2011-08-11

Effects of Tiered Training on General Education Teachers' Use of Specific Praise

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A thesis submitted to the faculty of
Brigham Young University
in partial fulfillment of the requirements for the degree of

Master of Science

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December 2011

ABSTRACT

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Research suggests a compelling correlation between teacher behavior and effective learning environments (Sutherland & Morgan, 2003; Brophy & Good, 1986). Focusing on the evidence-based teaching skill of offering behavior-specific praise (BSP), the researcher worked with 3 elementary-level general educators in a tiered model of instruction, commonly known as response to intervention (RtI). Although RtI commonly provides targeted instructional support to students, this study, a systematic replication of Myers, Simonsen and Sugai (2011), used the RtI framework to provide professional development to teachers. The researcher also tracked the behavior of 3 students, identified by the teachers as having behavioral difficulties, who became the focus of each teacher's BSP. Results showed rapid and somewhat sustained increases in rates of BSP following the Tier 2 and 3 interventions (video self-monitoring and peer coaching), but not following the Tier 1 intervention (schoolwide in-service training). Averages for all 3 students' on-task behavior increased with increased teacher BSP. Implications for educators, administrators, and researchers are discussed.

Keywords: behavior-specific praise, response to intervention, faculty peer coaching, video self-monitoring, professional development

ACKNOWLEDGEMENTS

I would like to thank my family for supporting me in continuing my education. Without their encouragement and tolerance of my absence this endeavor would not have been conceivable. Thank you for believing in me and cheering me on. Likewise, I thank my dear friends who took care of my children and also encouraged me throughout this process.

More directly, the completion of this study would not have been possible without the tireless instruction and mentoring of my thesis chair, Dr. Michelle Marchant. Her generosity, direction, and patience expanded my abilities far beyond what I thought possible. Likewise, the other members of my committee, Dr. Mary Anne Prater, Dr. Darlene Anderson, and Dr. Gordon Gibb, provided encouragement, taught relevant coursework, and otherwise shared valuable insight and feedback.

I would also like to thank Dr. Tina Dyches for her constant encouragement and support, as well as CPSE Secretary, Diane Hancock, for keeping me on course during chaotic times. Her attention to detail and kindness are greatly appreciated.

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INTRODUCTION OF STRUCTURE AND CONTENT

This thesis, *Effects of Tiered Training on General Educators' Use of Specific Praise*, is written in a hybrid format, which brings together traditional thesis requirements and journal publication formats. The preliminary pages of the thesis reflect requirements for submission to the university. The thesis report is presented as a journal article and conforms to length and style requirements for submitting research reports to education journals. The literature review is included in Appendix A.

A tiered training framework was used to provide professional development to general education teachers. Three tiers of performance interventions were identified as possible professional training models: (a) group instruction such as district in-service, school faculty meeting or other one-time training opportunities; (b) video self-monitoring, including creating data for self-reflection; and (c) performance feedback from skilled instructional coaches. A similar framework of providing school-based interventions to attend to students' academic and behavior needs is called response to intervention, or RtI. Within the RtI model educators align student needs with evidenced-based interventions along the continuum of tiers, specifically, universal, secondary, and tertiary levels. In a similar study, Myers, Simonsen and Sugai (2011) utilized an RtI framework to increase praise rates, both specific and general, to a predetermined number. This study is a systematic replication of the Myers et al. (2011) study (see Table 1 within text of article).

The focus of training for the study at hand was increasing behavior-specific praise (BSP), especially towards teacher-identified students with excessive off-task behavior. Teacher participants were nominated by school principals who perceived them to be in need of additional training and support for classroom behavior management. Student participants were nominated

by the classroom teacher. Three levels or tiers of intervention were implemented to increase BSP. Baseline data were collected prior to the primary level of intervention, which consisted of faculty-wide training. After the faculty training, data were recorded on rates of BSP and consequent student on-task behavior. The secondary level of intervention was the use of a video camera focused on the teacher during 15-min segments of direct instruction. The teacher viewed the recording, tallied BSP rates, and sent the results to the author. Data collection from the observers continued to be taken on both teacher BSP rates and student on-task percentages. The tertiary level of intervention included the involvement of an instructional coach who offered suggestions and encouragement to increase BSP rates.

Article Abstract

Research suggests a compelling correlation between teacher behavior and effective learning environments (Chalk & Bizo, 2004; Hennesy & Deaney, 2009; Sugai, 2007; Sutherland & Morgan, 2003; Sutherland, Wehby & Copeland, 2000; Sutherland, Wehby & Yoder, 2002). Focusing on the evidence-based teaching skill of offering behavior-specific praise (BSP), the researcher worked with 3 elementary-level general educators in a tiered model of training, commonly known as response to intervention (RtI). Although RtI commonly provides targeted instructional support to students, this study used the RtI framework to provide professional development instruction to teachers. The researcher also tracked the behavior of 3 students, identified by the teachers as having behavioral difficulties, who became the focus of each teacher's BSP. Results showed rapid and somewhat sustained increases in rates of BSP following the Tier 2 and 3 interventions (video self-monitoring and peer coaching), but not following the Tier 1 intervention (schoolwide in-service training). Averages for all 3 students' on-task behavior increased with increased teacher BSP.

Keywords: behavior-specific praise, response to intervention, faculty peer coaching, video self-monitoring, professional development, tiered training

Effects of Tiered Training on General Educators' Use of Specific Praise

Background

Improving public education is a topic of national concern as many schools grapple with low achievement results amidst a stronger legislative push for student achievement and highly qualified teachers (No Child Left Behind Act, 2001). With teacher quality directly related to the success of students (Sugai & Horner, 2002), it is necessary to identify effective teacher skills and monitor their implementation. The ability of a teacher to manage student behavior has been identified as one such skill that leads to increased learning time and improved academic and social outcomes (Simonsen, Fairbanks, Briesch, Myers, & Sugai, 2008). In particular, the use of behavior-specific, contingent praise has been identified as an effective teaching practice that consistently results in improved student academic and social behavior (Cherne, 2009; Sugai, 2007). However, significant evidence indicates that teachers rarely use praise effectively in the classroom (Beaman & Wheldall, 2000; Brophy, 1981, Burnett, 2002; Ferguson & Houghton, 1992; Sutherland et al., 2000).

Creating professional development systems that support and sustain teacher ability to implement identified effective practices is a challenge. Strategies used to encourage teachers to utilize effective practices include (a) attendance at workshops, pre-service, and in-service meetings, (b) self-monitoring (Kalis, Vannest, & Parker, 2007), and (c) mentoring or coaching models (Onchwari & Keengwe, 2008; Stichter, Lewis, Richter, Johnson & Bradley, 2006).

Workshops or pre- and in-service meetings are the most widely used format for teacher enhancement programs. However, research suggests several drawbacks to this type of teacher training (Sprick, Knight, Reinke, & McKale, 2006). First, follow-up training or accountability for implementation usually does not occur. Second, a passive delivery model gives attendees

few opportunities to practice for skill mastery. Finally, and perhaps most important, little evidence of generalization to classroom implementation for improved student outcomes exists (Elmore, 2002; Garet, Porter, et al., 2001; Garet, Wayne, et al., 2010; Fixsen, Naoom, Blasé, Friedmand, & Wallace, 2005; Myers, Simonsen & Sugai, 2011; Yoon, Duncan, Lee, Scarloss, & Shapley, 2007).

Self-monitoring provides teachers with actual data on which to reflect, making it an effective method for changing a variety of behaviors in various settings (Kalis et al., 2007). Kalis et al. researched one way to monitor teacher behavior with the use of a pocket counter. Teachers clicked to record instances of behavior-specific praise as they occurred, allowing for time to analyze the data that informed their instruction. This method of self-monitoring is simple to use and cost-effective; it also makes the teacher aware of his or her teaching behaviors regarding a targeted skill. A limitation may be the ability of the teacher to accurately collect data during instruction time.

Video cameras recording lesson delivery provide another self-monitoring tool. This method allows the teacher to watch and take actual data on behaviors without the distraction of managing a lesson (Sherin & van Es, 2005). Observing lesson delivery with a permanent product may decrease inaccurate data collection of teacher behavior. Performance feedback tools such as this offer reliable measures of teacher behavior as well as an efficacious follow-up procedure that has been shown to increase the likelihood of treatment implementation (Noell et al., 2005).

Autonomous performance feedback can be as simple as creating a graph of collected data, listening to audio recordings, or viewing video. However, self-monitoring tactics, when employed without involvement from an experienced peer such as a skilled instructional coach,

can be ineffective, confusing, and impractical to teachers, leaving them without a clear path to positive change (Colvin, Flannery, Sugai, & Monegan, 2009; Joyce & Showers, 1995; Sprick et al., 2006).

As knowledgeable colleagues, coaches share practical experience with the goal of collaboratively improving teaching skills and student outcomes. Performance feedback given by an experienced instructional coach is an intensive intervention to inform effective teacher practice that includes the following elements: (a) self-reflection, (b) pre-conferencing with a review of self-reflection, (c) direct observation and data collection, and (d) post conference, including praise or corrective feedback on skill implementation (Sprick et al., 2006). The advantages associated with having a coach may include modeling a specific teaching strategy upon teacher request and the additional opportunity to engage in collaborative problem solving.

An integrated, tiered approach to education, RtI incorporates high-quality, evidence-based learning strategies, matched to student need, in a data-driven manner (Ardoin, 2006; Barnett, Daly, Jones, & Lentz, 2004; Batsche et al., 2008; Fuchs & Fuchs, 2006; Gresham, 2005). The level of intervention is determined by performance data. While numerous studies exist on the use of RtI to support student academic and social behavior at school, limited research exists on using RtI for professional development of teacher behavior (Coyne, Kame'enui, & Carnine, 2007; Kame'enui, 2007; Myers et al., 2011). This study proposes to add to the literature by examining the effect of implementing an RtI, or tiered approach to general education teacher training, on increasing the use of behavior-specific praise (BSP) through a systematic replication of the Myers et al. (2011) study (see Table 1).

Table 1

Comparison of Myers et al. (2011) and Present Study

	Myers et al. (2011)	Thompson (2011)
Participant selection	Self-nominated	Principal-nominated
Participant criterion	SWPBS training P:R = reprimands greater than praise	BSP rates < 50% of baseline
Setting	Middle school in Northeast US, implementing SWPBS	Elementary schools, Western US, no SWPBS
Dependent variables	BSP, general praise, P:R, composite STOT	BSP, targeted STOT
Independent variables	RtI approach, adjusting level of support according to teacher performance	RtI approach, adjusting level of support according to teacher performance
Tier 1 intervention	SWPBS training mastery	Faculty training meeting on BSP
Tier 2 intervention	Weekly 10-min consultation	Video self-monitoring of BSP
Tier 3 intervention	Increased consultation	Coaching (consultation)
Movement criterion	6 BSP per 15 min, P:R = 4:1	BSP rates 50% > baseline

Note. SWPBS = schoolwide positive behavioral support intervention plan; P:R = ratio of praise to reprimand; BSP = behavior-specific praise; STOT = student time on-task. Information for comparison is from "Increasing Teachers' Use of Praise with a Response-to-Intervention Approach," by D. M. Myers, B. Simonsen, and G. Sugai, 2011, *Education and Treatment of Children, 34*(1), pp. 36–59.

Statement of Purpose

The purpose of this research is to examine the use of a tiered intervention framework to increase teacher use of behavior-specific praise (BSP) and the consequent effects of increased BSP on the on-task behavior of students.

