

The Effect of Teacher Coaching with Performance Feedback on Behavior-Specific Praise in Inclusion Classrooms

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Abstract

This study extends teacher coaching with written performance feedback as a means to increase behavior-specific praise statements (BSPS) in inclusion classrooms at the high school level. Three inclusion math teachers increased their use of BSPS during mathematics instruction. On-task intervals and frequency of BSPS were measured throughout the study. The study provides support for teacher coaching with performance feedback as an effective method for teacher training. Favorable teacher responses indicate it may be an acceptable source of professional development. Future researchers may explore introducing other teaching strategies and feedback on other dependent variables into the teacher coaching sessions. Limitations are inconclusive findings on the effectiveness of BSPS to influence student time on-task. Future research should include a more sensitive, systematic measurement of on-task and disruptive behaviors.

High school teachers provide instruction for a diverse and ever changing population (Putnam, Spiegel, & Bruininks, 1995; Villa, Thousand, Nevin, & Liston, 2005). Students with high-incidence disabilities are enrolled in inclusion classrooms taught by general education teachers (Conderman & Katsiyannis, 2002; Handler, 2006; Reschly & Christenson, 2006) who may be unprepared to manage the academic and behavioral needs of students with disabilities that may interfere with instruction and student learning (Baloglu, 2009; Cwikla, 2004; Van Reusen, Shoho, & Barker, 2000). Meanwhile, accountability for annual yearly progress requires teachers to present fast-paced, content-rich instruction to prepare students for end of course exams and graduation assessments (Mastropieri & Scruggs, 2001; No Child Left Behind, 2001). Emphasis on teaching grade-level, standards-based curriculum to classes with multiple ability levels of students may reduce teachers' time for planning activities that encourage participation from all students. However, instructional strategies to encourage participation of students with disabilities are essential to engage students in the learning process (Bost & Riccomini, 2006;

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Council for Exceptional Children, 1987; Murray & Pianta, 2007). In addition, disruptive behavior due to academic and/or social deficits may be reduced with basic classroom management strategies incorporated into teaching (Conroy, Sutherland, Snyder, Al-Hendawi, & Vo, 2009; Gunter & Jack, 1993; Simonsen, Fairbanks, Briesch, Myers, & Sugai, 2008).

Academic and Behavior Problems are Cyclic

A lack of participation and misbehavior are often generated as a way for students to avoid task demands, avert failure, and avoid peer embarrassment when failure occurs (Colvin, 2004; Miles & Stipek, 2006; Scott, Nelson, & Liaupsin, 2001). To increase student participation, teachers need to acknowledge small successes each day immediately and consistently reinforcing student effort (Bost & Riccomini, 2006; Brophy, 1979; Scott et al., 2001). Yet high school teachers often lecture, model, ask questions, give directions, and monitor independent student practice increasing demands on compliant students while rarely incorporating motivational techniques or evidence-based instructional strategies into everyday teaching (Carr, Taylor, & Robinson, 1991; Schumaker et al., 2002). When disruptive behaviors occur teachers often respond with warnings, threats, or office referrals to gain compliance (Villa et al., 2005).

A teacher's reaction to misbehavior may provide attention unintentionally reinforcing the inappropriate behavior (Shores & Wehby, 1999) or prompting the beginning of a coercive cycle that is difficult to end (Colvin, 2004). Although there are various reasons students engage in inappropriate behavior during instruction, teachers are able to improve classroom behavior by adjusting when and how they respond (Baloglu, 2009; Rathel, Drasgow, & Christle, 2008; Shores & Jack, 1993; Thomas, Becker, & Armstrong, 1968; Van Acker & Grant, 1996). One strategy that may be incorporated into regular, on-going classroom instruction and increase appropriate, active student participation is behavior-specific praise (Brophy 1980; Conroy, Sutherland, Snyder, & Marsh, 2008; Ferguson & Houghton, 1992; Simonsen et al., 2008; Sutherland, Alder, & Gunter, 2003).

Behavior-specific Praise Encourages Participation

Used consistently, behavior-specific praise statements (BSPS) are an effective teaching strategy that may positively affect classroom behavior by increasing student time on-task, responding, and correct answers (Ferguson & Houghton, 1992; Sutherland et al., 2003; Sutherland, Wehby, & Yoder, 2002). Behavior-specific praise is approval with an explanation of the appropriate behavior exhibited (Gunter & Jack,

1993; Sutherland, 2000; Sutherland, Lewis-Palmer, Stichter, & Morgan, 2008). Offered contingent on a student's social or academic action, BSPS are effective when they occur frequently, in a timely manner, and are related to the student's effort (Conroy et al., 2009; Simonsen et al., 2008) whether offered to individuals or class-wide.

