Positive Behavior Intervention and Support (PBIS)

An Intervention for Tier 1 Classroom Management Practices

by

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A Dissertation Presented in Partial Fulfillment
of the Requirements for the Degree
Doctor of Education

Approved April 2023 by the
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ARIZONA STATE UNIVERSITY

May 2023

ABSTRACT

Implementation of a Multi-tiered System of Support (MTSS) has proven to be a 'big hairy audacious goal' within the literature and applied settings. Positive Behavior Intervention and Support (PBIS) has utilized a similar framework and was represented under the MTSS umbrella. If implemented with fidelity, both MTSS and PBIS have been shown to have positive outcomes for learners, staff members, and school systems. To implement one component of PBIS, a coaching procedure which consisted of instruction, modeling, rehearsal, and feedback was provided for three middle school teachers. Two Tier 1 PBIS classroom management practices were the focus of the coaching intervention—opportunities to respond and encouragement of appropriate behavior through positive points of contact. This study utilized a mixed methods approach which incorporated a single-subject design, specifically a nonconcurrent multiple baseline design across participants, to assess the effects of the coaching intervention on the implementation of the two classroom management practices, student on-task behavior, and the social validity of the intervention. Findings indicated an increase in both practices as well as an increase in student on-task behavior, from baseline to intervention phases of the study. Additionally, all participants reported high levels of social validity of the coaching intervention. The discussion was focused on triangulation of the quantitative and qualitative data, which indicated these findings were complementary. Connections of the findings to the research literature, implications for future practice and research, limitations, and conclusions have been provided.

DEDICATION

To Sandra, my mommy, for teaching me the value of caring for, and loving others. You instilled strength in me to persevere during all the times I'd rather have given up. You've taught me to question, which is at the heart of my passion for learning and growth. To my spouse, Matthew (Muskrat), your endless massages and encouragement propelled me through this program. Thank you for lending an ear whenever I needed to rant about the world. You are my rock. The two of you together are my lighthouse. To my little River, my little buddy. You came into the world in the middle of this program and I couldn't imagine it any other way. You continue to be my inspiration for being better and doing better. Love you with all my heart. Thank you to my Daddy, GPT, for encouraging me to be curious and learn about the world beyond the educational system, to the river and to the stars. Lastly, I could not have completed this program and dissertation without my 'Squirrel Friends' as Ru Paul would say, and probably not without Ru Paul himself. Alicia, Brooke, Tina, Jen, Nikki, Bret, Eric, Jenny, and Heather, yours is a bond I hold close. You all rejuvenate my soul and give me life. I also want to extend gratitude to my school district buddies, Allison, Danielle, Jahayra, Maureen, and Kellie for encouraging me along the way. Thank you to all others who have contributed to and inspired my journey through life and learning. We are all a product of our environment, your relationships have shaped and taught me in ways that I will be forever grateful for.

ACKNOWLEDGMENTS

In March of 2020, the world was beginning to shut down, and at the same time I was beginning a new doctoral program. Paralleling my time in this program alongside a global pandemic and political and social unrest, has been invaluable. Tel 702 was a life changer. I am especially grateful for Dr. Amy Chapman's feedback and guidance throughout this process. With every course, I learned to think deeper, challenge my assumptions and biases, and grow. I am grateful for all of the ASU faculty who have contributed to this journey, which has now, forever changed my lens, trajectory, and the way that I interact with my environment, systems, and how I tackle problems.

I began my dissertation journey with Dr. Craig Mertler and a fabulous bunch of humans. We collectively deemed ourselves the 'hot mess express'. Dr. Mertler provided structure, consistency, rapid feedback, and supportive guidance to our squad, and to me specifically. What other LSC celebrated dissertation proposals with cocktails over Zoom? Our team of not-so-'hot mess express' kept me motivated, learning, and laughing throughout one of the most intense times of my life. We did it, doctors!

Mid-way through the dissertation journey, my chair moved out-of-state. I am forever grateful to Dr. Ray Buss who scooped me up and helped me navigate the final chapters of my dissertation and this process. With Dr. Buss' support, I was able to see the light at the end of the tunnel. I am certain that his questions, feedback, availability, and calm are the reasons I have brought this project to a close.

One of our coursework assignments asked us to reach out to another ASU faculty member with similar interests. I could not have chosen a better person than Dr. Sarup Mathur. She took me under her wing and invited me to additional opportunities to learn

and grow. Her behavior analytic lens and overall positive presence on my committee has been vital.

My last committee member, Dr. Chandalee Wood, has been a source of support not only throughout this process but also within my context and job. Dr. Wood is an extraordinary leader who makes positive change happen, while ensuring that all partners are a part of the process. Reading about leadership practices within this program and then directly watching Dr. Wood model those practices, has taught me so much and shaped the kind of leader that I want to be.

Most important of all are the students, teachers, and administrators of the school and district in which this dissertation took place. They opened up their school and classroom doors and Zoom remote learning sessions, to me. Their presence, interaction, and candidness have taught me more about myself and my practice within the field of education. I will continue a critical lens on all that I do, because of this experience.

This dissertation came to be under the shadow of a global pandemic. While this journey may be ending, I am forever changed. The experiences, relationships, and learning opportunities that I have been privy to throughout this process have made me a better version of myself than when I began in March of 2020.

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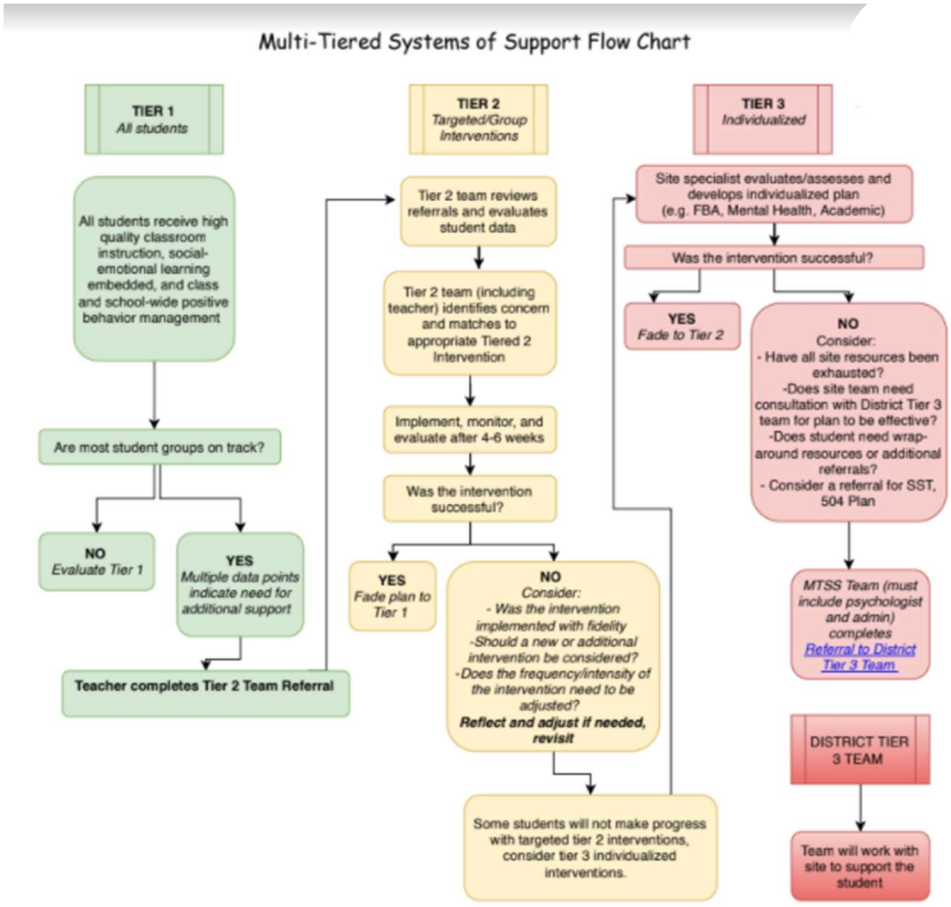
CHAPTER 1

LEADERSHIP CONTEXT AND PURPOSE OF THE STUDY

A Multi-tiered System of Support (MTSS) provides a framework for addressing the academic, social-emotional, and behavioral needs of all learners. MTSS blends the frameworks of tiered academic support, typically referred to as RTI (Response to Intervention), tiered behavioral supports referred to as PBIS (Positive Behavior Intervention and Support), and tiered mental health supports referred to as ISF (Integrated Systems Framework) to ensure that schools support the whole child. MTSS aligns all initiatives, interventions, and supports through systemic change so that all learners have the opportunity to succeed within the educational setting (Agostinelli, 2020). Under an MTSS framework, all learners receive high quality universal support across academic, social-emotional, and behavioral domains at Tier 1 (Bal, 2018; Eiraldi et al., 2019). Some learners who are not successful, despite receiving Tier 1 universal support, are matched to appropriate Tier 2 interventions through the MTSS framework (Eiraldi et al., 2019). The few learners that continue to be unsuccessful in one or more domains, despite receiving quality Tier 1 and Tier 2 intervention and support, are then matched to Tier 3 individualized and intensive interventions (Adamson et al., 2019). A Visual Depiction of the MTSS Framework across tiers has been depicted in Figure 1.

Figure 1

Visual Depiction of the MTSS Framework



MTSS became an important topic in the districts of California when the California Department of Education secured funding for MTSS implementation in 2015, with additional financing distributed during the years of 2016 and 2018 (Agostinelli, 2020; Assembly Bill No. 104., 2015). Monies received were managed by the Orange County Department of Education and distributed to Local Education Agencies (LEAs) through an initiative entitled “California Scale-Up MTSS Statewide” or the SUMS initiative (Orange County Department of Education - California SUMS Initiative, 2019).

LEAs participating in the SUMS initiative sent regional leads to attend training by SWIFT (Swift Education Center, 2020). SWIFT provided a comprehensive train-the-trainer model for implementation of MTSS. Regional leads were the first to receive training. They then co-hosted training for local leaders, alongside SWIFT. Local leads were then permitted to host continual implementation training independently of SWIFT, as needed, for district-level implementation. District leaders in the present study participated in initial training through the Monterey County Office of Education, during the 2017-2018 school year. However, those who were trained to lead MTSS implementation were no longer working within the district beyond the 2019-2020 school year. Additionally, the train-the-trainer model did not prescribe follow-up on application of the training itself. Guskey's (2002) explanation of models of teacher change theory postulated that individuals must apply learned skills from professional development and attain positive outcomes to change their beliefs. Changes in beliefs have promoted sustained changes in practice. Unfortunately, the train-the-trainer model did not measure fidelity of implementation or changes at a district-level across time, which has led to systemic issues with implementation. District turn-over, the train-the-trainer model, and redistribution of funding contributed to a systems breakdown which has affected fidelity of implementation of MTSS at a local level.

Despite these influential factors, the need for fidelity of implementation of MTSS at a local, state, and national level remained pertinent. Equity over equality has continued to be a topic of national importance. "Equality denotes and connotes sameness. All students are entitled to high quality teachers. All students are entitled to have access to technology. All students are entitled to . . . the same supports and resources" (Ford, 2015,

p. 187). Nevertheless, an equality approach disregards the factors and context of individual learners. MTSS lends itself to a focus on equity where all learners are matched to the intervention and support they need to be successful within the educational system and beyond.

The need for culturally responsive frameworks, like MTSS, were evident in recent national data which indicated students of color were more likely to be retained, received out of school suspensions, and were more likely to drop out of school rather than graduate (de Brey et al., 2019). Students of color were also more likely to live in poverty and in single-parent households with inadequate access to early education (de Brey et al., 2019). It has been the responsibility of the educational system to ensure equitable access to support and services for all learners. This includes providing behavioral interventions and support to all learners, instead of engaging in continued punitive and exclusionary practices that further disparities in equity and disproportionality. MTSS provides a framework for providing those supports, as well as matching learners to interventions, in light of other variables affecting student outcomes.

In particular, middle school has continued to be a time where behavioral concerns are heightened (National Center for Education Statistics, 2020). This could be due to several variables, such as quests for autonomy and identity, transitions to new schools and changes in context, physical changes, discrepancies between physical characteristics and perceived skill sets, and so on. Learners in middle school are also most vulnerable to risk behaviors which could lead to increases in dropout rates (Juvonen et al., 2004). Some of these behaviors include bullying, social isolation, and substance use. Nationally, middle school learners have had the highest rates of reported bullying and cyber bullying

behavior in the United States (National Center for Education Statistics, 2020). MTSS has the potential to influence this critical period for middle school students, if implemented with fidelity.

Currently, MTSS has become a common framework within educational systems and literature, with many states endorsing its usage within their schools (Schiller et al., 2020). However, the extent to which implementation of MTSS was affecting local factors in relation with fidelity of implementation was more challenging to ascertain. A recent poll surveying 400 educators indicated only 28% reported being "far along" in MTSS implementation and just three out of ten reported effective intervention tracking across tiers (Buckle, 2019). Despite a collective agreement of its importance, there seems to be a common systemic issue when it comes to fidelity of implementation across states, districts, and schools. MTSS provides a generalizable framework, which can be varied across contexts in its implementation in order to meet local needs. Literature depicting the use of this framework to address local and contextual problems may be used to aid in further defining fidelity of implementation and MTSS, as a whole.

MTSS has been shown to be a framework that can be influenced by the context in which it is implemented. To better understand how MTSS could be implemented to be impactful locally, it was important to understand influential local variables, such as dynamics of the school, the learner and teacher population, and current systems (Kittelman et al., 2019). Variables influencing the present study have been discussed in the next section.

Local Context

Nestled between the central coast and surrounded by agricultural communities, the district has served infant to adult-age school-goers and all schools in the district received Title I funds. Many of the students lived in rural communities without access to WiFi, and around 86% of learners were considered socioeconomically disadvantaged (California School Dashboard, 2019). This action research study was conducted at a rural middle school within an agricultural community. The city in which the middle school was located, was unincorporated, meaning that it was free from local government impositions. Despite being under the same County of the Office of Education as the schools depicted in the hit HBO series, *Big Little Lies*, the district targeted for my action research exhibited vast differences. All learners qualified for free meals and an average of 87% of the learners were considered socio-economically disadvantaged (California Longitudinal Pupil Achievement Data System [CALPADS], n.d.). An average of 23% of middle school learners were considered homeless, and overall, about 21.6% of learners within the district identified as homeless (California School Dashboard, n.d.). Over the past three school years, the middle school has served an average of 685, seventh- and eighth-grade learners (CALPADS, n.d.). The majority of the learners, 90% during the 2019-2020 school year, were identified as Hispanic (CALPADS, n.d.). Socio-economic status and homelessness were variables that affect learners' behaviors within classroom settings (DuBois et al., 1994; McLoyd, 1998; Reingle Gonzalez et al., 2018). All of these factors collectively contributed to the identity of the district and our middle school in particular. Often, these variables greatly influenced the narrative utilized by teachers and leaders when discussing interventions and needs.

School Climate and Culture

In addition to learner variables influencing behavior, there was also a demographic divide between the staff population and the learners they served. More than half of the teachers at the middle school were white and spoke only English. This was consistent with nation-wide demographics in 2017, which indicated 70% of teachers were white, middle-class, women (Urban Institute, 2017). Many of the teachers lived outside of the community, in surrounding cities, where dynamics differed greatly from the communities where their students lived. This discrepancy between the world of the teachers and the learners within our middle school has led to a divide, and an "us versus them" mentality on both ends. During the 2018-2019 school year, 70% of seventh-grade learners reported that they perceived themselves as academically motivated, whereas only 5% of teachers reported they strongly agreed "students are motivated to learn" (California School Climate, Health, and Learning Surveys [CalSCHLS], n.d.). Learners did not feel they had opportunities to engage in meaningful participation, and just 30% of teachers surveyed indicated they strongly agreed that they "foster student diversity and respect for each other" within their classroom (CalSCHLS, n.d.). Attendance and engagement rates were higher in classes where teachers utilized positive classroom management practices, including relationship building, student choice and voice, high rates of positive interactions, and delivery of lessons that were relevant to the learner's identity and current context. This was particularly evident during the 2020-2021 school year, where the district was running a virtual distance learning, and subsequently a hybrid, learning model. Many teachers reverted back to a lecture-based model with little or no participation and students at our middle school rarely turned on their cameras and/or

microphones. Listening to students' voices has been shown to support relationship-building, culturally relevant teaching, and improve engagement (Watson et al., 2016). For these reasons, the present study focused on two class-wide practices, creating opportunities to respond and encouraging appropriate behavior through positive points of contact.

Implementation of positive teaching practices for all learners may have been influenced

by teachers' perceptions of their school. Teachers' perceptions of the climate and culture at the middle school reflected a negative trend across years. In the 2018-2019 school year, 29% of teachers believed that the middle school campus was a safe place for staff, whereas just 13% believed the school had the necessary resources to keep the campus safe (CalSCHLS, n.d.). Also, during the 2018-2019 school year, the campus faced a major tragedy, when one seventh grade learner stabbed a peer and left him in critical condition (Larson & Cortez, 2018). On average, about 20% of staff members believed that discipline was handled fairly, that the school provided adequate counseling and support for learners, and that the school supported learners' social-emotional and behavioral needs (CalSCHLS, n.d.). It has been challenging for teachers to focus on improving their own practices when they felt frustrated with the current system and worried for their own safety.

Positive Behavior Intervention and Support (PBIS)

In addition to teachers' perceptions, the behavioral concerns at the middle school have been reflected in office discipline referrals as well as through suspension and expulsion data. During the 2019-2020 school year, the school received at least one major

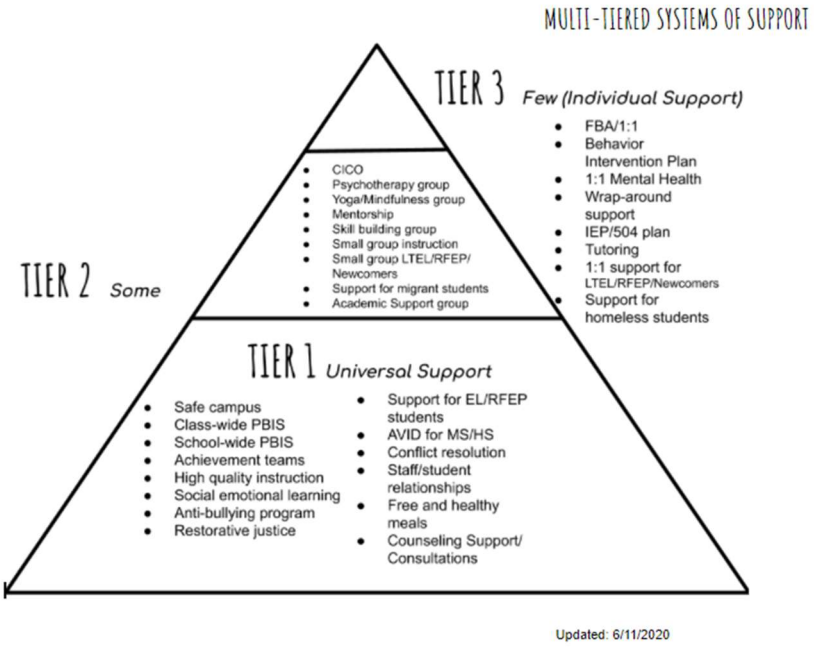
office discipline referral for 222 of the students or about 33% of the students, as evidenced in the school's student information system. This is an incredible amount considering that in-person learning ceased on March 13, 2020, due to COVID-19. Suspension data from the 2019-2020 school year indicated the middle school demonstrated increased rates of suspension and recorded a total of 970 suspension days from August 2019 through March 13th, 2020 (California Accountability Model – California Department of Education, 2020). These data indicated a necessity for implementation of behavior intervention and supports for all learners, at Tier 1.

Implementation of Positive Behavior Intervention and Support (PBIS) with fidelity at Tier 1, is evidenced by positive classroom management practices, the use of social-emotional learning in classrooms, clarity in school-wide behavioral agreements, teaching of systems and routines, and school and class-wide acknowledgement systems (Childs et al., 2016; Reinke et al., 2013). Examples of Tier 1 practices include the two targeted by this study, opportunities to respond and encouraging appropriate behavior through positive points of contact. At Tier 2, learners are matched to interventions contingent on their need or the function of their behavior (Reinke et al., 2013). Some examples of Tier 2 behavioral interventions include Check In Check Out (CICO), for learners who need additional attention and reminders of behavioral agreements; break cards, for learners who need to learn to request a break from tasks instead of engaging in behaviors of concern; or small group counseling or mental health support for other students needing those supports (Adamson et al., 2019; Campbell & Anderson, 2011; Eiraldi et al., 2019). At Tier 3, learners receive intensive individualized support such as a

behavior support plan or one-to-one mental health services (Adamson, 2019; Eiraldi et al., 2019). A Tiered Visual of Interventions has been provided in Figure 2.