Research Questions

This study addressed the following research questions:

1) What are the effects of a tiered intervention model on the behavior-specific praise rates of elementary general educators?
2) What are the effects of increased behavior-specific praise rates of an elementary general educator on the on-task behaviors of a student the teacher identified as being disruptive?
3) What are educators' perceptions of the utility and effectiveness of the interventions?

Method

A comprehensive description of the participants, including settings and materials, will be discussed in this section. The dependent and independent variables will also be defined. Approval for the study was obtained by the Brigham Young University Institutional Review Board as well as the school district review board prior to beginning this study. Consent to participate in the study, with detailed information about possible interventions, was obtained from teacher participants. Consent forms were also provided to the parents of minor students observed in the classroom. In addition to the consent forms, the students signed an assent document that explained the study in children's terms (see Appendices B, C, and D). It may be important to note that the school district intervention team regularly observes and takes behavior data on students in general education classrooms for the purpose of assisting teachers to develop

and implement positive behavior interventions.

Participants

Selection process. The first author met with the principals of four elementary schools to discuss the purpose of the study and solicit three to four general education teacher names per school. The nominations were based on principal or teacher concerns relating to unresolved disruptive student behavior and/or teachers who had expressed to their principal a desire for additional support with behavior management skills. Twelve teachers (three in each of the four schools) were contacted by the first author and their principal to inform them that student behavior data would be collected in their classroom in an effort to provide behavioral support.

Data were collected on all 12 nominated teachers. The final three teacher participants were chosen based on three criteria: (a) principal nomination, (b) BSP rates less than 1 per 5-min interval as observed by a district intervention team paraeducator over several 15-min observations, and (c) agreement to participate in the study, as obtained by signing a consent form (see Appendix B).

The disruptive behavior of students was verified by data collectors documenting off-task behavior data using 10-s interval recording during 15-min observations. The criterion for student participation was that the student did not currently have a formal behavior intervention plan and was present for the majority of the observation period. All students met this criterion. Consent from parents and assent from students were obtained as well.

Teacher participants. Three white, female elementary teachers, Anna, Gail and Jane (all pseudonyms), participated in the study. All were between ages 40 and 50, with varying levels of experience and education. Two had bachelor's degrees in education and over 10 years of classroom teaching experience, and one had previously taught art classes as a classified

employee and, at the time of the study, was working towards certification in her first year of an alternative licensure program (ARL). See Table 2 for a breakdown of teacher characteristics.

Table 2

Teacher Characteristics

Participant	Grade	Years teaching	Highest degree earned
Anna	4	11	Bachelors in education
Gail	4	13	Bachelors in education
Jane	3	1	BS; working on ARL

Note. BS = bachelor of science; ARL = alternate route to licensure.

Student participants. Student participants included three Caucasian males ages 8, 10 and 11. All three students were reported by their teacher to be noncompliant and disruptive in class; one student had a current Individualized Education Plan (IEP).

The coach. The coach was a female certified special educator with a Bachelor of Arts degree. She had 10 years of teaching experience and worked as a program specialist for the district special education department.

Settings

The study took place in three public elementary schools of a suburban district in the Western United States. The details of each school will be provided below.

School A. School A had a total student population of 691, with 22.1% qualifying for free and reduced lunch, 1.6% who were English language learners, and 13.5% receiving special education services. The specific classroom in which the study was conducted was a general

education class of 31 fourth-grade students. The teacher reported three students who had IEPs and two with attention difficulties. The classroom management system included a "three strikes" approach, wherein the students were given three reminders to stay in compliance with teacher requests; consequences followed the need for a fourth request. The author observed a relaxed atmosphere in this classroom. The relationship between the students and the teacher was more familiar than formal.

School B. School B had a total student population of 535, with 60.7% on free and reduced lunch, 13.5% English language learners, and 18.5% receiving special education services. The specific classroom in which the study was conducted was a general education class of 26 second-grade students. The teacher reported six students as having attention and behavior difficulties. The behavior management in the classroom consisted of a chart with green, yellow, and red cards. Green indicated that the student's behavior was acceptable. The teacher pulled the green card, revealing the yellow card when a student was not following instructions after several reprimands or corrections. If the student continued to misbehave, the yellow card was pulled, revealing the red card. Students with yellow or red cards lost certain privileges, and students with red cards were required to conference with the teacher, and the teacher contacted the parents. The teacher interacted with her students in a more familiar manner and was direct in her delivery of consequences. Students asked questions freely during independent work times and approached the teacher comfortably during breaks to talk with her about their daily life events or interests.

School C. School C had a total student population of 840, with 26.7% on free and reduced lunch, 3.5% English language learners, and 13.1% receiving special education services. The specific classroom in which the study was conducted was a general education class of 26

fourth-grade students. The teacher reported five students with current IEPs and four students with attention issues or non-compliant behaviors. The classroom behavior management was a token economy system. The teacher handed out a ticket to every student at the beginning of the class and the students had opportunities to earn additional tickets throughout the day. The tickets could be used later to "buy" items. The teacher was approachable yet more formal than familiar with her students.

Materials

Materials used for this study included (a) signed consent forms for participants in the study, including permission to be video-taped (see Appendices B, C, D); (b) lesson plans for tier one intervention faculty training meeting, which contained written descriptions of behavior specific praise (BSP) statements (see Appendix E); (c) data collection worksheet for all levels of intervention (see Appendix F); (d) observer training and treatment fidelity checklists (see Appendices G, H, I, J); (e) a social validity questionnaire (see Appendix K); and (f) a Kodak FLIP video camera and tripod, rechargeable batteries for video camera, and a computer equipped with a monitor to view recorded teaching segments. Other materials included clipboards, pencils, an Excel spreadsheet containing data graphs for recording data, and a small pager-type prompting device, called a MotivAider (Behavioral Dynamics, 2010), which emits a vibration on preset intervals. The device can be worn at the waist using the built-in belt clip or placed in the pocket.

Dependent Variables

Teacher behavior. The general education teacher behaviors recorded as the dependent variable in this study were the frequency of behavior-specific (BSP) academic and social behavior praise statements given.

Behavior-specific praise is defined as a verbal statement from the teacher indicating approval and description of a specific desired social or academic behavior exhibited by the student. Verbal statements also included a praise word (e.g., "great," "appreciate," "excellent," etc.). Examples of behavior-specific praise follow: "Sam, I appreciate the way you asked James to join you in the group activity." "Jane, you did a great job helping Megan figure out that problem." "Troy, you did an excellent job defining that vocabulary word. Now you will be able to understand the story!" Nonexamples might consist of positive feedback not linked to specific behavior: "Great job!" "Super!" "Good."

Student behavior. Student on- and off-task behavior was observed and recorded in conjunction with teacher behavior. On-task student behavior included students' orienting themselves towards the teacher, taking notes on teacher lectures, raising hand to ask clarification questions, or performing tasks when directed by the teacher. Student off-task behavior was defined as the student not orienting to the task or work when directed by the teacher. Examples of off-task behavior included a student looking in his desk or out the window, talking with a peer about a nonrelated subject, putting his or her head on the desk, or doing an activity other than that directed by the teacher. Off-task behavior also included disruptive behavior, which was defined as behavior that was distracting to the flow of instruction and learning of other students (e.g., shouting, talking to other students when the teacher is delivering instruction, making noises, or throwing objects).

Independent Variable

As was mentioned previously, an RtI framework was implemented to support teachers in learning and implementing behavior strategies. Once the teachers were taught the strategies, their use of the skill was evaluated. Teachers advanced from tier to tier based on predetermined

criteria and their progress within the tiered framework. The description of each tier is discussed in the paragraphs below.

Tier 1—Schoolwide training of behavior-specific praise. A one-time training during a faculty meeting was the Tier 1 or primary intervention. The researcher conducted the faculty meeting presentation, which consisted of (a) defining general and behavior-specific, contingent praise for social and academic student behavior, (b) sharing research on the effectiveness of using high rates of BSP to increase students' positive behavior, and (c) giving teachers opportunities to practice verbalizing BSP statements. At the conclusion of the training, the staff was encouraged to increase current BSP rates by 50% (see Appendix E).

Tier 2—Video self-monitoring. The process of recording teaching segments with the intent of self-observation is called video self-monitoring. Teachers at Tier 2 interventions used a video camera to record teaching a lesson segment of at least 15 min and no longer than 25 min. The teacher participant watched the video and self-scored the data on BSP rates by counting the total number of BSPs during a 15-min teaching segment. The teacher participant sent the numerical data to the experimenter via email.

Tier 3—Coaching. The introduction of a coach was implemented as the Tier 3 intervention. The coach's role was to provide nonevaluative support and guide the teacher through the problem-solving cycle. This was achieved by sending emails and making personal visits. The coach sent emails which provided specific praise to the teacher for any increase in BSP rates. During the visits the coach provided encouragement, specific praise for improvement and shared data results. A variety of interventions were suggested to the teacher in email correspondence and during visits. The options included the use of a MotivAider (Behavioral Dynamics, 2010), the continued use of the Kodak FLIP video camera, and an open offer to the

participant to observe in other classrooms or to invite the coach to teach a lesson segment in the participant's classroom in order for the participant to observe the coach delivering high rates of BSP.

The participants chose to use the MotivAider (Behavioral Dynamics, 2010), to prompt delivery of BSP to the target student. Praise rate goals were also discussed and determined by calculating actual praise rates and multiplying that number by 1.5. Teachers were encouraged to achieve a specific number of BSPs commensurate with a 50% increase of the average BSP rate during previous intervention conditions; each participant goal was individualized in this manner.

Data Collection Procedures

Measurement. Data were collected on the dependent variables by direct observation of both teacher and student participants. In respect to teacher behavior (i.e., praise), a paper/pencil event recording during 10-s intervals was used. Tally marks were recorded in the space provided on the data collection sheet each time the teacher delivered BSP. Praise rates were determined by dividing the number of praises by the actual minutes observed (see Appendix F).

The measurement system for recording student behavior was a paper/pencil momentary time sampling at the end of each 10-s interval. If the student was on-task the observer wrote a "+" sign, and if the student was off-task the observer wrote a " - " sign on the dash line. The focus of this study was on increasing specific teacher behavior; therefore, momentary time sampling was sufficient to determine the potential impact on student behavior following teacher behavior changes. Data were monitored daily by the researcher through emails received by the observers and teacher participants in the study. Raw data were collected by the researcher and recorded on an Excel spreadsheet. The spreadsheet created a numerical sequential list and also generated a line graph.

Observers and observer training. The observers for this study were the primary researcher and two paraeducators from a district intervention team who had between 5 to 15 years of training in data collection of various teacher and student behaviors. Both paraeducators were white females; one was 51 years of age and the other 40 years of age. As part of the routine responsibilities of their employment, these paraeducators spend most of their working day in general education classrooms providing itinerant support to students with various learning and behavioral disabilities. They receive weekly training and collect praise rate data.

The researcher provided additional training to the paraeducators in data collection procedures for this particular study. Training the observers included four steps.

Step 1: Trainees listened to the primary researcher explain the definition of BSP and student on- and off-task behavior. Five written examples of BSP and non-BSP were read by the trainees, after which they were asked to identify if the example was BSP or non-BSP. Answers were discussed with the primary researcher. The same format was followed for student on- and off-task behavior. When the trainees answered with 100% accuracy on five examples, they were introduced to the data collection form.