Kirby and Shields (1972) examined the effect of BSPS on the time spent engaged and the completion of math problems of a seventh grade student. Findings indicate that on-task behavior increased from a baseline mean of 47% to an intervention mean of 97% when praised. Likewise, the number of math problems completed increased from a mean of .47 problems per minute to a mean of 1.44 during intervention. Like other new teaching skills, providing assistance and support to teachers may increase the use of BSPS (Gunter, Jack, DePaepe, Reed, & Harrison, 1994; Rathel et al., 2008; Shores & Jack, 1993).

Teacher Coaching Provides Support for BSPS

One strategy to assist teachers with increasing the use of BSPS is teacher coaching with performance feedback. Teacher coaching with performance feedback has been effective in assisting teachers with increasing the use of BSPS (Hawkins & Heflin, in press; Reinke, Lewis-Palmer, & Merrel, 2008; Sutherland, Wehby, & Copeland, 2000), increasing student opportunities to respond (Sutherland et al., 2003), improving teacher communication with students (Rathel et al., 2008), and improving strategies of effective instruction (Hasbrouck & Christen, 1997; Stichter, Lewis, Richter, Johnson, & Bradley, 2006). Teacher coaching works much like coaching athletes (Joyce & Showers, 1982; Maeda, 2001) as it involves: (a) choosing a skill to develop, (b) reviewing information regarding the skill, (c) discussing the skill application, (d) practicing the skill, (e) collecting data through observations to analyze the effect, and (f) providing feedback (Hendrickson, Sorka, & Gable, 1988; Joyce & Showers, 1982; Maeda, 2001; Rathel et al., 2008).

Teacher coaching has been implemented as part of preservice (Rathel et al., 2008), mentoring (Hasbrouck & Christen, 1997), and collaboration (Stichter et al., 2006) programs using various terms including peer-coaching, observation-feedback, collaboration, collegial coaching, and challenge coaching (Cwikla, 2004; Hendrickson et al., 1988; Maeda, 2001; Showers & Joyce, 1996; Stichter et al., 2006; Sutherland et al., 2000). The goal is to provide non-evaluative feedback to improve teaching practices by increasing individual's awareness of personal interactions while teaching (Garmston, 1987; Sutherland, 2000). Discussion is based on data from the observation, providing an opportunity for reflection and interchange between colleagues (Joyce & Showers, 1982; Stichter et al., 2006).

Increasing Teacher Use of BSPS

Sutherland et al. (2000) examined the effect of observation-feedback on the rate of a teacher's BSPS in a self-contained elementary class for students with emotional and behavioral disorders (E/BD). Observations took place three days a week during social-skills instruction. The intervention was verbal feedback on the observed rate of BSPS for each 15-minute session. After the initial baseline data were collected, the teacher was provided with the benefits of BSPS and encouraged to meet a goal of six BSPS during each 15-minute session. Prior to each observation the observer reminded the teacher of the goal and provided examples of BSPS. After each observation the observer met with the teacher to praise his use of BSPS, report the number of BSPS observed, and repeat examples of BSPS heard during the lesson. The mean rate of BSPS increased from 1.3 to 6.7 per 15-minutes. The mean rate then dropped to 1.7 per 15-minutes during the withdrawal phase, increasing to a mean rate of 7.8 when the observation feedback intervention was reinstated. Student on-task intervals were observed with mean percentages increasing from 48.7% to 85.6% during the first intervention phase, decreasing to 62.2% during withdrawal, and increasing to 83.3% during the final intervention phase. The increased rates of BSPS did not maintain once the intervention was withdrawn.

Reinke et al. (2008) replicated and extended the research on observation-feedback to increase BSPS with general education teachers across elementary school grades (i.e., first, second, and fifth grades) during daily mathematics instruction. Additional components were incorporated including a classroom check-up to evaluate environment and visual feedback. Mean rates of BSPS increased with the classroom check-up and self-monitoring, but increased more with the classroom check-up and visual feedback. Visual feedback included a graph indicating rates of BSPS, nonbehavior-specific praise statements, reprimands, and disruptions. Disruptions decreased in two of the classrooms, while the other two classes were inconsistent. Maintenance observations a month after the final intervention showed increased rates of praise and decreased disruptions continued across all four classrooms.