Figure 2

Tiered Visual of Interventions



There were remnants of implementation of Positive Behavior Intervention and Support (PBIS) across the middle school, such as a classroom and school-wide behavioral matrixes and a school-wide reinforcement system. Nevertheless, through informal walkthroughs and professional experience, there was inconsistent implementation of Tier 1 classroom management practices, such as encouraging appropriate behavior through behavior specific praise and a five-to-one ratio of positive to corrective statements, opportunities to respond, active supervision, behavioral agreements, and positive responses to behavior of concern, and so on (Childs et al., 2016; Reinke et al., 2013). The middle school began implementation of PBIS about five years

ago, but has since seen turnover in district and school leaders, which has led to inconsistencies and lack of fidelity. Scores on the Tiered-Fidelity Inventory (TFI), which measured PBIS implementation, indicated 30% fidelity of implementation for Tier 1 during the 2019-2020 (Algozzine et al., 2019), demonstrating a decrease over the previous TFI assessments conducted in prior years.

Prior to my arrival, the school had employed a teacher on special assignment (TOSA) as their behavior specialist. The behavior specialist was well-liked by the community and the teaching staff. The role of the behavior specialist consisted of retrieving learners from class, contingent on behavioral concerns, providing disciplinary talks with the learner as well as hosting detention for groups of learners. Behavioral offenses spanned from disruption and aggression to gum-chewing. Implementation of this position may have led to some inadvertent reinforcement of learner behavioral concerns as well as teachers' practices of sending learners out of the classroom contingent on behavioral concerns regardless of the severity. In 2018, the school board eliminated this position and reassigned the staff member, which left the local community and teaching community worried about safety on their campus (Argueza, 2019).

Around the same time the behavior specialist was reassigned, a new Director of Multi-tiered System of Supports (MTSS) was appointed. The director remained in the position for two years and resigned during the 2019-2020 school year. During this time, the focus remained on individual learners in need of Tier 2, specified and targeted, and Tier 3, intensive and individualized, interventions and less on school-wide support and capacity building. Many staff members have reported confusing MTSS with a referral to special education or to a student study team (SST). As implementation continued,

teachers and administrators remained unclear about the MTSS framework, effective implementation, and the development of the system at their school site.

Through informal classroom observations, interviews, and review of school-wide data and artifacts, it was evident that there were some missing elements to implementation of MTSS at Tier 1, and more specifically PBIS. Some of those missing elements included a school-wide or district-wide behavioral matrix to ensure consistency and equity in responding to behavioral concerns, tools for discriminating classroom-managed versus office-managed behaviors, and implementation of evidence-based classroom management practices. Informal observations in middle school classrooms during the 2019-2020 and 2020-2021 school years indicated minimal encouragement for appropriate behavior, such as utilizing the five-to-one ratio of positive to corrective feedback and use of behavior specific praise, and limited opportunities for students to engage and respond (Classroom Practices, 2019). These were two clear deficits in teacher practices across the school.

In this action research study, I utilized tiered professional development support to address teacher implementation of Tier 1 classroom management practices through the framework of MTSS, specifically targeting the following two practices, opportunities to respond and encouraging appropriate behavior. Implementation of Tier 1 classroom management practices has prevented behaviors of concern and promoted engagement and a positive class-wide climate and culture. Targeting these teacher practices has increased student engagement and voice, decreased challenging behaviors in the classroom, strengthened the relationship between students and teachers, and improved the overall climate and culture of schools (McIntosh et al., 2021).

Problem of Practice

To combat ongoing behavioral concerns, referrals for assessment to our special education department, and chronic absenteeism, our district received a grant for, and adopted the framework outlined by MTSS. The district was in year five implementation of MTSS at the conclusion of this study. The implementation plan initially targeted Tier 2 and Tier 3 intervention and support, rather than focusing on universal support for students at Tier 1. This issue has led to increased referrals for special education services and burnout among specialists (e.g., behavior specialists, speech therapists, school psychologists, etc.) and school administrators who were now dedicating time to concerns with learners across all three tier levels and all domains (social emotional, behavioral, academic). The current system has led to considerable disgruntlement and lack of buy-in across all school staff members. Instead of building capacity among teachers and classified staff to address the needs of every learner by developing systems at Tier 1, we were exhausting our resources allocated for more severe needs, across the entire pyramid.

Once a referral was received, the social-emotional and behavioral team investigated further by reviewing records and school-wide data such as absences, office discipline referrals (ODRs), educational plans like Individualized Education Plans (IEPs) and 504 plans, and health records, as well as conducting student observations in and outside of the classroom. Inquiries following referrals, frequently pointed to a lack of Tier 1 and/or Tier 2 support for the learner from school staff members and/or a need for further professional development for school staff members targeting behavioral support. Observations of learners in classrooms indicated a lack of Tier 1 support, specifically around classroom management of behavior. Very frequently we found ourselves

observing a learner in a classroom who received few opportunities to respond, high rates of corrective feedback or reprimands, and absence of behavior specific praise or positive points of contact. It was often challenging to discern why the learner was referred when their peers were also engaging in similar rates of disruptive and off-task behavior. It was not uncommon for specific teachers in our district to refer more than 15% of the learners in their classrooms to our current Tier 2/3 teams, as evidenced by attending the school's MTSS meetings. Additionally, informal observations and walkthroughs indicated an essential need to enhance our Tier 1 supports, specifically opportunities to respond and encouraging appropriate behavior through positive points of contact and behavior specific praise, and other positive class-wide practices to build the capacity of our teachers to support, engage, respond, and understand their learners' diverse needs.

By focusing on implementation of Tier 2 and Tier 3 supports, we have missed an opportunity to build the capacity of all school staff members to provide support and intervention to all learners to ensure their success. We have reinforced the behavior of teacher-made referrals for any learner who had challenges at school, instead of empowering educators to implement evidence-based classroom management practices and innovatively address concerns through the MTSS framework. A focus on Tier 1, specifically class-wide implementation of positive behavior supports such as opportunities to respond and encouraging appropriate behavior, provided an opportunity to better serve all of our learners by building the skill sets of our teachers, in an equitable capacity.

Research Questions

This action research study was guided by three questions that focused on addressing the problem of practice. The research questions have been presented below.

RQ 1: How does coaching for teachers affect their use of the classroom management practices of 'rate of opportunities to respond' and 'encouraging appropriate behavior' during teacher-directed instruction?

RQ 2: How does targeting two classroom management practices, rate of opportunities to respond and encouraging appropriate behavior, affect students' on-task behavior?

RQ 3: Do participating teachers view the intervention as socially valid?

Summary

This action research project was conducted to improve implementation of a Multi-tiered System of Support (MTSS) and Positive Behavior Intervention and Support (PBIS) and ultimately to influence learner outcomes and the overall climate and culture of a rural, Title I, middle school. Targeted coaching, as a professional development opportunity, was focused on two classroom management practices for improvement. In Chapter 2, I have explored scholarly literature guiding the present study, this research-practitioner's prior knowledge informed by previous cycles of action research, and the underlying theoretical and conceptual frameworks supporting the research.

CHAPTER 2

REVIEW OF SCHOLARLY AND PRACTITIONER KNOWLEDGE INFORMING THE STUDY

In the previous chapter, I outlined the necessity of providing equitable access to intervention and support to all learners within an educational system. Local and larger context data were reviewed to highlight the importance of utilizing an equitable framework to improve learner outcomes and the potential influence of positive classroom management practices. In this chapter, I have reviewed literature on the theoretical and conceptual frameworks guiding this action research study as well as evidence-based classroom management practices. In the first section, I focused on three guiding theoretical frameworks, including the Model of Teacher Change Theory, Critical Race Theory, and Critical Pedagogy. For the second section, I described the overarching conceptual framework of MTSS (Multi-Tiered System of Support) and the application of this framework to professional development (MTS-PD). In the third section, I explored PBIS (Positive Behavior Intervention and Support), a social-emotional and behavioral framework nestled under the MTSS umbrella. Finally, in the last section, I drilled down and explained class-wide implementation of PBIS to provide further clarity of positive classroom management practices to support all learners at Tier 1. Two specific classroom management practices guiding the innovation were highlighted, opportunities to respond and encouraging appropriate behavior. I concluded this chapter with a review of previous cycles of this action research project.

Theoretical Frameworks

In the following sections, I have described three theoretical frameworks that informed the dissertation work.

Guskey's Model of Teacher Change Theory

Effective professional development can encompass a variety of characteristics. The literature on professional development has identified many characteristics influencing effectiveness, many of which overlap or correspond with one another (In Praxis Group Inc., 2006). Some common themes among the literature included that professional development should incorporate modeling or coaching, school leaders must have provided teachers' support on initiatives, professional development should have been sustained over time and occurred within a teacher's workday, and professional development opportunities should have extended teachers' current knowledge (Reitzug et al., 2008; Sparks, 2002). These identified characteristics are far from the traditional in-service approach, where whole groups of teachers gather to listen to a lecture using a one-size-fits-all model.

Guskey's (1985) model of teacher change theory postulated that changes in teacher behavior were sustained once teachers changed their beliefs and attitudes. In recent years, Guskey's theory has been used as a foundation for interventions within classrooms, for areas such as targeting physical movement for students, inquiry-based instruction, and project-based learning (Hodges et al., 2017; McKendree, 2019; Stylianou et al., 2016; Zambak et al., 2017).

This theory suggested teachers' beliefs and attitudes shifted once teachers observed improved learner-outcomes and after using the new practice in their classroom

(Guskey, 1985). Therefore, effective professional development should have incorporated practicing new skills, progress monitoring student outcomes, frequent teacher feedback, and a focus on learner outcomes (Guskey, 2002). Once teachers observed shifts in learner outcomes, they were likely to maintain the new-found practices (Guskey, 1985).

Those attempting to change teacher behavior, should remember that changes take time. Guskey (1985) explained that teachers would not accept a new change in their practice until they saw the evidence reflected in their students' learning. Guskey recommended small and modest changes that demonstrated student improvement in a short period of time. Further, Guskey suggested accomplishing this through targeted professional development focusing on small changes that were likely to have a sizable effect on learner outcomes.

Rooted in this theory, literature on professional development indicated the importance of active learning through practice and rehearsal of skills, modeling of implementation of evidence-based and effective practices, coaching, and feedback over a large span of time (Darling-Hammond et al., 2017). Tiered professional development that emphasized these key components and moved away from the one-time, in-service training with lack of follow-through from school leaders, was likely to enhance teachers' skills and learner outcomes. Application of MTSS to professional development could also have impacted the system and shaped the narrative for teachers by assisting in developing a culture of collaboration and growth (Darling-Hammond et al., 2017).

Critical Race Theory

Use of a MTSS framework afforded an equity-based approach to serving learners within an educational system. The national and local systemic injustices outlined in

Chapter 1 of this action research project, such as disproportionate discipline and school dropout rates, supported the necessity of an equity-based lens and a model of change that was driven by, and for those that the inequities were affecting (de Brey et al., 2019). Critical race theory (CRT) has challenged systems to acknowledge race and racism as a variable affecting systemic inequities and utilizing the knowledge and voices of those affected by inequities to make change to eliminate oppression (Hughes et al., 2016). The framework of MTSS, if implemented with fidelity, had the capacity to support change in oppressed communities by incorporating community and student voices and providing every learner with what they needed to thrive.

The domains of support captured under the umbrella of MTSS have been developed to affect inequities within the educational system such as discipline, test scores, academic performance, and graduation rates (Fallon et al., 2021). MTSS has been aligned with CRT through practices embedded within the framework. Some of these practices include data-based decision making, culturally responsive teaching practices, and early intervention (Jackson, 2021). MTSS provides a framework for problem-solving that has been guided by educational partner feedback and contextual fit, by promoting the inclusion of families, communities, and students in making change driven by, and monitoring progress through data. Our learners' and families' perspectives, experiences, and beliefs have been important and they should be afforded decision making power through a reserved seat at the table. The framework of CRT may support our "students to see their life experiences as a source of value and a beneficial asset" (Daniel, 2021, p. 1). CRT combined with the framework of MTSS created the foundation for the present study.

Critical Pedagogy

In addition to CRT, critical pedagogy with an emphasis on creating opportunities for students to engage in critical dialogue was relevant to my research. Literature indicated that joining CRT with critical pedagogy enhanced the framework to further support the overcoming of inequities and oppression (Parker & Stovall, 2004). Although the overarching problem of practice for this action research project was focused on the MTSS framework and its implementation, the proposed innovation drilled down to Tier 1 teaching practices, specifically creating opportunities for students to respond and encouraging appropriate behavior. Promoting opportunities to respond to encourage student voice and participation, was a small step in shaping teachers towards employing culturally relevant pedagogy and away from the "banking model" of education (Freire et al., 2020). "Sit and get" became all too common during our recent distance learning and hybrid models generated by the global pandemic. Critical pedagogy has taken on many forms, which has made it challenging for educators to agree on how to disseminate the practice, on which specific actions to take, as well as causing implementation confusion (Denzin et al., 2008). Although creating learning opportunities alone did not guarantee learners would be afforded the chance to share their identity, culture, or perspective, it did provide a clear and measurable step forward for teachers to make immediate improvements. Both CRT and critical pedagogy have provided robust enhancements to the conceptual framework of MTSS.

In alignment with critical pedagogy, the present study was focused on enhancing and increasing the use of Tier 1 classroom management practices for teachers. One of those practices included increasing opportunities to respond. A focus on this practice was

consistent with critical pedagogy which emphasized student voice within their learning. Like CRT, critical pedagogy was consistent with the equity focus within the MTSS framework.

Conceptual Frameworks

In the next section, I have an in-depth review of MTSS.

Multi-tiered System of Support (MTSS)

A Multi-tiered System of Support (MTSS) has utilized a tiered framework to provide intervention and support to learners, staff members, and families in an educational system. MTSS has aligned academic, behavioral, and social-emotional domains under one framework to support all learners and their varying needs. MTSS has promoted the vital link between academics and social behavior (McIntosh & Goodman, 2016). The framework has utilized a problem-solving model and categorized decision making and progress monitoring into three tiers. Through use of an MTSS framework, all learners receive access to universal support such as high-quality instruction, social-emotional learning, and class-wide and school-wide positive behavior support at the Tier 1 level, universal support. Learners who have continued to be unsuccessful across one or several domains, as indicated by data, have required additional Tier 2, specified or targeted support, or Tier 3, individualized, intensive support interventions. See Figure 1. When there was fidelity of implementation of this framework, data indicated positive learner outcomes such as decreased problem behavior and improvements in academic achievement (Scott et al., 2019). The MTSS framework has had the potential to close the equity gap for learners, by providing every individual with the intervention and support they have required to achieve and become their best selves (Gruman, 2018).

MTSS was established to combine separate, "siloed" frameworks addressing social-emotional, behavioral, and academic needs of learners. Initially a tiered academic framework, response to intervention (RTI), was developed to support individuals under the IDEA in 2004 (Feldman, n.d.). Through a multi-tiered framework, RTI was developed to provide greater support and better education to all learners, especially those who were struggling but may not have had a learning disability, as well as to more clearly identify learners who may have needed specialized academic instruction (Feldman, n.d.).

Although RTI began to include behavioral supports, an additional framework addressing social-emotional and behavioral supports, positive behavior intervention and supports (PBIS), began to make its way into California schools in 2007 (Stonemeier, 2017). PBIS was developed in Oregon in the late 1980s and early 1990s by its founding fathers, including the most influential member, George Sugai (Stonemeier, 2017). Similar to RTI, PBIS deployed a multi-tiered framework to ensure support and intervention for all learners through tiered implementation of evidence-based practices.

Recently a new system to address a multi-tiered mental health framework has emerged, the interconnected systems framework ([ISF]; Barrett et al., 2019). This system was developed to address learners with social-emotional needs who may have been unidentified through the PBIS framework, which has often focused solely on overt behaviors (Barrett et al., 2019). Additional multi-tiered frameworks have emerged to address other learner needs such as reading, mathematics, and cultural responsiveness (Bal, 2018). All frameworks were developed to ensure that every learner could access what they might have needed to thrive. MTSS aligned each framework under a three-

tiered system to ensure that educators considered and served the whole child, not just one domain.

Although MTSS has provided a consistent framework for addressing learner-needs, implementation can be varied contingent on context, location, and leadership (Briesch et al., 2019). One key factor affecting fidelity of implementation has been collaboration and shared leadership among educational partners, from school staff to family members, and to the community (MTSS strategy guide, n.d.). Several barriers to fidelity of implementation have emerged including leadership turnover, lack of fluidity between general education and special education functions, limited school and district resources, and communication breakdowns between leaders and educators (Braun et al., 2018). Educational partners and experts agreed professional development played an essential role in implementation of MTSS (Daye, 2019). Effective professional development focused on evidence-based practices across tiers, had the potential to mitigate the effects of some of these barriers.

Multi-tiered System of Support - Professional Development (MTSS-PD) and Related Research

MTSS has offered a lens through which to view professional development for teachers. Applying this framework to professional development allowed schools and administrators to efficiently utilize resources to support their staff members. For example, professional development at Tier 1 would have been received by all teachers and considered a universal support. Teachers requiring additional support, as indicated by data collected through classroom walkthrough tools, office discipline referrals, self-referral, etc., might have received Tier 2, specified or targeted support, or Tier 3,

individualized support, that targeted intervention to address classroom management of behaviors (Gage et al., 2017; Simonsen et al., 2014). The MTSS framework has also promoted effective intervention that was matched to learners' needs. For example, learners with skill deficits in social skills might have been matched to a social skills group. See Figure 2 on page 11. Similarly, teachers with specific skill deficits as indicated by data, should be matched to interventions focused on building that specific skill.

Researchers have utilized this framework to provide professional development to teachers on specific classroom management practices, such as behavior specific praise. Simonsen et al. (2014) provided brief training on behavior specific praise and a self-monitoring system for a group of middle school teachers. Half of the participants effectively increased their usage of behavior specific praise during the intervention. Those participants who did not increase their usage of praise were matched to a Tier 2 professional development intervention. In this intervention, researchers provided prompts to teachers prior to their class, developed a criterion to achieve during class, graphed observation of the skill, and incorporated reinforcement. After receiving this intervention, one teacher continued to struggle with utilizing behavior specific praise. Researchers suggested this teacher may benefit from individualized consultation, or a Tier 3 intervention (Simonsen et al., 2014). Applying the MTSS framework to professional development for teachers, allowed leaders to determine what training was effective in changing teaching practices and to identify teachers who may have needed additional support. By allocating resources in a more strategic and data-driven way, leaders were

able to build the capacity of their staff members while considering all the variables that affected professional development.

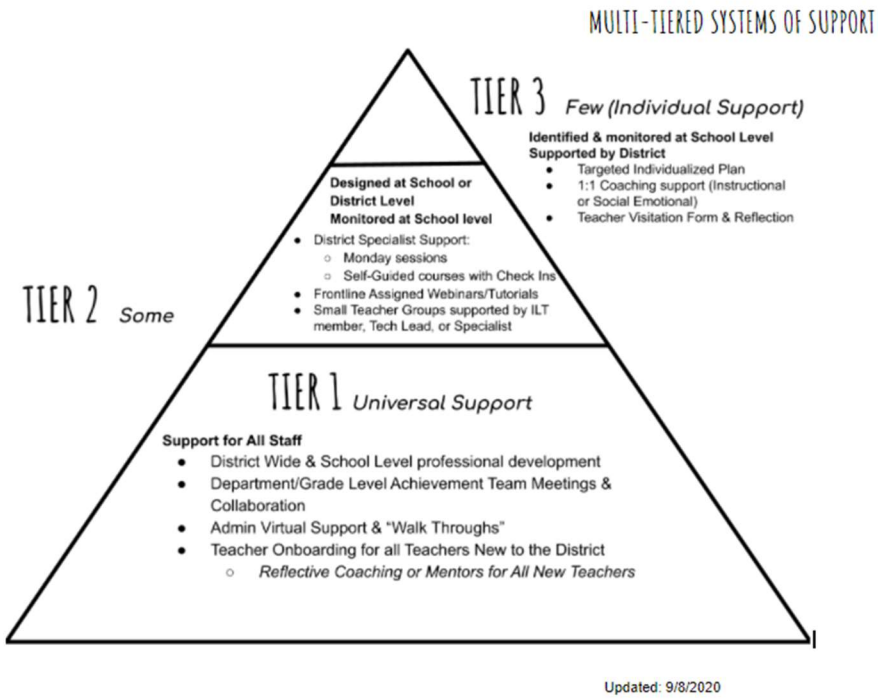
Most researchers applying MTSS to professional development on classroom management practices, have focused on a common method of intervention. At Tier 1, professional development may have consisted of selecting a single classroom management skill, providing initial training on that skill, goal setting, and progress monitoring through data collection, such as self-monitoring, classroom walkthroughs, and feedback (Grasley-Boy et al., 2019). Through evaluation of data, leaders determined whether they needed to adjust their Tier 1 professional development. If most teachers were successful, then leaders may have matched the few that were not successful to a Tier 2 intervention, which may have consisted of coaching and modeling (Grasley-Boy et al., 2019). Through this process, teachers were provided opportunities to practice and improve their skill sets by working closely with their school's leadership team. A sample of a tiered professional development pyramid has been presented in Figure 3.