Step 2: The primary researcher demonstrated how to use the data collection form by making tally marks for BSP and "-" or "+" for student behavior. Trainees practiced marking tallies and "-" or "+" signs in the designated areas on the data collection form. They further practiced recording data by listening to the trainer read simple narratives of an example of classroom interactions by teacher and students. Trainees marked BSPs and student behavior while the primary researcher read scenarios. The completed data collection forms were shown to the primary researcher, who verified accuracy of the number of BSPs and on- or off-task behavior at 100% before continuing.

Step 3: Trainees practiced recording data from a video of actual classroom teaching segments. Video segments showed both teacher and student behavior. Trainees and the primary researcher watched the video simultaneously and recorded data on teacher BSP and student on- and off-task behavior. Trainees obtained 100% inter-observer agreement with the primary researcher.

Step 4: Trainees practiced taking actual data while observing a teacher and students in a random (nonexperimental) classroom. The primary researcher accompanied each paraeducator on at least two occasions to compare data collection and discuss any questions or discrepancies. When 90% accuracy between trainee and trainer was achieved, the trainee began to take baseline data in the classrooms designated for the research study.

At the end of regularly scheduled weekly intervention team meetings, the researcher met with the paraeducators involved in the study to answer questions, clarify target behavior descriptions and data collection procedures, and schedule visits for reliability checks.

Interobserver agreement data were conducted with all data collectors to prevent observer drift. Specifically, interobserver agreement (IOA) was calculated on 31% of the sessions across all experimental conditions. Data were compared and agreement was defined as two independent observers marking the same total number of tallies or "+" and "-" marks for target behaviors. IOA was calculated by dividing the lower total by the higher total × 100. It was determined that if IOA dropped below 85%, the observers would be retrained by the researcher using the training steps previously outlined, which only happened twice. Average IOA for BSP rates was 100% and average IOA for student on-task behavior was 95% (range 81–98%), with overall IOA at 97.5%.

Experimental Design

This study used a multiple probe design across teachers to evaluate the effects of the independent variable in this study. The following are the conditions under which the researchers evaluated the possibility of a functional relationship between the independent and dependent variables.

Baseline. Baseline conditions were that no systematic in-service trainings, self-monitoring, nor coaching to address BSP rates had previously been conducted with school faculty and staff. Baseline data of BSP rates were collected on teacher participants. Student on-task behavior data were simultaneously collected by the district intervention team paraprofessionals as per standard intervention team procedures. If BSP rates were < 2 per 15-min observation period, the school of those teachers was included in a school-wide faculty training on BSP.

Tiers of intervention.

Tier 1. The school-wide faculty training was the first condition or primary tier of intervention. Data on teacher BSP rates and student on-task behavior continued to be collected on all 12 principal-nominated teachers at least three times per week by the district intervention team paraprofessional assigned to that classroom. One teacher from three schools became the teacher participant for the study based on her BSP rates, availability, and willingness to participate for the duration of the study. If BSP rates were greater than or equal to a 50% increase from baseline BSP rates, the participants remained at Tier 1 intervention. If the BSP rates from the observer fell below a 50% increase from baseline BSP rates, that teacher participant moved to the next condition, which was a Tier 2 intervention.

Tier 2. Tier 2 intervention conditions extended the Tier 1 intervention by adding a self-monitoring process. Specifically, teachers were asked by the researcher to use a Kodak FLIP video camera to tape 15-min lesson segments of their own teaching for later viewing. Teacher participants collected BSP rate data from watching the video, recorded the total BSP counts during a 15-min teaching segment, and sent it to the primary researcher via email at least three times per week. The researcher kept the participant data as anecdotal information while the intervention team continued to take data on teacher BSP rates and student on-task behavior. When BSP rates as observed by the research team were greater than or equal to a 50% increase from Tier 1 BSP rates, the teacher participant continued to use video self-monitoring until at least three consecutive data points indicated an increase of at least 50% compared to baseline. If BSP rates from the observer fell below a 50% increase from Tier 1 BSP rates for two or more data points, the teacher participant moved to Tier 3 interventions.

Tier 3. Tier 3 intervention conditions included continuation of the video self-monitoring processes of Tier 2, with the addition of a coach. The coach (researcher) viewed the graphed data with the teacher and asked reflective questions. Reflective questions included the following: What did you observe during video self-monitoring? What did you notice about your data? What strategies for increasing BSP are effective for you? What have you noticed about student behavior? The teacher participants were encouraged to select from a verbally presented menu of interventions that offered additional support to increase the BSP rate. These options included: (a) using a MotivAider, a small prompting device worn by the teacher that is set at intervals to emit a vibration, signaling the teacher to communicate a behavior-specific praise statement; b) continuing to use a Kodak FLIP video camera for video self-monitoring; c)

accessing the coach, who could model effective use of BSP, or facilitate the participant observing other teachers.

Observers continued to collect data. When BSP rates were greater than or equal to a 50% increase from Tier 2 BSP rates, coaching was minimized and consisted of the researcher providing encouragement and behavior-specific praise to the teacher participant at least three times per week. If BSP rates from the observer dropped below a 50% increase from Tier 2 BSP rates, the coach reintroduced video self-monitoring and increased personal visits until three consecutive data points showed an increase in BSP that was greater than or equal to a 50% increase from Tier 2 BSP rates.

Treatment Fidelity

To ensure proper treatment implementation, a checklist was developed for each condition of the proposed study. Treatment fidelity was calculated as the total number of steps followed, divided by the number of steps followed plus number of steps missed, × 100. Data on treatment fidelity are reported below.

Tier 1. Treatment fidelity at Tier 1 included the use of a lesson plan which guided repeatability for each set of teacher trainings on BSP and a checklist. The checklist contained each step of the lesson plan as well as the consequent data collection process for Tier 1. The checklist was marked and referenced prior to each faculty training. The researcher was the sole provider of the training at Tier 1. By following the lesson plan and using the checklist she was able to control the content and method of implementation across settings in this condition, resulting in 100% treatment validity for Tier 1 (see Appendix H).

Tier 2. A checklist was used to ensure treatment fidelity during Tier 2. The checklist monitored the following details: the teacher (a) used the Kodak Flip camera to record a 15-

minute or longer teaching segment, (b) watched the video recording of themselves and tallied their BSPs, (c) totaled the BSPs and sent the data to the researcher via email on the day they were recorded and viewed, and (d) used the video cameras at least three times per week. In addition, the researcher monitored responding to the teacher emails and giving written praise for sending the data by noting email exchange anecdotally on the checklist. Additionally, the researcher made unscheduled random visits to check the video camera and watched the recorded contents to ensure recordings were being done (see Appendix I).

The average percentage of steps completed for teachers was 88%. This was a result of two out of three teachers not taking the time to record and review video-taped sessions of instruction and consequently not sending BSP rates to the researcher via email. Observations were still conducted and data recorded for those dates. The average percentage of steps completed for each participant was as follows: for Anna was 82%, for Gail was 98%, and for Jane was 86%.

Tier 3. Treatment fidelity at this level consisted of the researcher recording personal visits to the teacher participant on a coaching log (see Appendix J). Teachers were also asked to continue the video self-monitoring which included sending BSP rates to the researcher via email. The permanent product of the recorded teaching session served as an additional treatment fidelity check (see Appendix K). The average percentage of steps completed across all three interventions, including teacher and researcher responsibilities, was 92%.

Social Validity

A postintervention questionnaire was completed by each teacher participant at the completion of the study to evaluate perceptions about the utility, effectiveness, and practicality of a tiered framework for professional development and use of BSP to manage classroom

behavior; more specifically, to manage disruptive students. The survey was sent via email to each teacher participant, who then rated ten items on a 6-point Likert-type scale (see Appendix L). A comment section was provided at the end of the questionnaire and two participants completed that section. Teachers were given the option to print and send the questionnaire anonymously or via email. All participants filled out the questionnaire electronically and returned it to the researcher via email. The researcher encouraged them to be candid in their responses.

Results

This study addressed the effects of a tiered intervention model on the behavior-specific praise (BSP) rates of general education teachers and the consequent effects of increased BSP on the on-task behaviors of students identified by their teacher as having problem behaviors. Furthermore, social validity was analyzed to determine the teacher's perceptions of the intervention methods and outcomes of a tiered intervention model of professional development. Evidence in Figure 1 suggests limited change in response from baseline to Tier 1 (faculty training) intervention on increasing BSP rates, with an increase in teacher behavior change occurring at Tier 2 (video self-monitoring) and Tier 3 (coaching) intervention levels. Concurrently, student on-task behavior, while presenting high variability, showed an increasing trend as teachers increased rates of BSP. Data results for each teacher participant and her respective student will be reported. Results are organized by teacher participant and tiered interventions, followed by the social validity and treatment fidelity results.

Participants' Behavior During Study Phases

Anna.

Baseline. Prior to Tier 1 intervention, Anna gave 0 behavior-specific praise statements

across three observations, indicating a zero trend and low, stable data. The student participant averaged 82% time on task during baseline; the data showed a high level with moderate variability and a slightly increasing trend.

Intervention.

Tier 1. Following Tier 1 intervention Anna gave 1 BSP in five data collection sessions. Her average BSP rate was .20, and student on-task behavior averaged 64% with a range of 40% to 78%. There was a decreasing trend with little variability, including only one day of any BSP counted during Tier 1 for Anna's data. In regards to student data, there was a lower level compared to baseline with some variability, indicating an initial decreasing trend ending with an increasing trend. With BSP at 0 prior to Tier 1, Anna needed to increase rates of BSP to 1 or more in over three consecutive data points in order to calculate a 50% increase. Criterion was not met to remain at Tier 1; therefore Anna moved to Tier 2 intervention.

Tier 2. BSP rates during Tier 2 averaged 1.14 per 15-min observation and ranged from 0 to 5. Although her average BSP increased during Tier 2, Anna's data had some variability with a decreasing trend. Student on-task behavior averaged 61% with a range of 38% to 79%. Student behavior data indicated high variable levels with a gradual increasing trend. Although Anna's BSP rates increased from .20, she had consecutive data points with 0 BSP, indicating a move to Tier 3 intervention.

Tier 3. Anna averaged 2.58 BSPs with a range of 0 to 7 across 12 observations during Tier 3 intervention. Graphed data displayed a more variable level of praise rates with a gradual increasing trend. Student behavior averaged 68% time on-task with a range of 38% to 89%, also with high degree of variability and a gradual increase in trend. The corresponding BSP rate for the lowest student on-task percentage was 0; the day of the highest student on-task behavior

percentage, the BSP rate was 3.

Gail.

Baseline. Prior to intervention Gail had 0 BSPs over seven data collection points, indicative of a zero trend with no variability. The student's on-task behavior averaged 44%, with a variable pattern of data ending with a decreasing trend.

Intervention.

Tier 1. After Tier 1 intervention Gail gave 0 BSPs five out of seven days, which averaged .29 BSP per 15 min for Tier 1 condition. Data were stable with a zero trend. Because of consistent data points of 0 BSP, she was moved to Tier 2 intervention. The student's data indicated high variability with a slightly increasing trend, averaging 41% time on task and a range of 17% to 67%.

Tier 2. During Tier 2 Gail's average BSP rate was 8.64 over eleven observations. Her range of BSP was 3 to 13 per 15-min observation. Student on-task behavior averaged 62% with a mean of 83% and a range of 14% to 91%. The student time on-task behavior showed a rapidly increasing trend, ending in a high level of stability, with one outlying low data point. Because Gail consistently maintained BSP rates above the 50% of Tier 1 BSP rates, which were at a high, stable level with a rapidly increasing trend, she remained at Tier 2 and faded use of the video camera for the last three observation periods.

Jane.

