughout the phase.

In their second case study, McKeivitt et al. (2012) describe a program of students participating in a summer community recreation program, most of whom were from low-income neighborhoods. The program provided students with outdoor sport activities, art projects, and field trips, and was mostly based in community parks. In this study, the staff were asked to complete a pre-program survey (which would later be compared to a post-program survey) whereby they were asked if they taught rules and expectations to their campers, and reviewed those rules at least once during the summer. The survey was completed one week prior to the start of camp. During the staff training sessions, all staff



received training for one and a half hours on PBIS strategies. Following the training, the staff worked together to develop sub-group expectations, reinforcements, and consequences that each would use with their group of campers for the summer. Once the program began, a member of the research team visited each sub-group site and provided a model for how to appropriately use reinforcement and consequences. During the final week of the camp, a post-training survey was distributed to all staff for them to complete. A number of interesting patterns emerged when comparing the two surveys. First, on the post-program survey, the staff indicated that overall they felt they were using more concrete methods to handle problem behaviors. At the pre-survey stage, staff reported using time-outs, calling home, or consulting with a supervisor as their primary methods of intervention. At the end of the summer, staff reported feeling that they felt they knew more specific techniques and felt better equipped to use these strategies on their own. Across the different groups, the data showed that PBIS had a variable effect on camper behaviors with some cases of an increase upon introduction of the behavior expectations and others with a significant decrease.

While summer camps and ASPs are somewhat similar in some cases, Charles (2013) reported on the initial pilot work that Farrell and colleagues carried out in working with 21<sup>st</sup> CCLC in the state of Connecticut. Charles (2013) reports that Farrell and colleagues engaged in a three-step training model that involved training district leadership, program directors, and teachers. The participating programs were provided with professional development using the Positive Behavior Out of School Time (Positive BOOST) curriculum, a newly developed curriculum designed to guide ASPs through the planning and implementation stages of PBIS (Farrell & Collier-Meek, 2014).

Subsequently, participants were given ongoing consultation support from the research team. ASP staff were visited on a regular basis and provided with coaching as necessary. Coaches utilized a standardized observation protocol to evaluate the extent to which the site adhered to the skills taught in the Positive BOOST curriculum (Farrell & Collier-Meek, 2014) and to provide data-based feedback to the ASP staff. Twice per month, the staff were provided with performance feedback visit, where they received feedback on their implementation of the PBIS strategies and how to apply them in their specific sites. The program of training, coaching, site visits, and performance feedback, was evaluated at baseline, before the professional development took place, post-training, and post-coaching-which was at the end of the school year. The pilot results indicated that the training in the Positive BOOST curriculum changed the behavior of the ASP staff and when more on-site support was provided, there was more significant change in the program (Charles, 2013; Farrell et al., 2013).

One of the elements that the PBIS in OST studies have in common is that the researchers did not simply apply an intervention, or teach new skills and then measure the effects. Rather, the researchers provided support via consultation, and, in some cases, the provision of performance feedback. Below, we provide an overview of the literature relevant to the history of both consultation, followed by the role of performance feedback in supporting behavior change and improvements in practice.

### **Consultation**

The field of consultation has a rich history. Caplan (1963) defined mental health consultation as “the process of interactions between two professional persons—the consultant, who is a specialist, and the consultee, who seeks his/her help regarding a

current work problem (Caplan, 1963; p.470). In its early stages, consultation was offered as an alternative to the traditional methods of managing referrals and subsequent therapy for individuals, consultation was seen as a more effective way for one professional to serve more clients (Erchul & Martens, 1997). In clarifying the original organization of consultation, Erchul & Martens (1997) explain five key features of consultation: (1) the consultative relationship involves at least three people: the consultant, at least one consultee, and the client(s), (2) the relationship is non-hierarchical as related to the consultant and the consultee, (3) the consultative relationship is related to work-related problems and not personal issues, (4) the consultant does not have the authority over the client—this is the responsibility of the consultee, and (5) the consultee is under no obligation to follow the guidance he or she receives from the consultant, and the collaboration is voluntary. In addition to providing a definition, Caplan (1963) also outlined four types of consultation known as client centered case consultation, program centered administrative consultations, consultee-centered case consultation, and consultee centered administrative consultation. Specific to the application of consultation in a school setting, Bergan (1995) explained a theory of consultation, known as behavioral consultation that is specific to the type of demands that are typically presented in a school setting and is based on a problem-solving model. This model asks consultants to begin the relationship with their consultee by engaging in a process of problem identification. Bergan (1995) explained that this process, as opposed to a developmental approach to defining problems, tends to encourage the consultee to focus on specific areas of concern that need to be remedied quickly. The second step of problem analysis involves engaging in a task analysis related to the specific cognitive and academic skills that are in need of

support. The third step is plan implementation. The fourth step is problem evaluation, where the consultant determines if he or she has met the goals that were originally developed. Evaluating the goals helps to increase accountability and can highlight areas of accomplishment and need within the framework of the services offered.

A pioneer in the field, Bergan stated that with a continued rise in the social and educational needs of students, the needs of consultation would only continue to grow (Bergan, 1995). Indeed, when school psychologists are asked to classify how they spend their time and how they perceive they should be dividing their time with clients, they report that consultation is more important than traditional assessment practices and a critical part of their practice (Stoiber and Vanderwood, 2008, Curtis, Hunley, & Grier, 2002, Reschly & Wilson, 1995).

With the increased emphasis on consultation, its feasibility and its perceived utility, it is important to consider if, in fact, school-based behavioral consultation is an effective practice to be used by school psychologists. In their review of the consultation literature, Fuchs, Fuchs, Dulan, Roberts, & Fernstrom, (1992) examined effectiveness and methodologies used in consultation. Effectiveness was measured in terms of the influence that consultation was reported to have on the attitudes of either a teacher or a student related to academic or social outputs. Behavioral consultation was reported in half of the studies, the other half were identified as one of mental health consultation, organizational development, multiple methods, or “other”. Systematic observations were used most frequently (78%) either on their own or more frequently with another measure. Some sort of interview or survey was used 69% of the time either independently or with another measure. The included studies were roughly split in terms of those that focused

on student or teacher ratings. When looking at consultation outcomes, four indices were found--behavior, academic achievement, attitudes, and "other". Teacher or student behavior was a criterion for effectiveness 19% of the time on its own, and 65% in combination with at least one other factor. Fuchs et al.'s (1992) research supports the effectiveness of consultation though the researchers point out that their sample size was small and their results need to be interpreted with caution, especially since only a few of the studies were experimental, and many of the studies utilized single subject designs with only one or two participants.

Fuchs et al. (1992) pointed out that consultation interventions are highly dependent on interpersonal skills, require relationships with school staff, and, in many cases, involve multiple researchers due to the complexity of the work. Given that the researcher trains the consultant who, in turn, provides the consultation to the teachers who then work with the student(s), concerns can arise at each stage of the process related to the quality of training, implementation fidelity, and accurate evaluation (Fuchs et al., 1992).

Examining research from 1985-1995, Sheridan Welch, & Omre (1996) examined empirically-based outcome research, the common methodologies used, and the conclusions that can be drawn from the existing literature base. Using a process that was similar to Fuchs et al. (1992), Sheridan and colleagues (1996) reviewed the included reports of prior work and overall found positive results in 75% of the studies. Consistent with the Fuchs et al. (1992) review and others before it (Alpert & Yammer, 1983; Medway, 1982), almost half were reported to have used behavioral consultation or a variation of it. For those that reported the use of behavioral consultation, 95% indicated at

least one positive outcome, supporting previous research on the topic.

One of the concerns raised by Fuchs et al. (1992) related to how to navigate the approach of student-as-client in consultation work, and the importance of focusing on meaningful outcomes. Sheridan et al. (1996) reported on these clients as “consultation targets” in the studies they reviewed. Most of the concerns were behaviorally oriented (33%), academically related (22%), or related to skill building (15%). Almost half of the studies utilized experimental group or single subject designs to evaluate the outcomes of the consultation interventions.

One of the most interesting findings of the Sheridan et al. (1992) review relates to the methods used to investigate the specific effectiveness of behavioral consultation and the reported outcomes. Sheridan and colleagues found that 57% of behavioral consultation studies used a single subject design, and in all but one case, there were some positive results indicated. Sheridan et al. (1995) point out that most of the studies included in the review were published in professional journals that are biased toward publishing significant findings, thus possibly overinflating the positive outcomes for which consultation can provide. However, when comparing the results of this review to those that came before it, the researchers indicate that the methods used to evaluate consultation have improved in their rigor, thus strengthening the field overall. The suggestion is made to practitioners and researchers alike to utilize the elements of single subject designs into their work, specifically elements such as systematic data collection, permanent products, and standardizing the process of consultation.

Many of the previously reviewed studies involved single-subject designs where the consultant and consultee were taking part in consultation as part of the study.

MacLeod, Jones, Somers, and Havey (2001) utilized a group design to investigate the question of effectiveness in consultation from the perspective of teachers after they concluded consultation with their school-based school psychologist. Unique to this study was its focus on the perceptions of the teachers related to effectiveness in an experience of “naturally occurring school-based consultation” (MacLeod et al., 2001 p.207). This study involved eighty public school teachers who volunteered to participate from a district that included elementary, middle, and high schools. It was reported that most of the school psychologists in the district specifically utilized behavior consultation in their work.

Teachers who had participated in consultation within the previous year were invited to participate and complete measures of consultant skills, quality indices, and outcome indices for the study. Consultant skills were measured using checklists with multiple-choice questions. Two hundred teachers received paper surveys and 108 of them were returned to the researchers. Due to factors such as teacher not engaging in consultation within the previous twelve months, or incomplete packets, only eighty teachers were included in the final analysis. Results of the surveys indicated that the mean ratings were moderately high with regard to consultant skills and outcomes.

Consultation can take many forms and research demonstrates that the process and the relationships that are built help to support meaningful change for the consultant and his/her students. While consultation can stand alone as an effective intervention, the combination of consultation with performance feedback has demonstrated significant promise.

## **Performance Feedback**

There is compelling evidence that performance feedback (PF), often connected to school-based consultation, is an effective tool for supporting behavior change and increasing treatment integrity beyond what consultation alone provides (Solomon et al., 2012; Reinke et al. 2008; Noell, Duhon, Gatti, & Connell, 2002; Noell et al., 2005). Rose and Church (1998) completed a review that found support for their hypothesis that “feedback is probably a necessary component of any training program which aims to change teacher behavior in the classroom” (p.20).

In their study on PF and treatment integrity in school based consultation, Jones, Wickstrom, and Friman (1997) investigated the effects that PF had when used together with consultation to influence teacher behavior. This study took place with three middle school teachers and their students who were enrolled in a specialized treatment program that supports students with significant behavioral challenges. The experiment involved three phases, following Bergan and Kratochwell’s (1990) method of behavior consultation with each teacher. The consultant used a self-monitoring checklist to monitor the reliability of the independent variables. The study followed a non-concurrent, multiple baseline design across participants, whereby each teacher-student dyad participated for four to five weeks, with three observations each week. Each dyad began with the teacher problem identification interview during week one, the problem analysis interview a week later, and a problem evaluation interview after three to six observations were completed.

Results indicated that across all three teachers, treatment integrity during baseline was low ( $M=3.3\%$ ), higher during consultation alone ( $M=23\%$ ) and even higher during



the performance feedback phase ( $M=70\%$ ). Based on visual analysis Jones et al. (1997) demonstrated that the mean treatment integrity levels improved during the performance feedback phase, though the change in on-task behavior was inconsistent.

In a similar study with teachers in general education classrooms, Witt et al. (1997) looked at teacher integrity while implementing an intervention designed to improve academic outcomes for students. Four elementary school teacher-student dyads participated in the study, which was designed as a non-concurrent, multiple baseline across participants. Each teacher had previously requested help for the participating student due to academic concerns that were not a result of skill deficits. The intervention involved the teacher providing a permanent product at each stage of the treatment, for example a grade at the top of an assignment meant that the grading had taken place. Academic performance was determined via a calculations of percent-correct on the daily assignment. As the participants transitioned across phases, the consultants gradually adjusted their support and supported the teacher's ability to take full responsibility for ensuring high levels of fidelity of implementation. When shared with the teacher, data were discussed verbally and also presented on a graph that displayed both percentage-correct of student assignments and the teacher's score on treatment integrity.

Results indicated that all the teachers had 100% integrity in the training, with integrity decreasing during the post-training baseline. During the performance feedback phase, however, there was a significant increase in treatment integrity, and the changes were sustained longer than in the post-training phase. The results of this study support the hypothesis that performance feedback can significantly increase the fidelity with which teacher implement interventions.

Sanetti, Luiselli, and, Handler (2007) extended the literature by examining “the effects of two different types of performance feedback on a teaching team’s implementation of a student specific behavior support plan (BSP)” (p. 456). The study included a group of second-grade teachers in a public elementary school. The student “Mike” was an eight-year-old boy with a diagnosis of pervasive developmental delay-not otherwise specified. “Mike” had a Behavior Support Plan (BSP) which was already in place before the start of the study. “Mikes” BSP indicated that his problem behaviors were the result of him trying to avoid paper and pencil work, and a desire for adult attention.

For the duration of the study, a one-hour observation took place every six days. The percentage of correct BSP implementation was used to determine treatment integrity. With regard to student behavior outcomes, a home-school note system was established that would help to communicate and track “Mike’s” behaviors.

This study utilized an A-B-BC-B-BC reversal design that included, a baseline phase where the teachers engaged in consultation before performance feedback. During this phase the teacher team received training to help improve the use of the BSP across more activities. An observation took place in the classroom on the day of training and the day after but no data about the BSP implementation was shared. During the intervention phase, the consultant observed the teachers implementing the BSP, after which a “check-in” session took place, where either verbal performance feedback, or verbal and graphic performance feedback was provided (Sanetti et al., 2007). The verbal performance feedback phase was initiated when the percentage of BSP components implemented fell below 80% for three observations in a row. The verbal and graphic performance feedback

stage started when implementation fell below 80% for three observations in a row in the verbal performance feedback phase.

The results of the study indicate that the treatment integrity of the teachers had a mean of 72% during the baseline phase, with a decreasing trend. The treatment integrity remained low during the verbal performance feedback phase (M=43%). When the verbal feedback was supplemented with graphic feedback, the average implementation rose to 87.2%.

Sanetti et al.'s (2007) findings extended the research on performance feedback and school-based interventions by demonstrating that PF can increase and sustain high levels of treatment integrity. Specifically, this study supports the hypothesis that the graphic component may be a critical part of performance feedback.

### **The Current Study**

A substantial research base supports the theory that ASPs are serving an increasing segment of American students and are uniquely positioned to positively impact the individuals who participate. ASPs enable students to not only explore new domains of learning, they also facilitate the development of positive relationships with role models and an informal context for furthering one's social and emotional development (Durlak & Weisberg, 2007; Rhodes et al., 2000; Rhodes, 2004). Despite the possibilities, the quality of many programs is significantly impacted by factors such as limited financial resources, high rates of staff turnover, and high number of at-risk students (McKevitt et al., 2012; Asher, 2012; TASC, 2010). While some of these barriers are harder to change, attracting and cultivating high quality staff is an area that can often be positively affected in low-cost ways. (Asher, 2012; TASC, 2010). One tool already in

place in many schools that can help staff with challenging behaviors is PBIS. As a school-wide framework for supporting the positive behaviors of students, PBIS has been shown to increase positive behaviors while also decreasing the need for correcting negative behaviors (Horner et al., 2009; Bradshaw et al., 2010).

While adapting PBIS for use in ASPs and thereby providing critical support to ASP counselors is one important step to take, there is also significant literature to support the use of consultation with performance feedback to increase the likelihood of implementation of new skills and increase the fidelity with which new skills are applied by teachers (Solomon et al., 2012; Reinke et al., 2008; Noell et al., 2005; Rose & Church, 1998).