Coaching was further explored by Hershfeldt and colleagues (2020). The authors described the lessons gleaned from conducting research in coaching while utilizing a PBIS plus coaching model. Hershfeldt et al. (2020) described a coaching model where three behaviorally trained doctoral students provided support and training to teachers. The doctoral students each carried a caseload of five to eight elementary schools and provided 16 hours of coaching per month within classrooms or through other means if necessary, such as through Student Study Teams (SSTs). The aim of the research was to increase the capacity of teachers to implement tiered interventions to address behavior efforts at the classroom level and reduce office discipline referrals. The authors reviewed

eight practices to enhance coaching effectiveness which included, administrative support, access to teachers, getting your foot in the door, the effects of school culture, buy-in, rapport building and trust, scheduling, and using data. These identified practices contributed to enhanced outcomes when coaching was applied to classroom management practices. All of these practices were utilized in the development of the present study's intervention.

Figure 3

Tiered Professional Development



Improving teachers' instructional practices using tiered professional development, which may include coaching, has had implications for improving self-efficacy and impacting learner outcomes (Satterfield, 2020). Research literature has that classroom management practices should be a focus for professional development for all learners to have equitable access to high quality and positive instruction (Childs et al., 2016; Organization for

Economic Cooperation and Development, 2017; Lopez et al., 2017; Reinke et al., 2013; Romi et al., 2016). MTSS has provided an overarching umbrella for aligning systems across domains (Freeman et al., 2016). Classroom management practices to support the social-emotional and behavioral skills of learners have fallen under the domain of PBIS, which are nestled within the overarching framework of MTSS.

Positive Behavior Intervention and Support (PBIS)

PBIS has provided a systems lens for supporting the social-emotional and behavioral needs of all learners and has been covered by the MTSS umbrella. At Tier 1, school-wide and class-wide PBIS has been focused on establishing clear behavioral expectations, school-wide and class-wide acknowledgement systems, teaching clear systems and routines, delivering opportunities to respond, and maintaining a continuum of positive responses to behaviors of concern (McIntosh & Goodman, 2016). Tier 2 PBIS interventions have amplified Tier 1 practices and have been used to teach skill deficits. For example, learners may have been matched to a break-card intervention, if their behavioral concerns functioned to escape or avoid a task or to a Check-in and Check-out (CICO) intervention, if their behavior functioned to gain access to adult attention (Crone et al., 2010). At Tier 3, learners have been matched to individualized interventions such as one-on-one mental health support or a behavior intervention plan (Crone & Horner, 2003). Supports and interventions have been layered across tiers. Learners may have received interventions and support across all three tier levels. For example, regardless of whether or not learners had an individualized behavior plan, they should have still been accessing universal support at Tier 1 and possibly additional intervention at Tier 2.

Implementation of school-wide and class-wide PBIS has been shown to have positive outcomes for learners, such as decreasing office discipline referrals and suspensions (Bradshaw et al., 2010). Literature on PBIS has also indicated positive implications for teachers such as increasing their well-being and decreasing burnout and turnover (Ross et al., 2012). Bradshaw et al. (2008) suggested positive implications for overall organizational health contingent on schools implementing PBIS. Despite positive outcomes for learners, teachers, and overall school climate and culture, implementation of PBIS often has missed the mark by focusing solely on school-wide expectations, school-wide reinforcement systems, and school-wide responses to behaviors of concern, instead of the much-needed attention to class-wide implementation of PBIS.

Class-wide PBIS. While at school, learners have spent most of their time in their classrooms, with their teachers. Implementation of class-wide PBIS has led to stronger relationships between teachers and their learners, reduced behavioral concerns, and increased on-task behavior (Cook et al., 2017). Positive outcomes have applied to a variety of learners, including those with emotional-behavioral disorders, developmental delays, and learners in Title I schools (Kamps et al., 2011; Simonsen et al., 2010; Stichter et al., 2009).

Although the implementation of class-wide PBIS has been shown to be fruitful for learners, teachers have continued to enter the workforce with a lack of knowledge about class-wide management of behavior. For example, Reinke et al. (2013) assessed 33 elementary school classrooms for reported fidelity of implementation of school-wide PBIS and found a lack of behavior specific praise and higher rates of corrective feedback or reprimands. Stichter et al. (2009) found teachers in Title I schools struggled, to a

greater extent, with the implementation of class-wide PBIS, than teachers in non-title schools. This suggested teachers in Title I schools required more professional development allocated towards the implementation of class-wide PBIS to produce better learner outcomes in this area.

Class-wide PBIS Related Research. Class-wide PBIS has encompassed universal classroom management practices, which has included behavior specific praise, high rates of opportunities to respond, a ratio of at least five positive statements to every one corrective statement, teaching and prompting of behavioral expectations, and a continuum of responses to behaviors of concern (Simonsen et al., 2008). Researchers have tried training teachers to implement these skill sets using a variety of methods (Briere et al., 2013; Freeman et al., 2018; Grasley-Boy et al., 2019; Hershfeldt et al., 2012; Reynolds et al., 2019; Simonsen et al., 2020). For example, Briere et al. (2013) utilized veteran teachers as consultants to new teachers to increase behavior specific praise delivered to learners. Other researchers have utilized targeted professional development (TPD) which has included a brief in-service training, classroom observations, email reminders, and data collection through self-monitoring forms, to affect class-wide implementation of PBIS (Simonsen et al., 2020). Although teachers have needed to enhance their skill sets on class-wide implementation of PBIS, just like our learners, teachers may have required varying approaches to skill building and varying degrees of professional development intensity.

Implications for this Study from Class-wide PBIS Research. The present research sought to target two specific class-wide management practices, opportunities to respond and encouragement of appropriate behavior. Opportunities to respond was

operationally defined as any occurrence of a teacher behavior that seeks a learner response such as "asking a question, presenting a demand, choral responding, using response cards" (Simonsen et al., 2020, p. 12). Learners who are engaged with either their mouths and/or bodies are less likely to engage in behaviors of concern. There are some classroom activities that naturally have limited opportunities for student responses, such as silent reading, independent work, and/or test-taking.

The second classroom management practice targeted in this action research study, was encouraging appropriate behavior. We are more likely to respond appropriately to those with whom we have relationships. Relationships are built through positive points of contact. Class-wide implementation of PBIS suggests that teachers make five positive statements for every one corrective statement made to a learner. Implementation of the five-to-one ratio has resulted in reduced behaviors of concern (Cook et al., 2017). Positive statements can be general, e.g., "You rock!" or specific, e.g., "Thank you for sharing with your peer!" as well as non-contingent, e.g., "Did you have a good weekend?" or contingent, e.g., "I love what you are writing about …" (Simonsen et al., 2020). Behavior-specific praise is also important in encouraging appropriate behavior. Behavior-specific praise involves contingent praise, which is articulated by linking positive feedback to an observed behavior. Behavior specific praise and the five to one ratio, both encourage appropriate behavior and fall under Tier 1 class-wide implementation of PBIS. The present study will focus on all positive points of contact, including but not limited to, behavior specific praise.

Class-wide PBIS and Professional Development. Several researchers have explored professional development to increase teachers' use of positive statements,

behavior specific praise and frequency of opportunities to respond. Reynolds et al. (2019) have provided an outline of a four-step training procedure to increase behavior-specific praise. The training procedure consisted of collecting baseline data, reviewing data with the teacher, and conducting a brief training and overview, guided practice, and data-based feedback (Reynolds et al., 2019). Results of this research suggested targeted professional development increased use of positive practices, decreased punitive practices, and improved learner outcomes.

Although some researchers have targeted one specific practice at a time for professional development, others have created comprehensive classroom plans encompassing professional development for multiple classroom management practices. Fallon et al. (2018) utilized results from a self-assessment measure distributed to three classroom teachers to develop comprehensive classroom behavior plans they targeted through tiered professional development. The behavior plans identified teachers' skill deficits and areas for improvement. Using self-monitoring and performance feedback, generated from observations, results indicated there were improvements in teacher practices as well as in learner outcomes (Fallon et al., 2018). During intervention phases, learners were more likely to be academically engaged and less likely to have been engaged in disruptive behavior (Fallon et al., 2018). Professional development targeted at multiple classroom management skills was successful in improving both teacher and learner behavior. This may be a more feasible approach for schools with limited resources or for teachers capable of taking on more than one skill at a time.

Professional development has also been used to target multiple classroom management practices, individually over time. Simonsen et al. (2020), focused on three

classroom management practices for professional development, including prompts, opportunities to respond, and behavior specific praise. Targeted professional development consisted of a brief training, email reminders, and self-monitoring (Simonsen et al., 2020). During the intervention phase, teachers made improvements in their use of behavior specific praise and prompting but not opportunities to respond (Simonsen et al., 2020). This indicated a possible need to further teach methods of increasing opportunities to respond. Also, results were not maintained over time following the intervention (Simonsen et al., 2020). Limited maintenance of skills acquired during professional development appeared to be a common theme across the literature.

Literature on professional development to increase classroom management practices has tended to encompass targeted professional development and allocated time for implementation of that practice directly into the classroom and context. Training packages typically included instruction, rehearsal, self-monitoring, and feedback. Results varied across the research, with some studies reporting improvements and others not (Fallon et al., 2018; Reynolds et al., 2019; Simonsen et al., 2020). Maintenance of acquired skills across follow-up phases presented a common challenge within the literature (Fallon et al., 2018; Reynolds et al., 2019; Simonsen et al., 2020).

Previous Cycles of Action Research

In the next section, I have provided information about previous cycles of action research I have conducted. First, I have described Cycle 0—Reconnaissance followed by my work on Cycle 1.

Summary of Cycle 0

Despite producing positive learner outcomes, the complexities of systems change have affected our district's implementation of MTSS. Teachers' perspectives provided important insights to guide professional development opportunities to ensure buy-in, impact, and sustainability. To gain insights about teachers' perspectives of MTSS implementation at the district level and at the middle school specifically, I interviewed two teachers from our middle school during Cycle 0 of this action research project. In the interviews, I sought to gain insight into two research questions: (RQ 1) With respect to a Multi-Tiered System of Support (MTSS), what aspects of Tier 1 have been implemented effectively by teachers? and (RQ 2) What aspects of Tier 1 have not been done so well?

In all, seven key ideas emerged from participants' responses to the interview questions, which were related to the two research questions. The first set of key ideas were lack of cultural diversity, importance of the whole-child perspective, lack of tiered and effective professional development, and gains made during distance-learning. The other three key ideas from the interviews were an unclear district level MTSS vision, change fatigue, and divisions among staff members.

Findings from Cycle 0. Results from these limited data suggested an overall lack of an overarching MTSS framework to address professional development, support for learners, and cultural diversity at the middle school and the district at large. In regard to the first research question, it appeared that teachers were not clear on the overarching MTSS framework and the possibilities of intervention and support across Tier 1, Tier 2, or Tier 3. Both participants mentioned PBIS and RTI but noted that teachers did not understand how these approaches were linked together. Some gains were made during

distance learning regarding communicating with parents and understanding the needs of learners, but neither of the participants referenced universal Tier 1 support, and more specifically class-wide practices. There appeared to be variation across teachers' skill sets, knowledge, and applications of Tier 1. There is a need for an enhanced, clearly communicated, MTSS framework that encompasses tiered professional development, cultural diversity, and provides support and interventions for learners across all three tiers.

Implications from Cycle 0. MTSS provides a framework that ensures the needs of every learner, across any domains, are met. PBIS provides a system for addressing the social-emotional and behavioral needs of learners. Through specific school-wide and class-wide practices, educational systems can prevent challenging behavior, teach alternatives, and achieve positive learner outcomes. Class-wide PBIS, specifically positive classroom management practices, offer the capability of decreasing behaviors of concern, include the potential for improving student outcomes, and afford sustaining equitable systems across students and classrooms.

Despite the positive implications of classroom management practices, teachers rarely receive effective professional development targeting these skills (Eiraldi et al., 2019; Organization for Economic Cooperation and Development, 2017; Reinke et al., 2013; Romi et al., 2016). Teachers are often subjected to professional development sessions with unmotivating topics irrelevant to their needs or training that lacks class-wide application of PBIS in its own right including a lack of opportunities to respond and engage with one another or an emphasis on corrective feedback. Professional development under the framework of MTSS that focuses on Tier 1 classroom

management practices may be more effective for leaders, teachers, and learners. Opportunities to respond and practices focused on encouraging appropriate behavior are specific skill sets that must be targeted through explicit training and if improved, would have meaningful implications for learners.

As the Coordinator of Behavior Intervention and Supports, my role is that of a consultant either to district administrators, teachers, and/or teams. Utilizing the MTSS framework for professional development, identifying teachers with specific skill deficits in class-wide implementation of PBIS including opportunities to respond and ratio of positive to corrective and using a targeted intervention, might lead to more effective professional development. The role of Coordinator of Behavior Intervention and Supports is fairly new to the district and requires further development. This action research study could potentially lead to further definition and clarity of the consultative role.

Summary of Cycle 1

In Cycle 1 of this action research work, I pilot tested a smaller version of the proposed full dissertation project. In Cycle 1, I sought to answer the following research questions: (RQ 1) How does coaching affect one classroom management practice, rate of opportunities to respond, for teachers identified for additional professional development, through an MTSS framework, during teacher-directed instruction? (RQ 2) How does targeting one classroom management practice, rate of opportunities to respond, affect identified students' on- task behavior? I performed an A-B single-subject study design. While in the baseline phase, participants were observed during remote teacher-directed instruction occurring during distance learning, due to the effect of the global pandemic. Rate data were collected on opportunities to respond that were delivered to the entire

class (Alberto & Troutman, 2006; Becker et al., 1967; Sutherland et al., 2003; Sutherland et al., 2000).

The independent variable consisted of teacher consultation and coaching. Prior to observation in the intervention phase, I reviewed step-by-step instructions, the operational definition of the skill, and modeled examples and non-examples of opportunities to respond (Fallon et al., 2018). The same data measured in the baseline phase was collected during each observation (rehearsal) in the intervention phase (Harvey et al., 2004). Following each observation, performance feedback, which included the participant's data, was provided to the participant via email (Fallon et al., 2018). During the intervention phase, I also provided immediate feedback to the participant through a private message in the chat box, whenever they hit the target of four opportunities to respond per minute. This feedback was paired with positive praise.

Initially, teachers completed a self-assessment on their current delivery of opportunities to respond and learner outcomes. The instrument consisted of a total of 10 questions, five of which investigated the construct of opportunities to respond and five that investigated learner outcomes such as engagement, participation, attendance, and work completion. Teachers were recruited to participate in the next phase of the study through the completion of the survey. This survey was also administered following the intervention phase.

Once recruited, participants were interviewed by the researcher utilizing the Classroom Check-Up Teacher Interview (Reinke et al., 2011). The interview consisted of 14 questions focused on five constructs, teacher experience, classroom management practices, ideal classrooms, history with consultation, and needs for current support. At

the conclusion of the study, participants completed a social validity questionnaire modified and derived from the Behavior Intervention Rating Scale ([BIRS]; Elliot & Von Brock, 1991).

Findings from Cycle 1. Although teachers reported the importance of student choice, agency, voice, and participation, none of the teachers mentioned opportunities to respond when asked about their classroom management practices. During the survey, teachers reported delivering high frequency, diverse, and culturally responsive opportunities to respond, but this was not observed during the baseline phase for Participant 1, nor the other two participants who agreed to be observed. Opportunities to respond were reported as a strength in the initial survey, yet teachers reported lower scores for learner outcomes in terms of engagement.

Many of the teachers stated coaching that included explicit goals, instructions, "data tracking" (Participant 4), clear and specific feedback, and positive encouragement were effective strategies for professional development. This intervention included those components and generated an increase in opportunities to respond for the one participant who completed the entirety of the intervention. During the interview process, all teachers expressed frustration with the current professional development available in the district, as well as the evaluation cycle. Many noted that feedback during the evaluation cycle is often negative and seemed to be accumulated into a "laundry list." Some participants reported they received corrective feedback on practices that they thought they were doing well, which led to self-doubt and discouragement.

Implications From Cycle 1. During this cycle of my action research process, I included multiple data points and analyses, and included qualitative and quantitative

measures to increase triangulation of the data and find meaning. In Cycle 1, I also included the implementation of a coaching innovation to increase opportunities to respond, whereas Cycle 0 solely focused on gathering input through interviews to better understand the current implementation of MTSS at our middle school and the district. The innovation was effective for Participant 1, but it was important that future cycles included a greater number of participants to better understand the effects and generalizability of the intervention across classroom settings.

The intervention also took place during remote learning which created numerous other considerations that affected the process and outcomes of Cycle 1. To begin, I originally intended to collect data on on-task behavior of the learners in each class to determine whether a change in opportunities to respond influenced learner outcomes. I quickly realized this was not feasible because almost all learners joined the instructional sessions without their cameras on. They also participated and engaged in modalities I was often unable to see, such as virtual engagement platforms, private messages to the teacher, and through assignments on google classroom. Opportunities to respond were also hard to deliver in a virtual setting because teachers often waited for learners to type responses in virtual platforms or in the chat box.

Summary

In this chapter, I reviewed the theoretical and conceptual frameworks guiding this action research project. The framework of a Multi-tiered System of Support (MTSS) including its origination and applications was discussed. Specifically, the generalization of this framework to professional development was presented as a foundation for the present study. Positive Behavior Intervention and Support (PBIS) was reviewed and

positioned as an aligned framework within the overarching framework of MTSS. Drilling down further, class-wide implementation of the PBIS framework including classroom management practices, such as opportunities to respond and encouraging appropriate behavior were highlighted. Previous cycles of this action research project were detailed, and future implications were noted. In the following chapter, I have focused on the methodology employed in this action research dissertation project.

CHAPTER 3

METHOD

In the following chapter, I have provided a detailed description of the method utilized for this action research study. I began with a summary of action research. In the following section, I provided information pertaining to setting and participants and my role as a researcher and practitioner within the context of my problem of practice and the study. Then, I have presented details on the intervention guiding the study, the research plan, including qualitative and quantitative data sources, instruments, the procedure, data analysis, and research design.

In this action research dissertation, I sought to address the implementation of Multi-tiered Systems of Support (MTSS), with an emphasis on classroom management practices, to address my problem of practice. Moving from theory to action to implement MTSS has been a challenge due to the complexities of the framework and the dynamics of schools within our district. Oftentimes, our schools have tended to emphasize and focus on individual learners rather than build a foundational system to support all learners. Action research afforded the opportunity to address this wicked problem through multiple cycles of inquiry and action, and to do so across time (Creswell & Guetterman, 2019).

Action Research

Educational action research has been situated across three dimensions, the professional, personal, and political. As Noffke and Somekh (2009) noted,

> An important point to considering the professional dimension of action research has to do with thinking through whether action research produces not only

> knowledge to add to a changing understanding of a 'knowledge base' for teaching, but whether it comprises a different 'way of knowing', one that can bridge theory and practice, but also thereby generate new ways of understanding practice. (p. 5)

The personal dimension focused on the teacher as a learner to better serve the individuals they taught and prompted individual accountability. Noffke and Somekh (2009) maintained that the political dimension promoted marginalized voices to make changes to address inequity through an accessible methodology, and to influence that methodology over time. Further, the authors suggested critical theory and critiques have influenced action research methodology over time and made important its accessibility for marginalized communities and its aim of tackling problems of oppression and inequity through social action by empowering local knowledge. By empowering those within the educational system with a framework for identifying, intervening, and progress monitoring, action research built the capacity of those in the field of education to make real change. Through collaboration with educational partners, research-practitioners identified a context-specific problem of practice which led to motivation and buy-in and promoted change from within, as compared to change imposed by external accountability measures. Although action research has been used to tackle local problems by assuming members of educational systems were experts, results may generalize to other similar contexts within education.

Action research has increasingly utilized mixed methods and relied on the triangulation of both qualitative and quantitative data. Triangulation of data has supported the quality and rigor of action research (Dick, 2014). Other components of rigor

incorporated into the study supported trustworthiness of data including cycle repetitions, experience of the researcher-practitioner, the ongoing practice of incorporating feedback from participants throughout the study, and debriefing with participants at the conclusion of the study (Mertler, 2016). Data collection methods typically included observation, surveys, focus groups, and interviews (Dick, 2014). Collaboration with educational partners has been a feature embedded into many action research studies. The action research process has been cyclical in nature and consisted of four stages: planning, developing, acting, and reflecting. During the planning stage, research-practitioners have engaged in reconnaissance through review of existing literature and data. During the developing phase, an action plan was developed that detailed the implementation of an innovation. The action plan derived from the planning stage of action research was then implemented with fidelity during the acting phase. Reflecting occurred throughout the entirety of the process, but was a particular focus and intentionally done during the final phase to guide future cycles of the research to aim for further improvement. Through each cycle of action research, researcher-practitioners socially constructed meaning with those around them by reflecting, trying things out, and adjusting.