Using video self-modeling (VSM) and visual performance feedback, Hawkins and Heflin (in press) extended the research on the rate of BSPS to a self-contained program serving high school students with E/BD. Prior to each observation, the observer met with the teacher for 10 minutes to provide feedback of the dependent variables presented on a line graph, to review an edited version of the video from the previous session, to provide examples of BSPS, and to praise the teacher for specific components of the BSPS viewed on the video that

emphasized the desirable student behavior. During the study, all three teachers' mean rates of BSPS increased steadily. Although one teacher was not observed providing any BSPS during the maintenance observations the other two teachers provided their highest rates during maintenance observations.

These studies provided teacher support for learning and practicing BSPS using teacher coaching prior to the observations and various models of feedback following observations. Further extension of teacher coaching with performance feedback research to increase BSPS is warranted to investigate the effectiveness for supporting inclusion teachers at the high school level (Colvin, 2004; Mastropieri & Scruggs, 2001). To formulate a teacher coaching intervention more useful for colleagues to implement within a school as opposed to having an outside observer, it will be useful to examine less time-consuming methods for teacher coaching (e.g., a fixed but not daily schedule).

The purpose of this study was to extend the research on teacher coaching and BSPS to the high school level, specifically in general education collaborative inclusion math classrooms with students with and without high incidence disabilities including those identified with E/BD, learning disabilities (LD), and other health impairments (OHI). The study examined (1) the effect teacher coaching with written performance feedback had on the frequency of teachers' BSPS with high school students, and (2) the effect of BSPS on student on-task behavior. Teachers were observed to determine the level of maintenance after teacher coaching sessions ended, and social validity was assessed using a survey at the conclusion of the intervention.

Method

Participants and Setting

This study occurred in three inclusion suburban high school classrooms in a metropolitan area of a southeastern city (see Table 1 for school demographics). The teacher participants included two female and one male teacher; two general education teachers and one special education teacher (see Table 2 for teacher demographics). The school operated by block scheduling with classes offered on alternate days (i.e., A/B days). These three teachers co-taught three different ninth grade Math I inclusion classes for students repeating ninth grade due to failing math the previous school year (see Table 1 for class demographics). Although the appropriateness of the math curriculum for meeting the needs of these students is unknown, the students were assigned to these classes as a second attempt to earn math credit required for graduation. In an effort to provide additional support to the students, rather than following the standard block scheduling,

Table 1
School and Classroom Demographics

Suburban High School with 2055 Students: 233 Students with Disabilities
 (109 ninth grade)

Grade	Number	Age	Gender	Ethnicity	Disabilities ¹
9	786	14-17	51%F 49% M	51% African American 19% Caucasian 27% Hispanic 3% Asian	61 LD 19 OHI 13 ED 2 AU 1 DHH 2 VI 4 MID 3 MOID 4 SID

9th Grade Students Retained to Repeat Mathematics

	Number	Age	Gender	Ethnicity	Disabilities ¹
Class 1 Kelly	20	15-16	45% Female 55% Male	60% African American 25% Caucasian 15% Hispanic	2 LD 2 OHI
Class 2 Jaime	24	15-16	50% Female 50% Male	33% African American 17% Caucasian 50% Hispanic	3 LD 1 ED 1 OHI
Class 3 Chris	18	15-17	39% Female 61% Male	44% African American 22% Caucasian 33% Hispanic	4 LD 3 ED

Note: 1: LD = learning disabilities; OHI = other health impaired; ED = emotional disorder; AU = autism; DHH = deaf and hard of hearing; VI = visually impaired; MID = mild intellectual disability; MOID = moderate intellectual disability; SID = severe intellectual disability

Table 2
Teacher Demographics

Participant	Ethnicity	Highest Degree	Certification	Years of Experience
Kelly	Caucasian	Masters	Secondary Math	8
Jaime	Hispanic	Bachelors	Secondary Math	2
Chris	African American	Masters	Special Education	2

math classes were taught alternating the core class with an additional class to provide students 90 minutes of instruction daily using the state math curriculum. Although students had math everyday, they alternated between teachers therefore sessions were conducted on alternating days.