This study adds to the research base in the area of PBIS in Out-of-School-Time (OST) settings using consultation and performance feedback to address the challenges explained above. Following a multiple-baseline across participant design, each participant was observed during a baseline phase, after which he/she was provided with formal training in the PBIS framework, its application to OST settings and the PBIS framework already in place at the school site where the ASP was taking place. In the intervention phase, counselors were provided with daily opportunities for individual consultation with visual performance feedback to specifically address the frequency of time spent engaged with students, and reflect upon the quality of that time—*i.e.*, frequency of reinforcement, corrections, and statements of behavior expectations. The main focus of the intervention in this study was to determine the effectiveness of training and consultation with performance feedback model on ASP counselors to utilize evidence-based strategies for improving student outcomes. The Positive BOOST

curriculum used in this study has been previously piloted and is designed to teach ASP counselors about student behavior, the concept of reinforcement, the role of correction and redirection, strategies for creating structure in an ASP setting, effective practices for teaching students behavioral expectations, and proactive versus reactive approaches to student behavior (Farrell & Collier-Meek, 2014). This study seeks to provide insight into the effectiveness of a professional development training model, specifically aimed to improve the professional practices of ASP counselors in a low-risk suburban elementary school setting.

## **CHAPTER 3**

### **METHOD**

#### **Setting and Context**

This study was conducted in an after-school program (ASP) in a Western Massachusetts elementary school, serving students in grades K-6. In the 2013-2014 academic year, the school was identified as performing at Level 2 status. According to the Massachusetts Department of Elementary and Secondary Education (MDESE), a school attains Level 2 status if their overall progress and performance index is less than 75% (but greater than the lowest 20%) or if the school has low state test participation for any group of students (between 90 and 94%) (MDESE, 2014). Enrollment in the school for the 2013-2014 year was 435 students. While the number of students enrolled in the ASP fluctuates throughout the year, and by day of the week, a review of attendance records indicated that there were 24-56 students in attendance on any given day, with a range of 6-11 counselors. The school's diversity was reported as 11% African American, 14.9% Asian, 20.7% Hispanic, 45.7% White, 0.5% Native Hawaiian, Pacific Islander, and 7.1% Multi-Race. The proportion of students enrolled in the school identified as having disabilities was 19.1%, 38.9% were Low-Income, and 32.7% were either English Language Learners or those for whom their first language was not English. Free lunches were received by 33.8% of the students, and 5.1% received reduced-cost lunches.

The elementary school implemented Tier 1 SWPBS during the school day hours. The school in which this study took place completed the Team Implementation Checklist (TIC) (Sugai, Horner, & Lewis-Palmer, 2001) in the Spring of 2013. Results indicate that they are implementing the PBIS techniques with at least 80% fidelity across all settings.

At the start of the study, the experimenter, with support from research assistants, completed the Benchmarks of Quality-Out of School Time (BOQ-OST) (Farrell & Collier-Meek, 2013) to assess the extent to which important features of SWPBS are already in place in the ASP. The BOQ-Revised for Out-of-School-Time (Farrell & Collier-Meek, 2012) is an adapted version of the Benchmarks of Quality Tool (Kincaid, Childs & George, 2010), designed specifically to assess what features of PBIS are currently in-place during out of school times, evaluate current efforts, and provide a basis for comparison throughout the year.

The BOQ-OST (Farrell & Collier-Meek, 2013) asks evaluators to complete observations, interview staff and record benchmarks points on the BOQ-OST Score Form. The BOQ-OST addresses ten subscales (e.g. PBIS Leadership, Staff Commitment, Effective Procedures for Dealing with Discipline, and Evaluation) with a total of 53 items. For each subscale and item, the evaluator is asked to assign a score ranging from 0-2 using a scoring rubric to indicate the extent to which each feature of PBIS is present within the afterschool program. Prior to the start of the study, three evaluators completed the BOQ-OST via interview with after-school staff. Results are presented from the interviews with the director, assistant director, and a counselor who took on occasional administrative responsibilities. Across all respondents, some feel that data regarding program-wide behavior problems are occasionally shared, and that not all behaviors are defined. Those interviewed also indicated that expectations refer only to participant behavior but not to staff behavior. With regard to establishing routines, responses indicated that staff overall feel routines are taught regularly, while others felt that only partial instructions are given occasionally. The area of rewards/recognition programs was

the most highly rated of the ten subscales. In this domain, the interviewees expressed that a reward system is consistently implemented across the program and that all staff are participating. They perceive that the program uses a variety of rewards, but the staff rarely verbalize the appropriate behaviors when giving rewards. They feel that the ratio of staff reinforcement statements for appropriate behavior to statements of correction are about the same. One interviewee indicated that lesson plans have been developed and used to teach rules, but not developed for expectations. With regard to setting specific systems, responses indicated that expected routines and behaviors are taught in most settings across the program. The assistant director indicated that she believes the counselors overall use immediate and specific praise most of the times (50-75% of the time) in most settings. Those interviewed also felt that students are acknowledged regularly for demonstrating adherences to rules and routines. Overall, the BOQ-OST highlighted some areas of strength among the program use of features consistent with SWPBIS, but also significant areas that were lacking. The inconsistency in responses indicated that the perceptions among staff at all levels of the programs are varied and their knowledge of the different subscales may be contributing to a lack of consistent message to students.

Permission for this study was granted from school district staff, Out of School Time Coordinator, and on-site Program Director, as part of an existing contract between the University of Massachusetts School Outreach Team and the participating public school district. The School Outreach Team is committed to provide professional development and staff support in implementing SWPBIS across the district and to pilot its extension to after-school program as well. The after-school counselors were addressed



at a group meeting and asked if they wished to receive performance feedback as a means to improve program culture and learn about evidence-based practices to help support students in the after-school setting (see Appendix A for a sample of the recruitment letter provided). Those who were not in attendance at the meeting met the experimenter individually before the program started one day after the meeting. Consent forms were distributed prior to the official start of the study (see Appendix B for a sample of the consent form).

### **Participants**

Five counselors, three males and two females, elected to participate in the study and signed a consent form before observations began. Counselor DS, a male graduate student, worked primarily with the kindergarten and first grade group along with the second and third grade group; he worked two days a week. Counselor LS, a female undergraduate freshman, worked primarily with the second and third grade group and worked two days a week. Counselor AS, a male undergraduate freshman, worked with the kindergarten and first grade group, and sometimes as a one-to-one shadow with a first grade student with significant behavior challenges, and worked two days a week. Counselor SS, a female undergraduate senior, worked primarily with the fourth grade through sixth grade group or often as a whole program supervisor not assigned to any particular group; she worked two or three days a week. Counselor CS, a male undergraduate student who also works at the school during the day, worked with all the age groups, and had a more variable schedule, working anywhere from two to five days a week.

In the spring of 2013, initial observations of the ASP revealed that there were several types of professionals who work in the program. There was a program director and six paid counselors at the time of the initial observations. During the collegiate academic year, there are also work-study students and volunteers that come-and-go throughout the week. For the 2013-2014 academic year, there were three groups of students, one for kindergarten through first grade, one for second and third grade students, and one for fourth, fifth, and sixth grade students. While the enrollment numbers and counselor assignments fluctuated throughout the year, this breakdown of student groups remained constant over the course of the year. The current study took place during snack time because this was the one activity that all students and counselors attend and participate in every day and therefore served as an appropriate setting for initial training to take place. Though the schedule might change slightly when special presentations take place, snack started no sooner than 45 minutes after the program began (approximately 3:45 PM), ended no later than 4:30 PM, and took place for 15-20 minutes for each group.

### **Independent Variable**

The consultation intervention included two separate components. The first component was the individual training session when the experimenter met with each participating counselor, provided him/her with a standardized training in the basic principles of PBIS, explained the observation tool that was used, shared his/her baseline data to-date and described what would take place as the study progressed. The second component of the intervention was the provision of ongoing, in person, performance feedback to each counselor, using a standardized measure, as explained below.

## **Counselor Training**

The counselor-training component of this study took place in stages for each participant. Consistent with Stormont et al., (2007), the director and, senior permanent staff were provided with a 1 to 2 hour interactive presentation that focused on the general principles of PBIS as part of a university-school partnership agreement. This training took place in the early fall. Participants were provided with a handout that included important take-away messages from the presentation for their own review.

The ASP counselors who opted to participate in the study (n=5), did not participate in the training described above, but did receive the Positive Behavior Out of School Time (Positive BOOST) curriculum (Farrell & Collier-Meek, 2014) that has been specifically designed for use with ASP professionals at the end of their baseline period of data collection. The specifics of the training are described below.

Positive BOOST (Farrell & Collier-Meek, 2014) is a curriculum designed to support the implementation of PBIS in out-of school settings. The curriculum portion is divided into four chapters each of which addresses a different component of PBIS and after which a short quiz checks for understanding of the concepts discussed. The first chapter teaches participants about labeling behaviors, being specific when discussing student behavior, and the concept of reinforcement. The chapter also defines nuisance behaviors, the role of correction and redirection, and the concept of time-out. The second chapter presents three strategies for building structure within the out-of-school setting: providing structure, defining expectations, and creating consistency. The third chapter exposes participants to the concepts of telling and showing students what behavioral expectations are in place, and offering students opportunities to perform these expected

behaviors. The fourth and final chapter teaches participants about proactive versus reactive approaches to student behavior and identifies three strategies that can help professionals to be proactive: active supervision, remind-and-reinforce, and pre-correct. As part of the training, staff were provided with a copy of the school's behavior matrix and statements of behavior expectations.

Each training session followed a standardized format whereby the BOOST curriculum was completed (including integrity checks), the school's SWPBIS matrix of behavior expectations was shared and discussed, and feedback was provided to the participant based on baseline observations. While questions and discussion were encouraged throughout, there was time saved at the end of the training for any remaining questions from the participants. Following the completion of the training, counselors were also provided, via email, with a one-page summary of the training, highlighting some of the main points discussed. To reduce the potential for future participants to learn about these concepts before it was his/her turn, each participant was also asked not to discuss what he/she had learned with others.

For post-baseline observations, the study started with the training of the first ASP counselor (Horner, Carr, Halle, McGee, Odom & Wolery, 2005), and continued until all five participating counselor members had been trained, observed, and received feedback.

### **Performance Feedback**

Following the conclusion of the training session, each participant was offered a chance to practice his/her new skills before receiving daily feedback on the integration of these new skills into professional practice at snack time. During the intervention phase of the study, ASP counselors who elected to participate in the study (n=5) received

performance feedback in-person and with a handout on their use of the evidence based preventive practices: active supervision (AS), reinforcement (R), correction (C), statements of behavior expectations (BE), and presence of nuisance behaviors (Reinke & Noell et al., 2007, Artman-Meeker & Hemmeter, 2012). The feedback was provided on a one-page handout (see Appendix C for a sample handout) with a trend graph displaying progress over time in AS, R, C, and BE. These data were also shared as part of the summary provided to the district leadership on the support provided to the ASP counselors and the recommendations for future directions for professional development.

### **Treatment Integrity of Intervention**

Measures of treatment integrity were used in order to make sure that the training sessions and feedback handouts were implemented consistently across ASP counselors. For the training sessions, end-of-chapter quizzes were completed by each participant to assess the extent to which the ideas and concepts were covered clearly and completely. All participants received between 90% and 100% scores on the chapter quizzes and any areas of confusion were clarified for those questions that were answered incorrectly. Following the completion of each training presentation, the agenda was reviewed by the participant and the experimenter to make sure that each component of the training was satisfactorily addressed. In all five trainings, 100% of the agenda items were reviewed to the participant's satisfaction, indicating that for each section of the training, the participant felt that the item was implemented as intended.

Twenty percent of the handouts were randomly selected and reviewed to assess the treatment integrity of this part of the intervention. Percentage of implementation was calculated by dividing the number of components present by the total number of

components in the checklist and multiplying by 100 (Kazdin, 2011). The rater used a checklist that asks a reviewer to confirm that each section of the feedback handout was completed satisfactorily. The rater found that treatment fidelity was 100% for all the randomly selected feedback handouts (Appendix D).

### **Dependent Variables**

The primary intent of this intervention was to increase ASP counselor's use of evidence-based preventative practices as part of the initial implementation of PBIS in the ASP. Counselor behavior was measured via direct observation using the Measure of Active Supervision and Interaction In Out-of-School Time (MASI-OST) (Farrell, Collier-Meek, & Johnson, 2013). The MASI-OST is a tool that was developed to evaluate "the extent to which certain behavior support principles are implemented by staff" (Farrell et al., 2013). The MASI-OST observation includes both momentary time sampling in 15-second intervals of the presence or absence of "Move Scan, Interact" behaviors, and frequency counts, recording instances when staff use reinforcement, correction, and behavior expectation language (Farrell et al., 2013). At the end of the 10-minute observation period, behavioral characteristics are noted as are the presence of any nuisance behaviors. Each staff member is rated individually and a separate MASI-OST Form is completed. Operational definitions of the 4 recorded evidence-based preventative practices and 1 student behavior are detailed below.

### **Move Scan Interact**

Farrell et al., (2013) define active supervision, as engagement in Move-Scan-Interact (MSI) behaviors. Specifically, MSI is defined as involving the staff member "actively moving throughout the space, scanning student behavior, or interacting with

students(s).” An example might include the staff members sitting at the table with students during snack time and looking around the table, or walking around between the tables and checking in with students.

### **Reinforcement**

Farrell et al., (2013) define reinforcement (R) as the staff member “praises or acknowledges student(s) for desired behaviors.” An example of this might include “Nice job throwing out your trash after snack” or “I like how you kept your voice down while chatting with your friends.”

### **Correction**

Farrell et al., (2013) define correction (C) as when a staff member “reprimands, [or] corrects student when undesired behavior is exhibited.” An example of this might be “Stop that” or “No running in the cafeteria.”

### **Behavior Expectations**

Farrell et al., (2013) define Behavior Expectations (BE) as an instance when the staff member refers to behavioral expectations while speaking with a student. An example of this would be “You cleaned up your space after snack—that is being accountable” or “Part of cooperation is entering the cafeteria quietly, so let’s make sure we are quiet when we come in.”

### **Nuisance Behaviors**

The MASI-OST (Farrell et al., 2013) also looks at student behavior and asks observers to note the presence of any nuisance behaviors that took place over the course of the 10-minute observation period. Farrell et al., (2013) define Nuisance Behaviors (NB) as behaviors that are not desired, but also not disruptive or dangerous, and have a

limited impact. An example of this might be a student tapping on the table or getting out of his or her seat frequently. These data were collected but not included in the analysis due to low incidences of behavior and lack of reliability in reporting.

### **Data Collection Procedures**

For each observation, the observer sat or stood off to the side of where the ASP counselor and his or her group were sitting in the cafeteria. Due to counselor discomfort with the paper and pencil method of data collection, the D.A.T.A mobile application (BehaviorScience.org, 2011), was selected and used to collect the observation data. This mobile application provided a discrete and effective method of data collection, eliminating the need for manual data entry and helping to ensure accuracy of results.

### **Inter-observer Agreement**

The primary observers in this study were seven undergraduate students who were Psychology majors and two graduate students in School Psychology. All the observers were trained on the MASI-OST tool by the experimenter either as part of a small group or in an individual meeting. All observers participated in practice observations on-site in addition to the lecture-based training. All the observers remained blind to the phase of the study in which each participant was currently engaged. In order to assess the inter-rater reliability of the primary dependent measures and check for possible bias in rater observations, 20-80% of each participant's observation sessions were randomly selected to have a second observer collect data. The additional observers were part of the research team and had achieved fluency in the MASI-OST tool. Training took place by having practice sessions during which the experimenter and research assistants practiced using



the MASI-OST during snack time. They were determined to be proficient in the use of the tool when reliability between the raters was over 90%.

During reliability checks, the two data collectors simultaneously and independently completed the MASI-OST. The degree of inter-observer agreement (IOA) was calculated using a point-by-point agreement process, that is, dividing the number of intervals during which the two observers were in agreement by the total number of intervals in the observation and multiplying by 100 to calculate a percentage (Kazdin, 2011). IOA was high across all the observed counselors; agreement for AS averaged 92% across all the observations (range 82%-100%); R averaged 86% (range 82%-100%), C averaged 88% (range of 82%-100%), BE was 100% across all counselors.