Baseline. Prior to the faculty training on BSP, Jane's average BSP rate was .44 per 15 min over nine observations. Her data were low and stable with a rapid increase in the last data point. Average student time on-task was 36% with a range of 2% to 74%, with high variability and gradual increasing trend.

Intervention.

Tier 1. After Tier 1 intervention Jane's BSP rate per 15 min was 1.14 over seven observations, with a range of 0 to 3. BSP data exhibited an initial high level data point with a rapidly decreasing trend followed by low and stable data. Student time on-task averaged 76% with a range of 49% to 82%. The level of time on-task data was higher than baseline with a gradual decreasing trend. Although Jane increased rates of BSP above 50% of baseline data, she was moved to Tier 2 because her BSP rates remained at 1 over five consecutive data points.

Tier 2. Jane increased BSP rates to an average 2.13 during Tier 2 intervention. Her range of BSP was 0 to 3 with the majority of observations at 2 BSPs per 15 min. Jane's data indicated higher levels of BSP in Tier 2 than in Tier 1 with a gradual decreasing trend. Student average time on-task during Tier 2 was 57% with a range of 32% to 92%. Student data were also at a higher level in Tier 2 as compared to Tier 1 with a gradual and slight decreasing trend. Although the data showed a higher level of BSPs, Jane's rate stayed consistent, without an increase, over eight observations; therefore a decision was made to move to Tier 3 to encourage increased BSP. It is worth noting that, during treatment fidelity checks, it was discovered that Jane was not consistently videotaping her lessons but did so after resolving equipment concerns.

Tier 3. The average BSP rate during Tier 3 was 5.20 per 15 min with a range of 3 to 9. Data showed a higher level as compared to Tier 2 with a gradual decreasing trend. Student time on-task averaged 62% with a range of 39% to 87%, also with a higher level but gradual decreasing trend (see Figure 1).

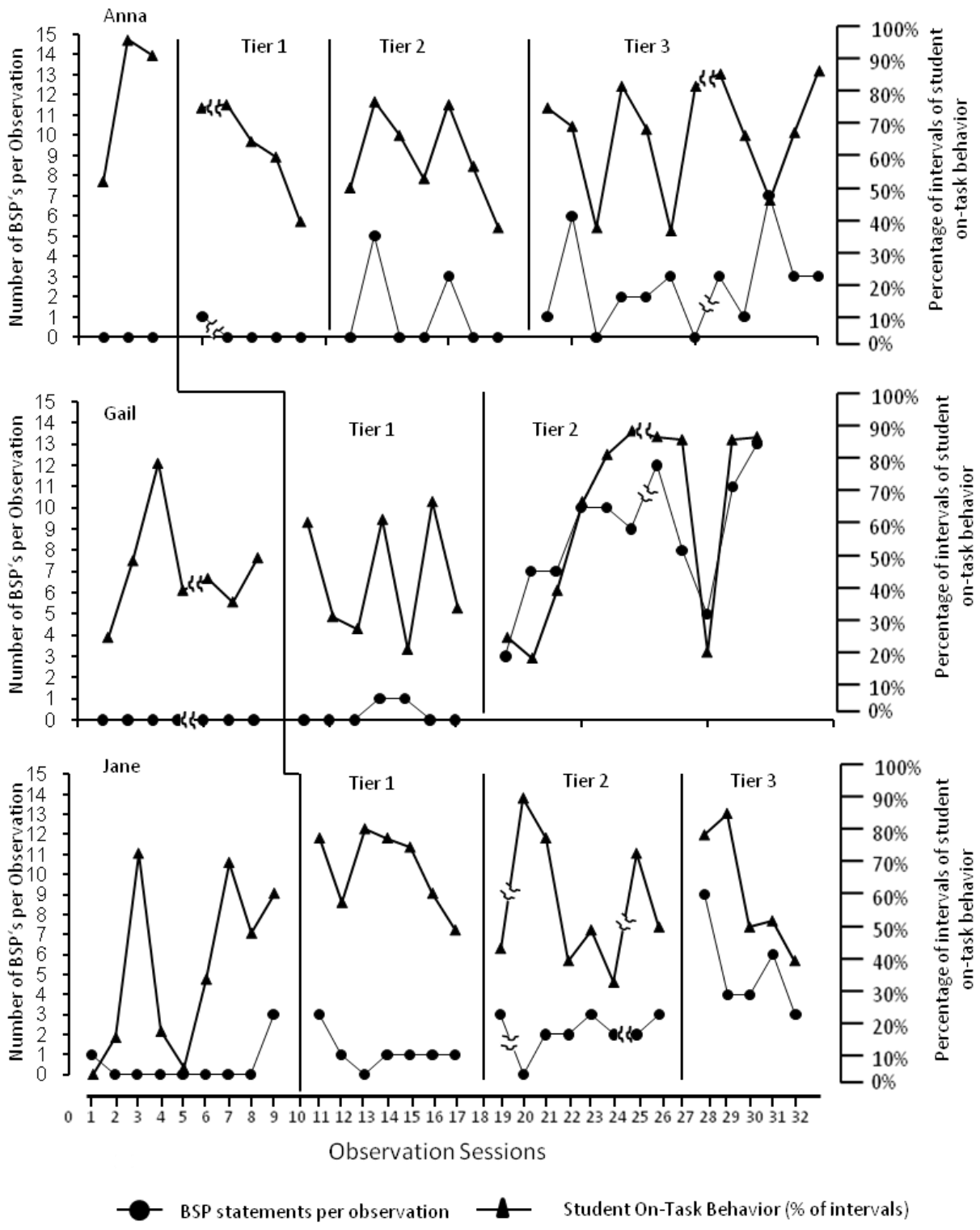

Figure 1. Effects of tiered intervention on BSP rates and student time on task, across observation sessions.

Social Validity

A Social Validity Teacher Questionnaire (see Appendix L) was completed by each teacher participant to evaluate the effectiveness and viability of (a) an RtI approach to professional development and (b) the use of BSP as an intervention to improve student disruptive behavior. The questionnaire contained 10 questions and a rating scale from 1 to 6. Eight questions had rating choices from "strongly disagree" to "strongly agree." The remaining two questions had a rating scale from "almost never" to "almost always," along with "not applicable," as the options. The results are listed in Table 3.

Two of the three participants strongly agreed that professional development is more effective if it addresses the individual needs of each teacher, with less consensus regarding whole faculty training. In answering a question regarding the effectiveness of whole faculty training, one answered that she disagreed, one that she somewhat agreed, and another that she agreed.

With respect to the specific interventions of the professional development training on BSP, two agreed that the faculty meeting was sufficient to increase BSP rates and one somewhat agreed. Video self-monitoring was favorably regarded as a tool for improving classroom management, and all agreed that a collaborative coach was an effective tool for teacher improvement, although when asked how often they would ask for a collaborative coach in the future, one reported "once in a while," another "sometimes," and the other "frequently." All participants strongly agreed that BSP was an effective, feasible intervention to increase desired student academic and social behavior and that they would implement BSP in their classrooms.

Table 3

Social Validity Questionnaire Results

Question	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
Faculty training adequate to increase BSP				1	2	
Student changed behavior as result of increased BSP					2	1
BSP is an effective intervention						3
Increasing BSP is feasible and will implement					1	2
Video self-monitoring is an effective tool for improving classroom management					2	1
Using a collaborative coach is an effective tool for teacher improvement						3
Professional development is more effective when it addresses individual needs of each teacher					2	1
Professional development is more effective when it addresses needs of faculty as a whole		1	1		1	

	Almost never	Once in a while	Sometimes	Frequently	Almost always	Not applicable
How often will you use video self-monitoring?			3			
How often will you ask for a collaborative coach to improve your teaching?		1	1	1		

Additional comments reiterated the acceptance and efficacy of increasing BSP rates to improve student behavior:

- "The BSP that I did on my class this year made a huge difference in the attitudes of my students. It didn't solve every problem but it really had a strong impact on the behavior of the whole class as well as the targeted student. The downside to this was the timing. This is something that could have been implemented in the fall and saved lots of wasted time just with management. I will definitely incorporate this along with a few other things at the beginning of the year next year. I think it is really easy to get stuck in the habit of acknowledging the negative behaviors and overlook the positive behaviors of the students. I know that I didn't realize this until I started focusing on the positive behaviors. . . . Now that I am comfortable with implementing BSP in my class it isn't difficult or frustrating at all. . . . Overall I learned some great ways to change the behaviors of the class and make my classroom a more positive environment."
- "To be honest it made me very nervous to have other professionals observing me, but I learned through the process the value of praising specific behavior. I learned that it takes practice to see the behavior and then to give praise for the behavior. I know that I have improved on 'seeing' the desired behavior and giving praise and I will continue to improve this teaching technique."

Discussion

This study examined the effects of a tiered or RtI approach to professional development on increasing teachers' use of behavior-specific praise (BSP). Results clearly indicate that rates of BSP increased as the level of performance feedback supports increased, which is consistent

with the findings of a similar study by Myers et al. (2011). The present study expands the Myers' study, as well as the research on effective professional development models, the use of video self-monitoring and coaching, and the effects of increased rates of BSP on student time on-task.

Teacher Response to Tiered Training

The main focus of this study was to examine the effects of tiered intervention on teachers' acquisition of a specific skill; specifically, we examined teacher response to individualized professional development, student response to teacher behavior, and teacher perceptions of the processes and content of the study. The subsequent paragraphs address each topic.

Baseline data on BSP rates revealed that teachers gave little to no behavior-specific praise statements, especially directed towards those students they identified as disruptive. These findings are consistent with research on teacher-student interactions of little positive feedback or praise for appropriate conduct (Brophy 1981; Beaman & Wehldall, 2000; Sutherland et al., 2000). The baseline condition was followed with Tier 1 intervention—the faculty training on BSP. After this training, teachers were challenged to increase their BSP rates by 50% unless their rate was 0, in which case they were challenged to increase their rate by 100%. All teachers, including the teacher participants, attending the faculty meeting agreed that this would be possible and consequently stated a verbal commitment to do so for the school year.
Results indicate that rates of BSP for the teacher participants did not increase consistently following the faculty training. In fact, during the Tier 1 condition two participants made slight improvements that rapidly returned to baseline, showing only slight effects between the independent and dependent variable. These results broaden research demonstrating that a one-

shot method of delivering information is largely inadequate in changing teacher behavior. (Billingsley, B. S., 2005; Garet, M. S., Porter, A. C. et al., 2001; Garet, M. S., Wayne, A., et al., 2010; Guskey & Yoon, 2009). Likewise, the current results extend comparable findings that a one-session faculty training so often used in school districts does not yield significant change in teacher behavior (Elmore, 2002; Fixsen et al., 2005; Lee et al., 2007; Myers et al., 2011; Sprick et al., 2006).

In contrast, following the introduction of visual feedback or video self-monitoring during Tier 2, BSP rates increased across all participants, especially for Gail, who attained an increase in BSP rates sufficient enough not to require additional support. For Gail, noticing her behavior from the video created dramatic behavior changes. This supports the findings of Sherin and van Es (2005) regarding the use of video-taping as a pathway to notice classroom interactions in order to develop effective teaching skills in both pre-service and in-service teachers.

Teacher participants agreed that watching themselves teach modified their beliefs about their teaching style. Anna reported, "I had no idea I said [a specific word] over and over as I teach. I need to change that right away." Jane mentioned that she didn't realize she was favoring one side of her classroom and therefore made an effort to turn toward the students on the other side. If details such as these can be noticed by using video self-monitoring, critical teacher behaviors can also be monitored and increased with this method of performance feedback (Hennessy & Deaney, 2009; Hitchcock, Dowrick & Prater, 2003).