Mathematical units taught over the 14 weeks of observation included geometry, algebraic equations, probability, and graphs. Observations occurred during 15 minutes of active instruction of the core class including a variety of activities such as review of the previous day's lesson, introduction of new material, whole group instruction with guided practice, content review for upcoming tests, group work (i.e., stations), independent practice, and checking answers on completed work.

Dependent Variables and Data Collection

The two dependent variables measured in this study were behavior-specific praise statements (BSPS) and on-task behavior. These variables were measured during 15-minute observations that occurred at the same time each day the class met, provided the participants (teachers) were present in class.

Behavior-specific praise statements. Behavior-specific praise statements were defined as statements of approval provided to a student or students by a teacher that included a description of the behavior being reinforced (Sutherland et al., 2000). For example, when reviewing math problems with the student the teacher may have said, "The strategies you used for problems 3 and 4 are excellent. You have included all of the steps in a neat and easy to understand process. Good work!" This statement told the student what was done well. Another example is when a teacher told the class, "Thank you for coming into

class quietly and having your homework on your desk ready to review." The students knew exactly which behaviors pleased the teacher. Behavior-specific praise statements did not include nonspecific praise such as "Good," "Nice job," or "Well done!" Behavior-specific praise statements were measured using event recording and reported as number per session.

On-task behavior. On-task behavior was defined as engagement with the learning process and occurred when a student focused on the teacher or materials, participated in the lesson by responding to and asking questions, and performed specific activities/assignments related to the lesson (Moore, 1983). On-task behavior was measured using momentary time sampling at one-minute intervals and reported as a percentage of intervals on-task. On-task behavior was measured by observing a randomly selected student and then observing the next student (a total of 15 different students observed per session).

Design and Independent Variable

A multiple baseline across teachers design was used to examine the effect of teacher coaching with written performance feedback for high school teachers on the number of BSPS and opportunities to respond (OTR) and the percentage of on-task student behavior (Alberto & Troutman, 2009; Kennedy, 2005).

Baseline. This study was conducted on alternating days during 15-minutes of interactive math instruction. Each observation included instruction, guided and independent practice, and review of student answers. The general education teachers conducted the class-wide instruction while the special education teacher monitored and assisted individual students as needed. Only one teacher in each class was observed. During independent practice students were allowed to work independently or with peers. All three classes experienced off-task and disruptive behaviors which were of concern to the teachers. Students were observed to wander within the classroom, come and go from the classroom, talk among themselves, shout across the classroom to peers, and use their cell phones which negatively affected their overall participation.

Teacher coaching intervention. Once consistency was demonstrated by a minimum of five consecutive observations with no evidence of BSPS during baseline, the first teacher was trained in the intervention of teacher coaching. The teachers were initially trained during an independent 45-minute training session which included (a) a power point presentation to define teacher coaching and BSPS, (b) the rationale and benefits of teacher coaching and BSPS, (c) examples of BSPS, (d) a discussion of teacher coaching (i.e., goal setting, pre observation

conferencing, and written post-observation feedback), and (e) an opportunity for questions. At the end of the baseline condition, the teacher was told how many BSPS were observed during baseline. After discussion regarding how to provide BSPS during math instruction, the teacher set a goal for the number of BSPS to deliver within each 15-minute observation.

Following the initial training, the researcher provided a 5-minute teacher coaching conference prior to every third intervention session. The researcher reminded the teacher of the BSPS goal for the session, provided an example BSPS, and gave the teacher an opportunity to ask any questions regarding BSPS. After every 15-minute intervention session, regardless of whether there was a teacher coaching conference, written performance feedback was left in a folder on the teacher's desk. Performance feedback included the first two BSPS recorded, the total number of BSPS observed, and BSPS from the researcher for the teacher's use of BSPS.

Maintenance. Teachers were observed 2 weeks and 3 weeks after the removal of the teacher coaching intervention to determine if their use of BSPS were maintained. No teacher-coaching took place prior to the observation and no written performance feedback was provided afterwards.

Social Validity. Social validity was evaluated using a modified version of the Treatment Acceptability Rating Form-Revised (TARF-R; Reimers & Wacker, 1988). Teachers were given the modified TARF-R with the written performance feedback on the last day of intervention. They were asked to complete the form individually before the first scheduled maintenance observation. The TARF-R consisted of 17 questions with space for additional comments. Fifteen questions assessed the practicality and effectiveness of the teacher coaching intervention and of the use of BSPS as a classroom management strategy. The questions were scored using a 7-point Likert scale. Teacher perception regarding study participation was assessed using two open-ended questions.