While this method of calculating IOA is common in single-case research, it is not sensitive to chance agreements, and can therefore artificially inflate the resulting ratio (Kazdin, 2011). Cohen's *kappa* ( $k$ ) is a correlational statistic that can be used with interval recording data to provide "an estimate of agreement between observers that is corrected for chance" (Kazdin, 2011, p.113). The  $k$  statistic ranges from -1 to 1, with -1 indicating that agreement between observers was less than would have been expected by chance, 0 indicating agreement that is at the same level of chance, and +1 indicating that the raters were in complete agreement. Measures between 0.61 and 0.81 are considered to represent substantial agreement, and measures above 0.81 are considered almost perfect agreement (Landis & Koch, 1977). The use of Cohen's *kappa* allows the experimenter to report a measure of IOA that is sensitive to chance agreements. The results for Kappa are presented in Table 1 and provide an estimate of agreement between observers that would not be expected by chance.

### **Social Validity**

Beyond the data that were collected from the MASI-OST and conversations with the ASP staff, the social validity of this process from the participating counselors was an important outcome measure (Wolf, 1978)

In order to assess the social validity of this intervention, each participant was sent a survey via email after their role in the study concluded that asked them to rate their experiences on a series of Likert-scale items. Open-response sections were also included to allow the counselors to express their thoughts, ideas, and suggestions related to their experiences in the training and consultation intervention (See Appendix E for Survey).

### **Experimental Design and Procedure**

A multiple-baseline design across individuals (Kazdin, 2011) was used to examine the effects of the intervention over time on ASP counselor and student behavior during snack time. In order to establish a set of baseline data for comparison, the study was divided into multiple phases.

#### **Phase 1: Baseline**

During the baseline phase, data on ASP counselor and student behaviors for all five participants were collected before the intervention (counselor training) was implemented. Snack time was observed four days a week during this phase, with each counselor member being observed a maximum of three days a week. The baseline phase continued until a relatively stable pattern of behaviors was established (Kazdin, 2011), after which point the interventions began, one after another for each participating ASP counselor.

## **Phase 2: Training**

At the start of the intervention phase for each counselor, the experimenter held a training session for the counselor using the Positive BOOST (Farrell & Collier-Meek, 2014) curriculum. The timing of the training was arranged between the experimenter and the counselor via email and in person. The trainings took place at a mutually convenient time and place and lasted between 60 and 80 minutes. At the end of the training, a summary of the previously collected baseline data was shared and areas of strength and improvement were identified. Within three school days (Fox, Hemmeter, Snyder, Binder, & Clarke, 2011) following the completion of the training, snack time observations continued as often as was feasible. For at least the four sessions following the completion of the training, each ASP counselor continued to be observed before continuing to the next phase. The purpose of this extra time was to determine if the training on its own would affect counselor behavior and response to student's behaviors.

## **Phase 3: Performance Feedback and Consultation**

Once data collected in Phase 2 appeared stable, the experimenter contacted the counselors via email to inform them that daily meetings would be starting soon, and confirmed that the counselor and experimenter would meet before the ASP started for at least five days (when possible). All feedback and consultation sessions took place prior to the start of the program and at least 45 minutes prior to the observation session during snack time. Several counselors stopped working before the five days were completed so fewer consultation meetings took place. In addition to verbal conversation, each counselor was provided with a standard feedback sheet that included a report of his or her performance from the previous session and a cumulative graph of performance that was

identical in style and format to what was shared during the training session. The counselors were informed that they could keep this handout for their own reference.

#### **Phase 4: Maintenance**

At the conclusion of the final feedback meeting in Phase 3, the ASP counselors were notified in person that they would no longer be receiving written feedback from the researcher. They were assured that the experimenter would still be available in-person or via email if they had any questions, but that this more detailed level of feedback would no longer be provided. Two of the five participants left the program before Phase 4 could begin. Two participants remained employed long enough to collect one data point in this phase and one participant remained long enough to collect 11 observations in Phase 4. For this last participant, intermittent observations took place, and were intended to assess the extent to which any observed changes in ASP counselor and student behavior continued without the provision of feedback.

#### **Data Analytic Plan**

Consistent with the broader field of single-case research, visual analysis was used to determine the efficacy of training and performance feedback on ASP counselor behaviors (Kazdin, 2011; Kromrey & Foster-Johnson, 1996). Data from each of the dependent variables were plotted versus time for each ASP counselor and patterns of the data were compared for changes in level, trend, and variability between phases. In addition to visual analysis, which has some inherent limitations (*e.g.*, requires a stable baseline, intra-subject variability, lack of explicit rules), descriptive statistics and a measure of effect size were calculated (Kazdin, 2011; Kromrey & Foster-Johnson, 1996). *Tau-u* is a measure of effect size recently described for single-case data with a small

sample size (Parker, Vannest, Davis, & Sauber, 2011). *Tau-u* examines non-overlap between phases and can compare baseline and intervention phases as either individual phases or combined phases to yield an effect size of multiple phases to another. *Tau-u* provides a measure of the proportion of all data pairs that improve over time (Parker et al. 2011). *Tau-u* is considered a new alternative to existing non-overlap models (Parker & Vannest, 2009) that lack statistical power, and are not sensitive to improvement trend in the midst of an intervention (Parker et al., 2011). Together with visual analysis *Tau-u* helps to provide meaningful information regarding the practical significance of findings in complex research designs such as the current study (Parker et al., 2011). Regression, which is another popularly used model, can yield extreme results, is not sensitive to the error in baseline trend, and specifically relies on the assumption that the trends will continue (Parker et al., 2011). *Tau-u* is proposed as a method of calculation that can “address the limitation of both regression and of simple AB nonoverlap” (Parker et al., 2011, p. 297). *Tau-u* is considered to have the most statistical power when compared to other nonoverlap indices (Parker et al., 2011). *Tau-u* coefficients range from 0 to 1, the higher the number, then the greater the improvement in performance for any given contrast. Data were entered into an online *Tau-u* calculator, which provides an effect size and significance test of the effect (Vannest, Parker, & Gonen, 2011). To aid in clarity of interpretation, all signs were removed and significance is indicated via one of three symbols to signify significance at the 0.01, 0.05, and 0.1 levels of significance (K. Vannest, personal communication, November 24, 2014). In considering both statistical and practical significance, findings at the 0.05 and 0.01 level were interpreted as significant at their respective levels while those at the 0.1 level of significance were

interpreted to be potentially promising and warrant closer examination to determine the extent of practical significance they provide. Comparisons that yielded a p-value of 0.1 were included due to their potential for promise in the field when exceptionally high standards are not always practical (Lipsey, 1998, Lipsey & Hurley, 2009).

## **CHAPTER 4**

### **RESULTS**

#### **Data Analysis**

The primary aim of this study was to assess the effectiveness of the BOOST Training (Farrell & Collier-Meek, 2014; referred to as “training” below), and performance feedback with consultation on ASP counselor engagement in supervision practices during snack time. Specifically, the research questions related to counselor behavior were: (1) Does professional development increase ASP counselor’s use of active supervision practices during snack time?, (2) Does professional development increase ASP counselor’s use of reinforcement and statements of behavior expectations while decreasing their reliance on corrective statements to manage student behavior during snack time?, (3) Does professional development with the addition of performance feedback increase ASP counselor’s use of active supervision practices during snack time?, (4) Does professional development with performance feedback increase ASP counselor’s use of reinforcement and statements of behavior expectations while decreasing their reliance on corrective statements to manage student behavior during snack time?, (5) Are changes in the rates of supervision, provision of reinforcement, behavior expectations and corrections maintained upon termination of performance feedback and consultation?, (6) Do counselors perceive the training and feedback to be an effective and practical means of improving their student management during snack time?, and (7) Do counselors perceive the training and its content to be a relevant strategy for supporting positive student behaviors in an after-school setting?

Results of visual analysis and *Tau-u* calculations between phases are presented in Table 2. Contrasts were calculated between the baseline and training phases, training and performance feedback phases, baseline and performance feedback phases, and baseline and maintenance phases. Due to the fact that the training phase was a double baseline of sorts, this additional comparison was warranted to help answer the original research questions. An omnibus effect size was also calculated for the baseline-performance feedback comparison on the variables of Active Supervision (AS), Reinforcement (R), and Correction (C). these behaviors together were an important comparison of overall effect for the study.

### **Counselor Behavior**

Findings regarding counselor behavior on the four dependent variables over the four phases are described below and shown in Figures 1 and 2, respectively. To aid in clarity of interpretation two figures are provided. Figure 1 provides the percentage of time engaged in active supervision across the four phases while Figure 2 provides the frequencies of delivery of reinforcement and correction. The data are presented in two separate graphs to aid in interpretation and improve clarity. Frequencies of behavior expectations are not represented on either figure due to the low incidence and lack of meaningful information provided in this medium.

Descriptive statistics for the percentage of time engaged in Active Supervision (AS), and frequency of Reinforcement (R), Correction (C) and Behavior Expectations (BE) in each phase are provided in Table 2. In order to determine the effect size and significance of the outcomes for each of these dependent measures, *Tau-u* was also



calculated and is reported for different phase contrasts. Visual analysis of the time-series data in addition to *Tau-u* were used to assess the effectiveness of the intervention on the counselors engagement in AS, and use of R and C over the course of the study. Due to the low incidence of BE, formal analysis is not presented.

### **Active Supervision**

During baseline, use of AS was variable across all counselors, ranging from an average of 68% to 80% across all five counselors. Across all counselors, the introduction of the training resulted in more stability in their use of AS, with Counselor B averaging 90% of the time engaged in AS (range 73%-90%). When performance feedback was introduced, AS increased again across all counselors (range 80%-94%), with less variability both within and between counselors. For those who were still participating and included a maintenance phase, there was more variability in AS use (range 75%-95%). The changes both within and between at least three counselors from baseline to post-training, and more significantly, from the post-training phase to the performance feedback phase suggest a functional relationship was established between the introduction of explicit training, and the provision of performance feedback, where increases were observed in counselor use of AS during snack time (Horner et al., 2005). This visual analysis is confirmed by the *Tau-u* weighted average calculation that yielded a significant effect size for the comparisons between the baseline and post-training phases ( $Tau-u = 0.4073$ ,  $p < 0.01$ ) and the baseline to performance feedback phases ( $Tau-u = 0.61$ ,  $p < 0.01$ ) across all participants.

## Counselor A

After training took place, Counselor A showed only a minor increase in his use of AS, but no clear trend. Across seven baseline observations, Counselor A demonstrated a downward trend with respect to his engagement in AS ( $M = 0.79$ ,  $SD = 0.1$ ). Following his participation in the training, his mean engagement was 82% ( $SD = 0.12$ ) across five observations sessions, with no level, trend, or immediacy changes noted. With the provision of performance feedback and consultation, Counselor A's AS behaviors increased to a mean of 89%, ( $SD = 0.06$ ) across five observations sessions, indicating positive level, trend, and immediacy changes as compared to the previous phase, and a significant difference in both level and trend from his baseline performance. With the removal of feedback, Counselor A's AS decreased to 85% ( $SD = 0.09$ ) across seven observation sessions, with initial level increases that were not sustained.

*Tau-u* effect sizes for these phase contrasts confirm impressions from visual analysis (see Figure 1). From baseline to post-training phase (PT) for Counselor A, *Tau-U* = 0.2, indicated a small effect size, which is not statistically significant. Contrasting the PT phase with the intervention phase (PF) yields a *Tau-u* of 0.36, also not statistically significant. This confirms the visual judgment that there was not a significant increase in the use of AS between these two phases. However when comparing baseline performance to the PF phase, contrasts show a larger effect size  $Tau-u_{BL} = 0.66$ , determined to be potentially promising at 0.1 level of significance (Lipsey, 1998). This indicates that Counselor A increased his use of AS at levels significantly higher than at baseline treatment, with the addition of performance feedback and consultation. When the

feedback was terminated however, Counselor A was not able to maintain these levels of AS, as indicated by the smaller effect size,  $Tau-u = 0.2$ .

### **Counselor B**

Counselor B showed the most significant increase in AS following her participation in the training of all five participants. Counselor B began with 79% engagement ( $SD = 0.8$ ) across eight observation sessions, and increased to 90% ( $SD = 0.06$ ) across five observation sessions, with positive level, trend, and immediacy changes present. She maintained high levels of AS during the PF phase, with 94% engagement ( $SD = 0.01$ ) across three observations sessions with level, trend and immediacy changes once again. In the Maintenance phase, Counselor B demonstrated 95% engagement in AS on her first, and only day with no feedback before she left the program. There were no level, trend, or immediacy effects noted for this transition.

$Tau-u$  effect sizes for these phase contrasts confirm impressions from visual analysis (see Table 2). From baseline to PT Counselor B's change in behavior yielded a  $Tau-u$  of 0.825, is a large effect size significant at the 0.05 level of significance. Contrasting the PT to PF phase yields a small effect size of  $Tau-u = 0.33$  confirming visual judgments that do not indicate significant changes in counselor behavior between these two phases. However when comparing baseline performance to the PF phase, contrasts show a larger effect size  $TAU-u_{BL}=1$ , significant at the 0.01 level of significance. This indicates that Counselor B increased her use of AS practices at levels significantly higher than at baseline levels, with the addition of performance feedback and consultation. Counselor B left her position after only one day in the Maintenance phase. For the one day, however, she engaged in AS practices at 95%.

### **Counselor C**

Counselor C showed variability throughout his participation in the study. At baseline, Counselor C demonstrated 77% engagement in AS ( $SD = 0.18$ ) across eleven observation sessions, and after training, his engagement remained at a similar level with a mean of 73% ( $SD = 0.14$ ) across four observation sessions, with no level or trend changes noted. Counselor C received one day of performance feedback and consultation before he left his position. For the one day of intervention, Counselor C was engaged in AS 85% of the time, a level consistent with his behavior at the end of the PT phase. Consistent with visual analysis, from a statistical perspective, none of the changes in Counselor C's behavior with regard to AS were significantly different between phases (see Table 2).

### **Counselor D**

Counselor D showed a lot of variability in her engagement in AS practices during baseline, with a mean of 68% ( $SD = 0.19$ ) across sixteen observation sessions. For Counselor D, her performance following the training increased and stabilized her engagement in AS, with a mean of 84% ( $SD = 0.09$ ) across three observation sessions, indicating level and immediacy changes, but no trend shift. With the introduction of performance feedback and consultation, Counselor D's engagement in AS was not significantly different, with a mean of 80% ( $SD = 0.09$ ) across five observation sessions. Visual analysis indicates no level, trend, or immediacy changes between the PT and PF phases. Counselor D left her position before the PF phase was over, and did not begin a Maintenance phase. *Tau-u* effect size calculations confirm visual analysis and yield a potentially significant effect size for the contrast between the baseline and post-training phases  $Tau-u = 0.6$ , at the 0.1 level.

### **Counselor E**

Counselor E showed a significant increase in AS practices following his participation in the training, with level, trend, and immediacy changes noted. Counselor E began with 68% engagement ( $SD = 0.22$ ) across twenty observation sessions with a large amount of variability in his performance. Following the training, Counselor E demonstrated level and trend increases in his AS, with more consistency ( $M=0.84$ ,  $SD = 0.09$ ) across five observation sessions. His change in behavior via visual analysis is confirmed by a *Tau-u* effect size of 0.51, demonstrating potential for significance at a 0.1 level of significance. Counselor E maintained his high levels of AS following the introduction of performance feedback ( $M = 0.88$ ,  $SD = 0.06$ ) across four observation sessions, with no clear changes with regard to level, trend, or immediacy. Though not very different from his PT phase performance, when compared to his baseline performance, Counselor E's engagement in AS practices yield an effect size of 0.76, significant at the 0.05 level, confirmed by visual analysis and the level and trend increases. The school year was over following the first day after feedback was terminated. For the one day without feedback, Counselor E maintained high levels of AS, but not as high as before ( $M=0.75$ ).

### **Reinforcement**

Consistent with previous research, counselor use of reinforcement (R) during the baseline and post training phases was generally low and inconsistent. There were two counselors who made no statements of reinforcement at all during baseline, and one of whom did not make any statements of R following the training. Counselor C had the highest number R statements, with an average of 1.18 (range 0-6), while the averages for

their peers ranged less than one per 10-minute observation (Counselor A range: 0-1, Counselor B and D range: 0, Counselor E range: 0-4). Any increases in R were highly variable and there were no clear trends across participants. The interpretation via visual analysis differed somewhat from the measure of effect size via the *Tau-u* statistic. When combining all the contrasts and computing a weighted average, a *Tau-u* effect size of 0.16 was computed for the baseline to PT phases, consistent with the data in Table 2 that show little improvement in the provision of R from the baseline to the PT phase. The weighted average computation for the baseline to PF phases did yield a significant result ( $Tau-u = 0.65; p < 0.01$ ), consistent with the data in Table 2 that show significant increases for 3 of the 5 counselors from baseline to the PF phase.