Although Jane increased her BSP rates during the self-monitoring level of intervention from Tier 1, it was decided that she move to Tier 3 because she did not increase from 3 BSPs per 15 min over eight observations. It was difficult to determine if the video self-monitoring was effective for Jane because she did not follow the procedures consistently. Anna had two days of

significant increases in BSP; however, her data were inconsistent, with five out of seven days of 0 BSP. Because of inconsistent and flat rates of BSP, Anna and Jane met criteria for the most intensive level of intervention, which added the involvement of a coach—the Tier 3 intervention.

Inconsistencies in regard to treatment fidelity were issues faced by the researcher during this study as well as in the Myers et al. (2011) study. Treatment fidelity in single-subject research studies is crucial in establishing functional relationships between the dependent and independent variables (Horner, Carr, & Halle, 2005). Importantly, the teacher participants were selected from a pool of teachers identified by their principal as needing assistance with difficult students. As such, the attitudes of the teachers, who were cooperative yet sometimes hesitant or even resistant, may have been affected by this selection process.

A body of research on coaching in educational settings suggests that adult learning is more effective when it is contextual, ongoing, and classroom-specific (Ackerman, 2009; Knight, J., 2008; Shidler, 2009; Oncharwi & Keengwe, 2008; Sprick et al., 2006). Moreover, Sprick et al. (2006) defined a coach as someone who has regular contact with the classroom teacher and, in fact, suggested that spontaneous consultation or coaching that occurs in naturalistic settings has the potential to be as effective as more formalized structures. Coaching for this study corresponds with the spontaneous definition, as the intent of the researcher was to provide support in an individualized manner based on teacher need and personal choice. Therefore, coaching evolved with teacher needs and expressed time constraints.

In this case, coaching was a mix of regular personal visits and emails wherein the researcher discussed interventions, showed data graphs, and provided encouragement and praise for increasing BSP. The coaching dynamics of this study highlight the difference between voluntary collaboration and assigned collaboration (Onchwari & Keengwe, 2008; Sprick et al.,

2006). Teacher resistance was minimal, yet an underlying tone of defensiveness was present during initial meetings with the teacher participants. Perhaps they felt that the principal was calling into question their abilities, which can cause feelings of inadequacy that could impair teachability and ultimately their learning.

As Anna and Jane received visits from the coach, their rates of BSP increased, surpassing previous BSP rates. Jane received regular personal visits, whereas Anna did not. This was partly due to Anna being absent for scheduled visits as well as work-related obligations of the coach. On days of no personal visits the coach sent email contacts to Anna. It is interesting to note that the BSP rate dropped on days of email correspondence and increased on days of personal visits, indicating the importance of follow-up and accountability measures for teachers who do not respond to lower levels of support (Capizzi, Wehby, & Sandmel, 2010; Hennessy & Deaney, 2009).

The ultimate purpose of informing teacher change is obviously to impact student learning. In this study, student on-task behavior was also recorded in an effort to evaluate the possible effects of increasing BSP rates. Student time on-task results indicate visually similar patterns when viewed simultaneously with BSP rates. Specifically, when the teacher praise rate was highly variable, the student on-task behavior was highly variable. Likewise, when the teacher praise rate was consistent and demonstrated an increasing trend, the student on-task rate was steady and at a high level. Similar patterns in teacher-student data points may indicate a correlation between increased BSP and increased student on-task behavior, which supports findings from Sutherland et al. (2000) indicating that increased teacher praise results in increased student task engagement.

The study measured social validity to ascertain teacher perceptions of a responsive tiered framework of professional development. Teachers concurred with one another that an individualized approach to professional development is more effective than a general whole-group approach. Additionally, each participant viewed self-monitoring feedback as something they would use to inform their practice. In regards to the frequency of the teachers asking for the assistance of a collaborative coach, each responded differently; this further validates the importance of considering individual preferences and needs in teacher training (Myers et al., 2011).

Limitations and Future Research

As is the case for most single-subject research (Horner, et al., 2005; Tawney & Gast, 1984) this study was conducted, out of necessity, on a small scale with only elementary-level teachers. A limited sample size, along with an all-white, female, middle-aged participant pool of elementary teachers affects the generalizability of the results. Replication of this study with a larger sample size and across grade levels and participant characteristics, such as gender, ethnicity, or years of experience may increase the external validity of the findings (Myers et al., 2011).

Another limitation of this study was the lack of a maintenance phase. While BSP rates did have an increasing trend and high stability for one participant, time did not allow for a maintenance phase of the study as the school year was nearing an end. Data from two of the three participants revealed that follow-up visits affected increased BSP, and without visits or contact, BSP returned to lower rates, indicating limited ability to maintain high levels of BSP when not being monitored. Although Myers and colleagues (2011) included a maintenance phase during their similar study, they also found that without follow-up or monitoring, rates of BSP

decreased. Future research should include a fade and maintenance phase to ensure skill acquisition (Myers et al., 2011).

Further limitations existed with the timing and setting of the study. Spring break, participant and student absences, state-required testing and other school-related activities interfered with continuity of data collection. Additionally, the presence of the observers in the classroom could have influenced the teacher behavior. Researchers should consider school calendared events prior to conducting the research in schools. It may also be possible to use permanent product data (such as video-taped instruction sessions) to record behaviors, thus eliminating the presence of an observer in the classroom for those teachers who may be resistant to outside observation.

Another limitation to consider was the reliability of the treatment fidelity checklists. A key component of tiered levels of training is frequent monitoring (Ardoin, 2006; Barnett et al., 2004). In the present study, the researcher monitored treatment fidelity independently. During treatment fidelity checks it was discovered that two participants were not consistently following listed procedures for Tier 2 and Tier 3 interventions. The simple act of asking the participants to sign the coaching log during each visit or signing the treatment fidelity checklist to verify observance of the steps may increase fidelity of treatment. Future research should plan for an objective measurement including interobserver reliability to monitor fidelity of implementation during the performance feedback intervention (Tier 2 in this study).

This study intended to examine the relationship between rates of behavior-specific praise and a tiered intervention approach to professional development. Student on-task behavior was recorded secondary to the primary construct of the study. Although student behavior did appear to follow similar patterns of teacher behavior, any implied relationship should be viewed with

caution. Future research should examine the causal effects of teacher behavior on student behavior.

Motivation to participate in interventions is an important part of coaching literature (Sprick et al., 2006). Because the teachers in this study were nominated by their principals, they may have felt external, rather than internal, motivation to participate. Sprick and colleagues maintain that in order for coaching or collaborative consultation between practitioners to be optimally effective, the meeting between the paired peers needs to be voluntary. Future research should broaden the scope by inviting all teachers in a school, to participate in a tiered approach to professional development.

Also, the researcher and observers were not part of the school faculty, which may have positively or negatively impacted the behavior of the teacher. Guskey and Yoon (2009) maintained that outside experts can have a positive effect on teacher improvement but only as time is allotted for follow-up, demonstration, and problem-solving activities. As it is not financially feasible to provide ongoing professional development from outside sources, studies should consider implementing this model of professional development using the existing training structures of the school or school district, such as district specialists, mentor teachers, school psychologists, and school principals.

Implications for Practice

Guskey and Yoon (2009) brought to light the importance of translating professional development into improved student outcomes and the responsibility of professional developers to be thoughtful as they plan teacher training. Critically assessing and evaluating the effectiveness of any training is of great importance. Using a tiered continuum of ongoing support for teachers along with increased feedback provides a framework for more rigorous evaluation of teacher

skill acquisition. Follow-up is embedded within the structure of this training approach, which is a critical feature of effective professional models (Guskey & Yoon, 2009). Those responsible for teacher professional development should consider implementing methods that are individually responsive and continuous.

Moreover, this study confirms results from similar studies indicating that video self-monitoring provides an accurate permanent product data set which informs instruction in meaningful ways, especially when coupled with consultation from a mentor (Capizzi et al., 2010; Myers et al., 2011; Sherin & van Es, 2005). Performance feedback from video analysis allows teachers to develop critical thinking about their instruction and its effect on student achievement. As such, practitioners should consider the use of video self-monitoring as a viable strategy to improve effective instructional practice (Capizzi et al., 2010; Colvin et al., 2009; Hitchcock, Dowrick & Prater, 2003). Large-scale implementation may include access to equipment for every classroom in a school. Group analysis of the recorded teaching segments, similar to a study by Sherin and van Es (2005), could be considered as an activity for professional learning communities (PLC).

The teachers in this study were principal-nominated and therefore did not request any assistance from outside sources to improve their teaching or their classroom management skills. However, they were cooperative, especially after the researcher showed interest in classroom activities and gave sincere, positive feedback on interactions with students and good teaching practices observed. Further research should consider implementation with teachers who may be more resistant to improving their classroom management skills.

Although research findings indicate that increasing praise rates results in increased time on-task and decreased disruptive behavior (Cherne, 2009; Sutherland et al., 2000), consensus

concerning a prescribed amount of praises per minute has not been determined by researchers and practitioners. Sutherland et al. used 6 praise statements per 15-min. teaching segment as a standard for effective practice of this skill (Sutherland et al., 2000). Likewise, Myers et al. (2011), chose 6 praises delivered in a 15-min teaching observation as the teacher performance standard for meeting competency in praise statement delivery. This study considered the individual performance of the teacher and examined whether an incremental increase (50%<) from preintervention BPS rates and subsequent averages of each tier, would affect student behavior; thus, a specific prescribed praise rate cannot be specifically defined from the outcomes of this study. Researchers should further examine the difference between using a predetermined number of praises per minute and a percentage increase determining at what point the student behavior is affected.

Conclusion

This study demonstrated that three general educators at the elementary level increased their rates of behavior-specific praise when provided with a continuum of performance feedback supports that increased in intensity based on need. Therefore, a functional relationship was established between the independent and dependent variables of this study. The growing need for effective teachers elevates the need for effective professional development systems. Methods of teacher training that provide ongoing support, imbedded evaluation, a continuum of supports, and follow-up are most effective. Researchers should continue to examine the effectiveness of providing a continuum of interventions to improve teacher skills in order to achieve the ultimate goal of improving student outcomes in academic, social, and behavioral areas.

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Appendix A

Review of Literature

With raised concern for the educational welfare of the children in the United States, strategies to improve all aspects of the education system need to be considered. Most important among these concerns is what is happening in the classroom (Colvin, Flannery, Sugai, & Monegan, 2009). Research suggests a correlation between effective learning environments and teacher behavior (Sugai, 2007; Sutherland & Morgan, 2003); teacher behavior affects student behavior and student behavior affects teacher behavior. Teachers should understand that they can only control their own behavior and, in doing so, may influence positive behavior in their students (Lane, 2004; Sutherland & Morgan, 2003). Therefore, it becomes imperative to identify (a) teacher behaviors that influence student behaviors for academic and social success and (b) how to provide effective professional development to increase implementation of those teacher behaviors.

Critical Teacher Behaviors

In a review of empirical literature, Simonsen, Fairbanks, Briesch, Myers, and Sugai (2008) identified 20 evidence-based critical teacher behaviors for classroom management. These behaviors included both academic and social interactions. In addition, Kerr and Nelson (2006) identified commonalities among a pool of educational research organizations (e.g., CEC, AFT, IES; Kerr & Nelson, 2006) to determine criteria for applicable critical teacher behaviors. After reviewing empirical literature, only those teacher behaviors researched to the degree that met the following criteria were identified as critical: "(a) the use of a sound experimental or evaluation design and appropriate analytical procedures, (b) empirical validation of effects, (c) clear implementation procedures, (d) replication of outcomes across implementation sites, and (e)

evidence of sustainability" (Kerr & Nelson, p. 89). Each critical teaching component was found to contribute to increased task engagement and improved academic results.