Results

The purpose of this study was to determine if teacher coaching with written performance feedback would effect the number of BSPS during instruction and if increased BSPS positively affected on-task behavior (see Figure 1).

During baseline, Kelly delivered no BSPS. At the initial teacher coaching training session, Kelly set a goal of 10 BSPS for each 15-minute observation. The intervention BSPS mean was 9.7 (range, 4 to 12) and during maintenance, across two sessions the BSPS mean

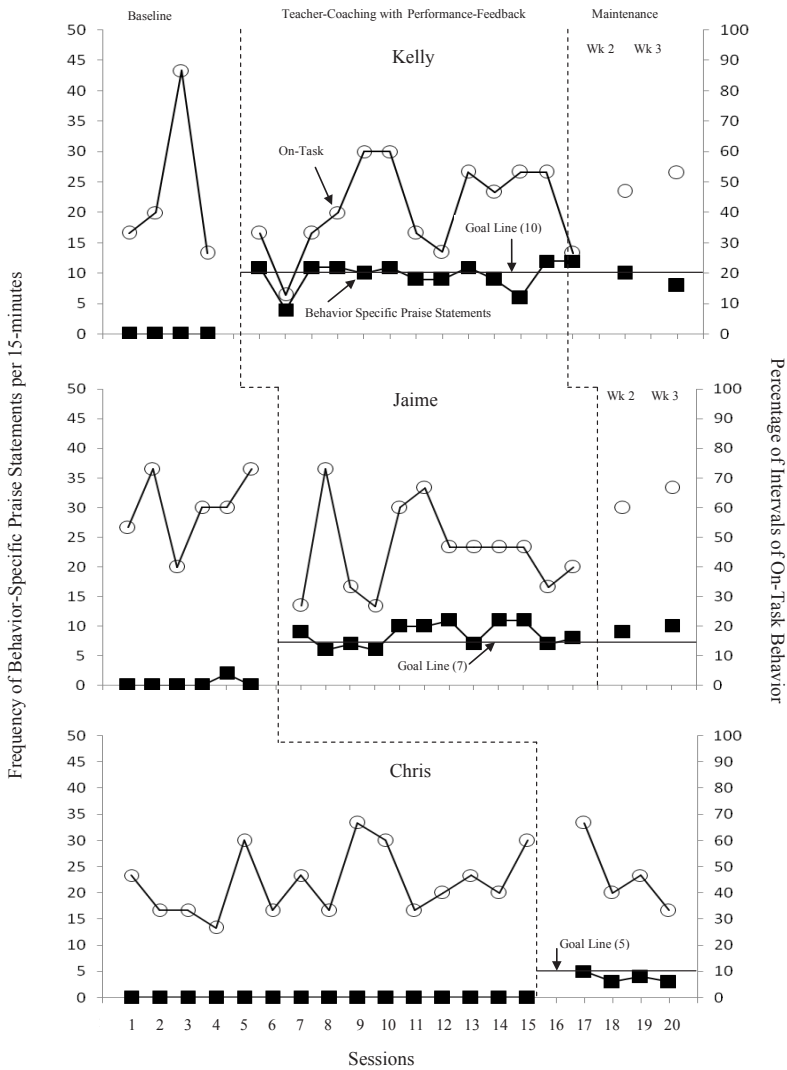


Figure 1: Frequency of Behavior-Specific Praise Statements by teachers Kelly, Jaime, and Chris vs. Percentage of Intervals of On-Task Behavior

was 9 (range, 8 to 10). In terms on-task behavior, baseline to intervention means showed a slight decline with a return to baseline level during maintenance (baseline $M = 51\%$ to intervention $M = 41\%$ to maintenance $M = 50\%$).

During baseline, Jaime delivered 2 BSPS on one occasion, $M = .33$ (range, 0 to 2). At the initial teacher coaching training session, Jaime set a goal of 7 BSPS for each 15-minute observation. The intervention BSPS mean was 8.5 (range, 6 to 11) and during maintenance, across two sessions the BSPS mean was 9.5. In terms of on-task behavior, baseline to intervention means showed a decrease in on-task behavior with a return to baseline during maintenance (baseline $M = 60\%$ to intervention $M = 45.7\%$ to maintenance $M = 63.3\%$).