### **Counselor A**

At baseline, Counselor A was one of the few participants who was already using some statements of reinforcement with his students ( $M = 0.43, SD = 0.53$ ). Upon completion of the training, Counselor A increased his use of R, with one session including four statements ( $M = 1.12, SD = 1.64, \text{range } 0-4$ ) but with significant variability, and no clear trend in his performance. With the introduction of PF, Counselor A's performance in this area remained inconsistent ( $M = 1, SD = 1.41, \text{range } 0=3$ ) with no clear changes with regard to level, trend or immediacy of behavior change. Following the termination of PF, Counselor A's use of R remained low ( $M = 0.71, SD = 0.95, \text{range } 0-2$ ). Due to the variability, and overall low prevalence, the contrasts between phases did not yield effect sizes that were significant.

### **Counselor B**

Counselor B made no statements of reinforcement during the baseline phase, and only one statement in the PT phase, indicating no trend or level changes. With the introduction of performance feedback however, Counselor B increased her use somewhat ( $M = 2.33$ ,  $SD = 2.52$ , range 0-5) though with a delay of one day with regard to her behavior change. In addition to the visual analysis of Counselor B's behavior, her increase in the use of R with the addition of PF, suggests the potential for statistical significance with a *Tau-u* value of 0.8.. In the first session of the Maintenance phase, Counselor B returned to pre-intervention levels of R, with 1 statement.

### **Counselor C**

Counselor C demonstrated variability in his use of R during baseline ( $M = 1.18$ ,  $SD = 1.78$ , range 0-6). Following the training, Counselor C's use of R was stable and low (range 0-1), but with the introduction of performance feedback he demonstrated a significant increase in level, trend and immediacy, to 8 R in the 10-minute observation period. Effect size calculations from baseline to PF phase indicated no significant change ( $TAU-u_{BL}=1$ ).

### **Counselor D**

Counselor D made no statements of reinforcement through the baseline or PT phases. With the introduction of performance feedback, she demonstrated a slight increase in her use of reinforcement ( $M=0.8$ ,  $SD=0.83$ , range 0-2), after two days of receiving feedback, indicating significant latency in her change, and no changes with regard to level or trend. Effect size calculations are consistent with visual analysis and yielded a potentially significant result for her increase in the use of reinforcement

between the baseline and performance feedback phases ( $TAU-u_{BL}=0.6$ ) at the 0.1 level of significance.

### **Counselor E**

Counselor E demonstrated the most change, amongst all the counselors, in his use of statements of reinforcements across the course of the study. During baseline, Counselor D had a few isolated spikes in his use of R, but overall low levels, ( $M = 0.26$ ,  $SD = 1.04$ , range: 0-4). With the introduction of the training, Counselor E's performance yielded positive level, trend, and immediacy changes, ( $M = 1.2$ ,  $SD = 0.83$ ) that were displayed again when performance feedback and consultation were provided ( $M = 7.25$ ,  $SD = 0.43$ , range: 4-9). When the PF phase was completed, Counselor E provided six statements of Reinforcement in the one remaining session, a decrease in the final observed level, but not a significant difference in comparison to mean changes. Effect size calculations were consistent with the visual analysis and yielded significant findings for the baseline to post-training phase contrast ( $Tau-u = 0.61$ ) at the 0.05 level of significance, for the contrast between PT and PF ( $Tau-u = 1$ ) at the 0.05 level of significance, and most significantly, the contrast between the baseline and performance feedback phases ( $Tau-u_{BL} = 0.99$ ) at the 0.01 level of significance. The contrast between the PF and Maintenance phases also yielded a strong effect size ( $Tau-u = 1$ ).

### **Correction**

Counselor use of correction (C) during the baseline phase was variable, and comparatively higher than their use of R and BE both within and across participants. Counselor A made the most use of correction during the baseline phase averaging 4.14 ( $SD=3.63$ ) statements during the 10-minute observation session (range 1-11). Counselors



C and E averaged 2 statements of correction (Counselor C range 0-8; Counselor E range 0-12; while Counselors B and D averaged 0.75 (range: 0-4) and 0.43 (range: 0-3), respectively. This element of variability was consistent both within and across participants for the duration of the study. Average frequencies of C were higher or as high for all participants when compared to statement of R in both the baseline and post-training phases. Following the introduction of performance feedback, a switch took place, whereby for three out of the five counselors (Counselors A, B, and C), the frequency of reinforcements was larger than those of corrections. This pattern did not hold true as counselors transitioned to the Maintenance phase, where two out of three issued more corrections than reinforcement, and the remaining counselor tied in his delivery of feedback (Counselor E, 6 for both R and C). Effect size calculations confirmed visual analysis of counselor behavior in the area of C. For neither the baseline to post training ( $Tau-u = 0.04$ ), nor the baseline to performance feedback comparisons ( $Tau-u = 0.25$ ) were significant results found.

### **Counselor A**

At baseline, Counselor A demonstrated some of the highest frequencies of correction as compared to the other counselors (range 1-11), but, following the training, his use of corrections was reduced by almost half (range: 0-5). In the performance feedback and maintenance phases, Counselor A's use of C remained low (range 0-2 for both phases). Counselor A's behavior from baseline to PT yielded a slight level change immediately, but no change in trend. With the introduction of performance feedback, however, there was a sharp decline in C, as evidenced by significant level change more immediately, and an overall mean change as compared to baseline performance. The

trend during this phase was overall lower than during the two previous phases. The transition to maintenance did not involve level, trend, or immediacy changes.

While visual analysis indicated a difference between the baseline and post-training phase, this was not statistically significant ( $Tau-u = 0.26$ ). There were potentially promising differences between the PT and PF phases ( $Tau-u = 0.56$ ) at the 0.1 level, with significant differences, between the baseline and PF phases ( $Tau-u = 0.83$ ) at the 0.05 level and between the baseline and maintenance phases ( $Tau-u = 0.71$ ) at the 0.05 level of significance.

### **Counselor B**

Counselor B's use of correction was inconsistent throughout the course of the study. Aside from her first day of observation, she issued few statements of correction during the baseline phase ( $M=0.75$ ,  $SD = 1.39$ , range: 0-4). During the remaining phases, Counselor B had variable frequencies of corrections, although she had the fewest and most consistent trend during the performance feedback phase. There was an interesting level change, demonstrated by an immediate increase in the day following training, but this increase was not sustained and rather was particularly inconsistent. A sharp decline in the use of C was evident, via level, trend, and the immediate decrease in the use of C at the start of the performance feedback phase. There was another level change and large immediate increase following the termination of the performance feedback. Despite some of the sharp momentary changes in behavior, effect size calculations across phases yielded no significant results.

### **Counselor C**

Counselor C's use of correction was variable throughout the baseline phase. He had some days where he reached eight statements of correction, while others had zero, and yet others one or two ( $M = 2.63$ ,  $SD = 3$ , range 0-8) across eleven observations. The transition to the training phase saw sharp level, trend, and immediacy changes in behavior. Further, Counselor C's use of correction was more consistent and lower ( $M = 0.25$ ,  $SD = 0.5$ , range 0-1). In his one session where performance feedback was provided, Counselor C issued six statements of correction, a high number, though less than the number of statements of reinforcement, indicating level, trend, and immediacy changes as well, though not in the intended direction. Effect size calculations are consistent with visual analysis and indicate a potentially meaningful decrease in statements of correction between the baseline and post-training phases ( $Tau-u = 0.61$ ,  $p < 0.1$ ).

### **Counselor D**

Counselor D's use of correction was low relative to other participants. In the baseline phase, she had only a few days with 1-3 corrections, but usually had none ( $M = 0.53$ ,  $SD = 0.99$ ; range 0-3). In her post-training phase, she had issued no statements of correction during the 10-minute observation period, with no changes regarding level or trend of data. During the PF phase, Counselor D issued more statements of correction than in the previous phases ( $M = 2$ ,  $SD = 1.87$ ) indicating a potentially significant effect in the opposite direction than what was desired ( $Tau-u = 0.8$ ,  $p < 0.1$ ), though with an observed delay before any changes were evident, and subsequently an increase in trend.

## **Counselor E**

Counselor E demonstrated significant variability in his frequency of corrections during the baseline phase, reaching twelve statements of correction during one day ( $M = 2.09$ ,  $SD = 2.81$ ; range 0-12) and zero on several other days. His transition from baseline to the training phase was marked by changes in level, and an immediate increase in correction. Counselor E demonstrated variability ( $M = 5$ ,  $SD = 5.14$ ; range 1-14) in this phase as well. In the PF phase, however, Counselor E demonstrated a significant change in trend in his behavior, with an average of five statements of correction, and a range of 3-7. He had only one session in the maintenance phase, and issued six statements of correction, an immediate and slight decrease in level from the last day of performance feedback. Effect size calculations are consistent with visual analysis and achieve significance when comparing the baseline to PF phases ( $Tau-u = 0.77$ ,  $p < 0.05$ ).

### **Behavior Expectations**

Across all five participants, the application of statements of behavior expectations (BE) was low or absent. Across the entire baseline phase, Counselor E had three instances where use of BE was referenced. After learning about the behavior expectations through the training, Counselors B and D each were reported to have referenced these expectations once; both were during the Maintenance phase. Counselors A and C made no explicit reference to the behavior expectations in any of the phases.

### **Social Validity**

In addition to the technical components that were observed via direct observation, each counselor, as part of his/her participation in this study was asked to provide feedback about the utility and application of the study. After each counselor finished

his/her performance feedback sessions and entered the maintenance session, or completed his/her last day at the program, each counselor was emailed a link to complete an online survey related to his/her thoughts on the utility and applicability of experiences with the intervention. The survey included questions regarding (1) the training and feedback procedure, (2) the relevance of the topics covered in the training to the counselors specific experience in the afterschool program, and (3) open response questions regarding the overall utility of the intervention and suggestions for future improvements.

Despite multiple reminders in person, and via email, ultimately only three out of the five participants completed the survey. The Likert-scale items are presented in Table 3 below. Overall, the counselors' responses indicate mixed feelings toward the intervention and its utility. As seen in the results, the three responding counselors have mixed feelings on the overall method, though all agreed that the training and feedback procedures were reasonable and the training itself was helpful. There were mixed feelings regarding the process of receiving performance feedback, and the utility of the handout. Overall, the respondents indicated they would recommend the process of training together with feedback in some format to other counselors. Regarding the training itself, the counselors agreed on the importance of reducing disruptive behaviors, and indicated that they felt somewhat more comfortable using reinforcement by the end of their participation in the study. Not surprisingly, counselors felt less comfortable using statements of behavior expectations with their students. Respondents were neutral on decreased use of correction. Respondents were split, though on average, positive about the ease of learning the new techniques and engaging in active supervision. Respondents were neutral on their actual changes in the use reinforcement, correction, and behavior

expectations with their students. They were moderately positive about the extent to which they felt student behavior changed as a result of the principles they learned, and were also moderately positive about their ability to apply their new knowledge to other comparable settings in the future.

In the open response questions following the Likert-scale items, counselors were asked to share helpful and non-helpful elements of their experiences, suggestions for improvement, and their overall impressions on the effectiveness of the techniques learned. With regard to the most helpful elements, counselors indicated that learning about the behavior expectations for the school was helpful and applicable to their work, the training was detailed and helped to clarify techniques, and the feedback (in particular the graphs) was short and direct. One counselor indicated that it was nice to see how instead of correcting behaviors, there were ways to put “a positive spin” on handling challenging behaviors. With regard to the least helpful aspects, one counselor indicated that the expectations overall were impractical in an informal setting, while the other two respondents thought it was a good study. With regard to improvements in future work, counselors suggested longer feedback sessions of 30 minutes might be more helpful, giving counselors more information about behavior expectations and how reinforcement works to change student behavior. With regard to their overall impressions, counselors indicated that they thought the techniques were realistically applied in an academic setting, but not in informal after-school settings. Another counselor felt that the techniques were effective, and when there was a respect between the counselor and students, the students, when they understood the expectations behaved better, and responded better to reinforcement than to corrective action. One counselor felt that the

technique of reinforcement worked the best, and the key was to help students find ways to recognize that they are doing the right thing on their own. Since some counselors work with different age groups, they were asked to rate the applicability of the techniques to the age groups with whom they work. Responses were mixed, with some feeling that the techniques were too immature for the grades 4-6 group, while others felt the opposite; that it was easier to implement with the older students as they had a better pre-existing understanding of the school-based expectations and more challenging with K-1, yet another admitted that while it seemed the techniques would work best with K-1, they worked quite well with the Grade 2-3 group in practice.

When looking at the survey data and behavior data together, it is interesting to note that Counselor A's responses were overall positive or neutral. Counselor A demonstrated significant increases in AS with the support of the PF and though there was variable statistical insignificance, anecdotally, he decreased his use of correction overall, as compared to baseline observations. Counselor A had an engaged and positive demeanor throughout the duration of the study, and this is also reflected in his positive feedback and feelings of positive social validity.

In the case of Counselor B, her ratings indicated mixed feelings about the training, the techniques learned, and their application to the after-school setting. During one feedback session, Counselor B had shared with the researcher that she felt the techniques learned were applicable only to younger students, and since she works more often with older students, the concepts of reinforcement was not relevant to them. Not surprisingly, Counselor B indicated that she does not feel that these strategies would be applicable in other settings, nor would these techniques be relevant in any future after-

school work in which she is engaged. Despite her feelings on the utility and relevance of the training, Counselor B demonstrated a significant increase in the use of AS following the training when comparing baseline to the performance feedback phase, and in the use of R between baseline and the performance feedback phases.

Counselor D's ratings indicated generally positive feelings about the training, its applicability to the after-school setting, and the changes to her professional behaviors as a result of participating. Counselor D showed significant improvements in AS from baseline to performance feedback, and from baseline to the maintenance phase in R. Her overall approach was one of openness to learn new things and engage with the students in a professional manner. Counselor D also had a frequent role as a supervisor during snack time, as opposed to direct service with students, which created a different dynamic with the students some days as compared to those who were regularly assigned as counselors.

In looking at the ratings of the three counselors who completed the survey, it is also interesting to note that initially Counselor B was very interested in being involved in the study, as compared to Counselors A and D who were more hesitant. Counselor D, a senior undergraduate student and Counselor A, a local graduate student, however were more open to feedback, were attentive and appreciate of the comments in their feedback handouts, felt more confident as a result of the training, overall reported the techniques learned to be simple to implement, and strongly agreed that they would plan to continue to use the strategies in the future.



## **CHAPTER 5**

### **DISCUSSION**

#### **Overview**

The primary purpose of this study was to evaluate whether ASP counselors' use of active supervision practices, and changes in their use of reinforcement, correction, and statement of behavior expectations would change after participating in an individualized training session, and having the opportunity to engage in an ongoing consultation relationship, which included regular visual performance feedback. This study utilized a multiple-baseline design across participants to examine the effects of the training and the provision of consultation and performance feedback on staff behavior. This study also included an assessment of the perceptions that participants had regarding the relevance and utility of the intervention based on their personal experiences. The following discussion will summarize the findings of the current study, address some of the limitations, contributions to the field, and future directions.

#### **Summary of Findings**

There is an increasingly large research base to support the use of SWPBIS strategies beyond the classroom setting, and possibly beyond the school day. As other pilot work has demonstrated, SWPBIS strategies may be successfully adapted for use in ASPs. Consistent with previous findings, the training and subsequent introduction of consultation with performance feedback was effective in increasing and stabilizing the percent of time counselors spent engaged in active supervision. With regard to counselor use of reinforcement and correction, changes in behavior were variable. It is important to note that for the purposes of determining practical significance, data were analyzed and

interpreted at the 0.01, 0.05, and 0.1 levels of significance (Lipsey, 1998). Possible explanations for this variability will be discussed in the limitations section below. With regard to statement of behavior expectations, counselors used few, if any, statements at baseline, and neither training nor process of consultation affected their use of these statements.