These 20 evidence-based practices were then combined by Simonsen, Fairbanks, et al. (2008) into five critical features of classroom management:

1) Maximizing structure and predictability, including explicit teaching of expected routines and minimizing distractions through organization of physical aspects of classroom structure;
2) Reinforcing expectations by posting, teaching, reviewing, and monitoring class rules of academic and social behavior;
3) Actively engaging students by providing high rates of opportunities to respond through teacher directed instruction;
4) Using a continuum of strategies to acknowledge appropriate behavior by providing specific and contingent praise for academic and social behavior; and
5) Implementing a continuum of strategies for responding to inappropriate behavior with brief error correction and the use of proactive preventative measures for further error, such as those found in the least restrictive procedures to discourage inappropriate behavior. (p. 369)

Of these five critical classroom management strategies, two encourage the use of reinforcement and acknowledgment of appropriate behavior. Another word that describes this teacher behavior is *praise*. Providing feedback or specific praise for desired student academic and social behavior is an evidence-based classroom management skill (Kerr & Nelson, 2006).

Praise. The effects of praise on student behavior have been studied and debated in circles of psychology and education research for many years. In a review and synthesis of

literature on praise, Henderlong and Lepper (2002) provided arguments on both sides of the continuum of praise theory. Their research focused on answering the question, "is praise a positive strategy for influencing intrinsic motivation to perform a task or a detriment to student performance which undermines motivation?" They discovered that certain types and contextual proponents of praise are indicative of positive versus negative effects of praise.

In order for praise to be effective, meaning that it will enhance intrinsic motivation and perseverance, it must first be sincere. According to Henderlong and Lepper (2002), there emerged a set of conceptual variables of praise that address the importance of effective praise attributes. Five identified features of effective praise include:

1. Praise that is sincere
2. Praise of a process or other controllable feature of performance to encourage adaptive performance
3. Praise that minimizes perceptions of external control to promote autonomy
4. Praise that provides positive information about individual competence without attention to social comparison
5. Praise that is descriptive, to guide and regulate task engagement and convey standards and expectations that are realistic and attainable.

The difficulty with implementation of this critical teacher behavior is that teacher praise often lacks the specificity and contingency that leads to effective student outcomes (Brophy, 1981). Likewise, when teachers use only general praise in excessive amounts, children may perceive it as insincere and therefore discredit the deliverer of the praise (Delin & Baumeister, 1994; Gordon, 1989). Though research on types of praise remains speculative at best, the

manner in which praise is delivered has merit when we consider what kind of praise may best serve the purpose of improving student academic performance and social behavior.

Behavior-specific praise. For the purpose of this study, the definition of specific praise must be well understood as something that can be quantified and operationalized and is, therefore, replicable. Behavior-specific praise (BSP) can be related to either academic or social student performance. Sutherland, Wehby, and Yoder (2002) define BSP as "verbal comments indicating approval of students' academic or social behavior that specifically reference the behavior" (p. 8). Such praise, in order to be effective, must be sincere, personal, descriptive, and immediate, as well as directed to a person's effort, or a strategy or rule, as opposed to an expression of evaluation of the individual (Burnett, 2002; Dweck, 2000; Chalk & Bizo, 2004; Cherne, 2009; Henderlong & Lepper, 2002). With the reported findings of these researchers, the question of interest becomes, "what is the effect of introducing BSP as a teaching tool and, in turn, what affect does it have on students' behavior?"

Outcomes of praise. The benefits of teachers using effective praise are evident in many research studies. In one study (Sutherland, Wehby & Yoder, 2002), teachers of students with emotional and behavioral disorders were given examples of BSP and asked to increase their rates of BSP for both academic performance and classroom behavior. Twenty self-contained classrooms of students, grades K—8, participated in the study. The average class size was 11 students. Teachers volunteered to participate due to their desire for assistance with improving student on-task behavior. As teachers increased their use of BSP, student on-task behavior increased and the amount of disruptive behavior decreased. Results from this study strongly suggest the efficacy of BSP as a tool to improve student outcomes for EBD students in a self-contained setting.

Chalk and Bizo (2004) discovered another positive outcome of using BPS: improved self-concept. Four general education classrooms of students with the average age of 8 were included in this study. The teachers were instructed specifically to increase behavior-specific praise toward students. The students completed a perception rating scale and data were taken for on-task behavior. Students reported that they had gained confidence in their ability to succeed in the class subject, whereas previous to the intervention of increased specific praise, they exhibited low self-concept and limited academic and classroom behavior success. In this same study, increases in BSP resulted in increased student engagement and on-task behavior.

In addition to these findings, a meta-analysis of praise research was conducted as a doctoral dissertation by Cherne (2009). In an analysis of literature addressing positive and negative outcomes of praise, Cherne concluded that behavior-specific praise of contingent behavior was effective for increasing student academic ability and social behavior. Praising to expected behavior appears to increase the likelihood of compliance and successful demonstration of socially significant classroom behaviors (Jones, 2000; Rhodes, Jenson & Reavis, 1993; Sugai, 2007). Therefore, providing positive feedback to students is a feasible classroom management strategy that can positively influence student behaviors.

Evidence of praise. Despite evidence to support the use of praise as a teaching practice leading to greater on-task or engaged student learning, teachers often fail to use this simple procedure (Beaman & Wheldall, 2000). In a seminal article on the function of teacher praise, Brophy (1981) reported that, on average, teachers gave more approvals than disapprovals when it came to academic performance, but the opposite was true for classroom conduct. Further data suggested that teachers give little praise for good answers or good work and even less approval for good conduct (Brophy, 1981; Beaman & Wheldall, 2000). In earlier studies of naturally

occurring classroom praise rates, Beaman and Wheldall (2000) reviewed findings of several studies and found that prior to the mid-1980s teachers typically gave more disapproving verbal comments than approving comments for both academic or behavior conduct. A changing trend in literature indicated more teacher approval than disapproval for academic behavior; however, teachers were more likely to express disapproval of social behavior than approve or acknowledge expected behavior (Beaman & Wheldall, 2000). Clearly, if teachers are to improve the learning environment in their classrooms, increasing positive feedback and praising students for both academic and social behaviors is a critical skill for teachers to learn and ultimately master.

Professional Development

Embedded in the No Child Left Behind Act of 2001 (NCLB) is a stipulation that all teachers will reach "highly qualified" status if they want to remain in the classroom (Tugel, 2004). To be "highly qualified" implies that a teacher is continually honing skills that further advance practical knowledge and abilities. It follows that increased demands on teacher training efficacy result in the need for documented methods of effective professional development that achieve the goal of improved teacher behavior and student outcomes.

The goal of professional development in education is to increase understanding and implementation of effective teaching strategies in order to improve student outcomes (Garet et al., 2010; Guskey, 1995; Mundy, 2005; Quick, Holtzman, & Chaney, 2009). As such, professional development measures may be used to increase teachers' understanding and use of behavior-specific praise. Strategies to encourage teachers to utilize and increase rates of BSP may include (a) attendance at in-service meetings, (b) the use of self-monitoring methods such as a personal feedback device (e.g., MotivAider by Behavioral Dynamics, 2010) or video self-

evaluation, and (c) direct observation and reflective analysis through mentoring or coaching models.

In-service training. In-service training is usually conducted in a large group presentation style where information is disseminated by specialists in academic subjects or disciplines. Although this often-used method of professional development allows for administrators to disseminate information quickly to a large audience, this one-shot delivery information has been shown to be inadequate in changing teacher behavior (Billingsley, 2005; Garet et al., 2001; Guskey & Yoon, 2009). Lack of follow-up training opportunities is cited as one reason why this method is mostly ineffective. In the interest of time and budget constraints, however, district and school administrations continue to view this method as useful (Billingsley, 2005).

In summary, the research indicates in-service training in the form of a one-time meeting to provide information may not sustain teacher change. However, it is a forum for dispensing information to a wide audience using a less intrusive strategy. In-service could be considered a universal training, as it is a meeting where everyone hears the same content. This type of one-shot meeting consists of providing information to teachers and expecting them to implement that knowledge independent of any other factors.

Self-monitoring. Teachers may autonomously apply more intensive measures to monitor their own behavior. A common theme among researchers in the field of professional development is that in order to affect specific skill acquisition, teachers need contextual training that informs their specific practical needs (Billingsley, 2005; Garet et al., 2010; Guskey & Yoon, 2009). In order to identify teacher needs some level of data collection or feedback system would need to be in place. Sherin and van Es (2005) suggested video cameras as an effective tool to

inform teachers about what is happening in their classrooms and what they can actually do to create successful learning activities and experiences. An additional study by Nicol and McFarlane-Dick (2006) asserted that video self-monitoring (1) helps clarify what good performance is, (2) facilitates the development of self-assessment in learning, (3) delivers high quality information to students about their learning, (4) encourages teacher and peer dialogue around their learning, (5) encourages positive motivational beliefs and self-esteem, (6) provides opportunities to close the gap between current and desired performance, and (7) provides information to teachers that can be used to help shape teaching.

The use of video feedback in education began in the 1960s (Sherin & van Es, 2005). In studies conducted by Sherin and van Es (2005), teachers were given opportunities to video record themselves teaching a lesson. In each study, teachers of various grades and experience levels viewed their own and others' teaching. Using open discussion or analysis software, the teachers all reported an increased awareness of what was happening in their classrooms. They were able to make instructional decisions based upon the visual feedback. Teachers may likewise use this permanent product measurement of actual lesson delivery and teacher-student interaction to monitor effective teaching practices.

Video self-evaluation was also researched in specialized classrooms for students with emotional and behavioral disorders, resulting in increased use of teacher praise and on-task student behavior (Sutherland, Wehby, & Copeland, 2000). Additionally, teachers reported positively on their experiences with video feedback of predefined academic and behavioral structures. They indicated their appreciation for time to view themselves teaching and time to analyze, synthesize, and create new constructs of teaching behavior (Hennessy & Deaney, 2009). Another positive outcome of teachers' viewing and analyzing their teaching was the

development of self-made methods of analytical thinking. Ideas were generated from the video self-evaluation which supported the notion that teachers appreciate time to reflect in meaningful ways, including reflection with their peers (Hennessy & Deaney, 2009; Hawkins & Heflin, 2006). Teachers actually revised and redefined terms they encountered in their discussions to more aptly represent their personal experiences.

Additionally, in a study which focused on the use of video to support teachers' ability to notice and interpret classroom interactions, Sherin and van Es (2005) concluded that after viewing video of their respective classroom teaching sessions, teacher conversations about their performance and student behavior evolved over time. Two groups of math teachers were studied. The first group consisted of four math teachers who met monthly for one hour to watch and discuss clips of videos from each other's classrooms. Their discussions were facilitated by the examiner, who asked open-ended questions about what they noticed. The second group comprised six pre-service math teachers who were asked to use video analysis software to code and comment on video clips of their own and others' teaching. They also wrote essays on their observations which were coded by observers and the examiner. Themes of teacher discussion and any shifts in thought or focus of the essays were carefully identified. For both groups of math teachers it was noted that their initial observations changed as they developed their ability to notice and interpret significant events in their classrooms. Teachers in the first group changed from a focus on what they, as teachers, were doing to what their students were thinking. This shift in focus translated into changes in the way they asked student questions and led classroom discussions.