During baseline, Chris delivered no BSPS. At the initial teacher coaching training session, Chris set a goal of 5 BSPS for each 15-minute observation. The intervention BSPS mean was 3.75 (range, 3 to 5). On-task behavior increased from baseline $M = 44\%$ to intervention $M = 51\%$. Due to the change in teaching structure as the school year came to an end no maintenance data were collected for Chris.

Fidelity

Fidelity was assessed on the accuracy of the teacher coaching intervention by two trained graduate assistants, each of whom was trained to mastery on all study fidelity and dependent variables. Each teacher's initial teacher coaching training session was implemented with 100% accuracy per a checklist with the training components. To assess treatment fidelity of the remaining teacher coaching intervention sessions a fidelity checklist with ten components was used. Interobserver agreement (IOA) was assessed on fidelity of teacher coaching sessions for each teacher using point-by-point agreement by dividing the total number of agreements by the total number of agreements plus disagreements multiplied by 100%. For Kelly, fidelity was assessed for 100% of the teacher coaching intervention sessions, with fidelity at 99% (range, 90% to 100%); 60% of sessions were assessed with IOA at 100%. For Jaime, fidelity was assessed for 100% of the teacher coaching intervention sessions, with fidelity at 95% (range, 86% to 100%); 75% of sessions with IOA at 100%. For Chris, fidelity was assessed for 33% of the teacher coaching intervention sessions, with fidelity at 100%; 33% of sessions were assessed with IOA at 100%.

Inter-Observer Agreement

Two trained graduate assistants conducted interobserver agreement assessments for all teachers during classroom observations across all phases of the study. For BSPS, total agreements of observed

behaviors were calculated by dividing the smaller number by the larger number of observed behaviors and multiplying by 100%. For the percentage of intervals of on-task behavior, point-by-point agreement was calculated by dividing the number of agreements by the number of agreements plus disagreements and multiplying by 100% (Kennedy, 2005).

For Kelly, IOA was assessed for 42% of classroom observations, with BSPS at 97% (range, 82% to 100%) and percentage of on-task intervals at 92.56% (range, 87% to 100%). For Jaime, IOA was assessed for 47% of classroom observations, with BSPS at 96.44% (range, 83% to 100%) and percentage of on-task intervals at 91.33% (range, 87% to 100%). For Chris, IOA was assessed for 44% of classroom observations, with BSPS at 97.5% (range, 80% to 100%) and percentage of on-task intervals at 93.37% (range, 80% to 100%).

Social Validity

The results of the TARF-R indicate that the teacher coaching with performance feedback was easy to understand and acceptable for these inclusion teachers. One teacher stated it was difficult to be observed when students were behaving inappropriately, but it was nice to have positive feedback for a job well done. All three teachers reported that BSPS are effective in promoting positive student behavior regarding academics. One teacher wrote that the students seemed to take more initiative and participate in the lessons during intervention. There was an increase in the students' willingness to offer math solutions and explanations, as well as to solve problems at the board in front of the class. Students noticed when others were recognized for doing something well and then they also behaved in ways that would be recognized.

Discussion

The results of this study extend the research of teacher coaching to general education math inclusion teachers for students with and without high incidence disabilities. The findings are consistent with previous studies indicating that teacher coaching with performance feedback can have a direct and immediate impact on teachers' use of BSPS (Hawkins & Heflin, in press; Rathel et al., 2008; Sutherland, 2000). The methods of this study differed from previous studies in two ways. First, after initial training, teacher coaching was only provided prior to every third session with written performance feedback following each session. Teacher coaching was reduced to every third session rather than every session as in previous studies to examine efficacy. Based on block scheduling, every third session allowed one

teacher coaching session to occur each week. Second, feedback was only provided for BSPS even though on-task behavior as well as opportunity to respond (OTR) data was collected. Data were collected on OTR in an attempt to extend the findings reported by Sutherland, Wehby, and Yoder (2002). Sutherland et al. (2002) found when BSPS increased OTR also increased and suggested further research in manipulation of these variables. However, upon examining the data from this study the OTR data collected suggested no discernable relation to the increase in BSPS. Likewise, the effects of increased BSPS for on-task behavior were inconclusive. Several factors may contribute to the lack of change in OTR. One factor may be due to baseline frequencies. For example, two teachers had a high frequency of OTR during baseline ($M = 22$ and 28 per 15-minutes) and their frequency of OTR did not increase throughout the intervention; however, one teacher had a low frequency of OTR during baseline ($M = 8.7$ per 15-minutes) and increased OTR during intervention ($M = 30$ per 15-minutes). Future researchers may further examine the relation between BSPS, OTR, and on-task behavior at the high school level. A second possible explanation may be due to the lack of feedback on the teachers' performance related to OTR and on-task behavior; or a possible explanation presented by Joyce and Showers (1982) that while concentrating on learning to integrate a new skill other skills may temporarily suffer. Future studies of teacher coaching with observation-feedback should investigate providing written feedback on each of the dependent variables (i.e., BSPS, OTR, and on-task behavior) to investigate if feedback on more variables would lead to more teacher change.