Of the four participants who completed more than one feedback session, Counselors A, B, and E demonstrated a significant increase in their use of active supervision practices after the introduction of the consultation and performance feedback support. Counselors B, D, and E showed a moderately significant increase after the training took place. Horner et al. (2005) explain that for a functional relationship to be determined between an independent and dependent variable there must be replication over three points in time, or across three different participants. The significant changes in the behaviors of three counselors after the consultation and performance feedback was introduced indicate that there is a functional relationship between the intervention and counselor use of active supervision practices (Horner et al., 2005).

Changes in counselor behavior with regard to the use of reinforcement were variable across phases. Three of the four counselors demonstrated change in their use of reinforcement during the intervention phase. Counselor E was the one counselor who demonstrated a significant increase in his use of reinforcement following the training, and then again following the introduction of the intervention. The significant increase in frequency with which reinforcement was provided to students with the introduction of the intervention supports the existence of a functional relationship between the intervention and ASP counselor use of statements of reinforcement (Horner et al., 2005).

Changes in counselor behavior regarding the use of correction were also variable across the phases. Following the training, two counselors decreased their use of correction to a promising degree, though not enough to be considered significant ( $p < 0.1$ ). With the introduction of the intervention, three of the four counselors who participated in at least two performance feedback sessions significantly reduced their use of correction in interacting with the students. This change in ASP counselor use of correction following the introduction of the intervention supports the functional relationship between the intervention and ASP counselor use of correction statements (Horner et al., 2005).

ASP counselor change with regard to the use of statements of behavior expectations was not significant. Across all the phases of the study, only three counselors were recorded to have referenced behavior expectations during the snack time observations. The low levels of behavior expectations are not surprising given the limited knowledge that ASP counselors had about their application to the ASP and the lack of communication with others about how to apply the school's matrix for explicitly teaching the expected behaviors to the ASP setting.

Upon completion of their participation in the intervention, counselors were emailed a survey with a rating scale and open response questions related to the social validity of the study. Despite multiple attempts to collect responses from all five participants, only three counselors submitted responses to the social validity survey. Overall, all three counselors agreed that the training and feedback were helpful, they would recommend the process of training and feedback to others, and they feel that reducing disruptive behaviors is important. Their perceptions were mixed with regard to

how applicable reinforcement is to elementary school students-especially those in grades four through six. They also reported feeling uncomfortable using statements of behavior expectations with students, and did not feel that the training decreased their use of correction with students. Two out of three counselors reported feeling that student behaviors seemed to change as a result of the new techniques that they were using. On the open-response portion of the survey, counselors indicated that learning about the behavior expectations that the school had in place already was helpful, and it was interesting to learn a more positive approach to correction, such as redirection. On a more global level, counselors felt that more time to learn the techniques would be helpful and more clarity about how these principles should be effectively applied in informal settings, beyond snack time would be useful. Taken together, these findings suggest that, overall, the training and feedback model was perceived to be helpful and applicable to the work in which the ASP counselors are engaged.

### **Limitations**

There are several important limitations that must be mentioned when considering the results and implications of the current study. The design of the study contained multiple challenges to both internal and external validity, which are typical of single-subject research designs that take place in a school setting (Martella, Nelson, Morgan, & Marchand-Martella, 2013). The small sample size of only five counselors all from the same program, limits the generalizability of these findings to other programs and schools. It is also important to note that because the counselors volunteered to participate, and were not randomly selected or assigned, there is no way to know if other counselors within the program would have been more resistant, or more open, to try the new

techniques that were learned (Kemper, Stringfield, & Teddlie, 2003). Further, each counselor was working on his/her own through this process of learning and assimilating this new information into his/her practice. While counselors were often assigned at least one other colleague with whom they would supervise the students, the participating counselors did not have the benefit of working with others to deliver a comprehensive system of behavior management.

A related limitation of this study pertains to the setting in which the observations took place. While there were valid reasons for choosing snack time as the setting for the observations, this also limits the generalizability of the findings to other settings within the ASP. Before the start of the study, the data related to nuisance behaviors was low and unreliable. As noted above, the low incidence of these behaviors resulted in the lack of inclusion of this variable in the current study. A byproduct of this situation is that there were no reliable data collected related to student behavior change, which is an important part of PBIS (Lewis & Sugai, 1999). On a related note, the implementation of the study in a school with a “low-risk” populations limits the generalizability to other programs and settings, in particular to the high-risk schools in which previous research has taken place.

An additional important limitation to the internal validity of the study is the potential for reactivity effects, given the presence of observers in the cafeteria during the study. Due to the use of behavior observation to measure all of the dependent variables, it was necessary for the observers to be present during snack time. Because up to five people were being observed on any given day, and sometimes with more than one observer for the purposes of insuring treatment fidelity and reliability of data collection, the possibility of reactivity must be considered. Initially the counselors mentioned they

thought it was uncomfortable to be watched while working, but before baseline observations began, the counselors had become so used to having the research team present, that the researchers were asked why they were not engaging more with counselors and students while on site. It would be reasonable to assume that perhaps the counselor engaged in performance feedback would be more conscientious about his/her behavior because he/she knew that an observation was taking place.

This study took place in a school setting over the course of a spring semester. One of the reasons that snack time was selected as the specific program setting for observations related to its consistency—that is, no matter what, snack time took place every day. There are numerous features of this arrangement, however, that may have affected counselor behavior and could not be experimentally controlled. Some examples of such factors include, changes in counselors assignments, snow days, changes in the schedule due to special assemblies or visits, days when the program was understaffed, vacations, and changes in enrollment as the end of the year approached. With regard to the timing of the observations, despite the intention to have snack time take place at the same time each day, this was not always the case due to numerous external factors such as weather, special activities, or even a delay in the arrival of the food for that day. It is important to note that not all counselors worked each day of the week, and while their schedules were for the most part set at the start of the semester, they were not completely consistent throughout the course of the study. In addition, some of the counselors changed their schedules over the course of the study, in some cases resulting in their leaving the study before they completed the intervention phase. While these factors may have affected the dependent variables in some way, they also contribute a degree of

external validity to the results of this current study. Given that these factors are standard or expected in many programs, any intervention would need to be successful despite these irregularities, and therefore the findings may demonstrate more practical application than if these variables had been controlled in some way.

It was mentioned above that most of the time at least two counselors worked with each age group. It is important to note, that none of the five participants were ever paired together to work with the same group. This pairing could have affected counselor behavior particularly during the intervention phase. It is impossible to know if the presence of another counselor, who was not familiar with the content of the training, might have made a counselor less likely to try out a new technique or the use of new language. This potential discomfort may have artificially suppressed the use of reinforcement or statements of behavior expectations.

The MASI-OST is still a measure that is in its early years of use, with limited application outside of the 21<sup>st</sup> CCLC, where it was originally designed to be used. Applying the MASI-OST operational definitions to an informal setting such as snack-time was a challenge at first and although strong reliability was attained between the observers of the research team, there were still times when questions came up regarding the acceptability of a statement as reinforcement, correction, or behavior expectations. The MASI-OST includes a measure of student behavior related to behaviors that are considered to be “nuisance behaviors”. Within the context of this study, the ability to accurately measure these subtle, and practically very low incidence behaviors, limits the ability to make inferences about how the changes in counselor behavior affected student behavior. As mentioned above the MASI-OST was designed for use in an academic ASP,

such as the 21<sup>st</sup> CCLC. The adoption of this tool for use in a highly informal and unstructured setting such as snack time means that it is was not feasible to guarantee that every issuance of reinforcement, correction, or behavior expectations was heard by the observer(s), the way it might be in a quiet room where students are working.

With regard to the provision of performance feedback, it is important to note that when comparing counselor behavior during the intervention phase, and the subsequent maintenance phase, there are mixed results with regard to the ability of the counselors to maintain their high levels of active supervision or desired trends for reinforcement, correction, and behavior expectations. Counselor A was the only participant to have a sustained maintenance phase, with seven observations. Counselors C and D left before the maintenance phase could be initiated, while Counselors B and E each had one session, respectively. The significant variability in behavior after the termination of performance feedback might suggest that the intervention phase was too short, and did not allow the counselors enough time to develop their comfort and expertise in using their new skills, or suggests that a more gradual removal of support may have been more optimal for the counselors. An additional limitation of this study was that there was no gradual withdrawal of support, which has been helpful in previous studies on performance feedback.

### **Contribution to the Research Base**

Results from the current study provide preliminary evidence that providing professional development to ASP counselors can positively affect their professional practice and use of evidence based behavior management strategies through the use of training, consultation, and the provision of visual performance feedback. While previous



studies have shown changes in teacher behavior through the use of consultation and performance feedback (Bergan, 1995; Fuchs et al., 1992; Solomon et al., 2012; Noell et al., 2005; Reinke et al., 2008; Hemmeter et al., 2001), we are not aware of single-case studies that have demonstrated this effect with out-of-school-time professionals. Further, there is a robust research base supporting the use of SWPBIS in traditional school environments (Sugai & Horner, 2009; Horner et al., 2009; Sugai & Simonsen, 2012; Sugai et al., 2000; Carr et al., 2002; Bradshaw et al., 2008; Bradshaw et al., 2010); fewer have examined out of classroom settings (Todd et al., 2002; Lewis et al., 2000; Lewis & Sugai, 1997; Colvin et al., 1997; Nelson et al., 1996), and even fewer in settings outside of the regular school day (McKevitt et al., 2012; Farrell et al., 2013). With regard to out-of-classroom settings, this study specifically lends support for the use of PBIS strategies in a cafeteria setting, similar to the findings of Nelson et al. (1996) that found support for their use of a teacher-training program to increase positive behaviors and decrease negative behaviors among elementary school students in a cafeteria environment. With regard to out-of-school settings, the results of this study add to a young body of literature that demonstrates the feasibility of applying PBIS in OST settings (Charles, 2013; Farrell et al., 2013, McKevitt et al., 2012), and, in particular, to after school programs.

Using consultation specifically as a means to support counselor behaviors, the current study adds to earlier analyses of consultation that emphasize the importance of developing a positive rapport and relationship with school staff (Fuchs et al., 1992) and the efficacy of behavior consultation specifically (Bergan, 1995; Sheridan et al., 1996).

When examining the background of each participant, it is interesting to note that, consistent with earlier findings, the counselors who participated held varying positions on

the feasibility of the specific behavior management techniques that were presented in the training, and their application to an after-school setting (McKevitt et al., 2012; Rhodes, 2004). With regard to counselor background, those who were not undergraduate freshman were both more receptive to the feedback and, for many of them, their behaviors changed more significantly as well. This finding is consistent with earlier research that suggests similarities between the consultant and consultee, with regard to age and experience is a contributing factor to the effectiveness of the process (Martin & Curtis, 1980; Martin, 1978; Erchul, Grissom, & Getty, 2014).

The current study also adds to a rich literature base supporting the use of performance feedback in conjunction with consultation to change teacher behavior and support their use of new strategies (Solomon et al., 2012; Reinke et al., 2008; Noell et al., 2002; Noell et al., 2005, Rose & Church, 1998). With regard to visual performance feedback specifically, counselors indicated that they found the graphs to be helpful, both during the training when reflecting on their previous behavior and during the provision of performance feedback. This study adds to the existing research base that supports this practice and its effectiveness at changing participant behavior (Sanetti et al., 2007). While counselor behavior change was seen during the performance feedback phase, for those who participated in a maintenance phase, their behavior was not sustained at the same levels without the provision feedback. This decrease in use of evidence-based practices suggests that fading support, as opposed to taking it away completely, should be carefully considered in planning how performance feedback is provided, and when and how it is taken away in practice.

The MASI-OST is a relatively new tool that is still undergoing further development and revision. To date, the only other study of which we are aware that addresses the use of the MASI-OST does so in the context of the 21<sup>st</sup> CCLC program. This study helps to demonstrate both the reliability in its measurement and flexibility in application to a different type of ASP setting (Farrell et al., 2013). Similarly, there is only one published report on the use of the Positive BOOST (Farrell et al., 2013) training curriculum; this study demonstrates the efficacy and relevance of the program to a new setting, and a different group of after-school professionals. This study also provides some areas for clarification within the training and methods of potential adaptation given the different setting within which it was used.

### **Future Directions**

The current study is part of an early effort to explore the feasibility of extending the PBIS research base into out-of-school-time settings. The findings indicate that the training together with individual consultation and performance feedback are associated with improvements in counselor use of evidence-based techniques toward behavior management, specifically increases in active supervision and reinforcement, and a decrease in statements of correction. Previous research regarding the use of performance feedback to support a change in teacher behavior has been largely designed as single-case experiments as was the current study. Due to this design, it is important that future research studies replicate and extend the current findings in order to determine the extent to which these current findings can be generalized to other types of ASPs, populations, and settings.

This study was one of few that observed the relationship between PBIS and ASPs. There is a need to further examine the potential partnerships that these two domains can create, and, more specifically, the potential links that can be created between school day programming and designs, and the school-based ASP. Further, the Positive BOOST curriculum has only been used in limited settings, and future research is needed to further validate this curriculum and its ability to adequately support ASP professionals. Farrell, Collier-Meek, and Pons (2014) found significant improvements within the context of the 21st CCLC programs. Replication in other types of ASPs (e.g. community, school, independent) serving different populations of students, different age groups, and the myriad of settings that comprise ASPs would be beneficial to the field.

Previous research has looked at the effect of PBIS strategies on teacher behavior, school climate, and student discipline reports (Horner et al., 2009; Bradshaw et al., 2008). Future research that includes the effects on student behavior and perception would be valuable and provide a broader measure of program improvement. The current study primarily observed individual counselor behavior but did not directly examine the behavior of the director or other upper level personnel. Previous research has indicated a significant gap in training for ASP professionals at all levels and this was evident in the current study (McKevitt et al., 2012; Vandell & Shumow, 1999). Specifically, the findings from the BOQ-OST support these findings and highlight several important gaps in knowledge and infrastructure within the program. The results of the social validity staff survey also support the position that some counselors are interested in having more time for feedback and reflection on their performance. Further research related to training and supporting ASP staff, specifically on the evidence-based frameworks such as the

BOQ-OST would help leaders to better understand the individual components that help to create a strong system of support and aid in prioritizing how to implement PBIS in each individual setting.

Moreover, the ASP counselors who participated did so on an individual basis, though they work primarily in dyads or triads, but also as a team across all grade level groups. Research supporting ASP staff as a group, as opposed to individuals, may also be helpful in determining the extent to which ASP professionals can apply evidence-based practices, such as active supervision, reinforcement, and consistent statements of behavior expectations to their students.

The current study relied upon in-person individualized performance feedback sessions before the program began each day. This was a time that worked well for all staff and allowed the researcher and participants to check in about progress and goals. There has been previous research to suggest the use of email to communicate with teachers regarding their performance as substitute for in-person meetings (Hemmeter et al., 2011). Within the context of the ASP in this study, email would not have been feasible due to the lack of consistent computer access on the part of participants. Future research should consider alternative methods of providing feedback to staff that can accommodate the variety of needs on the part of ASP staff.

This research effort began midway through the academic year. It is possible that counselors found significant challenges in trying to change their behavior management system once current strategies and relationships were already in-place. Future research observing the same behaviors when counselors and all staff are supported prior to the start of the year, or at the start of the year, as opposed to midway through, would benefit

the field in terms of understanding the feasibility and timing of implementing new systems of behavior management. The current study was designed to terminate performance feedback completely and abruptly, and did not offer counselors a formal opportunity to check-in or receive intermittent feedback following the initial performance feedback phase. Future research examining the effects of a more gradual removal of performance feedback, or of intermittent follow-up would provide ideas for how to design similar types of support to these unique types of professionals in a sustainable and meaningful manner.