In summary, providing video experiences for teachers created time for reflection and careful evaluation of classroom activities and interactions (Sherin & van Es, 2005). Moreover,

video provides more accurate accounts of actual experiences and, as such, has the potential to inform teachers of their own behavior and how it relates to their students. Video provides feedback in such a manner that meets standards of the seven characteristics of effective feedback that were discussed previously (Nicol & McFarlane-Dick, 2006).

Coaching. Research on professional development suggests that adult learning is more effective when it is contextual, on-going, school based and classroom specific. Instructional coaching serves the needs identified by teachers to address specific, individual concerns, learn in collaborative professional learning environments, and provide ongoing support by competent peers (Guskey & Yoon, 2009). The Annenberg Institute for School Reform at Brown University encourages the use of teacher leaders serving as coaches to improve teacher competence with the goal of improving student learning. Targeted supports are used to increase knowledge, improve practice and promote student achievement. Effective accountability measures are a natural part of coaching models, thus furthering the effectiveness of behavior changes that a coached teacher may be asked to make (Barr, Simmons, & Zarrow, 2003). The Annenberg model of coaching holds promise for informing and improving teacher practice.

To consider coaching as a professional development method, one would need to define that role. Sprick, Knight, Reinke, and McKale (2006) defined a coach as anyone who has regular contact with classroom teachers. In fact, spontaneous coaching or consultation that occurs in naturalistic settings has the potential to be as effective as more formalized coaching structures. This type of coaching has implications of creating a strong school community. This being said, Sprick et al. delineated two types of coaches: evaluative coaches and nonevaluative coaches. An administrator has the responsibility to evaluate the teaching quality of his or her staff. The administrator role is distinctly different yet necessary in the development of positive educational

outcomes for students. Coaches are more than likely peers who are typically nonevaluative in their role as they assist and supporting the development of the teacher they coach. They do not report to the administrator, nor do they discuss the coaching experience with others (Sprick et al.). Therefore, the definition of a coach is someone who is invested in improving teaching practices, whether evaluative or nonevaluative.

In one study, 44 Head Start teachers utilized an interview process to ascertain the effectiveness of a mentoring and coaching initiative in which they participated. (Onchwari & Keengwe, 2008). The initiative used a mentor-coach approach that involved training a few teacher trainers who trained, mentored, and coached others. Building relationships was an important part of the overall success of the 6-month program. Mentors established rapport with mentees, which facilitated a change in attitude concerning pedagogical modifications being recommended for implementation. Although the interviews suggested an overall improvement in teaching skills, limitations of the coaching model still existed. The primary limitation of the coaching initiative in this study was the time commitment. All of the participants who were in a mentoring-coaching role had other responsibilities, making it difficult to manage time effectively (Onchwari & Keengwe, 2008).

In studies evaluating coaching models and efficacy, a common thread of evidence suggests a need for some kind of structure to the coaching process in order for it to improve or enhance teacher behavior (Peterson, Taylor, & Burnham, 2009; Sprick et al., 2006; Stichter, Lewis, Richter, Johnson, & Bradley, 2006). Structures in coaching models point to key guidelines. Namely, coaching should entrain school-wide common classroom management practices; observational guides; preconferencing to determine target teaching skills to be addressed; and postconferencing to collaboratively analyze direct observation data, intervention

choices (such as modeling or observation in other classrooms), setting goals, following up on goals, and going through the process again as needed.

Coaching is a more intensive intervention requiring a positive working relationship with a colleague. While research on the effects of coaching on improved student outcomes is still inconclusive (Garet et al., 2009), there are studies suggesting that utilizing a coaching model to improve teacher ability and confidence are promising (Sprick et al., 2006).

The National Center for Educational Evaluation (2010) sponsored two large-scale studies related to professional development effectiveness measures. One compared two types of professional development for teachers in early reading programs. Teachers were randomly chosen to participate in one of the two professional development methods. The first was an intensive workshop with follow-up meetings throughout the school year. The second intervention included the use of coaches from professional organizations who were also conducting the professional development workshops. Teacher knowledge, skill acquisition, and student learning outcomes were measured. It was noted that the more intensive professional development methods resulted in slight increases in teacher knowledge and implementation, while student learning outcomes were not significantly affected.

Similarly, Guskey and Yoon (2009) conducted an analysis of data addressing the question of what makes professional development effective. In a pool of over 1,300 published research articles, only nine met the criteria of the What Works Clearing House standards for evidence-based empirical research worth considering. These nine studies demonstrated that improvements in teacher implementation of specific skills increased with a more intensive in-service paradigm than a one-time training. However, among the more intensive methods, data were insufficient to show whether one type of professional development is superior to another.

Response to Intervention (RtI)

The previous three potential strategies for professional development (in-service meeting, self-monitoring, and coaching) are indicative of tiered level support for teacher improvement. When used sequentially—with each strategy increasing in intensity, in response to perceived need—the approach is similar to response to intervention. Generally used for students, response to intervention (RtI) is a multitiered problem-solving approach used to proactively apply high-quality, evidence-based learning strategies, matched to student need, according to data (Ardoin, 2006; Barnett, Daly, Jones, & Lentz, 2004; Batsche et al., 2008; Fuchs & Fuchs, 2006; Gresham, 2005). The level of intervention is chosen by carefully analyzing data. A universal or primary level of instruction includes all students. If students do not show progress based on data collected during primary instruction, they move to a secondary or more intense level of instruction. If student data indicate limited progress at the secondary level of instruction, students move to a tertiary or more individualized mode of instruction. Numerous studies have been conducted on the use of RtI to support student academic and social behavior at school, yet there is a limited amount of research on the use of RtI for professional development for teacher behavior (Coyne, Kame'enui, & Carnine, 2007; Kame'enui, 2007; Myers et al., 2011).

One study conducted by Myers et al. (2011) applied an RtI approach to enhance teacher behavior. Teacher participants were self-nominated general and special educators in a middle school setting. They self-nominated after receiving information about the study from the researcher. The teachers who contacted the researcher were seeking assistance due to teacher perception that they had excessive disruptive student behavior. The study took place in schools that were successfully implementing school-wide positive behavior support, a systematic prevention method to increase positive student behavior through identifying essential skills,

explicitly teaching them, and actively praising the demonstration of desired behavior (Simonsen, Sugai, & Negron, 2008). As such, all staff received training on utilizing positive behavior supports in their classrooms, which was considered the universal or primary intervention (Myers et al., 2011).

Myers et al. (2011) further defined a predetermined criterion of a 4:1 ratio of positive to negative interactions with students and 6 praise statements per 15-min observation. After completing training on BSP rates and positive to negative interaction ratios, a teacher evaluation was conducted to determine acquisition of these teacher skills. Four teachers who did not respond to the training became the participants in the study. Participants received a secondary or more intensive intervention, which included meeting with the researcher weekly to (a) provide visual feedback in the form of a graph showing BSP rates, positive to negative ratios and student on-task behavior, (b) praise for any improvements, (c) make any appropriate suggestions, and (d) create goals for the next observation. If criteria were not met at this level, a tertiary intervention was introduced. Tertiary interventions included a more intensive feedback schedule (providing feedback after each observation), providing additional suggestions for increasing praise rates and positive to negative ratios, and more individualized support.

This current study is a systematic replication of the Myers et al., (2011) study. Differences in this study from the Myers study are as follows: (a) general education teachers in elementary school settings were the targeted participant, (b) participants were selected from a pool of principal-nominated teachers, (c) possible participating schools are not being monitored for school-wide positive behavioral support trainin, (d) intervention included video self-monitoring at the secondary level and coaching at the tertiary level, (e) only data on the rate of teacher-delivered BSP and student on-task behavior was collected, and (f) criteria for praise rates

(PR) were determined using baseline PR with a percentage increase as opposed to a pre-determined number of praises per minute.

Furthermore, this study proposes to add to the literature on effective professional development methods and examine the effects of tiered interventions on teacher behavior, specifically the rate and implementation of behavior-specific praise of general education teachers and the possible corresponding effects on student behavior. The research questions are as follows:

1) What are the effects of a tiered intervention model on the behavior-specific praise rates of elementary general educators?
2) What are the effects of increased behavior-specific praise rates of an elementary general educator on the on-task behaviors of a student the teacher identified as being disruptive?
3) What are educators' perceptions of the utility and effectiveness of the interventions?

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Appendix B

The Effects of Tiered Training on General Educators' Use of Behavior-Specific Praise

Consent to be a Research Subject

Introduction

This research study is being conducted by Michele Thompson, a graduate student at Brigham Young University, to determine the effects of a needs-based professional development method on increasing teachers' use of behavior-specific praise and the consequent effect of increased praise on the on-task behavior of students. You were invited to participate because you communicated a concern or requested assistance for managing disruptive student behavior.

If you agree to participate in this research study, the following will occur:

- you will be observed in your classroom during direct instruction by a member of the district intervention team 3 times per week for 15 minutes per visit
- data on behavior-specific praise rates will be recorded and shown to you
- you will participate in a faculty training on behavior-specific praise
- you **may** be asked to video-record and complete a 10-minute observation of your teaching in order to take data on your behavior-specific praise (video recorder will be provided)
- you **may** be asked to wear a prompting device, such as a MotivAider, as a reminder to use behavior-specific praise
- you **may** be asked to meet with the researcher for 30 minutes weekly
- you will be asked to complete an anonymous questionnaire at the end of the research
- total time commitment will be from 15-75 minutes weekly

Risks/Discomforts

There are minimal risks for participation in this study. However, you may feel some discomfort being observed in your classroom, watching video-taped teaching segments of yourself, receiving feedback data on your behavior-specific praise rates, and losing classroom time. If you are part of a collaborative coaching situation, you may feel discomfort analyzing and discussing your classroom management skills. If you feel undue stress or discomfort during the research, you may choose to decline or excuse yourself from the study.

Benefits

The goal of this study is to improve teacher quality by offering a needs-based professional development model to increase teacher skills. Research suggests improved teacher skills result in improved student outcomes. Benefits may include improved self-awareness and reflective teaching practice, as well as increasing behavior-specific praise rates. Increasing behavior-specific praise rates may improve student on-task behavior.

Confidentiality

Data will be kept in a secure location in a locked cabinet and on a password-protected computer. Only Dr. Michelle Marchant and Michele Thompson will have access to the complete data. At the conclusion of the study, all identifying information will be removed and the data will be kept in the research's locked cabinet. You are welcome to have a copy of the results of the study upon request.

Compensation

You will receive a gift certificate for completing the research; compensation will not be prorated.

Participation

Participation in this research study is voluntary. You have the right to withdraw at anytime or refuse to participate entirely without affecting your employment or standing at the school.

Questions about the Research

If you have questions regarding this study or a research related problem, you may reach Michele Thompson at (801) 376-2556, ichelemay@gmail.com or Dr. Michelle Marchant at (801)422-3857, michelle_marchant@byu.edu.

Questions about your Rights as Research Participants

If you have questions regarding your rights as a research participant, you may contact IRB Administrator, (801) 422-1461, A-285 ASB Campus Drive, Brigham Young University, Provo, UT 84602 **irb@byu.edu.**

I have read, understood, and received a copy of the above consent and desire of my own free will to participate in this study.