Setting

All cycles of this action research dissertation study including the final one took place at a rural middle school serving students in grades 7 and 8. The middle school was located within a small unincorporated city, with a population of 3,102, off the central coast of California. The city itself was separated from other neighboring cities by long-stretches of agricultural land. Learners were bussed in from surrounding rural neighborhoods. During the 2020-2021 school year, the middle school served a total of

742 learners. The school and district continued to face declining enrollment due to various factors such as school choice and the global pandemic. For the 2021-2022 school year, the middle school served a total of 647 learners (California School Dashboard, n.d.). Of those learners, 91.5% identified as Hispanic and 6.6% as White. Approximately 11-13% of the learners at our middle school received special education services and about 88% were considered socio-economically disadvantaged. In 2021-2022, a total of 298 of the learners were English language learners (California School Dashboard, n.d.). Many of these learners spoke different indigenous languages and dialects, such as Mixteco. The demographics of the middle school staff members differed quite dramatically from those of the student population. Most of the teaching staff members were white and commuted to work from surrounding high-income communities.

This action research study began during a global pandemic. Cycle 0 and Cycle 1 were completed during remote learning where learners logged into school from their computers while at home. In previous cycles, teachers were interviewed utilizing electronic means and classroom coaching and observations were conducted virtually. Since beginning this action research project, the middle school has transitioned from remote learning to a hybrid model including in-person and remote learning, and ultimately to in-person learning. During the final cycle of this dissertation study, the intervention was implemented in-person because all students returned to on-campus instruction during the 2021-2022 school year.

Participants

Participants for each cycle of this action research project included teachers from our middle school. Teachers served in either grade 7 or 8 and included both general

education and special education teachers. Participants were selected using convenience sampling (Creswell & Guetterman, 2019). Convenience sampling allowed for flexibility given the current context, which has been influenced by the global pandemic, return to school, increased external accountability measures linked to additional funding for districts and schools, changes in district leadership, and other factors. For this dissertation study, three teachers participated in the entirety of the study. One teacher was a special education teacher whereas the other two were general education teachers. All teachers taught either grade 7 or Grade 8. All three participants were new to our middle school and two of the three teachers were new to teaching. One participant had been teaching for over 15 years. All three participants were male.

Teachers received a letter of recruitment and informed consent, which has been provided in Appendix A. Participants were asked to move through each component of the study contingent on their availability and the outcome of their baseline data. With the support of the middle school administration, an invitation to participate in the study was distributed to teaching staff members at the middle school. Interested teachers were contacted for a follow-up interview. Teachers then completed the pre-intervention survey. After the interview, teachers were then observed in their classroom during the baseline phase of the study and received coaching during the intervention phase of the study. Classroom observations occurred during both phases. Following the conclusion of the intervention phase, participants completed a post-intervention survey as well as a social validity questionnaire.

Role of the Researcher/Practitioner

When I began my position as the Coordinator for Behavior Intervention and

Support in the summer of 2019, I was asked by the superintendent to focus on our middle school. Despite the intention of the new role to serve learners district-wide, my office was placed on the middle school campus. I quickly realized the middle school had a tightly connected culture and community, among the teaching staff members. I initiated a process to establish rapport, understand the overall climate and culture, and determine baseline levels of MTSS implementation. I joined the site's Tier 1 team to address climate and culture, assigned two behavioral technicians to assist and support with implementation of a Tier 2 intervention including a check-in check-out (CICO) (Campbell & Anderson, 2011), provided consultation to teachers within their classrooms, and supported learners with individualized supports identified through an Individualized Education Plan (IEP) or Section 504 plan. I worked closely with administrators and site-specialists, conducted professional development, and volunteered for school-wide events such as chaperoning dances and field trips.

As a Board Certified Behavior Analyst (BCBA), my services to students were typically reserved for learners with severe behavioral and social-emotional concerns. Currently, I have continued to serve as the district's Coordinator of Behavior Intervention and Supports under the director of Special Services. In this role, I have provided support across the pyramid by coaching administrators to implement systems of support across all tier levels, analyzed data, provided professional development to administrators, teachers, and classified staff, and offered intensive individualized support for learners with severe needs. I have continued to supervise a team of behavior technicians who have worked directly with school teams to implement Tier 2 interventions, conducted functional behavior assessments, ensured the fidelity of implementation of behavior intervention

plans and other interventions, and monitored progress. School teams (administrators, teachers, school psychologists, etc.) have made referrals to the behavior support team when they suspected a learner needed additional support.

Since beginning this action research project, many changing variables have influenced my position and this research. The global pandemic had a major impact on my working relationship with our middle school. My role shifted from a focus on behavior to addressing attendance, engagement, and participation. My team and I supported various non-behavior related initiatives, such as distributing packets and technology, calling families and servicing a hotline, bringing newcomer and migrant learners on campus for support, and running Tier 2 academic and attendance interventions. In the Spring of 2021, I became pregnant with my first child, which led to family leave and a subsequent hiatus from our middle school from December of 2021 to May of 2022. When I returned, there had been a change in leadership, with the current principal moving on to a district-level position, the assistant principal moving into the principal position, and a new administrator to our district taking the role as assistant principal. There had also been several changes in our teacher team. All but one of the existing Tier 1 climate and culture team members had either left the school or opted out of participating on the team. These changes affected my role and relationship with the middle school. Since returning from maternity leave, my focus has been on reestablishing rapport with existing staff members and establishing rapport with new staff members and contributing to leading and shaping the site's Tier 1 climate and culture team as well as their MTSS team, which addressed Tier 2 and Tier 3 interventions. Despite these changes, my position as a district administrator, working under the Director of Special Education and closely with

Directors, Executive Directors, and the Assistant Superintendent, has allowed me to continue to support the growth and trajectory the middle school team has continued to make each school year.

In this action research study, my role as researcher consisted of observer, data collector, interviewer, and consultant. I worked closely with participants to interview and understand their perspective of the school's climate and culture, implementation of MTSS, and their current practices around implementation of class-wide PBIS. I provided coaching and feedback to each teacher participant. To better understand their perspective of the intervention and our time together, I spent time following up and communicating with each teacher.

Intervention

In the next sections, I have described the intervention in detail.

Preliminary Design

Consistent with my background in research and as a practitioner in the field of behavior analysis, I chose to utilize a behavior analytic research design, specifically a single-subject research design. To explore the first and second research questions outlined in this action research study, I performed a non-concurrent multiple baseline across participants design. Timelines for data collection for each participant were non-contingent with each other, meaning that participants began and ended the study on different days. For example, Participant 1 began the study in December of 2022 while Participant 2 began in January of 2023. Additionally, through a non-concurrent multiple baseline design control was established by "evaluating behavior across different baselines (e.g., people, behaviors, or settings)" (Harvey et al., 2004, p. 269). Participants spent

varying lengths of time in the baseline and intervention phases. For example, Participant 1 spent four sessions in baseline, whereas Participant 2 spent nine sessions in baseline. Like the baseline phase, the intervention phase varied across participants. A table depicting the design has been provided in Figure 4.

Figure 4

Non-Concurrent Multiple Baseline Design for the Present Study

	Start Date	*Baseline Phase*	*Intervention Phase*
Participant 1	*December*	*4 data points/sessions*	*11 data points/sessions*
Participant 2	*January*	*9 data points/sessions*	*6 data points/sessions*
Participant 3	*February*	*6 data points/sessions*	*9 data points/sessions*

This design allowed for flexibility in how participants moved through baseline, intervention, and follow-up phases. A multiple baseline across participants design has often been recommended for educational settings within behavior analytic literature due to the overwhelming number of variables influencing teachers, and the ever-changing context of schools (Harvey et al., 2004). Participants remained in the baseline phase until stability of the data was reached, across at least three data points, to ensure the reliability of data. Baseline length varied depending on the participant and data collected. This research design was used to examine the extent to which training and consultation influenced two classroom management practices—(a) opportunities to respond and (b) encouraging appropriate behavior through the use of behavior specific praise and positive points of contact, with a ratio of five positive statements to every one corrective feedback

statement—as well as the extent to which a focus on these skills influenced learners' on-task behavior.

Utilizing a non-current multiple baseline design across participants was consistent with the field of a behavior analysis and my background as a researcher and practitioner. This design also was contextually appropriate for the educational setting where removal or reversal of the intervention was unlikely or maturation may have played a role (Harvey et al., 2004). Application of an intervention to a group of teachers all within the same time frame would have been challenging due to limited resources and participant availability. A non-concurrent multiple baseline design across participants allowed for staggered intervention phases across participants, which distributed resources across time and afforded flexibility contingent on participant schedules (Harvey et al., 2004). This design has also been commonly used in the literature on training teachers on classroom management skills (Alberto & Troutman, 2006; Becker et al., 1967, Sutherland et al., 2003; Sutherland et al., 2000).

Coaching of Classroom Management Practices

While in the baseline phase, participants were observed during teacher-directed instruction, and I collected rate of opportunities to respond as well as frequency of positive behavior specific praise, positive points of contact, and corrective statements, made to learners in the class (Alberto & Troutman, 2006; Becker et al., 1967, Sutherland et al., 2003; Sutherland et al., 2010). The implementation of the independent variable, teacher consultation and coaching, was staggered across participants (Sanetti et al., 2017).

Interventions to increase specific classroom management practices varied and

may have included either self-management, performance feedback, and/or modeling (Briere et al., 2013; Fallon et al., 2018; Reynolds et al., 2019; Simonsen et al., 2014). The intervention in the present study consisted of a coaching model, where the identified practices were reviewed and modeled and participants received performance feedback. During the intervention phase, the researcher reviewed step-by-step instructions for implementation, the operational definitions, and modeled examples and non-examples of the targeted skills (Fallon et al., 2018). I collected the same data assessed in the baseline phase during each observation (rehearsal) in the intervention phase (Harvey et al., 2004). In the intervention phase, following each observation, I provided performance feedback to teacher participants by providing reinforcement, in the form of behavior specific praise, for engaging in the skill and a visual depiction of the data collected, through email (Fallon et al., 2018). Any corrections to the implementation of the skill were delivered as a prompt, prior to the next upcoming observation in the intervention phase. Participants continued in the intervention phase until the data were stable or across at least six data points (Harvey et al., 2004).

Quantitative and Qualitative Data Collection Strategies

In the dissertation study, I utilized mixed methods, incorporating both qualitative and quantitative data, consistent with an action research design. Qualitative data were collected through teacher interviews. Quantitative data were collected via surveys and classroom observations. Consistent with behavior analysis and my background as a researcher and practitioner, I utilized a single-subject design and deployed behavior analytic data analysis to evaluate quantitative data collected through classroom

observations. A description of each data collection strategy has been provided in the subsequent section.

Instruments and Procedures for Data Collection

Classroom Management Self-Assessment Survey. Teachers completed the Classroom Management Self-Assessment on their current classroom management practices to determine their personal baseline with class-wide practices (Simonsen et al., 2006). The questionnaire consisted of nine 'yes' or 'no' questions targeting class-wide implementation of best practices for Positive Behavior Intervention and Support (PBIS), including physical design, routines, behavior expectations, prompting, active supervision, opportunities to respond, positive acknowledgement of expected behaviors, priming before behaviors of concern, positive responses to behaviors of concern, and progress monitoring (Office of Special Education, 2015). Each item on the questionnaire corresponded to one evidence-based classroom management practice identified by PBIS. For example, teachers were asked to respond "yes" or "no" to the following statements: "I have arranged my classroom to minimize crowding and distractions," "I actively supervise my classroom (e.g., moving, scanning) during instruction." Teachers were asked to respond to four statements that directly corresponded to the dependent variables in the present study, which included "I provide more frequent acknowledgment for appropriate behaviors then inappropriate behaviors," "I provide each student with multiple opportunities to respond and participate during instruction," "My instruction actively engages students in multiple ways," and "I have multiple strategies/systems in place to acknowledge appropriate behavior." The complete set of items for the classroom management self-assessment instrument has been provided in Appendix B. This tool does

not appear to have any documented reliability or validity evidence in the present literature.

Classroom Check-Up Teacher Interview. Then, participants were interviewed by me, utilizing the Classroom Check-Up Teacher Interview (Reinke et al., 2011). The interview consisted of 14 questions taken directly from Reinke et al.'s work that were focused on five constructs—teacher experience, classroom management practices, ideal classrooms, history with consultation, and needs for current support. Four questions were allocated towards the teacher's experience. For example, teachers were asked "What do you think it was that made you want to become a teacher?" The next four questions highlighted the teacher's current classroom management practices through questions like, "How do you handle misbehavior in your classroom?" The participants were asked three questions about their ideal classroom, such as "What are some important qualities that you want children to take home from your classroom?" Participants were asked one question about their past consultation experience, "What has been your past experience with consultation?" The final two questions pertained to specific areas of support that the teacher would like to receive moving forward. For example, each participant was asked "When I come to observe, is there anything in particular that you would like me to take notice of?" The complete set of questions has been provided in Appendix C. The interview was concluded by developing an agreed time and date for the first observation.

Interviews occurred at the onset of the study, prior to intervention, for three reasons. First, the interview process provided an opportunity for the researcher-practitioner to establish rapport with the participants, all of whom were new to our middle school and to me as the researcher-practitioner. Second, the interview process

provided the researcher with greater detail about the context in which the intervention would take place, in the participant's classroom environment. Finally, conducting interviews prior to providing coaching on classroom management practices was consistent with the literature, best practice, and my current role as the Coordinator of Behavior Intervention and Support (Reinke et al., 2011; Sprick, 2009).

Classroom Observations. During the observation, I collected rate data on three of the dependent variables, opportunities to respond, positive points of contact, and corrective statements, by tallying frequency per minute of opportunities to respond, positive points of contact, and corrective statements, in a 15-minute observation window during teacher-directed instruction. Opportunities to respond was operationally defined as any occurrence in which a teacher engaged in a behavior, which requested learners to respond either vocally (e.g., answering a question, choral response) or physically (e.g., holding up a response card, following a directive). Positive statements was operationally defined as any occurrence of non-contingent or contingent general or specific praise statements made by the teacher to specific learners or the class (e.g., "Great work everyone!" and "Thank you Juan for raising your hand to ask a question." etc.).

Moreover, I collected momentary time sampling data on learners' on- and off-task behavior by looking up every one-minute interval during a 15-minute observation window, selecting a student, and noting whether the student was on- or off-task. A different student was selected each time that I looked up. Tracking student class-wide on- and off-task behavior was consistent with school-wide walkthrough practices and my current role as a researcher-practitioner and the Coordinator for Behavior Intervention and Support. For the purposes of this study, student-specific data were not collected. On-

task behavior was defined as active engagement with the learning material or instructor (e.g., eyes on the teacher, participating with on-topic comments vocally, manipulating relevant materials to the task). Off-task behavior was operationally defined as engaging in materials unrelated to the task, off-topic conversation, and/or out of seat wandering around the room. On-task intervals divided by the total intervals, generated a percentage of on-task behavior during the 15-minute observation window across both baseline and intervention phases.

Behavior Intervention Rating Scale. Following the conclusion of the intervention phase, participants were asked to complete a social validity questionnaire derived from the Behavior Intervention Rating Scale (BIRS) developed by Elliot and Von Brock (1991). Responses to items indicated whether participants considered the behavioral skills training as a form of professional development that was socially valid. Social validity was first defined by Wolf (1978) as being constituted by the following three components: "social significance of the goals of treatment, social appropriateness of the treatment procedures, [and] social importance of the effects of treatment" (p. 207). Social validity measures have been important in understanding the perspective of the research participants. In behavior analysis, data collected from social validity measures has been used to guide decision making regarding future interventions and research (Carter & Wheeler, 2019).

To assess social validity in the present study, participating teachers completed the BIRS survey that included 16 items. Respondents used a 5-point Likert scale to rate each item. All items aimed to gather insights about the teachers' perspective of the intervention and whether it was beneficial, effective, positive, and acceptable. Some

examples of items included, “This would be an acceptable intervention for problem behavior,” “Most teachers would find this intervention appropriate for behavior problems in addition to the one described,” and “The intervention is consistent with those I have used in my classroom” (Elliot & Von Brock, 1991). The items from the BIRS survey have been provided in Appendix D. Elliot and Von Brock found the BIRS to have content and construct validity and also observed a reliability coefficient alpha of .97 for the survey.

Quality of Data

In this study, I sought to establish rigor through enhancing validity, credibility, quality, and credibility of data and subsequent findings. Careful considerations were made about the role and experience of the researcher-practitioner, participant feedback throughout and at the conclusion of the study, data collection, as well as the research design to mitigate threats to rigor, quality, and credibility. I utilized a mixed-methods design, which included an embedded single-subject design to collect both qualitative and quantitative data. Triangulation of data, cyclical repetitions, and experience of the researcher-practitioner were integrated into this action research design and promoted the rigor of this research (Mertler, 2016).

Utilizing a mixed-method action research design supported the rigor of the present study. Additional measures were taken to enhance rigor such as by providing clarity to participating teachers on the role of the researcher-practitioner, confidentiality, and the purpose of the study. Utilizing a single-subject design also provided some control over the data collected on teacher and student behavior and further promoted internal validity. I also debriefed with participants throughout the study and at the conclusion of

the study to provide feedback, check for external events that may have affected data, and collected social validity data. Social validity data provided further information on the perspectives of participants and the acceptability of the intervention.

Timeline and Procedures

Once I recruited participants and received their consent, I sent out the classroom management self-assessment survey (Simonsen et al., 2006) to them. Each participant then met with me to complete the Classroom Check-Up Teacher Interview (Reinke et al., 2011). Following the interview, I scheduled classroom observations for the baseline phase of the study. I observed participants' classrooms on at least four different occasions each time for a total of at least 15 minutes during the baseline phase. I conducted additional observations to establish a stable baseline for each participant as needed. Once a stable baseline had been established, I implemented the intervention. The intervention consisted of direct instruction, modeling, and providing non-examples and examples of the target behaviors selected, either opportunities to respond or encouraging appropriate behavior through positive points of contact. The intervention phase was preceded with a brief training session and was followed by feedback, which included behavior specific praise as well as a visual depiction of the data collected on the participant's behavior and their students' on- and off-task behavior. Any corrective feedback was provided in the form of a prompt prior to the next intervention session. Participants remained in the intervention phase until stability was established or there were at least six sessions/data points. Following the conclusion of the intervention phase, participants received the Behavior Intervention Rating Scale to assess social validity (Elliot & Von Brock,

1991). I then spent time analyzing the collected data. In Table 1, I have provided a timeline for the dissertation study.

Table 1

Implementation Timeline for Dissertation Study

Month, Year	Actions
Spring, 2022	Proposed dissertation, communicated with middle school administration about upcoming cycle and methods
Summer, 2022	Began teacher recruitment
October - December, 2022	Sent out survey to teachers, completed teacher interviews
December 2022 - March, 2023	Completed baseline and coaching cycles
March, 2023	Analyzed data

Summary

In the present study, I utilized a mixed-methods action research design. This included incorporating a single-subject, nonconcurrent, multiple baseline design, consistent with behavior analytic methods and my background as a researcher-practitioner. Both qualitative and quantitative data were collected through interviews, surveys, and classroom observational data. In this chapter, I provided information about the setting, participants, my role as researcher-practitioner, and the coaching intervention for the dissertation study. I concluded this chapter with descriptions of the instruments, data collection processes, and a timeline and procedures for the study. In the next

chapter, I have presented a detailed analysis of qualitative and quantitative findings in relation to each of the three research questions.

CHAPTER 4

DATA ANALYSIS AND RESULTS

In previous chapters, I laid the foundation for this action research project. For Chapter 1, I introduced my problem of practice as a researcher-practitioner and provided context around factors influencing the implementation of MTSS and PBIS on a larger and local scale. In Chapter 2, I provided guiding theoretical and conceptual frameworks shaping the present research and reviewed relevant literature and research was described. In Chapter 3, I described the method for the study including implementation of the classroom coaching intervention, which was conducted to enhance two classroom management practices, opportunities to respond and acknowledgment of appropriate behavior. I also described instruments and data collection procedures. In this chapter, I have provided information about data analysis procedures and findings from the qualitative and quantitative data in relation to each research question.

Recall, this action research study was guided by three questions that were focused on dealing with the problem of practice. The research questions have been presented below.