Table 1. Cohen's Kappa for all dependent measures

Measure	Baseline	Post-Intervention
Active Supervision	0.93	0.89
Reinforcement	0.83	0.72
Correction	0.88	0.78
Behavior Expectations	1.00	1.00

Table 2. Descriptive statistics and Tau-u effect sizes for all dependent measures

	Baseline		Post-Intervention			Performance Feedback				Maintenance			
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>Tau</i>	<i>M</i>	<i>SD</i>	<i>Tau</i>	<i>Tau</i> <sub>BL</sub>	<i>M</i>	<i>SD</i>	<i>Tau</i>	<i>Tau</i> <sub>BL</sub>
<u>Counselor A</u>													
AS	0.79	0.1	0.82	0.12	0.2	0.89	0.06	0.36	0.66 <sup>+</sup>	0.85	0.09	0.2	0.37
R	0.43	0.53	1.2	1.64	0.26	1	1.41	0.12	0.14	0.71	0.95	0.08	0.12
C	4.14	3.63	2.6	2.3	0.26	0.6	0.89	0.56 <sup>+</sup>	0.83 <sup>*</sup>	1	0.82	0.29	0.72 <sup>*</sup>
BE	0	0	0	0	n/a	0	0	n/a	n/a	0	0	n/a	n/a
<u>Counselor B</u>													
AS	0.79	0.8	0.9	0.06	0.825 <sup>*</sup>	0.94	0.01	0.33	1 <sup>**</sup>	0.95	n/a	0.33	1 <sup>+</sup>
R	0	0	0.2	0.44	0.2	2.33	2.52	0.6	.8 <sup>+</sup>	1	n/a	0.33	1 <sup>+</sup>
C	0.75	1.39	1.8	1.64	0.3	0.67	0.58	0.33	0.21	6	n/a	1	1
BE	0	0	0	0	0	0	0	0	0	2	n/a	1 <sup>+</sup>	1 <sup>+</sup>
<u>Counselor C</u>													
AS	0.77	0.18	0.73	0.14	0.11	0.85	n/a	0.5	0	n/a	n/a	n/a	n/a
R	1.18	1.78	0.25	0.5	0.36	8	n/a	1	1	n/a	n/a	n/a	n/a
C	2.63	3	0.25	0.5	0.61 <sup>+</sup>	6	n/a	1	0.64	n/a	n/a	n/a	n/a
BE	0	0	0	0	n/a	0	n/a	n/a	n/a	n/a	n/a	n/a	n/a
<u>Counselor D</u>													
AS	0.68	0.19	0.86	0.05	0.6 <sup>+</sup>	0.8	0.09	0.53	0.41	n/a	n/a	n/a	n/a
R	0	0	0	0	0	0.8	0.83	0.6	0.6 <sup>*</sup>	n/a	n/a	n/a	n/a
C	0.53	0.99	0	0	0.27	2	1.87	0.8 <sup>+</sup>	0.55 <sup>+</sup>	n/a	n/a	n/a	n/a
BE	0.07	0.25	0	0	0.06	0.2	0.44	0.2	0.133	n/a	n/a	n/a	n/a
<u>Counselor E</u>													
AS	0.68	0.22	0.84	0.09	0.51 <sup>+</sup>	0.88	0.06	0.3	0.76 <sup>*</sup>	0.75	n/a	1	0.04
R	0.26	1.04	1.2	0.83	0.61 <sup>*</sup>	7.25	0.43	1 <sup>*</sup>	0.99 <sup>**</sup>	6	n/a	0.5	1 <sup>+</sup>
C	2.1	2.8	5	5.15	0.51 <sup>+</sup>	5.25	1.71	0.4	0.77 <sup>*</sup>	6	n/a	n/a	n/a
BE	0.13	0.35	0	0	0.14	0	0	0	0.14	0	n/a	0	0.14

Note: \*\*  $p \leq 0.01$ ; \*  $p \leq 0.05$ ; +  $p \leq 0.1$



Table 3. Counselor responses on social validity survey.

Question	Counselor		
	A	B	D
Overall, I felt that the method of a single training session followed by in-person meeting to provide feedback was an effective means of learning how to practice new skills in my after school work	1	-1	2
The training and feedback procedures were reasonable in terms of the amount of time, resources, and effort it required from me.	2	1	2
I found the 60-minute training session on basic principles of behavior management, positive reinforcement, and providing structure for students to be helpful.	2	2	2
I found the opportunity to receive feedback on my performance to be helpful.	1	-2	1
I found the snack-time observations to be subtle and/or non-intrusive.	1	2	1
I referred to the comments and looked at the data in my feedback handouts:	3	0	2
I would recommend this process of training together with some sort of feedback to other counselors interested in learning new methods of student behavior management	1	-2	2

I feel that reducing disruptive student behaviors during after-school is an important outcome to work toward.	2	2	1
By the end of the study, I felt comfortable and confident using reinforcement as a means of behavior management.	2	-1	2
By the end of the study, I felt comfortable and confident using statements of behavior expectations as a means of behavior management.	0	-1	2
By the end of the study, I felt I didn't need to use correction as often as I used to, to manage challenging behaviors.	1	-1	0
Overall, I found the techniques I learned to be simple to implement (e.g. labeling behaviors, providing specific feedback, setting the stage, teaching expectations, engaging in active supervision).	2	-2	2
I feel that I significantly increased my use of active supervision in my afterschool work during this project	2	-2	0
I feel that I significantly increased my use of reinforcement in in my afterschool work during this project.	1	-2	1
I feel that I significantly increased my use of referencing behavior expectations in my afterschool work this project.	0	-2	1
I feel that I significantly decreased my use of correction statements in in my afterschool work this project.	1	-2	0
Please rate the extent to which you feel student behavior changed as a result of your increasing the principles of the	2	0	1

Positive BOOST training in your afterschool program:

I plan to continue to use the strategies I learned about in the future and/or in other informal educational settings (e.g. summer camp).	2	-2	2
--	---	----	---

I would recommend the training and techniques I learned to other ASP professionals interested in trying new methods of behavior management.	1	-2	2
---	---	----	---

---

*Note:* On most items, 2 = Strongly Agree; 1 = Agree Some; 0 = Neutral; -1 = Disagree

Some; -2 = Strongly Disagree

Figure 1. Percentage of time counselors engaged in active supervision

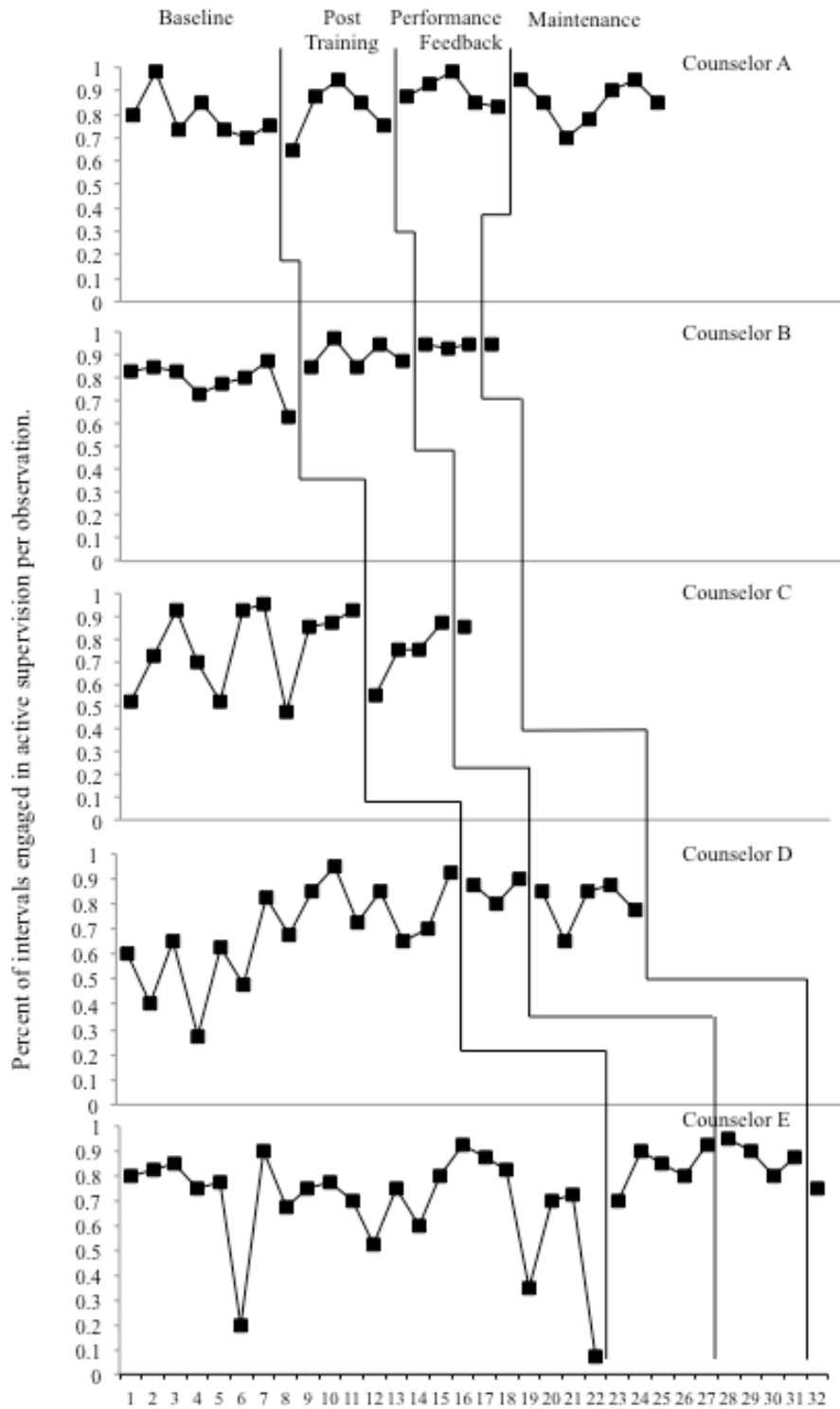
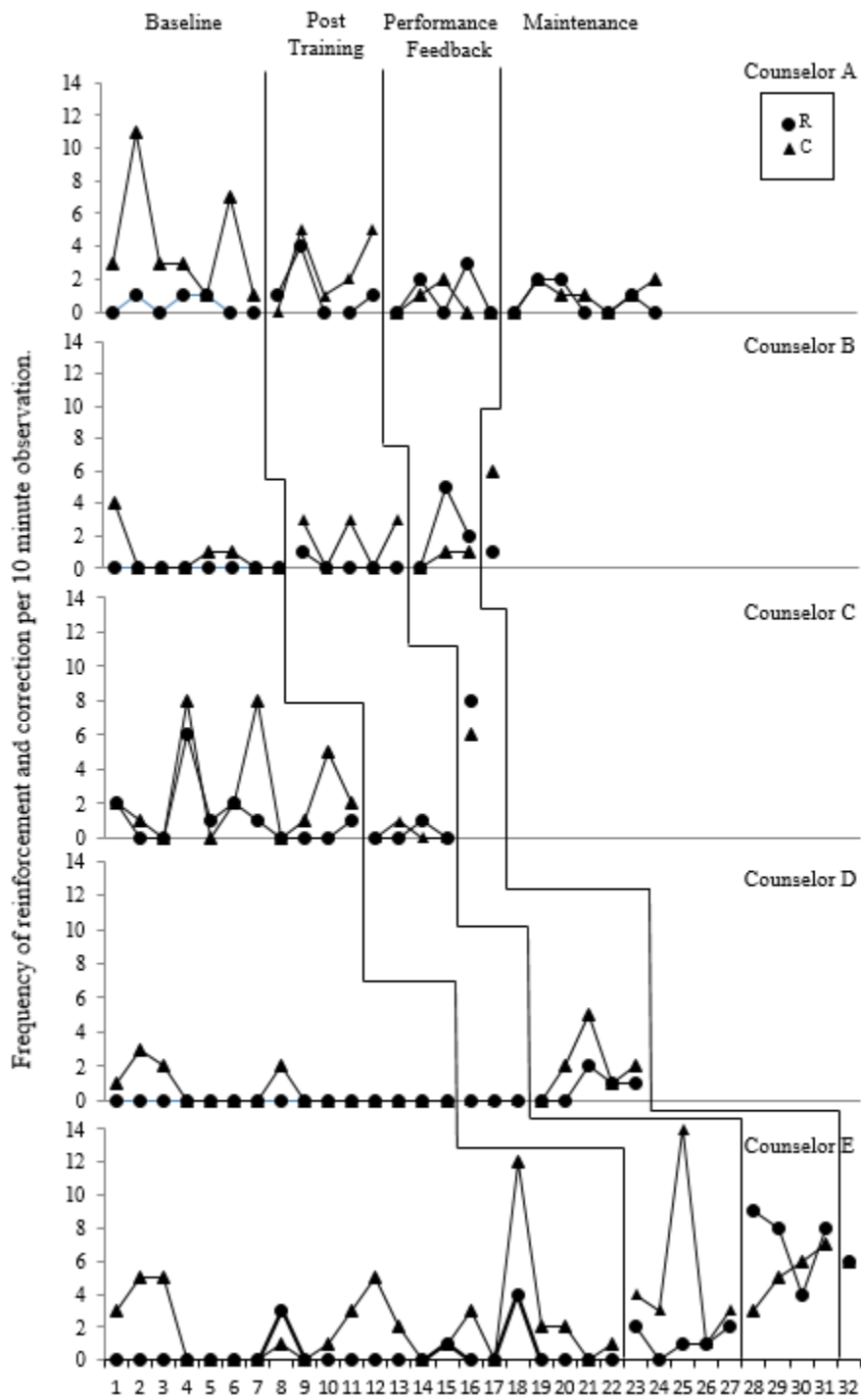


Figure 2. Frequency of counselor R and C statements per 10-minute observation



## APPENDIX A

### RECRUITMENT LETTER

#### After School Counselor Recruitment Letter

Date: [Month Year]

To: After School Professionals at [School Name]

Subject: Research on positive behavior support in afterschool settings

Dear After School Professionals,

I'm sending out this letter to introduce myself to you and tell you about a project I will be conducting at [School Name] this spring as part of my dissertation research.

As you might be aware, student behavior can be challenging at times, especially in an informal setting such as after-school. My research interests revolve around identifying simple and effective strategies that after-school staff can use, many that are consistent with the sorts of strategies being implemented during a child's school day, that can help improve student behavior and staff feelings of competence and comfort. For my dissertation research I hope to test the effectiveness of a specific curriculum designed especially for "out-of-school-time" professionals by training a few groups of staff members and then measuring the effect of the training and its utility to staff members when working with students. This is where I need your help!

My main consideration when conducting this research in a practical after-school setting is to test the relevance of the curriculum and the ability to provide helpful feedback to staff, as a group, on their application of the curriculum in a useful, quick and non-invasive manner. To that end, I will detail below everything I would be asking of you as participant in this study.

- 1) To allow me to conduct a 10-15 minute unobtrusive observation of your group during snack time (for the purpose of collecting data on snack time routines and student behavior)
- 2) To attend one 1-hour training session with me, scheduled at your convenience, wherein I would train you and your group in this unique "out-of-school-time" curriculum for improving student behavior.
- 3) To attempt to implement the strategies that you learn as a result of the training.
- 4) To be willing to receive brief written and oral feedback on your groups' use of these new strategies
- 5) To complete a very brief survey on your opinions about these new strategies at the end of the study

I want to assure you that if you do choose to participate, data from my observations will be kept strictly anonymous and will be used solely for the purposes of a) providing feedback to you, and b) determining the effectiveness of the strategies taught. If at any point you would like to withdraw from participation in the study, you would be free to do so without negative consequences to you, your employer, or your relationship with the University of Massachusetts.

I am seeking 2-3 participants from each group for my study. If after reading this you would like to hear more about participating, please contact me via email at [seisen@educ.umass.edu](mailto:seisen@educ.umass.edu), so I can follow up with you. Thank you for your interest!

Sheera Hefter MEd PD NCSP  
Doctoral Candidate, School Psychology  
University of Massachusetts--Amherst

## APPENDIX B

### INFORMED CONSENT

Consent Form for Participation in a Research Study  
*University of Massachusetts Amherst*

---

**Principal Investigator:** Sheera Hefter  
**Faculty Sponsor:** Dr. Sara Whitcomb  
**Study Title:** Positive Behavior Intervention Support in Out of School Time: Providing Professional Development via Consultation and Performance Feedback

This consent form will give you the information you will need to understand why this study is being done and why you are being invited to participate. It will also describe what you will need to do to participate and any known risks, inconveniences or discomforts that you may have while participating. I 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.

Primary participants recruited for this study will include counselors within your after school program. This study will attempt to determine the extent to which professional development in the area of supervision and behavior management help to improve counselor confidence and reduce the incidences of challenging behaviors from students. Results from this study will add to a new area of research looking at the feasibility of implementing positive behavior support intervention in after-school settings.