Signature:_____Date:_____

Please print name here:_____

Appendix C

Parental Permission for a Minor to Participate in Research

The Effects of Tiered-training on General Educators' Use of Behavior-Specific Praise

INTRODUCTION

My name is Michele Thompson. I am a graduate student at Brigham Young University and I am conducting a research study that includes the effects of teachers' positive feedback on student behavior. With your permission, your child will be observed in the classroom as part of the research. The point of the research is for teachers to improve their positive feedback which may have a positive effect on your child's classroom environment.

PROCEDURES

If you agree to let your child participate in this research study, your child will be observed, along with the teacher, and notes will be taken about paying attention in class.

RISKS

There may be some discomfort at having another adult in the classroom taking data. Having other adults in the classroom is a normal part of a school experience. However, if at any time your child feels uncomfortable about the observer, your child may choose not to participate without affecting his/her standing in school or grades in class.

Your child's teacher may be video-taped. Although the video camera will be focused on the teacher, there is a slight possibility that your child will be seen in this video. A video release form will be provided to you. If you are uncomfortable with the possibility of your student being seen in a video focused on the teacher, you may refuse to sign a video release and your child will not be seen in the video. The video is for the teacher to review her teaching skills and is not intended for viewing student behavior.

CONFIDENTIALITY

Notes taken by the researcher will not include your child's name. Data will be kept in a secure location in a locked cabinet and on a password protected computer. Only Dr. Michelle Marchant and Michele Thompson will have access to the complete data. At the conclusion of the study, all identifying information will be removed and the data will be kept in the research's locked cabinet. You are welcome to have a copy of the results of the study upon request.

BENEFITS

There are no direct benefits for your child's participation in this project, although increasing his/her teachers' use of behavior-specific praise may assist in creating a more positive learning environment.

COMPENSATION

There will be no compensation to your child for participation in this project.

QUESTIONS ABOUT THE RESEARCH

If you have any further questions about the study, you may contact Michele Thompson, (801) 376-2556, ichelemay@gmail.com, or you may contact Dr. Michelle Marchant by calling (801) 422-3857, michelle_marchant@byu.edu.

Questions about your child's rights as a study participant or comments or complaints about the study also may be addressed to the IRB Administrator, Brigham Young University, A-285 ASB, Provo, UT 84602; 801-422-1461 or irb@byu.edu

You have been given a copy of this consent form to keep.

PARTICIPATION

PARTICIPATION IN THIS RESEARCH STUDY IS VOLUNTARY. You are free to decline to have your child participate in this research study. You may withdraw your child's participation at any point without penalty. Your decision whether or not to participate in this research study will have no influence on you or your child's present or future status at Brigham Young University.

Child's Name _____

Signature _____ Date _____
Parent

Signature _____ Date _____

Appendix D

CHILD ASSENT FORM Page 1 of 2____

What is this research about?

We want to tell you about a research study we are doing. A research study is a special way to find answers to questions. We are trying to find out more about how teachers can be better teachers. Your teacher will be learning ways to teach. The new ways to teach may help your classroom and your learning.

If you decide that you want to be in this study, this is what will happen:
Someone will come in your classroom to watch your teacher teach. They will take notes about what is happening in the classroom.

Can anything bad happen to me?

Nothing bad can happen. You might not like having another person watching the classroom while you work. Because other adults are in the classroom often, it doesn't usually bother students.

Can anything good happen to me?

We don't know if being in this study will help you, but we hope that it will make your classroom a happier place.

Do I have other choices?

You can choose not to be in this study.

Will anyone know I am in the study?

We won't tell anyone you took part in this study. When we are done with the study, we will write a report about what we found out. We won't use your name in the report.

What happens if I get hurt?

We don't think you will be hurt by this study. Your parent(s) know about this study. You may ask them questions. Before you say yes to be in this study be sure to ask your teacher to tell you more about anything that you don't understand.

What if I do not want to do this?

You don't have to be in this study. It's up to you. If you say yes now, but you change your mind later, that's okay too. All you have to do is tell us.

If you want to be in this study, please sign or print your name.

☐ Yes, I will be in this research study. ☐ No, I don't want to do this.

_____	_____	_____
Child's name	Signature of the child	Date

Appendix E

Lesson Plan for Faculty Training on Behavior-Specific Praise

Teacher Training on Behavior-specific praise

Learning Objective: Teachers will learn the definition of behavior-specific praise (BSP), be able to identify BSP in contrast to general praise and verbalize at least one BSP with 100% accuracy. Teachers will commit to increasing current BSP by at least 50%.

Introduction: Expectations

Say: "Today you are working for these items. You can earn them by responding to questions. (Have three items in pocket, take them out one at a time and put them on table. Items include a one dollar bill, a clementine and some change.)

Have teachers come up with a list of critical teacher skills they think are most directly linked to effective student learning. If praise is not mentioned, add it to the list. Emphasize that praise is only one small part, but an important one.

Ask: Could something as simple as a positive feedback directed towards a student, create change in problematic behavior?

Recent studies suggest that increasing praise in the classroom leads to improvements in these areas:

1. On-task behavior
2. Academic engagement
3. Self-discipline
4. Self-concept or self-esteem
5. Effective learning environment
6. Positive feeling-tone in the classroom

Ask: What is Behavior-specific praise? How does it differ from general praise? List answers.

Definition: BSP is verbal statement directed to a student that describes a specific academic or social behavior.

Think of some examples. (List their examples or if in a large group have teacher list as many as they can in 30 seconds).

Conclusion:

Say: "I'd like to see if a 50% increase will make a difference in the behavior of the student in your class with whom you're having the most trouble. Will you commit to increasing your BSP by 50% over the remainder of the school year?"

Get a commitment from each teacher to increase BSP by 50%

Appendix F

15-minute Direct Observation Data Collection Form

Participant code (pseudonym): _____

Name of observer: _____Date:_____Time: _____Tier:_____

School:_____Activity: _____ IOA:_____

Directions: The observer will use a timing device (MotivAider) to track 10-second intervals over a fifteen-minute direct observation session. If teacher makes a verbal behavior-specific praise statement, the observer marks a tally in the corresponding interval box. At the end of 10 seconds the observer will look at the target student and mark a plus (+) if the student is on-task and a minus (-) if the student is on-task. The total number of BSP statements is the 'teacher total'. Student totals are the total number of on-task behavior per minute. Each teacher box represents a 10-second interval and each row represents one minute of observation time. Total each row then total the teacher and student "total" columns.

TEACHER	S	TEACHER	S	TEACHER	S	TEACHER	S	TEACHER	S	TEACHER	S	*TEACHER TOTALS*	*STUDENT TOTALS*
												Totals	

Definitions:

Behavior-specific praise= a verbal statement from the teacher that indicates approval of and describes a specific desired academic or social behavior exhibited by the student. Examples: "Sam, I appreciate the way you asked James to join you in the group activity," "Jane, great job following the directions on the board!"

"+" = On-task student behavior. On-task behavior includes the student orienting themselves towards the teacher, taking notes on teacher lecture, raising hand to ask clarification questions or performing tasks directed by the teacher.

" - " = Off-task student behavior. Off-task behavior may include a student looking in desk or out the window, talking with peer, putting head ondesk or doing an activity other than that directed by the teacher.

Appendix G

Treatment Fidelity Checklist for Training Observers

Date(s) of training(s)_____
Name of trainer_____
Name of observers_____

Y = correct response
N = incorrect or prompted response

Specific skill (Trainer performs each skill first then observer performs the skill or receives documents from trainer):	Observer 1	Observer 2	Observer 3	Observer 4	Observer 5	Observer 6
1. Describe behavior specific, contingent praise (BSP).						
2. Trainer provides written examples and non-examples of BSP.						
3. View video examples of BSP rates that meet criterion.						
4. Trainer provides data collection form to each observer.						
5. Demonstrate use of data collection form while watching video sample of a direct instruction teaching segment.						
6. Use video sample of direct instruction to provide data collection practice for teacher.						
7. Examiner and observer will independently take data on video sample of direct instruction teaching segment for interobserver agreement verification.						
8. Percentage of IOA on final video sample of direct instruction teaching segment.						

Appendix H

Treatment Fidelity Checklist for
Researcher: Tier 1 Intervention

Name of researcher_____

Date started_____Date completed_____

Setting	School A	School B	School C
Met with school principal to discuss research.			
Obtained at least 3 teacher names from principal.			
Met with teachers to explain data collection and determined target student for observation.			
Obtained consent from parents for student observation.			
Set date for faculty training.			
Held faculty training using Lesson Plan for BSP.			
Collected data.			
Obtained consent from teacher to complete research as a participant.			

Appendix I

Treatment Fidelity Checklist for
Teacher: Tier 2 Intervention

Teacher pseudonym_____

Percentage of Completed Skills_____

Y = completed task
N = uncompleted task

Task	Date 1	Date 2	Date 3	Date 4	Date 5	Date 6	Date 7	Date 8	Date 9	Date 10
1. Record minimum 15 min. teaching segment using video camera.										
2. View video to record data on BSP.										
3. Record data on graph.										
4. Report data to examiner via email.										
5. Set goal for praise rates for the following date.										

Notes:

Appendix J

Treatment Fidelity Checklist for
Teacher: Tier 3 Intervention

Teacher pseudonym_____

Percentage of Completed Skills_____

Y = completed skill
N = uncompleted skill

Specific skill:	Date 1	Date 2	Date 3	Date 4	Date 5	Date 6	Date 7	Date 8
1. Date of meeting with coach								
2. Amount of time spent with coach for each meeting								
3. Coaching Log signed by teacher & coach								
4. Set goal for praise rates for the following date.								
5. Researcher provides feedback on goals.								
6. Researcher provides reinforcement for meeting goals.								

Notes:

Appendix K

Coaching Log

Teacher pseudonym_____

Name of coach_____

Date	Total minutes	Topics of discussion	Intervention	Goal for next meeting

Notes:

Appendix L

Social Validity Teacher Questionnaire

TEACHERS: Thank you for your willingness to take part in this study on the efficacy of professional development methods. Your feedback is imperative in order to improve future professional development and support options for teachers.

Please circle or put an "x" to the right of the number that corresponds best with each statement below. Feel free to write additional comments at the end of the questionnaire as you wish. Please do NOT write your name on the form.

1. The information on Behavior-Specific Praise (BSP) provided in our faculty or collaboration meeting was adequate to begin increasing praise rates in my classroom.

1	2	3	4	5	6
Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree

2. The student(s) I was most concerned about has changed his/her behavior as a result of my increasing behavior-specific praise directed towards him/her.

1	2	3	4	5	6
Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree

3. BSP is an effective intervention to increase desired classroom academic and social behavior.

1	2	3	4	5	6
Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree

4. Increasing BSP is an effective and feasible intervention that I will continue to implement in my classroom.

1	2	3	4	5	6
Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree

5. The use of video self-monitoring is an effective tool for improving classroom management.

1	2	3	4	5	6
Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree

6. How often will you use video self-monitoring in the future, to inform your teaching practice?

1	2	3	4	5	6
Almost never	Once in a while	Sometimes	Frequently	Almost always	Not applicable

7. A collaborative coach is an effective tool for teacher improvement.

1	2	3	4	5	6
Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree

8. How often will you ask for a collaborative coach in the future to improve your teaching practice?

1	2	3	4	5	6
Almost never	Once in a while	Sometimes	Frequently	Almost always	Not applicable

9. Professional development is more effective if it addresses the individual needs of each teacher.

1	2	3	4	5	6
Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree

10. Professional development is more effective if it addresses the needs of a faculty as a whole.

1	2	3	4	5	6
Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree

Additional comments (feel free to attach/create additional pages if necessary):