> RQ 1: How does coaching for teachers affect their use of the classroom management practices of 'rate of opportunities to respond' and 'encouraging appropriate behavior' during teacher-directed instruction?
>
> RQ 2: How does targeting two classroom management practices, rate of opportunities to respond and encouraging appropriate behavior, affect students' on-task behavior?

RQ 3: Do participating teachers view the intervention as socially valid?

In Table 2, I have demonstrated the alignment between research questions, data collection methods, and analyses. In particular, the analyses procedures have been provided in italic font for each kind of data that was collected.

Table 2

Sources of Data and Analyses Aligned with Research Questions

Research Questions	Data Sources (*Proposed Analyses*)		
	1	2	3
#1: Positive Points of Contact	Observation (Baseline) (*rate & interval data*)	Observation (Intervention) (*rate & interval data*)	
#1: Opportunities to Respond	Observation (Baseline) (*rate & interval data*)	Observation (Intervention) (*rate & interval data*)	
#1: Self-assessment of classroom management practices and student outcomes	Classroom management: Self-Assessment pre-survey *(descriptive analysis)*	Classroom management: Self-Assessment post-survey *(descriptive and informal comparative analysis)*	Teacher Interviews *(constant comparative method)*
#2: On Task Behavior	Observation (Baseline) (*rate & interval data*)	Observation (Intervention) (*rate & interval data*)	Classroom management: Self-Assessment post-survey *(descriptive and informal comparative analysis)*

#3: Social Validity of Intervention, Staff Perception	Behavior Intervention Rating Scale (BIRS) (*descriptive analysis*)

Qualitative Data Analysis Processes

Qualitative data from the Classroom Check-Up Teacher Interview were collected via individual interviews that were audio recorded with the consent of each participant. To analyze the interview data, I used a grounded interpretive approach (R. Buss, personal communication, February 15, 2023) in which I incorporated a constant comparative method (Strauss & Corbin, 1998). Qualitative data were first transcribed prior to beginning the coding process. In the first step of the coding process, open codes were devised to identify concepts in the transcripts. Open coding proceeded using the constant comparative method (Strauss & Corbin, 1998). In this process, I constantly compared new inputs of text with already existing codes. For the case, where new inputs fit an already existing code, I used that code. If the new input did not fit an existing code, I created a new code. I followed the same process as I gathered codes into theme-related components (categories), aggregated theme-related concepts into themes, and grouped themes to develop assertions.

Specifically, for the purposes of the dissertation study, I used the constant comparative method to analyze participants' Classroom Check-Up Teacher Interviews. I first listened to each audio recording multiple times and transcribed responses into a word document. Excerpts from the transcription were used to determine initial codes which were recorded using an online tool that allowed me to use sticky notes to support

documentation of analysis, called Jamboard. Codes were developed for each of the constructs measured by the questionnaire with the exception of "needs for current support" as each participating teacher noted they did not have any particular student or coaching needs at the time of the interview. Commonalities across participants' codes were gathered to form theme-related concepts, that is to say, categories. The strength of each category was then assessed by revisiting each code. The categories were then analyzed in response to the first two research questions.

Results of the Qualitative Data

In the following section, I have presented detailed results of the qualitative data collected via the Classroom Check Up Teacher Interview. Overall finding and interpretations of the qualitative data have been depicted in Table 3 including theme-related components, themes, and assertions. Following the table, each theme has been discussed in detail with corresponding supporting quotes from participants. In all references to participants, I have utilized pseudonyms to maintain participant confidentiality.

Table 3

Themes, Theme-related Components, and Assertions*	
Themes and Theme-related Components	Assertions
Limited formal knowledge of Tier 1 PBIS classroom management **1.** Clear systems for misbehavior **2.** Limited acknowledgement systems **3.** Other PBIS practices not mentioned	1. Teachers equated classroom management to disciplinary actions taken within their classroom whenever challenging behaviors occurred.

Student-Teacher interaction supported positive behavior or contributed to challenging behavior **1.** Remaining calm in the face of challenging behaviors **2.** Student-teacher partnerships and being a change agent	2. Teachers understood that their behavior affected their learners.

Note: *Themes are in italics.

Theme 1—Limited Formal Knowledge of Tier 1 PBIS Classroom Management

Assertion 1—Teachers equated classroom management to disciplinary actions taken within their classroom whenever challenging behaviors occurred. The theme-related components contributing to the overarching theme included (a) clear systems for misbehavior, (b) limited acknowledgement systems, and (c) limited knowledge of other best practices with respect to PBIS.

Clear Systems for Misbehavior. During the interview process, participants were asked a series of questions related to their classroom management style. Participants' initial responses focused on consequences for challenging behavior as they described how they responded to challenging behavior that occurred in their classroom. Generally, teachers detailed a continuum of responses to challenging behaviors, which included warnings, changes in seating, and speaking to the students outside of class. For example, Participant 1, who will be referred to as Mr. A reported,

> Correcting behavior I start with a verbal warning - "Alright let's get back on track." If it continues, I will have to write you up, or I move them away from the area they are in, or if it gets to be too much, I send them outside to take a break. We have a conversation outside. If it continues, it might have to be a write up and

> I have a supervisor take them to the office and we talk about it later. So, it's not just distracting the class.

Participant 3, who will be referred to as Mr. C described a similar procedure stating,

> I have like progressive discipline, you know, even a lot of my discipline, for example in one stage of my progressive discipline I have lunch detention but really I don't think of them as detentions and really when a kid comes in I really try to let them know that I don't think of them as detentions, it's just a moment where I can speak to that student one-to-one outside of the classroom and [avoid] other influences that might be in the room and just have a little bit of time to try and get to know that student better. Also, within that system, you know, I'll have different levels of contact with home and I might eventually try to bring a parent or guardian into the classroom after an email and after a phone call and maybe a face-to-face, because that just has a different gravity to it. But also, it brings in a variety of other things that you can look for that you might observe and, you know, I often try and stress that the student should also be present, just because, if the student sees their parent within the classroom, that communicates a certain something to students, and it also gives you the opportunity to observe the dynamic.

All participants described the importance of teachers' responses to challenging behaviors. For example, Participant 2, who will be referenced as Mr. B, detailed how he responded to behaviors of concern "getting them to baseline, giving them time, and seeing if they're able to return back to what we are doing." Mr. C made a point to

highlight the importance of remaining calm in response to challenging behaviors. When asked how he handled misbehavior, Mr. C stated,

> So, I would say what I call "breaking character" and - anybody who has done this job for very long, understands that you are on stage. And that you need to develop a persona which is at least somewhat different from your true normal self. Hiding your emotions but the times when I broke character and I have let my emotions show, that's worked against me more than anything else. Keepin' your cool. You know, like if you, if you yell at a class, even if you use too harsh of a tone of voice, you will be working backwards from that for two months. And it's hard sometimes.

Overall, participants offered detailed responses and a continuum of options for handling challenging behaviors in their class. Many of the responses were positive, such as remaining calm, speaking with students and families, and redirecting. Although there was only one question during the interview, which asked teachers how they handled misbehavior, participants spoke more frequently about this topic than any other Tier 1 classroom management practices.

Limited Acknowledgement Systems. Participants were asked a question about acknowledgement systems that were in place within their classroom. Participants referred to the school-wide acknowledgement system and token currency. When asked what acknowledgement system he used, Mr. A said, "RISE up tickets, and when we do Ed quizzes on TV, I give them tickets for logging in first or whoever gets first, second, or third place receives tickets." Mr. C stated that he used "positive acknowledgement rather than negative corrections." Mr. B was the only participant who mentioned a different

system than the school-wide system. Mr. B mentioned that his class used a token currency, but that he did not feel it was effective, “I am finding that with my students it’s not, it isn’t as incentivizing as I expected it to be. I do have a classroom store, we don’t use it very often. The money system doesn’t seem to hold any value.”

Mr. B also mentioned behavior specific praise and reinforcement procedures which he learned about in his graduate program. Mr. B stated,

> The one thing for my credential program that was really the only thing that, at least, I have consciously taken was positive reinforcement, constant praise. I think I am pretty good at that, the very direct specific praise. That is really the only thing from a year and a half in a credential program that has really stuck out with me. I use it a lot. And I think I am pretty good at the specific praise.

When asked about their acknowledgement systems, Mr. A and Mr. C did not articulate a class-wide acknowledgement system to reinforce expected behaviors, behavior specific praise, or the golden ratio of five-to-one positive to corrective feedback.

Other PBIS Practices not Mentioned. As a reminder PBIS practices should have occurred both outside and inside of the classroom and included the development and implementation of systems and routines, active supervision, teaching and acknowledging appropriate behaviors, a continuum of response strategies for inappropriate behavior, and the delivery of opportunities to respond (McIntosh & Goodman, 2016). Although all participants offered substantial detail in their responses to inappropriate behavior, some of those responses included exclusionary practices such as detention, sending students outside, or sending students to the office. PBIS has provided several strategies to redirect

learners to more appropriate behavior, such as providing specific error corrections, proximity, re-teaching appropriate behaviors, and pivot praise.

Two participants had classroom behavior expectations posted, which extended beyond the school-wide rules, and referenced them during the interview process. With respect to the other PBIS practices mentioned above, participants did not discuss them in their responses regarding classroom management practices. Participants mentioned other ideas with respect to classroom management that included "students' understanding," "rigor," and "respect." For example, Mr. C. stated,

> You know, rigor, and what I mean by that is that I create my own curriculum. I am very careful to produce culturally relevant curriculum and I try to make the utility of the curriculum obvious to the students. But I think if you come in and all of your work is done, whether they notice that or overtly or notice that implicitly, they notice. Eventually they start to understand that you are working very hard and you are working very hard because you care about their learning. And eventually they start to internalize that it makes them work hard. So just producing a good curriculum and doing your part in the partnership is by far the most important element of classroom management.

Theme 2—Student-Teacher interaction Supported Positive Behavior or Contributed to Challenging Behavior

Assertion 2—Teachers understand that their behavior affected their learners. The theme- related components contributing to the overarching theme included (a) remaining calm in the face of challenging behaviors, (b) student-teacher partnerships, and (c) being a change agent.

Remaining Calm in the Face of Challenging Behaviors. As mentioned earlier many of the participants described responses to challenging behavior. Recall, Mr. C discussed avoiding "breaking character" or "yelling." Mr. A also mentioned that it was important to treat our learners with respect before expecting it from them when he said, "My biggest thing is respect. I give you respect so I would expect respect in return." Finally, Mr. B reflected on his most ineffective response to challenging behavior when he stated,

> Having consequences that are not well thought out and I am not willing to follow through on. That's something I have been very careful about this year, like if I warn a student about a consequence for a behavior - and it makes sense to address the behavior and it's not me acting out of frustration. For example, if I tell a student we can't go into the cafeteria until they are calm and have made a good choice, that's me being committed to being out there.

Student-Teacher Partnerships and Being a Change Agent. All participants made statements referencing the intricacies of relationships between students' and teachers' behaviors. Recall, Mr. C offered details of such a partnership between teachers and students, which was focused on the common goal of learning. Mr. C noted that providing rigor and culturally relevant curriculum affected learner behavior. In extending his response, Mr. C also discussed the affects other adults or service providers made on learners when he claimed,

> I don't need the students to be any certain way. I don't need them to behave in any certain way in the classroom, but if we are a school that believes in multi-tiered systems of support, then the adults in the room need to have a portfolio of

services for each of the tiers and there needs to be a triage system by which students are matched to those services.

During the interview, Mr. B spent time reflecting on behaviors that arose due to his lesson planning. For example, he said, “But there are certainly situations in which small behaviors will come up or a little bit of disorganization will come up when I don’t think things through.” Mr. A reported that fostering student’s learning was the most exciting part about being a teacher. Mr. A maintained, “When you have a student that is having confusion on a tough subject, and you kind of just give them little seeds so that they can have it grow within their head and solve it themselves.” Overall, participants provided multiple examples of how their behavior affected their learners, and vice versa.

Summary of Qualitative Data Relative to the Research Questions

The qualitative data were collected in interviews that occurred prior to implementation of the intervention. As a result, these data were not directly related to Research Question 1 and 2. Nevertheless, these data provided some information relevant to the research questions and to the context about teacher participants’ current classroom environment and prior knowledge of PBIS and classroom management strategies more generally.

Research Question 1 specifically referred to two class-wide PBIS practices. One of the targeted class-wide PBIS practices was ‘acknowledging appropriate behavior.’ Although every participant mentioned the school-wide acknowledgement system in their responses, they did not describe how they implemented that system within their classroom or how they employed any class-wide acknowledgement system, with the exception of Mr. B. Mr. B spoke of a class-wide token system, but stated that it was

ineffective for his learners. Only one participant, Mr. B referred to behavior specific praise and positive reinforcement. Mr. C mentioned positive points of contact versus negative. As evidenced in their responses, all teachers had some previous knowledge of methods to encourage appropriate behavior.

The second PBIS class-wide teaching practice in Research Question 1 was delivery of 'opportunities to respond.' Throughout the interview process, none of the participants explicitly discussed this practice. Mr. C mentioned 'rigor' and a culturally-responsive curriculum. Mr. A stated he wanted students to feel they were heard, "You are heard." Mr. B discussed the importance of building "independence" with the learners with whom he worked. Opportunities to respond have been considered to be a class-wide PBIS practice because when learners are engaged with their bodies and voices, they are less likely to engage in behaviors of concern. Teacher participants in this study did not mention engagement or learning opportunities directly when asked about their classroom management practices.

Research Question 1 also highlighted the effect of coaching on the two classroom management practices. All participants mentioned that they had experience with receiving coaching. Two of the participants were currently being mentored and coached by other faculty members because they were new teachers. None of the teachers specifically expressed they were receiving coaching relative to their classroom management practices. Mr. B had received some coaching and support around one of his learners' behavior from the school's behavior analyst.

Research Question 2 asked how implementing the two identified classroom management practices, opportunities to respond and encouraging appropriate behavior

through positive points of contact, affected students on-task behavior. Mr. B and Mr. C spoke of positive points of contact and behavior specific praise. All participants described the school-wide acknowledgement system. In addition, Mr. B reviewed his class-wide acknowledgement system. These practices were mentioned when participants were asked about their classroom management. Throughout the interview process, none of the participants mentioned student outcomes, such as on- and off-task behavior in relation to these practices. Opportunities to respond were not identified as a classroom management practice by any of the participants.

Research Question 3 was focused on the social validity of the coaching intervention outlined in the present study. All participants stated that past coaching from colleagues and others had been helpful. Mr. A and Mr. B gave specific examples of things they were now implementing in their classroom due to learning them from another colleague from whom they received coaching.

Quantitative Data Analysis Processes

Quantitative data from teacher surveys were analyzed using descriptive statistical analysis procedures. Descriptive statistics were completed for the surveys. Results from the Self-Assessment of Classroom Management Practices Tool were descriptively summarized through an informal comparison between pre- and post-intervention assessments. Results from the self-assessment pre- and post- surveys were used in conjunction with observational data to establish findings in response to Research Questions 1 and 2. Results from the social validity questionnaire were utilized to uncover findings related to Research Question 3.

Quantitative data collected from observations were graphed and analyzed through visual analysis of the data, consistent with behavior analytic methods. Data were graphed and sent to participants throughout the study, as well as analyzed by me throughout the study, and at its conclusion. Visual analysis encompassed analyzing three components of a graph—the trend, level, and stability (Lane & Gast, 2013). The trend referred to the direction of the graph, the level indicated to the value or height of the dependent variable on the y-axis, and stability signified the amount of variability of the dependent variable across time (Lane & Gast, 2013). Using visual analysis, I explored differences in the dependent variable across the baseline and intervention phases to evaluate effectiveness of the coaching intervention. Scores across baseline and intervention phases were also compared across participants, consistent with a multiple baseline design.

Results of the Quantitative Data

In the following section, I have presented detailed findings from the pre- and post-intervention Classroom Management Self-Assessment Survey, which assessed teachers' perceptions of their PBIS classroom management practices. Next, I have provided quantitative data and summarized findings gathered from observations conducted during the baseline and intervention phases of this action research study. Finally, I have presented data collected from the social validity questionnaire, the BIRS. Each of the data sources has been presented relative to the three research questions.

Classroom Management Self-Assessment Survey

Participants completed the Classroom Management Self-Assessment Survey prior to, and at the conclusion of the study. Both surveys were identical and were composed of 10 questions, each corresponding to a Tier 1, PBIS, classroom management practice.

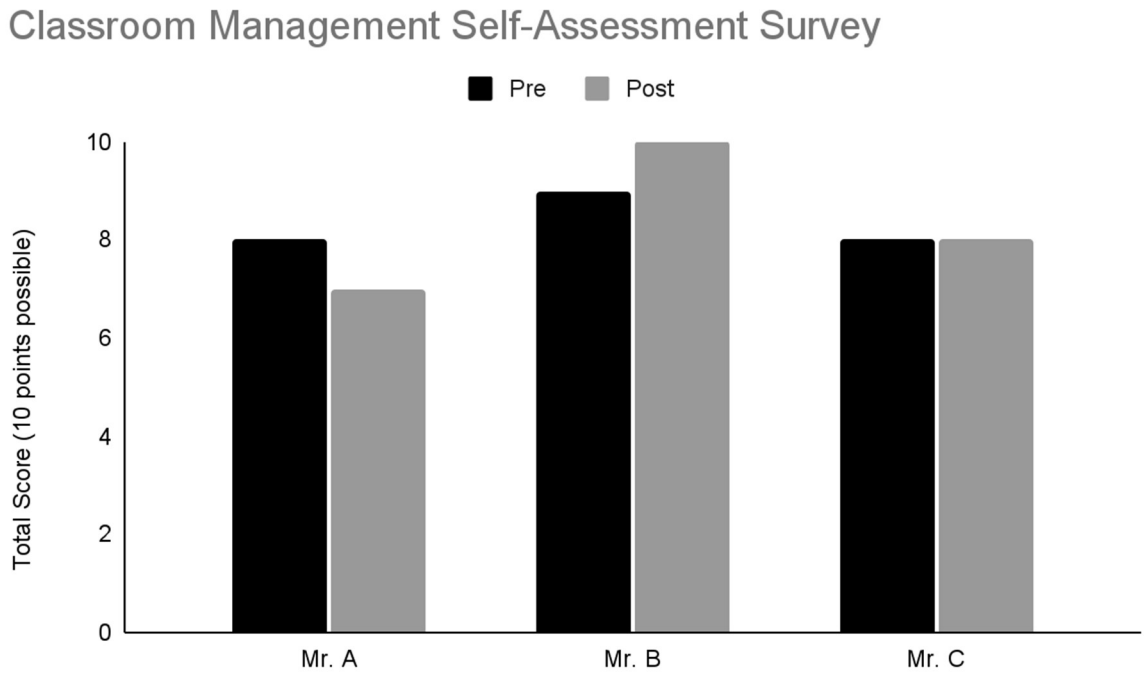
Participants noted whether or not the practice was something they did ('yes') or did not ('no') implement in their classroom. Each presence of 'yes' was coded as a one and each 'no' was coded as a zero.

Total scores out of a possible score of 10 were analyzed for participants on the pre- and post-intervention surveys. Mr. A's pre-intervention score was 8 and reduced to 7 on the post-intervention assessment. Mr. B's pre-intervention score was 9 and increased to 10 at the post-intervention. Finally, Mr. C's pre-intervention score was 8 and remained at 8 for the post-intervention assessment. Of the 10 items, there were four answered in the affirmative by all participants across pre- and post-intervention assessment conditions, indicating that all participants felt confident that they implemented those practices. Those items were: (a) classroom arranged to minimize crowding and distraction, (b) posted, taught, reviewed, and reinforced 3-5 positively stated expectations (or rules), (c) instruction actively engages students in observable ways (e.g., writing, verbalizing), and (d) actively supervise my classroom (e.g., moving, scanning) during instruction. Responses to two of the questions declined from pre- to post-intervention assessments including (a) maximized structure and predictability in my classroom (e.g., explicit classroom routines, specific directions, etc.) and (b) provide more frequent acknowledgement for appropriate behaviors than inappropriate behaviors. By comparison, two of the questions increased from pre- to post-intervention assessment including (a) provide each student with multiple opportunities to respond and participate during instruction and (b) ignore or provide quick, direct, explicit reprimands/redirections in response to inappropriate behavior. The question receiving the fewest endorsements overall and across pre- and post-intervention assessments was with regard to having

multiple strategies/systems in place to acknowledge appropriate behavior. In response to this question, Mr. C was the only participant to note yes for this question in the pre-intervention assessment and Mr. B was the only participant to note yes in the post-intervention assessment. In Figure 4, I have provided a visual representation of these data.