This project will include a training series at an individually scheduled time that is mutually convenient. The principal investigator seeks participation from 2-3 staff members per age group in the program to be part of the study. The amount of time required from each counselor will be approximately one hour for training and 15-20 minutes per week for the duration of the study (approximately 6 weeks). Observations will last a total of 15 minutes but will require no time spent by the participant(s). Following the observations, feedback will be provided based upon a previously explained set of criteria.

If you agree to take part in this study, you must be willing to complete a training session and be observed for 2-4 days a week for 6 weeks for 10-15 minutes during snack time. Observations will consist of the snack time environment and climate. A direct benefit for participation in the research study will include information about the quality of snack time and strategies for improving student behavior during this time and the rest of the after-school session. The benefits expected to accrue to the counselors and school may include recommendations for improvement of overall program climate, as well as recognition for strategies that are being used already and work well.



As a result of the study procedures, a risk for participation in this study may include slight discomfort from being observed and a possible inconvenience may be the time it takes to complete the training with the primary investigator and her team of data collectors.

The following procedures will be used to protect the confidentiality of your study records. All information that gathered as part of this study will be kept strictly confidential. There will be no identifying information on any observation recording sheets. The researcher will keep all study records in a secure file. All electronic files (e.g., database, spreadsheet, etc.) containing identifiable information will be password protected. 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. Confidentiality will be maintained unless some law has or will be broken such as reporting child abuse and neglect.

Take as long as you like before you make a decision. I will be happy to answer any question you have about this study. If you have further questions about this project or if you have a research-related problem, you may contact the principal investigator Sheera Hefter (seisen@educ.umass.edu), or the faculty sponsor Dr. Sara Whitcomb ([swhitcomb@educ.umass.edu](mailto:swhitcomb@educ.umass.edu)) If you have any questions concerning your rights as a research subject, you may contact the Linda Griffin, Associate Dean for Academic Affairs, 123 Furcolo, 413-545-6985 or [lgriffin@educ.umass.edu](mailto:lgriffin@educ.umass.edu). 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.

The University of Massachusetts does not have a program for compensating subjects for injury or complications related to human subjects research, but the study personnel will assist you in getting treatment.

**I have read this form and decided that I will participate in the project described above. The general purposes and particulars of the study as well as possible hazards and inconveniences have been explained to my satisfaction. I understand that I can withdraw at any time without penalty.**

\_\_\_\_\_  
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 has been given a copy.

\_\_\_\_\_  
Signature of Person  
Obtaining Consent

\_\_\_\_\_  
Print Name:

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

**APPENDIX C**  
**FEEDBACK FORM**

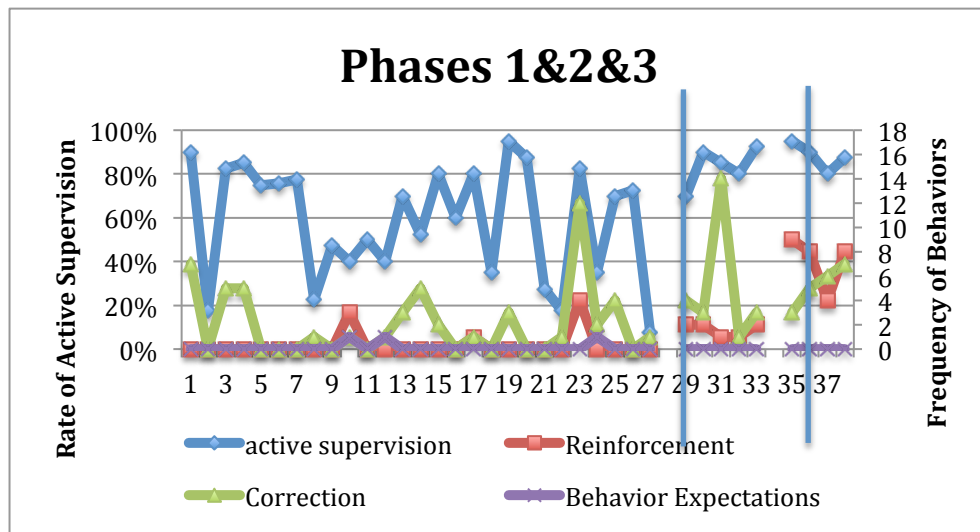
Feedback: [Month Day Year]

Data from [Day of Week, Month, Day]:

Active Supervision (MSI)	
Number of Interval Present	35
Number of Intervals Observed	40
% intervals Present	88%
Reinforcement	
Frequency	8
Beh. Characteristics present	immediate, specific, appropriate
Beh. Characteristics # applicable	3
Corrections	
Frequency	7
Beh. Characteristics present	Immediate, brief (mixed specificity) ; praise sometimes follows the shift to desired behavior.
Beh. Characteristics # applicable	2
Behavior Expectations	
Frequency	0
Beh. Characteristics present	N/A
Beh. Characteristics # applicable	0

Examples:

- Examples of Reinforcement (consistent with manner references from previous observations included: “Thanks for your enthusiasm; Thank you for going back to your seat, Good job cleaning off your plate and bringing it to the trash”
- Reinforcements and Correction are more often offered to individual students as compared to the whole group, or a sub-group of students.



## APPENDIX D

### FIDELITY CHECKLIST FOR FEEDBACK HANDOUT

Feedback: [Month Day Year]

#### A. Date

Is the date from which the data was collected presented?	Yes	No
--	-----	----

#### B. Quantitative Feedback:

Data Reported?		
AS	Yes	No
Reinforcement	Yes	No
Correction	Yes	No
Behavior Expectations	Yes	No

#### C. Qualitative Feedback:

Are example provided to support the data presented in the table?	Yes	No
--	-----	----

#### D Graph:

Is a graph provided that displays participant progress?	Yes	No
---	-----	----

Total number of Yes: \_\_\_\_\_ / 7

Total Score: \_\_\_\_\_

**APPENDIX E**  
**SOCIAL VALIDITY SURVEY**

**ASP Counselor Survey**

*Thank you again for your participation in my research study. As part of the study, I am very interested in your honest feedback about the process of training, utility of the material covered, and the degree to which the information shared was helpful to you in your practice.*

*Please rate the extent to which you agree or disagree with the following statements regarding your experience participating in this study. There are also a series of open-ended questions at the end.*

*Thank you for your time and honesty.*

Questions about the Training and Feedback procedure:

1) Overall, I felt that the method of a single training session followed by in-person meeting to provide feedback was an effective means of learning how to practice new skills in my after school work.

**Strongly Disagree    Disagree Some    Neutral    Agree Some    Strongly Agree**

2) The training and feedback procedures were reasonable in terms of the amount of time, resources, and effort it required from me.

**Strongly Disagree    Disagree Some    Neutral    Agree Some    Strongly Agree**

3) I found the 60-minute training session on basic principles of *behavior management, positive reinforcement, and providing structure for students* to be helpful.

**Strongly Disagree    Disagree Some    Neutral    Agree Some    Strongly Agree**

4) I found the opportunity to receive feedback on my performance to be helpful.

**Strongly Disagree    Disagree Some    Neutral    Agree Some    Strongly Agree**

5) I found the snack-time observations to be discrete and/or non-intrusive.

**Strongly Disagree    Disagree Some    Neutral    Agree Some    Strongly Agree**

6) I referred to the comments and looked at the data in my feedback handouts:

<b>All of them</b>	<b>Most of them</b>	<b>Some of them</b>	<b>Hardly any</b>
3	2	1	0

7) I would recommend this process of training together with some sort of feedback to other counselors interested in learning new methods of *classroom management*. (please note this question refers only to the training/feedback process)

**Strongly Disagree    Disagree Some    Neutral    Agree Some    Strongly Agree**

Questions about the integration of the topics covered in the Positive B.O.O.S.T. training into your everyday work at the afterschool program:

1) I feel that reducing disruptive student behaviors during after-school is an important outcome to work toward.

**Strongly Disagree    Disagree Some    Neutral    Agree Some    Strongly Agree**

2) By the end of the study, I felt comfortable and confident using reinforcement as a means of behavior management.

**Strongly Disagree    Disagree Some    Neutral    Agree Some    Strongly Agree**

3) By the end of the study, I felt comfortable and confident using statements of behavior expectations as a means of behavior management.

**Strongly Disagree    Disagree Some    Neutral    Agree Some    Strongly Agree**

4) By the end of the study, I felt I didn't need to use correction as often as I used to, to manage challenging behaviors.

**Strongly Disagree    Disagree Some    Neutral    Agree Some    Strongly Agree**

5) Overall, I found the techniques I learned to be simple to implement (e.g. labeling behaviors, providing specific feedback, setting the stage, teaching expectations, engaging in active supervision).

**Strongly Disagree    Disagree Some    Neutral    Agree Some    Strongly Agree**

6) I feel that I significantly increased my use of active supervision in my afterschool work during this project.

**Strongly Disagree    Disagree Some    Neutral    Agree Some    Strongly Agree**

7) I feel that I significantly increased my use of reinforcement in in my afterschool work during this project.

**Strongly Disagree    Disagree Some    Neutral    Agree Some    Strongly Agree**

8) I feel that I significantly increased my use of referencing behavior expectations in my afterschool work this project.

**Strongly Disagree    Disagree Some    Neutral    Agree Some    Strongly Agree**

9) I feel that I significantly decreased my use of correction statements in in my afterschool work this project.

**Strongly Disagree    Disagree Some    Neutral    Agree Some    Strongly Agree**

10) Please rate the extent to which you feel student behavior changed as a result of your increasing the principles of the Positive BOOST training in your afterschool program:

<b>-3</b>	<b>-2</b>	<b>-1</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
<i>Worsened extremely</i>	<i>Worsened moderately</i>	<i>Worsened a little bit</i>	<i>No noticeable difference</i>	<i>Improved a little bit</i>	<i>Improved moderately</i>	<i>Improved extremely</i>

11) I plan to continue to use the strategies I learned about in the future and/or in other informal educational settings (e.g. summer camp).

**Strongly Disagree    Disagree Some    Neutral    Agree Some    Strongly Agree**

12) I would recommend the training and techniques I learned to other ASP professionals interested in trying new methods of behavior management.

**Strongly Disagree    Disagree Some    Neutral    Agree Some    Strongly Agree**

### Open-Response Questions

*Your honest feedback is welcome and very much appreciated. Your comments will be used to a) help determine the effectiveness, helpfulness, and feasibility of this method of ASP counselor consultation, and b) help me to become more helpful to ASP counselors and administration in the future. Don't worry, I will not be offended so go ahead and put it all out there! ☺*

1) What aspect(s) did you find most helpful or enjoyable about the training/feedback procedure as a method of learning new skills and strategies?

2) What aspect(s) did you find least helpful or enjoyable about the training/feedback procedure as a method of learning a new skills and strategies?

3) What are at least two suggestions you would offer in order to improve this method of counselor training in the future?

4) *Please comment on your impressions regarding the effectiveness of the techniques learned. If you feel that it did not work well, why do you think it was ineffective?*

5) *If you work with multiple age groups, did you find differences between these groups in application or results?*

6) **(Optional)** You may have felt that some of the rating-scale questions above oversimplified your answers. Please feel free to use this space to elaborate on any answers which you feel could use clarification. Thank you!

## REFERENCES

- Alliance, A. (2009). *America after 3 PM: The most in-depth study of how America's children spend their afternoons*. Washington, DC: Afterschool Alliance.
- Alpert, J. L., & Yammer, M. D. (1983). Research in school consultation: A content analysis of selected journals. *Professional Psychology: Research and Practice*, 14(5), 604.
- American Youth Policy Forum. (2006). Helping youth succeed through out-of-school time programs. Retrieved July 16, 2013 from [www.aypf.org/publications/HelpingYouthOST2006.pdf](http://www.aypf.org/publications/HelpingYouthOST2006.pdf)
- Artman-Meeker, K. M., & Hemmeter, M. L. (2012). Effects of Training and Feedback on Teachers' Use of Classroom Preventive Practices. *Topics in Early Childhood Special Education*.
- Asher, R. (2012). Human resources: Staffing out-of-school time programs in the 21st Century. *Afterschool Matters*, 16, 42-47.
- BehaviorScience.org. (2011). D.A.T.A.: Direct assessment tracking application (Version 1.0.8) [Mobile application software]. Retrieved from <http://itunes.apple.com>
- Bergan, J. R. (1995). Evolution of a problem-solving model of consultation. *Journal of Educational and Psychological Consultation*, 6(2), 111-123.
- Bergan, J. R., & Kratochwill, T. R. (1990). *Behavioral consultation and therapy*. Plenum Press.
- Birmingham, J., Pechman, E. M., Russell, C. A., & Mielke, M. (2005). Shared features of high-performing after-school programs: A follow-up to the TASC evaluation. *Policy Studies Associates, Inc.*
- Bradshaw, C. P., Koth, C. W., Bevans, K. B., Ialongo, N., & Leaf, P. J. (2008). The impact of School-Wide Positive Behavioral Interventions and Supports (PBIS) on the organizational health of elementary schools. *School Psychology Quarterly*, 23(4), 462-473.
- Bradshaw, C. P., Mitchell, M. M., & Leaf, P. J. (2010). Examining the effects of schoolwide positive behavioral interventions and supports on student outcomes results from a randomized controlled effectiveness trial in elementary schools. *Journal of Positive Behavior Interventions*, 12(3), 133-148.
- Caplan, G. (1963). Types of mental health consultation. *American Journal of Orthopsychiatry*, 33(3), 470.

- Carr, E.G, Dunlap, G., Horner, R.H., Koegel, R.L., Turnbull, A.P., Sailor, W., *et al.* (2002). Positive behavior support: Evolution of an applied science. *Journal of Positive Behavior Interventions*, 4, 4-16.
- Charles, A. (2013). Positive behavior in out of school time: Positive BOOST. *AfterSchool Today*, 4, 14-15.
- Colvin, G., Kameenui, E. J., & Sugai, G. (1993). Reconceptualizing behavior management and school-wide discipline in general education. *Education & Treatment of Children*.
- Colvin, G., Sugai, G., Good III, R. H., & Lee, Y. Y. (1997). Using active supervision and precorrection to improve transition behaviors in an elementary school. *School Psychology Quarterly*, 12(4), 344.
- Cosden, M., Morrison, G., Albanese, A. L., & Macias, S. (2001). When homework is not home work: After-school programs for homework assistance. *Educational Psychologist*, 36(3), 211-221.
- Curtis, M. J., Hunley, S. A., & Grier, J. (2002). Relationships among the professional practices and demographic characteristics of school psychologists. *School Psychology Review*.
- De Pry, R. L., & Sugai, G. (2002). The effect of active supervision and pre-correction on minor behavioral incidents in a sixth grade general education classroom. *Journal of Behavioral Education*, 11(4), 255-267.
- DeAngelis, K., & Rossi, R. (1997). Schools serving family needs: extended-day programs in public and private schools. *National Center for Education Statistics Issue Brief (NCES 97-590)*. Washington, DC: National Center for Education Statistics.
- Durlak, J. A., & Weissberg, R. P. (2007). *The impact of after-school programs that promote personal and social skills*. Chicago, IL: Collaborative for Academic, Social, and Emotional Learning.
- Erchul, W. P., & Martens, B. K. (1997). *School consultation: Conceptual and empirical bases of practice*. New York: Plenum Press.
- Erchul, W. P., Grissom, P. F., & Getty, K. C. (2008). Studying interpersonal influence within school consultation. In Erchul, W.P. & Sheridan, S.M. (Eds.) *Handbook of Research in School Consultation* (pp. 293-322) New York, NY: Taylor & Francis Group, LLC.
- Farrell, A. F., & Collier-Meek, M. A. (2013). *Positive Behavior Interventions and Supports in out-of-school time: Training, consultation, and measurement*. Manuscript in preparation.



- Farrell, A. F., & Collier-Meek, M. A. (2014). *Positive BOOST (Positive Behavior in Out of School Time): A Guide to Development and Implementation of Positive Behavior Interventions and Supports*. Suite of materials including curriculum guide, manual, implementation and fidelity monitoring resources, assessment and evaluation resources. Storrs, CT: University of Connecticut, Center for Applied Research.
- Farrell, A. F., Collier-Meek, M. A., & Johnson, A. H. (2013). *Development and initial evaluation of the Measure of Active Supervision and Interaction in out-of-school time*. Manuscript in preparation.
- Farrell, A. F., Collier-Meek, M. A., & Pons, S. R. (2013). Embedding positive behavior supports in afterschool programs. *Beyond Behavior, 23*, 38-45.
- Fox, L., Hemmeter, M. L., Snyder, P., Binder, D. P., & Clarke, S. (2011). Coaching early childhood special educators to implement a comprehensive model for promoting young children's social competence. *Topics in Early Childhood Special Education, 31*(3), 178-192.
- Fuchs, D., Fuchs, L. S., Dulan, J., Roberts, H., & Fernstrom, P. (1992). Where is the research on consultation effectiveness? *Journal of Educational and Psychological Consultation, 3*(2), 151-174.
- Gottfredson, D. C., Gerstenblith, S. A., Soule, D. A., Womer, S. C., & Lu, S. (2004). Do after school programs reduce delinquency? *Prevention Science, 5*(4), 253-266.
- Hemmeter, M. L., Snyder, P., Kinder, K., & Artman, K. (2011). Impact of performance feedback delivered via electronic mail on preschool teachers' use of descriptive praise. *Early Childhood Research Quarterly, 26*(1), 96-109.
- Horner, R. H., Carr, E. G., Halle, J., McGee, G., Odom, S., & Wolery, M. (2005). The use of single-subject research to identify evidence-based practice in special education. *Exceptional Children, 71*(2), 165-179.
- Horner, R. H., Sugai, G., Smolkowski, K., Eber, L., Nakasato, J., Todd, A. W., & Esperanza, J. (2009). A randomized, wait-list controlled effectiveness trial assessing school-wide positive behavior support in elementary schools. *Journal of Positive Behavior Interventions, 11*(3), 133-144.
- Hoy, W. K., & Fedman, J. A. (1987). Organizational Health: The Concept and Its Measure. *Journal of Research and Development in Education, 20*(4), 30-37.
- Individuals with Disabilities Education Improvement Act, 20 U.S.C. §1414* (2004).
- Intercultural Center for Research in Education (ICRE) & National Institute on Out-of-School Time (NIOST). (2005). *Massachusetts after-school research study*. Retrieved from <http://supportunitedway.org/files/MARS-Report.pdf>

- James-Burdumy, S., Dynarski, M., Moore, M., Deke, J., Mansfield, W., Pistorino, C., & Warner, E. (2005). When schools stay open late: The national evaluation of the 21st Century Community Learning Centers program: Final report. *Washington, DC: US Department of Education, Institute of Education Sciences.*
- Jones, K. M., Wickstrom, K. F., & Friman, P. C. (1997). The effects of observational feedback on treatment integrity in school-based behavioral consultation. *School Psychology Quarterly, 12*(4), 316.
- Kazdin, A. E. (2011). *Single-case research designs: Methods for clinical and applied settings* (2nd ed.). New York: Oxford University Press.
- Kemper, E.A., Stringfield, S., & Teddlie, C. (2003). Mixed methods sampling strategies in social science research. In Tashakkori, A. & Teddlie, C. (Eds.), *Handbook of Mixed Methods in Social and Behavioral Research* (pp. 273-296). Thousand Oaks, CA: Sage.
- Kincaid, D., Childs, K., & George, H. (2010). School-wide benchmarks of quality (Rev.). *Unpublished instrument, University of South Florida, Tampa.*
- Kleiner, B., Nolin, M. J., & Chapman, C. (2004). Before-and After-School Care, Programs, and Activities of Children in Kindergarten through Eighth Grade: 2001. Statistical Analysis Report. NCES 2004-008. *National Center for Education Statistics.*
- Kromrey, J. D. & Foster-Johnson, L. (1996). Determining the efficacy of intervention: The use of effect sizes for data analysis in single-subject research. *The Journal of Experimental Education, 65*(1), 73-93.
- Landis, J. R., & Koch, G. G. (1977). The measurement of observer agreement for categorical data. *Biometrics, 159-174.*
- Lewis, T. J., & Sugai, G. (1999). Effective Behavior Support: A Systems Approach to Proactive Schoolwide Management. *Focus on Exceptional Children, 31*(6), 1-24.
- Lewis, T. J., Colvin, G., & Sugai, G. (2000). The Effects of Pre-Correction and Active Supervision on the Recess Behavior of Elementary Students. *Education and Treatment of Children, 23*(2), 109-21.
- Lipsey, M.W. (1998). Design sensitivity: Statistical power for applied experimental research. In Bickman, L. & Rog, D.J. (Eds.), *Handbook of Applied Social Research Methods* (pp. 39-68). Thousand Oaks, CA: Sage.
- Lipsey, M.W. & Hurley, S.M. (2009). Design Sensitivity. In Bickman, L. & Rog, D.J. (Eds.) *The SAGE Handbook of Applied Social Research Methods* (pp. 44-76). Thousand Oaks, CA: SAGE Publications, Inc.

- Little, P., Wimer, C., & Weiss, H. B. (2008). After school programs in the 21st century: Their potential and what it takes to achieve it. *Issues and Opportunities in Out-Of-School Time Evaluation, 10*, 1-12.
- MacLeod, I. R., Jones, K. M., Somers, C. L., & Havey, J. M. (2001). An evaluation of the effectiveness of school-based behavioral consultation. *Journal of Educational and Psychological Consultation, 12*(3), 203-216.
- Martella, R. C., Nelson, J. R., Morgan, R. L., & Marchand-Martella, N. E. (2013). *Understanding and interpreting educational research*. New York: Guilford Press.
- Martin, R. (1978). Expert and referent power: A framework for understanding and maximizing consultation effectiveness. *Journal of School Psychology, 16*(1), 49-55.
- Martin, R. P., & Curtis, M. (1980). Effects of age and experience of consultant and consultee on consultation outcome. *American Journal of Community Psychology, 8*(6), 733-736.
- Massachusetts After School Partnership. (2014). *Children and Youth Related Budget Line Items*. Available from <http://www.massafterschool.org/policy.html>
- Massachusetts Department of Elementary and Secondary Education (2014). *Glossary of 2014 reporting terms*. Retrieved from <http://www.doe.mass.edu/apa/accountability/default.html>
- Massachusetts Special Commission on After School and Out of School Time. (2007). *Our commonwealth: Building a future for our children and youth: The report of the Massachusetts special commission on after school and out of school time*. Boston: Massachusetts, Special Commission on After School and Out of School Time. Retrieved September 22, 2008, from [http://www.massafterschoolcomm.org/dotnetnuke/Portals/0/downloads/MSC\\_full\\_report.pdf](http://www.massafterschoolcomm.org/dotnetnuke/Portals/0/downloads/MSC_full_report.pdf).
- McKevitt, B. C., Dempsey, J. N., Ternus, J., & Shriver, M. D. (2012). Dealing with behavior problems: The use of positive behavior support strategies in summer programs. *Afterschool Matters, 15*, 16-25.
- Medway, F. J. (1982). School consultation research: Past trends and future directions. *Professional Psychology, 13*(3), 422.
- Naftzger, N., Bonney, C., Donahue, T., Hutchinson, C., Margolin, J., & Vinson, M. (2006). 21st Century Community Learning Centers (21st CCLC) analytic support for evaluation and program monitoring: An overview of the 21st CCLC Program: 2004-05. *Learning Point Associates. A report submitted to the US Department of Education*. Retrieved March, 1, 2007.

- Nee, J., Howe, P., Schmidt, C., & Cole, P. (2006). Understanding the afterschool workforce: Opportunities and challenges for an emerging profession. *Charlestown, Mass: National Afterschool Association.*
- Nelson, J. R., Colvin, G., & Smith, D. J. (1996). The effects of setting clear standards on students' social behavior in common areas of the school. *Journal of At-Risk Issues*, 3(1), 10-18.
- Newcomer, L., Colvin, G., & Lewis, T. J. (2009). Behavior supports in nonclassroom settings. In *Handbook of Positive Behavior Support* (pp. 497-520). Springer US.
- Noell, G. H., Witt, J. C., Gilbertson, D. N., Ranier, D. D., & Freeland, J. T. (1997). Increasing teacher intervention implementation in general education settings through consultation and performance feedback. *School Psychology Quarterly*, 12(1), 77.
- Noell, G. H., Witt, J. C., Slider, N. J., Connell, J. E., Gatti, S. L., Williams, K. L., ... & Duhon, G. J. (2005). Treatment implementation following behavioral consultation in schools: A comparison of three follow-up strategies. *School Psychology Review*.
- Noell, G.H., Duhon, G.J., Gatti, S.L., & Connell, J.E. (2002). Consultation, follow-up, and implementation of behavior management interventions in general education. *School Psychology Review*, 31(2), 217-234.
- Osher, D., Sprague, J., Weissberg, R. P., Axelrod, J., Keenan, S., Kendziora, K., & Zins, J. E. (2008). A comprehensive approach to promoting social, emotional, and academic growth in contemporary schools. *Best practices in school psychology V*, 4, 1263-1278.
- Palmer, K. L., Anderson, S. A., & Sabatelli, R. M. (2009). How is the afterschool field defining program quality? *Afterschool Matters*, 9, 2-12.
- Parker, R. I., & Vannest, K. (2009). An improved effect size for single-case research: Nonoverlap of All Pairs. *Behavior Therapy*, 40, 357-367.
- Parker, R. I., Vannest, K. J., Davis, J. L., & Sauber, S. B. (2011). Combining nonoverlap and trend for single-case research: Tau-U. *Behavior Therapy*, 42(2), 284-299.
- Parsad, B., & Lewis, L. (2009). After-school programs in public elementary schools: First look. NCES 2009-043. *National Center for Education Statistics.*
- Pearson, L. M., Russell, C. A., & Reisner, E. R. (2007). Evaluation of OST programs for youth: Patterns of youth retention in OST programs, 2005–06 to 2006–07. *Policy Studies Associates, Inc.*

- Reinke, W. M., Lewis-Palmer, T. & Martin, E. (2007). The effect of visual performance feedback on teacher use of behavior-specific praise. *Behavior Modification, 31*(3), 247-263.
- Reinke, W. M., Lewis-Palmer, T., & Merrell, K. (2008). The classroom check-up: A classwide teacher consultation model for increasing praise and decreasing disruptive behavior. *School Psychology Review, 37*(3), 315.
- Reschly, D. J., & Wilson, M. S. (1995). School psychology practitioners and faculty: 1986 to 1991–92 trends in demographics, roles, satisfaction, and system reform. *School Psychology Review.*
- Rhodes, J. E. (2004). The critical ingredient: Caring youth-staff relationships in after-school settings. *New Directions for Youth Development, 2004*(101), 145-161.
- Rhodes, J. E., Grossman, J. B., & Resch, N. L. (2000). Agents of change: Pathways through which mentoring relationships influence adolescents' academic adjustment. *Child development, 71*(6), 1662-1671.
- Rose, D. J., & Church, R. J. (1998). Learning to teach: The acquisition and maintenance of teaching skills. *Journal of Behavioral Education, 8*(1), 5-35.
- Sanetti, L. M. H., Luiselli, J. K., & Handler, M. W. (2007). Effects of verbal and graphic performance feedback on behavior support plan implementation in a public elementary school. *Behavior Modification, 31*(4), 454-465.
- School's Out Washington. (2008). *A well-prepared workforce brings out the best in our kids: A framework for a professional development system for the afterschool and youth development workforce in Washington State*. Seattle, WA: Author.  
Retrieved from  
<http://www.schoolsoutwashington.org/documents/Workforce%20Study%20Full%20Report.pdf>
- Sheridan, S. M., Welch, M., & Orme, S. F. (1996). Is consultation effective? A review of outcome research. *Remedial and Special Education, 17*(6), 341-354.
- Solomon, B. G., Klein, S. A., & Politylo, B. C. (2012). The Effect of performance feedback on teachers' treatment integrity: A meta-analysis of the single-case Literature. *School Psychology Review, 41*(2), 160-175.
- Sprague, J., Colvin, G., & Irvin, L. (1995). The Oregon school safety survey. *Eugene: University of Oregon.*

- Stoiber, Karen Callan, and Michael L. Vanderwood. "Traditional assessment, consultation, and intervention practices: Urban school psychologists' use, importance, and competence ratings." *Journal of Educational and Psychological Consultation* 18.3 (2008): 264-292.
- Stormont, M. A., Smith, S. C., & Lewis, T. J. (2007). Teacher implementation of precorrection and praise statements in Head Start classrooms as a component of a program-wide system of positive behavior support. *Journal of Behavioral Education, 16*(3), 280-290.
- Sugai, G., & Horner, R. H. (2002). The evolution of discipline practices: School-wide positive behavior supports. *Child and Family Behavior Therapy, 24*, 23-50.
- Sugai, G., & Horner, R. H. (2009). Defining and describing schoolwide positive behavior support. In *Handbook of positive behavior support* (pp. 307-326). Springer US.
- Sugai, G., & Simonsen, B. (2012). Positive behavioral interventions and supports: History, defining features, and misconceptions. *Center for PBIS & Center for Positive Behavioral Interventions and Supports, University of Connecticut*.
- Sugai, G., Horner, R. H., & Lewis-Palmer, T. (2001). Team implementation checklist. *Eugene, OR: Educational and Community Supports, University of Oregon*.
- Sugai, G., Horner, R. H., Dunlap, G. Hieneman, M., Lewis, T. J., Nelson, C. M., Scott, T., Liaupsin, C., Sailor, W., Turnbull, A. P., Turnbull, H. R., III, Wickham, D. Reuf, M., & Wilcox, B. (2000). Applying positive behavioral support and functional behavioral assessment in schools. *Journal of Positive Behavioral Interventions, 2*, 131-143.
- Sugai, G., Lewis-Palmer, T., Todd, A., & Horner, R. H. (2001). *The School-Wide Evaluation Tool (SET)*. Eugene: University of Oregon.
- Sugai, G., Todd, A. W., & Horner, R. H. (2000). Effective Behavior Support (EBS) survey: Assessing and planning behavior support in schools. *Eugene, Oregon: University of Oregon*.
- The After School Corporation & Foundations, Inc. (2010). *Out-of-school time: Leveraging higher education for quality*. Moorestown, NJ: Foundations, Inc., & New York, NY: The Center for Afterschool Excellence at TASC. Retrieved from <http://www.expandinglearning.org/sites/default/files/Out-of-School%20Time-%20Leveraging%20Higher%20Education%20for%20Quality.pdf>
- Todd, A., Haugen, L., Anderson, K., & Spriggs, M. (2002). Teaching recess: Low-cost efforts producing effective results. *Journal of Positive Behavior Interventions, 4*(1), 46-52.

- Tuttle Jr, W. M. (1995). Rosie the riveter and her latchkey children: What americans can learn about child day care from the second world war. *Child Welfare*, 74(1), 92-114.
- United States Department of Education. (2013). *21st century community learning centers*. Retrieved from <http://www2.ed.gov/programs/21stcclc/index.html>
- Vandell, D. L., & Shumow, L. (1999). After-school child care programs. *The Future of Children*, 64-80.
- Vannest, K.J., Parker, R.I., & Gonen, O. (2011). Single case research: web based calculators for SCR analysis. (Version 1.0) [Web-based application]. College Station, TX: Texas A&M University. Retrieved October 26 2014. Available from [singlecaseresearch.org](http://singlecaseresearch.org)
- Walker, H. M., Horner, R. H., Sugai, G., Bullis, M., Sprague, J. R., Bricker, D., & Kaufman, M. J. (1996). Integrated approaches to preventing antisocial behavior patterns among school-age children and youth. *Journal of Emotional and Behavioral Disorders*, 4(4), 194-209.
- Weissman, S.A., & Gottfredson, D.C. (2001). Attrition from after school programs: Characteristics of students who drop out. *Prevention Science*, 2, 201-205.
- Witt, J. C., Noell, G. H., LaFleur, L. H., & Mortenson, B. P. (1997). Teacher use of interventions in general education settings: Measurement and analysis of the independent variable. *Journal of Applied Behavior Analysis*, 30(4), 693-696.
- Wolf, M. M. (1978). Social validity: The case for subjective measurement or how applied behavior analysis is finding its heart. *Journal of Applied Behavior Analysis*, 11, 203-214.