Figure 4

Results of Pre- and Post-Intervention Classroom Management Self-Assessment Survey



Multiple Baseline Across Participants Data

In the following section, I have provided details of the results of observational data collected during the baseline and intervention phases of this study, for each participant. I collected one-minute interval data during a 15-minute observation window during each session, which has been depicted on the horizontal axis. Data collected

include rate of opportunities to respond during each minute interval, on- and off-task data of a random student using momentary time sampling, and rate of positive and corrective statements made during the entire 15-minute observation window. I have presented the data visually, consistent with the field of Applied Behavior Analysis, my background as a researcher-practitioner, and single-subject designs, specifically a multiple baseline across participants design, which was utilized in this study.

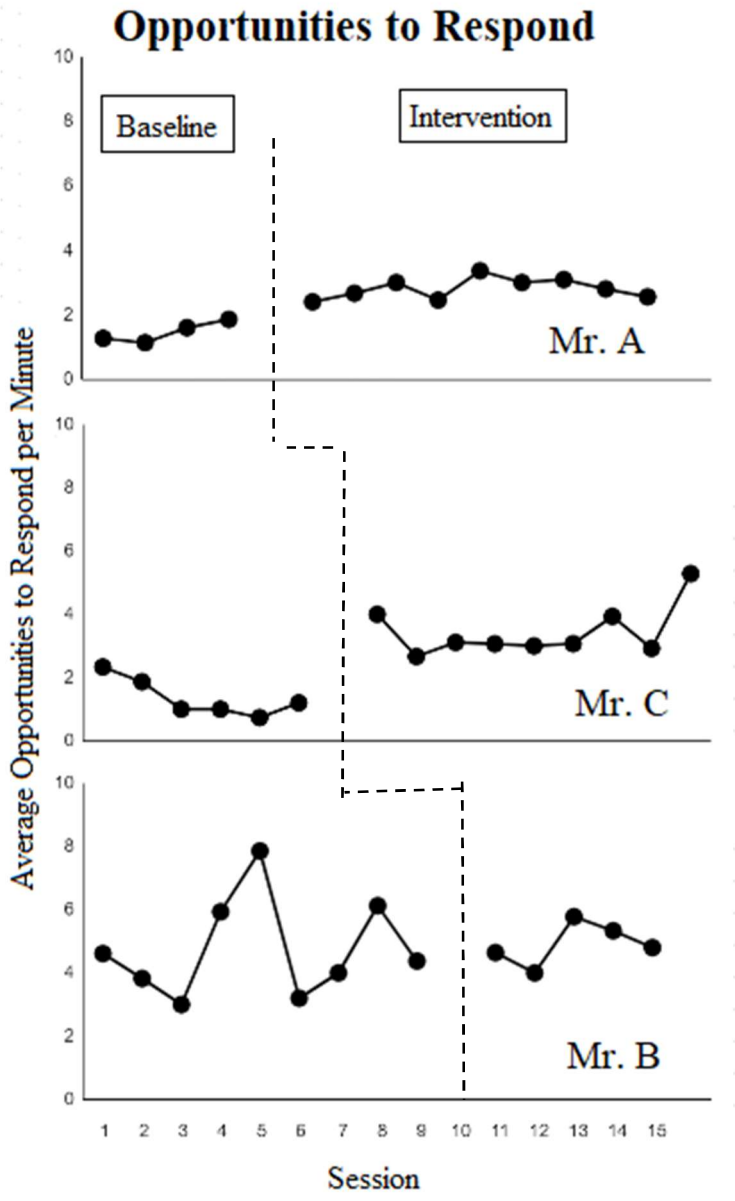
Opportunities to Respond per Minute. During each observation in the baseline and intervention phases of this study, I collected the rate of opportunities to respond, delivered to students in the classroom, per minute. To calculate the average rate per minute, I totaled the amount of opportunities to respond delivered during the whole observation window and divided by the total number of one-minute intervals (15) that occurred during the observation. The average rate of opportunities to respond per minute are graphed for each participant below, see Figure 5. The known goal for each participant was four per minute. This goal was discussed during the coaching cycle with the participant. During the intervention phase participants received their data following each session via email and data were paired with behavior specific praise.

Mr. A was the first to begin the intervention and the longest to remain in the intervention. Mr. B had the most variability in baseline data and therefore began the intervention last. All participants made gains from baseline to intervention. Mr. A and Mr. C made the most gains in delivering high rates of opportunities to respond per minute from their baseline to intervention phases. During baseline, Mr. A averaged 1.46 opportunities to respond per minute which increased during the intervention phase to 2.81 opportunities per minute. Mr. C averaged 1.36 opportunities to respond per minute during

baseline, and increased to 3.45 per minute during the intervention phase. Mr. B had the most variability in his data during baseline. During baseline Mr. B averaged 4.77 opportunities to respond per minute, ranging from 3 to 7.86 per minute. Mr. B was the only participant that averaged over the goal of four opportunities per minute. During the intervention phase, Mr. B's data became more consistent with reduced variability. He increased his opportunities to respond during the intervention phase, on average to 4.91 per minute. In Figure 5, I have presented a visual depiction of these data.

Figure 5

Average Opportunities to Respond per Minute



Opportunities to Respond and On-task Behavior. Collecting the rate for opportunities to respond per minute during the 15-minute observation window allowed for calculating the average rate of opportunities per minute which was then graphed and shared with participants in the intervention phase. In addition to average rate per minute,

collecting rate data on opportunities to respond per minute yielded data indicating the percentage of the intervals where participants met their goal of delivering four or more opportunities per minute. To calculate these data, I took the total number of one-minute intervals where participants met their goal of four or more opportunities per minute, divided by the total number of minutes (15) for each session in the baseline and intervention phases of this study. Data have been presented visually in Figure 6 and were represented by the black line graph with circle data points.

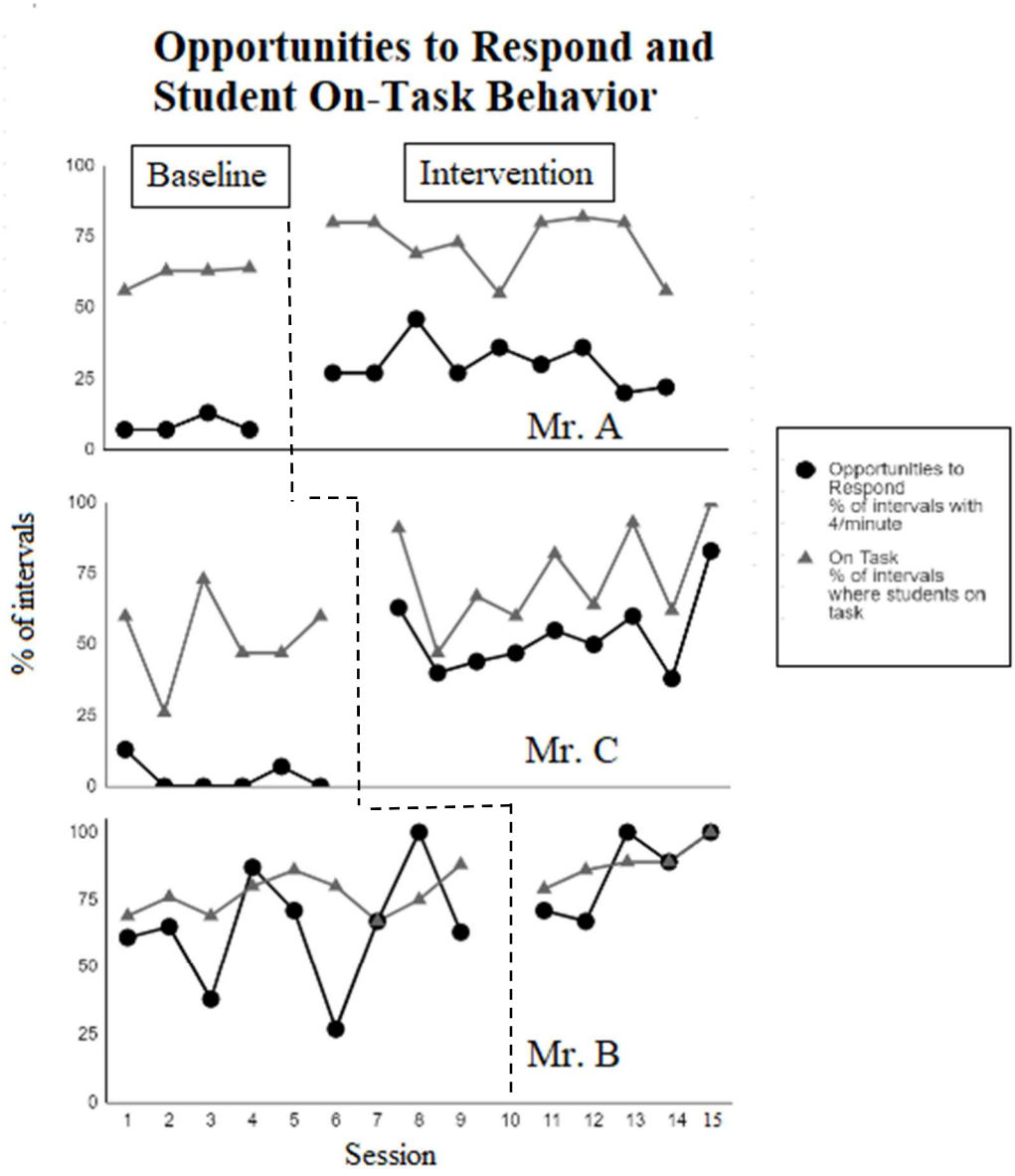
Data representing the percentage of intervals where four or more opportunities to respond were delivered mirrors the previous graph depicting average opportunities to respond per minute. All participants made growth from the baseline to the intervention phase. Mr. A increased the percentage of one-minute intervals from 8.5% to 30.11% from baseline to intervention, Mr. B from 64.33% to 85.40%, and Mr. C from 3.33% to 53.33%. Again, Mr. B had the most variable data with percentages ranging from 27% to 100%, however these data became more stable during the intervention phase of the study as he implemented opportunities to respond more consistently.

In addition to the percentage of opportunities to respond per minute, I have provided complementary data in Figure 6 that depicts the percentage of intervals where learners were on-task. These data were collected using momentary time sampling, where I looked up during each interval, located one student, and determined whether the student met or did not meet the operational definition of on-task behavior. A new student was chosen during each interval. Data were calculated by adding the total number of intervals where a learner was on-task by the total number of intervals available (15). Data have been visually depicted in Figure 6 with a dark gray line and triangle data points. Results

indicated students' on-task behavior improved from baseline to intervention phases across all participants. Mr. A saw an increase from 61.50% to 72.80% on average. Mr. B's student on task behavior jumped from 76.67% to 88.60% on average. Mr. C's students were on-task 52.17% on average during baseline and 74.00% on average during the intervention. Data from Mr. B and Mr. C's student on-task behavior visually showed a relationship between increases in on-task behavior and higher percentages of intervals where students received four or more opportunities to respond. Mr. A's learners were on-task in baseline, although opportunities to respond per minute were low. Overall all participants had an increase in on-task behavior during the intervention phase. See Figure 6 for a visual depiction of these data and their connection to each other.

Figure 6

Percentage of Intervals where Opportunities to Respond was Four per Minute and Percentage of Intervals where Student was On-Task



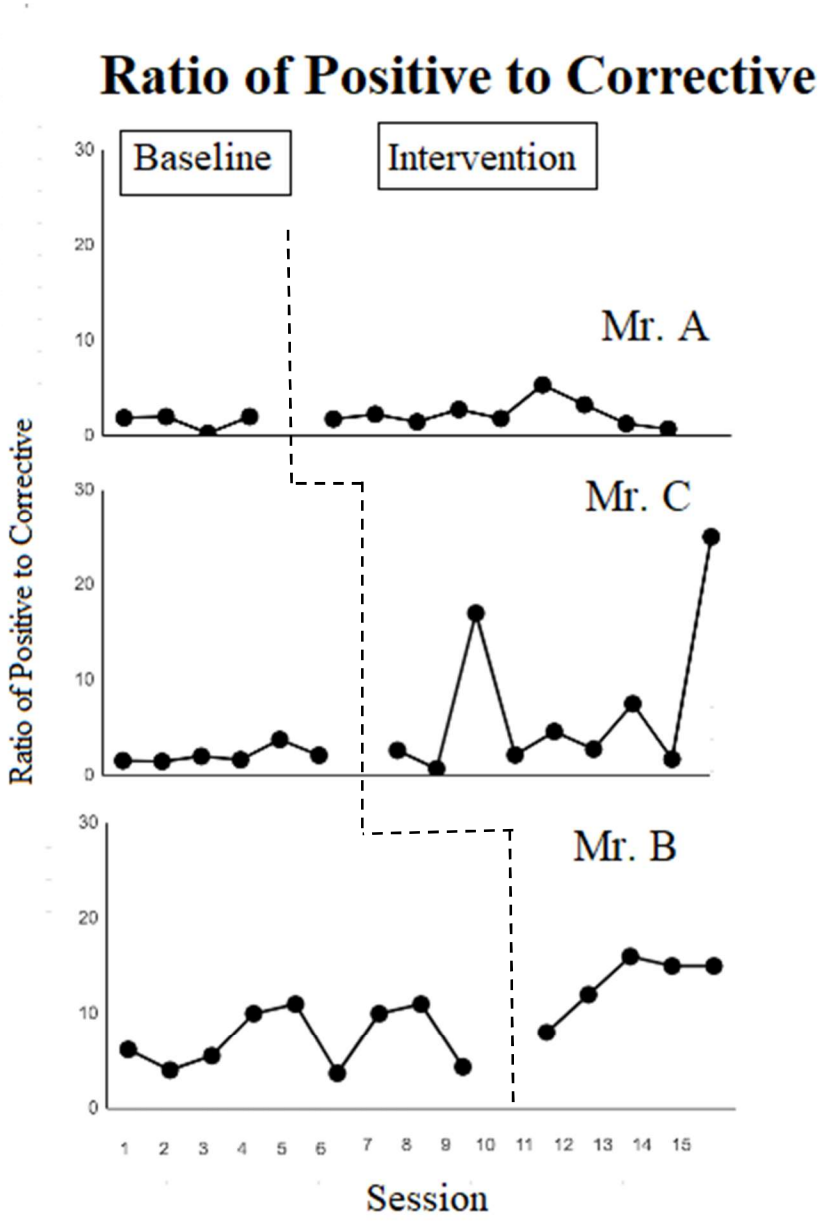
Ratio of Positive Points of Contact to Corrective Statements. Alongside opportunities to respond and learner on-task behavior, frequency of positive and

corrective statements was collected during each observation session. To calculate the ratio of positive to corrective statements, I added the total amount of positive statements and divided them by the total number of negative statements, to gain a ratio of positive statements for every one corrective statement. These data have been graphed in Figure 7. For example, if a data point indicated a one on the y-axis, then that meant the teacher delivered one positive statement for every one corrective statement during that session. During the intervention phase a goal of five positive to every one corrective statement was set with each participant.

Results from these data indicated all participants made gains from the baseline to intervention phases. On average, Mr. A increased his ratio from 1.5 to 1 in baseline to 2.28 to 1 during the intervention. Mr. B went from 7.3 to 1 in baseline to 13.2 to 1in the intervention phase, on average. Finally, Mr. C expanded his ratio from 2.08 to 1 in baseline to 7.11 to 1, on average, during the intervention. Although Mr. B and Mr. C met the goal of five positive to every one corrective for several sessions during the intervention phase, Mr. A met the goal just once. Nevertheless, all participants achieved gains from baseline to the intervention phases.

Figure 7

Ratio of Positive Points of Contact to Corrective



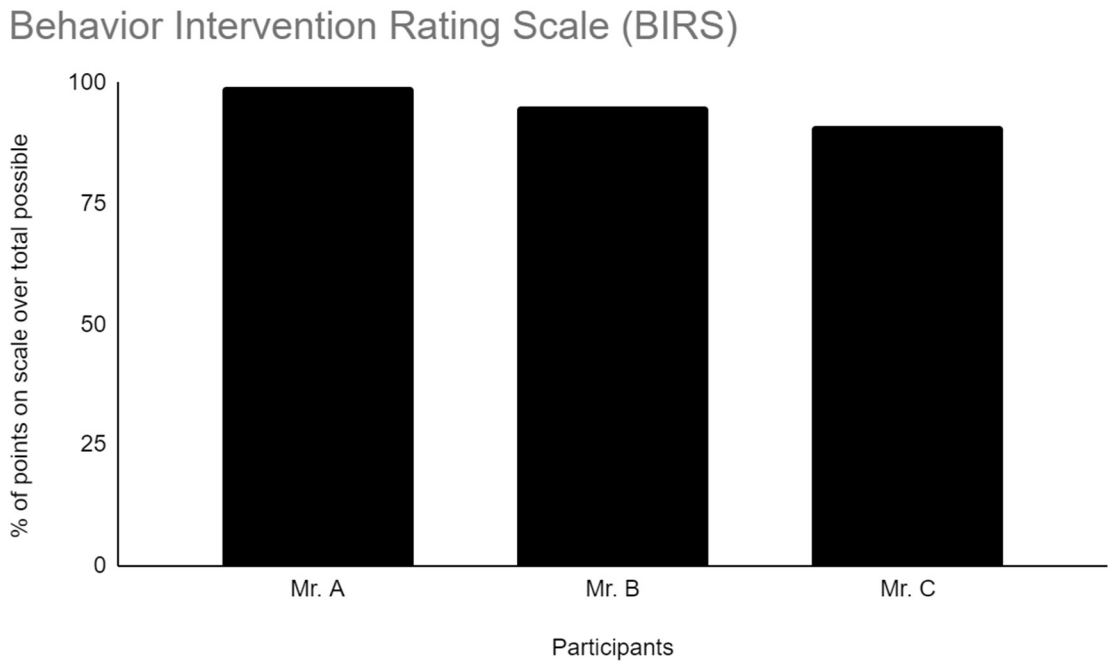
Social Validity

At the conclusion of the intervention phase of the study, participants completed the Behavior Intervention Rating Scale (BIRS) to assist with determining findings for

Research Question 3. Results indicated whether or not the participants found the intervention to be socially valid and assist with classroom behavior management. Data were interpreted by adding the total number of scores from the Likert scale items and dividing by the total scores possible. This generated a percentage which was then graphed. These data have been visually depicted across participants, in Figure 8. The mean across participants' scores was 95% and ranged from 91% to 99%. Given that there were a total of 80 points possible, scores were very high. Mr. A scored 79, Mr. B scored 76, and Mr. C scored 73. There were nine questions on the survey, where all participants ranked as 'agree.' These items included questions about the intervention changing learners' behavior, recommending the intervention, and so on and included items 1, 3-4, 6, and 8-12. The following two questions had the lowest ratings across the participants and involved noticing a change in classroom behavior and sustained change over time, or maintenance. Overall, all participants ranked the intervention as socially valid.

Figure 8

Behavior Intervention Rating Scale (BIRS), Social Validity Assessment



Summary of Findings of Each Research Question

Research Question 1

RQ 1: How does coaching for teachers affect their use of the classroom management practices of 'rate of opportunities to respond' and 'encouraging appropriate behavior' during teacher-directed instruction?

The coaching intervention was effective in increasing opportunities to respond and encouraging appropriate behavior across all participants. Observational data indicated an average increase from baseline to intervention for all participants for average opportunities to respond per minute, percentage of one-minute intervals where four or more opportunities to respond were delivered per minute, and the ratio of positive points of contact to corrective statements. Some participants attained greater gains than others.

For example, Mr. C had the greatest differences from baseline to intervention for both of the classroom management practices. Mr. B became more consistent with each of the practices from baseline to the intervention phase and performed the skills more steadily. Mr. A attained the smallest changes, and the changes were most evident for the skill of delivering opportunities to respond. Data from the self-assessment were consistent with and aided in triangulating the findings. Mr. A reported a decrease in his self-assessment of his own classroom management practices, whereas Mr. B reported an increase and Mr. C's data remained the same.

Research Question 2

RQ 2: How does targeting two classroom management practices, rate of opportunities to respond and encouraging appropriate behavior, affect students' on-task behavior?

When teachers increased their use of these two skills, there were increases in student on-task behavior. Again, Mr. C had the largest increases from baseline to intervention for learner on-task behavior. Visual depiction of Mr. C's data showed a connection between learner on-task behavior and his increased use of opportunities to respond. Mr. B began implementing both practices more consistently across each session, and learner outcome data followed suit. Mr. A, already had consistent on-task behavior despite lower levels of usage of each of the two practices. Learners had improved on-task behavior for some of the sessions in the intervention phase for Mr. A, but not all.

Research Question 3

RQ 3: Do participating teachers view the intervention as socially valid?

Overall, the teachers rated the coaching intervention as highly socially valid. Results indicated all three participants found the intervention socially valid, with Mr. A finding it the most socially valid. Percentages for social validity scores all exceeded 90%.

Summary

In this chapter, I reviewed the data collected for this study and then I described the data analysis techniques that were used. Qualitative data were coded using open coding, gathered into theme-related components, and aggregated into themes from which assertions were derived. Quantitative data were reviewed and results were analyzed using several techniques including numerical and visualization procedures. Observational data including interval data on opportunities to respond per minute, percentage of minutes with four or more opportunities to respond, learner on-task behavior, and ratio of positive points of contact to corrective were presented and depicted in graph form. Social validity measures were assessed and visually depicted. Finally, I offered a section on the data relative to each research question. In the following chapter, I have discussed the results, implications of these findings for future research and practice, limitations, and lessons learned.

CHAPTER 5

DISCUSSION

The problem of practice for the present research study involves a big hairy audacious goal (BHAG) of implementing a Multi-tiered System of Support ([MTSS]; Maxwell, 2019) in a rural unified school district. Local and larger data is provided to illustrate the need for implementation and to narrow the focus to implementation of Positive Behavior Interventions and Support (PBIS). PBIS is a domain that fits under the MTSS umbrella and utilizes a similar framework to guide decision making and build capacity, to serve all learners so that they can thrive. I describe an intervention that consisted of coaching classroom teachers at a rural middle school on two classroom management practices, opportunities to respond and encouraging appropriate behavior. In this action research project, I utilize a mixed methods approach and include interviews, surveys, and observational data. I also incorporate a single-subject design, specifically a nonconcurrent multiple baseline across participants design, to ensure consistency with my knowledge and research as a Board Certified Behavior Analyst (BCBA) and the pre-existing literature that involves coaching teachers on PBIS practices. In the previous chapter, I provide a description of qualitative and quantitative results along with visual depictions of data. In this chapter, I provide a summary of the findings, limitations, and implications for future research and practice. I also reflect on lessons learned throughout this process as a researcher and practitioner.

Triangulation of Data

Action research utilizes mixed methods and relies on the triangulation of both qualitative and quantitative data. Triangulation of data supports the quality and rigor of

action research (Dick, 2014). The present study utilizes an exploratory and simultaneous approach to triangulation. Qualitative data are collected at the onset of the study through interviews with each participant. These data guide the researcher in establishing rapport with each participant, gaining a broader understanding of the context in which the coaching intervention occurs, and how the participant might like the researcher-practitioner to approach coaching, such as entering the classroom, time of day for the observation, what they want the researcher-practitioner to take note of, and so on. Although these data do not interfere with the methods surrounding the coaching intervention, they are analyzed prior to providing the coaching intervention and are re-analyzed alongside the quantitative data. In the next sections, I provide a summary of triangulation of the various qualitative and quantitative data for this dissertation.

Complementarity and Integration of Quantitative and Qualitative Data

Action research encourages triangulation to better understand the effects of an innovation. The process of integrating qualitative and quantitative data allows for a closer examination of consistencies and inconsistencies and strengthens findings (Mertler, 2016). Firstly, there are consistencies between qualitative data from interviews and data generated from the classroom management self-assessment as well as observational data. Second, the pre- and post-intervention data often support other quantitative data from observations, but there are also some inconsistencies. Finally, there is consistency between observational data and results from the social validity measure.

Data indicates similarities across interviews, self-assessment data, and observations. For example, during interviews, all participants describe their method for responding to challenging behavior. Mr. A and Mr. C describe use of a progressive

discipline response whereas Mr. B describes using methods aligned with PBIS. Each participant's methods for addressing challenging behavior occur during the observation phase and are consistent with descriptions from interviews. In Mr. A and Mr. C's classes, students receive warnings, verbal redirections or reprimands, and threats to receive "write-ups." Students in Mr. B's class receive prompting, checks for motivation, and choice in response to behavior. Mr. A's and Mr. B's responses in their self-assessment are consistent with their practices in regard to responding to behavior.

Additionally, Mr. A's and Mr. C's interviews miss many core PBIS classroom management practices, whereas Mr. B's interview identifies most practices. All participants' observational data is consistent with their interview responses about PBIS practices. Mr. A's and Mr. C's data indicate little use of the two identified PBIS skills in the baseline phase, whereas Mr. B engages in higher rates of use of both skills. At times, participants ranked skills in place on the pre- and post-intervention self-assessment and observations were consistent with those responses. For example, all participants mention having rules/expectations posted in their classrooms during the interview and in the pre- and post-intervention self-assessments and observations during baseline and intervention sessions are consistent with these data.

Participants also note areas of growth in their interviews and pre- and post-intervention self-assessments. These identified areas are also evident during observations. Some of the practices identified by participants as areas of need are "differentiation" of instruction and "being too laid back." These findings are consistent with self-assessment data. For example, Mr. A reports not having multiple strategies in place to reinforce behavior, which is consistent with observations. Mr. C reports not implementing multiple

opportunities to respond in his self-assessment, which is similar to quantitative data collected during baseline.

In some cases, there are changes in scores on particular items from pre- to post-intervention self-assessment. These items included PBIS practices that participants did not discuss during their interviews. At times, scores on an item increase from pre- to post-intervention self-assessment, which are consistent with increases in the PBIS practice from baseline to intervention phases. For example, Mr. C reports not implementing multiple opportunities to respond in his pre-intervention assessment and reports that he does implement this practice in his post-intervention assessment. These results are similar to Mr. C's observational data and his increases in use of opportunities to respond. Other times, scores decrease from pre- to post-intervention self-assessment. For example, Mr. A reports that he provides more frequent acknowledgement than correction in his pre-intervention assessment and then reports that he does not, in his post-intervention assessment. These data are consistent with observational data where Mr. A makes minor gains from baseline to intervention on his ratio of positive to corrective statements.

There were some inconsistencies between self-assessment data and observational data, especially when looking at results from the pre-intervention survey. For example, all participants said they provide more frequent acknowledgement of appropriate behavior than inappropriate behavior which is contradicted at times by observations. Two of the three teachers state that they deliver high rates of opportunities to respond, which is not consistent with observational data. In some cases, a participant reports that they were not implementing a practice, but that practice was observed during a session. For

example, Mr. C reports in his post-intervention assessment that he does not implement multiple systems for reinforcing behavior, yet in observations he provides stamps, tickets, and points to learners in his class upon positive student behavior.

Consistencies exist between observational data, particularly changes in teachers' practices and student outcome data and responses on the social validity questionnaire. Participants report liking the coaching intervention in the social validity questionnaire. During interviews, all participants report a preference for coaching and finding it enjoyable. Responses on the social validity questionnaire also indicate that the coaching intervention will likely have an effect on classroom behavior. Results from observational data indicate improvement in students' on-task behavior when teachers implement PBIS practices.

Discussion of Findings

Triangulation of data across each participant and each data source provides an in-depth understanding of how the intervention affected the findings, and the influence on the identified problem of practice. Overall, findings from these data indicate the coaching intervention affords improvement in implementation of the two identified PBIS classroom management practices, opportunities to respond and encouraging appropriate behavior, across all participants. All participants make gains from their baseline averages to their intervention averages for both targeted practices. Coaching procedures utilized in this dissertation are consistent with those outlined in the literature (Briere et al., 2013; Hershfeldt et al., 2012; Simonsen et al., 2014). Findings suggest that implementing a targeted professional development intervention can be effective in enhancing teachers' implementation of PBIS practices class-wide. Simonsen and colleagues (2014) suggest

that targeted coaching can be effective in changing middle school teachers' implementation of PBIS practices. Findings from this dissertation extend that work.

In the literature on coaching for PBIS classroom management practices, there is a debate whether to focus on one skill or many. A systematic review of literature indicates that targeting a single-skill while coaching classroom teachers may be more effective. In this dissertation, I choose to focus on two classroom management skills. Literature suggests that focusing on more than one skill could lead to mixed results across skills. For example, when focusing on behavior specific praise, opportunities to respond, and prompting, researchers observed only slight improvements for opportunities to respond, in comparison to the other skills (Simonsen et al., 2019). Additionally, improvements in use of the skills were not maintained over time. Findings in this study suggest that although teachers make improvements on both targeted skills, they tend to make more gains in one skill over the other, in this case opportunities to respond versus encouraging appropriate behavior.

Under the framework of MTS-PD, researchers also suggest tiering professional development to meet the coaching needs of teachers. Findings of this dissertation indicate gains for all participants, yet Mr. A has a smaller increase in use of the two skills from baseline to intervention phases than the other two participants. Grasley-Boy and colleagues (2019) suggest matching teachers to more intensive professional development support when targeted coaching is ineffective in making change. This idea is consistent with a tiered framework of intervention and supports, and specifically aligns with the conceptual frameworks guiding this dissertation, MTSS and PBIS. Under these

frameworks, data indicates that Mr. A may benefit from more intensive or individualized coaching practices, especially to target his ratio of positive to corrective feedback.

In the second research question, I postulate that a change in teacher's practices would elicit a change in learner outcomes, specifically on-task behavior. This relationship is most evident in Mr. C's graphs depicting percentage of on-task behavior by percentage of intervals, which included four or more opportunities to respond. When examining the averages from baseline to intervention phase for on-task behavior, every participant achieves gains. Mr. A has an increase of 11.3%, whereas Mr. B attains an increase of about 12%, of on-task behaviors from baseline to intervention. Mr. C has the largest gains in on-task behavior, with a 21.83% difference between averages from baseline to intervention. Guskey's (1985, 2002) model of teacher change theory suggests changes in teachers' practices occur and are sustained, once they come in contact with positive student outcomes as a result of implementing a new practice. All participants receive their learner outcome data for on-task behavior alongside their other data during the intervention phase of this dissertation. The intent of showing learner outcome data to each participant is consistent with Guskey's idea of teacher change. If participants observe an improvement in learner outcomes they may be more likely to continue to implement the skill, because they see value in the implementation. Afterall, all participants articulate in some way or other, during their interview, their desire to help their students succeed, be independent, and thrive.

In the third research question, I ask about the social validity of the intervention. If teachers do not have buy-in to a particular intervention or do not see value in it, then it will likely not have an effect, sustain changes in practice, and may actually be aversive.

All participants provide high social validity scores for the intervention, indicating they believe the intervention fits the context, is acceptable, likely to generalize, and that each participant sees value in the intervention. Each participant vocally expresses that they appreciate when I, the researcher-practitioner, entered their environment. Mr. B, specifically states my presence keeps him on his toes as a teacher and he becomes more aware of his practices when I enter the classroom. Mr. C asks to share the data and the intervention with a new teacher he is mentoring to show "him what we are doing here." Literature suggests that pre-service and in-service training on classroom management practices increases teachers' self-efficacy and confidence in implementation (OECD, 2017). Mr. B is the only participant who reports receiving a class focused on PBIS in his teacher training program. Notably, Mr. B has the highest use of both practices in baseline and in intervention phases, and the highest reported use in his pre- and post-intervention self-assessment data. Findings indicate that targeted professional development may be positive for teachers, as evident in their high scores on the social validity measure.

Consistent with the outcomes from this work, PBIS as a framework under the broader umbrella of MTSS, has positive outcomes for students and staff members in educational systems (Childs et al., 2016; Lee & Gage, 2020; Marin & Filce, 2013; Pas & Bradshaw, 2012). Schools implementing PBIS may focus on practices occurring outside of the classroom. Class-wide PBIS has the opportunity to create positive classroom cultures through student contribution and equity. Findings of this study indicate that coaching may be effective in enhancing class-wide PBIS practices and therefore, positively affecting student outcomes. Of course, there are limitations to all of these data, and they must be interpreted with caution.

Limitations

When interpreting the data, evidence suggests the coaching intervention influences teaching practices, learner outcomes, and is seen as being highly socially valid by all participants. Nevertheless, when analyzing and interpreting these data, it is important to consider extraneous variables that may have affected conclusions. Some of these factors include observer bias and observer drift, reactivity, my role and relationship with the participants, and other contextual variables that affect control in this study. Schools and school systems are contextually messy, and it is important to reflect and review any variables that may influence or contribute to the findings of the present study.

Observer Bias and Observer Drift

Any study involving a researcher collecting behavioral data to analyze findings in relation to a hypothesis or question, poses the risk of observer bias. Observer bias occurs when the observer unintentionally searches for and records data to confirm their hypothesis. Cooper et al. (2019), describe 'measurement bias' as data collected by observers that aims to confirm the expectations or efforts of the researcher. Cooper and colleagues propose several methods for combatting observer bias. The first involves utilizing a naive observer who is unaware of the researcher's objective. The second includes clarifying data collection procedures, including operationally defining each target behavior. Additionally, the researchers propose including interobserver agreement (IOA) measures to minimize any effects of observer bias. This practice involves including an additional observer to collect data on the identified target behaviors. Data between all observers is then compared. Researchers analyze agreements between observers divided by the total number of opportunities to disagree or agree, to determine

an interrater reliability score or IOA. Higher scores on interrater reliability are indicative of greater research control and therefore, stronger findings.

As a Board Certified Behavior Analyst and as a researcher-practitioner, I fully intended to utilize an interobserver agreement approach to enhance this study's control, reliability, and to strengthen validity. In past research, I was able to readily access undergraduate students seeking research experience, to support data collection and data analysis within my research. Such was the case while working towards my Masters' thesis. As the present study progressed, I quickly realized it was not feasible or possible to include an additional observer within each of the sessions. As a supervisor of a team of behavior technicians within a school district, several of my team members were interested in supporting data collection. However, much of my team had other tasks on which to focus that were taking place at schools other than the middle school. Because my doctoral program was online, I did not readily have access to undergraduate research assistants or others who might be interested in participating in data collection. Data for the present study took place during the school day, during classes with learners, at our middle school. Therefore, to conduct IOA during the school day, I would need support from someone who did not have other obligations and had clearance for being on our campus. Additionally, the presence of two or more observers may have confounded the data and results even further. My presence in the classrooms alone was noticed and discussed among the middle school learners. Some students asked their teachers why I was there and if I was "spying" on them or their teacher. Several of the learners thought I was a teacher from a higher grade scouting my students for the upcoming year. The

addition of another observer may have led to disruption within the classes that I observed and greater pressure for the participating teachers.

Interrater agreement data would also contribute to control over observer drift. I serve as the sole researcher-practitioner collecting data for the present study. Observer drift refers to a change in the operational definition of the target behavior and therefore of its measurement as the observer collects data in the study (Cooper et al., 2019). When research involves an additional observer, the effect of observer drift can be minimized. To mitigate skewed data from observer drift from the onset, I deploy clear operational definitions of each target behavior on which I collect data, prepare and utilize a clear and consistent data sheet across all sessions, collect notes on each data sheet, analyze data after each session, and reflect often.

Constraints around the present study do not allow for an additional observer to collect IOA or interrater reliability data. In lieu of an additional observer, I deploy other strategies in efforts to control for reliability and validity of data. One strategy I use in the present study, is proposed by Cooper et al. (2019) and involves clarity of data collection methods. Still, in the absence of an additional observer, the data presented as a result of the present study may include measurement error. Measurement error refers to the validity of data in capturing the 'true events' that occurred during observations (Cooper et al., 2019).

Reactivity

If unchecked, observer bias is likely to affect the reliability and validity of the data collected. Observer behavior, specifically the presence of an observer alone, can greatly affect the behavior of those being observed, and therefore the data being

collected. Kazdin (1979) defines reactivity by stating, “Reactivity refers to the influence that the assessment procedure exerts on the subject's performance” (p. 715). Simply stated, just being present and collecting data can influence or change the behavior of participants. To control for reactivity, I utilize a single subject and nonconcurrent multiple baseline design across participants. During the baseline phase, participants are naive to the objective of the study. However, during the intervention phase, participants are aware of the intervention and aim of the study. This knowledge and my presence alone, could contribute to the present findings. The aim of the present study is to influence teacher practices to ultimately lead to positive changes in learner outcomes. If data collection and my presence alone are sufficient to affect these behaviors, then that would prove to be an easy practice for administrators or professional development leaders to implement to make change, but one that is artificial and unsustainable.

Consistent with the idea of reactivity, past literature in coaching teachers to implement PBIS practices indicates these practices are not necessarily maintained over time, once the observer/researcher is no longer working with the teacher. For example, Simonsen and colleagues (2020) did not see maintenance or sustained changes in practice when implementing targeted professional development to enhance PBIS classroom management practices. As a researcher-practitioner, I originally intended to utilize a follow-up condition to determine whether or not practices and outcomes are sustained despite the presence of the intervention or myself. Due to time constraints and other variables, such as an increased workload in my current position, I was unable to deploy a follow-up condition. For any professional development provided for teachers, a primary goal is to ignite and sustain changes in teachers practices to produce more positive learner

outcomes. To determine whether the professional development intervention implemented in the present study has a sustained effect on teacher practices and learner outcomes, a follow-up condition would be helpful. This concern is also supported by data from the social validity questionnaire, where participants rated an item concerning maintenance and sustainability overtime as low, in relation to the study's intervention.

Role and Relationship

The observer can greatly affect data from observer bias, drift, and reactivity. In addition, my role and relationship to the participants may have also had unintended consequences on the data collected and subsequent outcomes. All teachers are new to the middle school and joined the campus while I was on maternity leave or at the same time I returned from maternity leave. In previous cycles of this study, I explored the effects of veteran teachers' perceptions on implementation of a MTSS through interviews. Results of the present study may not be generalizable to all teachers at our middle school, many of whom are veteran teachers who often speak about initiative fatigue and critique district decisions and follow-through.

All of the participants in this final cycle, do not have a previous history with me as a practitioner and have very limited experience teaching at our middle school. I had previously worked closely with the middle school teachers to develop their Tier 1 team, climate, and culture. During my maternity leave, all of those efforts were put on hold. The participants in the present study have some knowledge that I work for the district office and coordinate behavior supports, but do not have a previous history or experience with me. Although I speak informally to each participant throughout the study, I do not deploy an interview at the conclusion of the study to allow for participants to elaborate on

their views of the study's social validity. Participants may inflate their responses to ensure that I have positive outcomes. Additionally, a more applicable social validity measure could be used. One participant states that the questions in the measure itself are a bit confusing to analyze in relation to the intervention.

Contextual Variability

Schools are a messy place to conduct research. There are many contextual variables at play that likely influence the data, methods, and study outcomes. Two of the major confounding variables include participants' availability, including their presence on campus and their accessibility to be observed, as well as differences in session observation from students, lessons, and time of day. My availability and obligations as a researcher-practitioner also affect my availability and ability to collect data, observe, and deploy the intervention.

When beginning my study, I utilize convenience sampling to identify participants. Several teachers initially indicated interest in participating. As time progressed, and the demands of their jobs increased, a handful of the teachers became non-responsive. As a researcher-practitioner, I go to classrooms to interact with potential participants face-to-face, ask the administrators for support, and eventually identify three participants willing to engage in the entirety of the study. Even with those participants, there are several confounding variables that affect data collection. For example, one participant also coaches sports and is often not present in his class due to the need to leave early. Another participant is out for about two weeks due to a diagnosis of Covid-19. Other school initiatives and focus areas also influence the nature of the lesson delivered by each teacher and therefore data collection. For example, I rescheduled some sessions due to

testing. My role as the researcher-practitioner also affects availability. A change in district leadership and my return from maternity leave lead to an increase in job responsibilities for which I was not previously responsible. These include matters like implementing a social-emotional screener district-wide, taking on the role as the 504 coordinator, supporting navigation through substantial disproportionality. A shift in responsibilities, my availability to collect these data, and my role in general, greatly vary from previous cycles of this action research.

Additionally, due to the time constraints of the program, I conduct baseline and intervention observations at various times throughout the day. This means that I observe different groups of students across periods for each participant. This likely influences experimental control because different groups of students brought forth a different dynamic. To minimize this effect, I keep time frames similar for each participant. For example, for Mr. A, I always collect data in the afternoons during Periods 5 or 6. Mr. B's and Mr. C's sessions always occur in the early morning and include Periods 1-3.

Teacher behavior and therefore learner behavior vary across each period observed, for Mr. A and Mr. C. These changes likely affect experimental control. Another variable that influenced control includes the day-to-day changes in teacher-directed lessons. Although some teachers, such as Mr. C has consistent routines with lessons, others do not. For example, during one of Mr. B's observations he utilizes videos as a component of his teacher directed lesson. The use of videos minimizes opportunities to respond during that session. The variability in the types of lessons delivered to learners is likely to have an effect on this study's data.

Summary

Participant availability, variable classroom dynamics across periods, day-to-day lesson changes, and other school initiatives influence the control in this study. Other limitations include my influences as an observer on the learners' behavior, the participant's behavior, and my data collection. My role as a district administrator and as the Coordinator of Behavior Intervention and Support is to some degree likely to affect the findings of this study. To mitigate these confounding variables, I utilize a nonconcurrent baseline across participants design which includes repeated measures and supports internal validity (Engel & Schutt, 2014). Additionally, I utilize triangulation of data from both qualitative and quantitative assessments to generate findings in response to each research question.

Implications for Practice

Results of the present study indicate that a coaching intervention, which involves instruction, modeling, rehearsal, positive acknowledgement and data sharing, increases middle school teachers' PBIS practices, specifically opportunities to respond and encouragement of appropriate behavior. An increase in these skills affects learners' on-task behaviors. Findings of the present study have implications for future practice. Findings provide information about the application of MTSS framework on tiered professional development, application of Tier 1 PBIS classroom management practices at the middle school level, and a focus on student voice through opportunities to respond.

MTS-PD

Recent research links a MTSS with professional development practices. MTS-PD refers to the application of the tiered framework to professional development. At Tier 1, all teachers or staff receive foundational professional development (PD). The

effectiveness of professional development is monitored and outcomes are utilized to guide the future direction of PD. If the professional development is effective in affecting most teachers' practices, then the few for which the PD is not effective, would participate in a Tier 2 intervention. The present study's coaching intervention falls under a Tier 2 professional development intervention aimed at influencing Tier 1 classroom management practices. The coaching intervention in this study involves application of a methodology to influence a group of teachers' practices. Under the MTS-PD framework, teachers might be in need of additional support at Tier 1 and receive additional coaching support at Tier 2. The present study provides a clear methodology for enhancing middle school teachers' implementation of PBIS practices within their classroom, and is consistent with previous literature on this topic.

The present study utilizes convenience sampling to gather participants. This means that each participant volunteered to participate in the study. A self-nominating or self-selecting approach to PD, may contribute to greater buy-in in the intervention, and therefore more positive outcomes. The MTS-PD framework matches teachers to an intervention based on their performance and needs. These decisions are supported by data. One item on the Fidelity Integrity Assessment (FIA) which is used to measure school site's implementation of a MTSS framework states "our school provides professional learning to all staff upon request or need identified by data, and includes input from school" partners from the Fidelity Integrity Assessment (Swift, 2020, p. 9). A self-referral process is consistent with the MTSS framework as outlined by the FIA and can be integrated into MTS-PD to influence teacher practices and produce positive learner outcomes.

In the present study, I focus on two classroom management practices. One of those practices includes opportunities to respond. Providing learners with opportunities to meaningful engage is likely to lead to improved learner outcomes and decreases in challenging behavior. This same principle can be applied to professional development. Professional development that involves moving teachers out of the traditional "sit and get" environment and instead to rehearsal and practice of skills within the context of their classroom has greater potential to influence changes in teacher practices and therefore student outcomes. Under the same item on the FIA (2.1), 'education coaching and learning' for teachers encompasses two components under the MTSS framework (a) "educators in our school receive instructional coaching on the use of research-based practices within their first two years of teaching and ongoing as indicated through data or upon educator request" and (b) "Coaching includes modeling, demonstration, support, and feedback in the classroom" (Swift, 2020, p. 9). One of the three participants in this study has training on PBIS through their teaching program. The intervention in this study can support new teachers and better prepare them for implementing positive and evidence-based classroom management practices in an ever-changing world. Additionally, the coaching intervention described in this study fits under the MTSS framework and encourages the use of the identified skills in the moment.

To make changes and build capacity, we must carefully examine what we expect. Aligned with Guskey's model of teacher change theory, professional development should encompass a narrowed focus on actionable steps to make change in our practice, provide some accountability for implementation, link implementation to learner outcomes, and acknowledge implementation of those practices. Simply being in the room may have had

an impact on participants' behavior, per their self-report and feedback throughout the study. Classroom walkthroughs and observations could therefore be low hanging fruit employed by educational leaders to make a big effect. To improve classroom walkthroughs, educational leaders could pick one clear skill or focus area on which to collect data. That skill should be operationally defined for all, so that there is clear meaning and consistent data. Sharing data with teachers and pairing that data with positive feedback and/or goal setting could also contribute to changes in practice. This is consistent with findings from my study, which indicated that teachers scored themselves higher or lower on practices for which they had received their data and whose scores are consistent with what their observational data are showing from pre- to post-test. Providing teachers with their data could enhance self-efficacy and their confidence to solve problems within their own classroom.

Classroom walkthroughs with a focus on a coaching one skill or practice with the inclusion of data and positive feedback, could also support staff members in building meaning around complex concepts like MTSS, PBIS, and classroom management. Interviews for each of the three participants in the present study indicate some knowledge gaps in Tier 1 classroom management practices with respect to PBIS. When I discuss with each participant about the two practices outlined in this study, they quickly understand each of the two identified skills. Walkthroughs and coaching allow educational leaders to operationally define concepts like PBIS consistently across teachers and for their campus. Being in classrooms, also provides instructional leaders with data to guide their decision making around professional development and any needed changes in focus areas to better support their entire school community. A school

community that is normed on concepts like PBIS or MTSS, will likely have an easier time moving those concepts forward. Educational leaders may include teachers as well, because some teachers may not feel comfortable with an evaluator in their classroom, providing coaching opportunities. Classroom walkthroughs and coaching conducted by teachers, teacher leads, and other educational leaders such as teachers on special assignment (TOSAs) could help to grow a culture of feedback around data and enhance overall school climate and culture.

PBIS at the Middle School Level

Literature about implementation of PBIS is more likely to encompass implementation at the elementary level. When conducting my literature review, it is challenging to identify and locate articles applying coaching interventions on PBIS classroom management practices to middle schools. In addition, throughout my role as a researcher and practitioner, site leaders and other faculty members make statements about PBIS "not working" at the middle school level. Oftentimes, those faculty members are referring to a school-wide or class-wide acknowledgement system, specifically a token system. The findings of the present study indicate that implementation of PBIS and MTSS, has potential for large effects for our learners at the middle school level. This is consistent with outcome data for middle school students in schools where PBIS has been implemented (Center on PBIS, 2022). Additionally, both PBIS and MTSS are frameworks not prescriptions, and should be applied to meet the contextually relevant and socially significant needs of each school and the learners it serves. For example, none of the participants in this study are implementing a token system within their classroom,

but all have a means to acknowledge appropriate behavior that had meaning for both them and their students (e.g. star charts, stamps, and shots in a basketball hoop).

A Focus on Student Voice

Critical theories, including critical race theory and critical pedagogy are underlying theoretical frameworks supporting the present research. Coaching practices to increase opportunities to respond is not enough, but it is a step in the right direction and away from "sit and get" learning. As opportunities for students to respond during the intervention phase increased, I observed one teacher who began to realize that students were not following along. Checks for understanding were answered with "I don't know." Notably, this led to a shift in his teaching practices within the moment. During the baseline phase where there were few opportunities to respond, the teacher continued on with their lesson whether or not students were following along, simply because opportunities to respond and check for understanding were missed.

Covid-19 had a profound effect on our learners and our teachers. Many of our middle school teachers were speaking to little black squares on Zoom and utilizing educational technology, like Nearpod and Zoom chat boxes, to evoke student engagement. Now that we are back in person, it is essential that we engage our learners through interactive opportunities to respond with their peers, with the whole class, and in different modalities. From there, we can build our equitable teaching practices from a lens of cultural responsiveness and informed by critical theories.

Summary

Findings from the present research have several implications for practice. I highlight three major implications, which include implementation of a MTS-PD,

implementation of PBIS and MTSS in a middle school setting, and the need to focus on opportunities to respond. Findings indicate that a coaching intervention which includes walkthroughs and data collection is beneficial in changing teachers' practices and subsequently students' behavior. This is a practice that can be implemented by school faculty and instructional leaders. Second, PBIS and MTSS can be implemented at the secondary level, specifically in middle schools. Finally, opportunities to respond is a clear practice under Tier 1 PBIS classroom management practices that may be able to bring us back to baseline in a post-Covid world as well as propel our growth towards more inclusive and equitable practices.

Implications for Research

Results from the present study contribute to the literature around implementation of PBIS and MTSS. Findings also specifically inform future research on implementation of PBIS Tier 1 classroom management practices in middle school settings. More research is needed to support implementation of these practices at a middle school level, where variables differ from those of high school and elementary school. In a post-Covid world, teaching practices at our middle school have become technology heavy. In future research, investigators would be wise to consider the dynamics of increased technology use and how that may affect opportunities to respond in classrooms.

Another consideration for future research involves translating methods used in the present study to easily applicable coaching practices for educational leaders. I chose to focus on two classroom management practices within one coaching cycle. Future researchers may want to observe the differences, and evaluate the effectiveness of coaching on just one practice at a time or coaching on multiple practices during one

coaching cycle. Providing coaching for one practice at a time, may be more practical and feasible in an applied setting. Because this intervention could be an effective way to make changes in the classroom behaviors of teachers and students, more research is needed around building capacity of school sites to implement this intervention on their own, without the use of an external reviewer or coach.

Personal Lessons Learned

Conducting this research has taught me a lot personally and professionally. Throughout my career working in the educational system I have been faced with complex problems, which are more often than not, met with analysis paralysis. Action research affords me the opportunity to work through these complexities by making an actionable difference on contextually relevant problems of practice. Action research provides a framework for tackling tough systemic issues, building capacity, and utilizing data to guide decisions.

As a Board Certified Behavior Analyst, my background knowledge in research primarily involves single-subject design and data derived from direct observation. Action research offers me new robust tools to assess a phenomenon in a meaningful way. 'Those closest to the problem are closest to the solution' is a slogan I hear frequently in reference to leadership decisions. Action research truly embodies this message. When it comes to messy problems, I alone, cannot and will not, come up with an effective solution. Action research is responsive to the importance of diverse perspectives in contributing meaning to the data through reconnaissance, qualitative data, and triangulation.

Throughout the cycles of this research, I have learned to apply my new knowledge to various problems of practice within my context. Some of these issues

include substantial disproportionality for our students with Individualized Education Plans and noteworthy chronic absenteeism for our district, following the pandemic. I have also begun to analyze the effects of other current initiatives in my role, through a similar process, such as analyzing our current implementation of social emotional learning, the extent to which our instruction influences pre- and post-measures, and fidelity of implementation of PBIS on learner outcomes across schools. One key takeaway from this process is a constant reflection on one's own practice. As a member of an educational system, I vow to be 'a forever learner.' Effective leaders question themselves, their decisions, seek and accept feedback, and make changes contingent on that feedback. The importance of reflection has permeated throughout my entire life and affects all that I do.

Conclusions

In this study, I seek to affect the implementation of a Multi-Tiered System of Support in a rural, Title 1, middle school. To do so, I drill down to class-wide implementation of PBIS practices. Consistent with previous research, I deploy a targeted professional development intervention, which includes coaching of two classroom management practices, opportunities to respond and encouragement of appropriate behavior through positive points of contact. Findings indicate that coaching is effective in improving class-wide implementation of both practices, across all participants. Further, increases in the two practices lead to increased student on-task behavior.

Implementation of PBIS has positive implications for schools, staff members, and learners. Returning from a post-pandemic world has led to changes in teaching practices and our learners. 'We are all a product of our environment.' It is important that

classrooms encompass meaningful and positive opportunities to engage with each other as well as opportunities for students to contribute to, and shape their learning environment. Focusing on PBIS practices, specifically positive points of contact and opportunities to respond may contribute to this goal. Findings from this research contribute to the field of behavior analysis, PBIS, MTSS, and education as a whole.

The landscape of our education system is ever changing. Adaptable, positive, and evidence-based practices have the potential to influence student outcomes in any environment. PBIS prescribes such practices. Although practices like opportunities to respond provide a foundation on which to build, educators must continue to shape their own practices to improve themselves, the learning environment, and the outcomes for the learners' they serve.

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APPENDIX A

INFORMED CONSENT FOR TEACHERS

Dear Colleague:

My name is Katie Turner and I am a doctoral student in the Mary Lou Fulton Teachers College (MLFTC) at Arizona State University (ASU). I am working under the direction of Dr. Craig Mertler, a faculty member in MLFTC. We are conducting a research study on Classroom Management Practices and Positive Behavior Intervention and Support (PBIS). The purpose of this study is to better understand implementation of PBIS classroom management practices, specifically opportunities to respond and encouraging appropriate behavior within a middle school setting.

We are asking for your help, which will involve your participation in an interview concerning your knowledge, experiences, attitudes, and beliefs about PBIS and classroom management, completion of brief surveys, as well as participating in a coaching intervention. We anticipate this interview to take 20 minutes total. I would like to audio record this interview. The interview will not be recorded without your permission. Please let me know if you do not want the interview to be recorded; you also can change your mind after the interview starts, just let me know. Completion of the three surveys, should take about 10 minutes each. The coaching intervention will consist of approximately 20 classroom observations, 15 minutes in length. I will conduct all classroom observations as well as the intervention.

Your participation in this study is voluntary. If you choose not to participate or withdraw from the study at any time, there will be no penalty whatsoever. You must be 18 years of age or older to participate.

The benefit to participation is the opportunity for you to reflect on and think more about classroom management practices and PBIS. Data collected will also inform future classroom management interventions and PBIS. Thus, there is potential to enhance the experiences of our colleagues and students. You may feel uncomfortable having an-in person observer in your classroom. Furthermore, classroom observation may impact student behavior. Observations will remain unobtrusive and neutral. You are welcome to let me know where you would like me to observe from and provide feedback to enhance the quality of the observation.

Your responses and data collected will be confidential. Results from this study may be used in reports, presentations, or publications but your name will not be used.

If you have any questions concerning the research study, please contact the research team – Craig Mertler at craig.mertler@asu.edu or Katie Turner at katie_turner@nmcusd.org or 831-346-2931.

Thank you,

Katie Turner, Doctoral Student
Craig Mertler, Professor
Please let me know if you wish to be part of the study and will let me audio record your responses by verbally indicating your consent.

If you have any questions about your rights as a participant in this research, or if you feel you have been placed at risk, you can contact Craig Mertler at craig.mertler@asu.edu or the Chair of Human Subjects Institutional Review Board through the ASU Office of Research Integrity and Assurance at (480) 965-6788.

APPENDIX B

CLASSROOOM MANAGEMENT SELF-ASSESSMENT

Classroom Management: Self-Assessment

Classroom Management Practice	Rating
*1. I have arranged my classroom to **minimize crowding and distraction***	Yes No
*2. I have **maximized structure and predictability** in my classroom (e.g., explicit classroom routines, specific directions, etc.).*	Yes No
*3. I have posted, taught, reviewed, and reinforced 3-5 **positively stated expectations** (or rules).*	Yes No
*4. I provide **more frequent acknowledgement** for appropriate behaviors than inappropriate behaviors (See top of page).*	Yes No
*5. I provide each student with **multiple opportunities to respond** and participate during instruction.*	Yes No
*6. My instruction **actively engages** students in observable ways (e.g., writing, verbalizing)*	Yes No
*7. I **actively supervise** my classroom (e.g., moving, scanning) during instruction.*	Yes No
*8. I **ignore** or provide **quick, direct, explicit reprimands/redirections** in response to inappropriate behavior.*	Yes No
*9. I have **multiple strategies/systems** in place to **acknowledge** appropriate behavior (e.g., class point systems, praise, etc.).*	Yes No
*10. In general, I provide **specific feedback** in response to social and academic behavior errors and correct responses.*	Yes No

127 APPENDIX C

CLASSROOM CHECK-UP TEACHER INTERVIEW

Classroom Check-up Teacher Interview

I. Preparation Dialogue with Teacher

"I wanted to take just a bit of your time to ask you a few questions that will allow me to get to know you better and provide me with an idea about your classroom management style. Additionally, I plan to ask you some questions about your past consultation experiences, if any, and provide you with an opportunity to share any classroom difficulties in which you would like support."

II. Teacher Experience

1. How long have you been a teacher? Have you always taught this grade level?

2. What do you think it was that made you want to become a teacher?

3. What is the best thing about being a teacher? What excited you about teaching?

4. What do you think is the most difficulty or hardest thing about being a teacher?

Before moving forward you might provide a brief summary of the conversation thus far. Connect personally with the teacher by giving examples of shared experiences (if appropriate) and normalizing difficulties.

III. Classroom Management Style: "The next few questions will be about how you manage behavior in your classroom."

1. What are some of the strategies that you use in your classroom to help with classroom management? What are some things you feel you need to work on in this area?

If teacher does not provide examples of rules or reward systems use the following prompts:

Do you have a set of classroom rules anchored to the school-wide expectations? If so, what are those rules?

Do you use acknowledgement systems in your classroom? If so, what does that system look like?

2. How do you handle misbehavior in your classroom?

3. What strategies have you found to be most effective?

4. What strategies have you found to be ineffective?

This may be a good place to provide a brief summary of the discussion. Connecting personally and normalizing challenges can be helpful in developing rapport.

V. The Ideal Classroom

We have been discussing many aspects of your classroom. In this next section, I would like you to picture your ideal classroom."

1. What would this classroom look like?

2. What are some of the important qualities that you want children to take home from your classroom?

3. What do you hope the students from your classroom to remember about you as their teacher at the end of the year? What about in the future?

Briefly summarize before moving into the next section.

VI. Past Consultation/Coaching Experiences & Description of CCU Model

1. What has been your past experience with consultation? What did you find helpful/ not helpful?

"I want to briefly describe what we will be doing together. My role is to support you in implementing effective classroom management strategies in your classroom. The first thing I will do is visit your classroom a few times to observe. During these visits I will be gathering some specific information. For instance, I will be taking a count of the number of disruptions, your use of praise and reprimands, your use of questions during instruction and how engaged students are during lessons. After I gather all this information, I will set up a meeting with you to go over it. We will look at it together to see if there are any areas that you want to improve or perhaps any new practices you want to try in your classroom. I will then make regular visits to see how things are going and to brainstorm other ideas if things are not going well.

Do you have any questions or concerns?"

Set up the first observation:

"OK. Let's find a time that I can come to your classroom to observe. What is a time that you find can be challenging with regard to managing student behavior?" Record the date and time.

VII. Specific Areas of Support

1. When I come to observe is there anything in particular that you would like me to take notice of?

2. Do you have any behavioral challenges in your classroom that you would like support?

APPENDIX D

BEHAVIOR INTERVENTION RATING SCALE (BIRS)

	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree
1. This would be an acceptable intervention for problem behavior.	1	2	3	4	5
2. Most teachers would find this intervention appropriate for behavior problems.	1	2	3	4	5
3. The intervention should prove effective in changing problem behavior.	1	2	3	4	5
4. I would suggest the use of this intervention to other teachers.	1	2	3	4	5
5. Most teachers would find the use of this intervention suitable for behavior problems.	1	2	3	4	5
6. I would be willing to use this in the classroom setting.	1	2	3	4	5
7. The intervention would not result in negative side-effects for children.	1	2	3	4	5
8. The intervention would be an appropriate intervention for a variety of children.	1	2	3	4	5
9. The intervention is consistent with those I have used in classroom settings.	1	2	3	4	5
10. The intervention is reasonable for behavior problems.	1	2	3	4	5
11. I like the procedures used in this intervention.	1	2	3	4	5
12. Overall, the intervention would be beneficial for children.	1	2	3	4	5
13. The intervention would quickly improve problem behavior.	1	2	3	4	5

14. The intervention would produce a lasting improvement in problem behavior.	1	2	3	4	5
15. Soon after using the intervention, the teacher would notice a positive change in problem behavior.	1	2	3	4	5
16. Behavior will remain at an improved level even after the intervention is discontinued.	1	2	3	4	5

APPENDIX E

ASU IRB APPROVAL LETTER

ASU Knowledge Enterprise Development

EXEMPTION GRANTED

Dear Ray Buss:

On 6/22/2022 the ASU IRB reviewed the following protocol:

Type of Review:	Modification / Update
Title:	Positive Behavior Intervention and Support (PBIS): An Intervention for Tier 1 Classroom Management Practices
Investigator:	Ray Buss
IRB ID:	STUDY00015719
Funding:	None
Grant Title:	None
Grant ID:	None
Documents Reviewed:	• Consent Email , Category: Consent Form; • Re_ Change of PI on your IRB.pdf, Category: Other; • Recruitment Form, Category: Recruitment Materials; • Updated Protocol , Category: IRB Protocol;

The IRB determined that the protocol is considered exempt pursuant to Federal Regulations 45CFR46 (2) Tests, surveys, interviews, or observation on 6/22/2022.

In conducting this protocol you are required to follow the requirements listed in the INVESTIGATOR MANUAL (HRP-103).

If any changes are made to the study, the IRB must be notified at research.integrity@asu.edu to determine if additional reviews/approvals are required. Changes may include but not limited to revisions to data collection, survey and/or interview questions, and vulnerable populations, etc.

REMINDER - - Effective January 12, 2022, in-person interactions with human subjects require adherence to all current policies for ASU faculty, staff, students and visitors. Up-to-date information regarding ASU's COVID-19 Management

Strategy can be found here. IRB approval is related to the research activity involving human subjects, all other protocols related to COVID-19 management including face coverings, health checks, facility access, etc. are governed by current ASU policy.

Sincerely,

IRB Administrator

cc: Katie Turner