Additionally, the lack of change in student on-task behavior when BSPS increased may be due to the lack of sensitivity of the data-collection method. On-task behavior was measured for a random sample of 15 students per session. Although no specific data were collected on how BSPS were distributed, anecdotal records indicate that BSPS were provided to a range of students for both academic and social behaviors. In addition, BSPS was provided to the entire class on occasion as well as to individual students both publicly and privately. A more accurate snapshot of student on-task behavior may be measured in other ways. For example, future researchers might consider identifying specific students to observe consistently throughout the study using partial interval recording with reduced interval lengths (i.e., 30 seconds). This will allow frequent and repeated recording of specific students' behavior throughout the study to detect change in individuals as opposed to the random one-time snapshots of 15 different students during each observation as was collected during this study. In addition, data could be collected in regard to whether

BSPS were delivered publicly or privately as well as which students received BSPS.

In addition to not providing feedback for OTR and on-task behavior, and a lack of sensitivity in measuring on-task behavior, another consideration is the uniqueness of each tier related to teachers' teaching style and behavior management practices. There were anecdotal observable differences between each class related to student-teacher interactions during instruction. For example, Kelly modeled math procedures, offered frequent OTR regarding computation, and repeatedly directed students to be quiet during instruction, waiting until talking stopped to resume teaching while Jaime maintained a brisk pace, invited volunteers to demonstrate solutions on the board but rarely addressed noise levels. Chris was observed teaching individuals or small groups, talking students through problem-solving, and redirecting students to the lesson. When students were uncooperative or disruptive, he used humor, talked quietly to individuals, removed students from the room, wrote office discipline referrals, or called parents. Future researchers should consider teaching styles and behavior management practices when selecting participants to allow for systematic replication across tiers in a multiple baseline design.

Two other variables to consider in future research are disruptive behavior (Sutherland et al., 2000) and work-completion (Kirby & Shields, 1972). Based on anecdotal records from all three classes, the level of disruptive behavior declined during intervention with a reduction in students throwing items during instruction, using electronics, and walking around and/or leaving the classroom. Besides the observed reduction of disruption, the researchers noted throughout the intervention students complimenting peers when they received BSPS and telling the teachers "See I'm working too!" or "I got that one right!" Therefore, rather than focusing only on student time on-task behavior, future researchers may want to collect data on disruptive behaviors, work completion, accuracy of work, and performance on quizzes and/or tests.

As a final point, many scheduled sessions did not occur for various reasons affecting tier entry. For example, of the 35 scheduled observations, five early sessions were missed due to schedule changes based on inclement weather and district testing. Jaime missed an additional two days because of independent work and student conferences, and Chris missed an additional 11 days because of student discipline, health-related absences, and program changes. The study concluded seven sessions earlier than scheduled because the team changed their instructional approach to prepare for the end of course test reducing the number of possible intervention sessions for Chris.

Future researchers may consider beginning data collection earlier in the school year to allot more time for unexpected interruptions in data collection. However, these disruptions in the study sessions are an artifact of conducting studies within applied settings, and may lend itself to generalizable statements of the effectiveness of coaching on BSPS.

The increased BSPS for all three teachers using teacher coaching with written performance feedback and the positive responses by the teachers on the TARF-R indicate this intervention may be useful in assisting high school collaborative inclusion teachers in improving classroom strategies. Considering the confounding variables experienced throughout this study, the immediate improvement of integrating BSPS through teacher coaching with performance feedback suggest that other practical teaching strategies could be learned using this method. Further research regarding teacher coaching at the high school level may support this intervention as professional development for the implementation and improvement of a variety of teaching strategies to increase student engagement (Cwikla, 2004; Hasbrouck & Christen, 1997; Hendrickson et al., 1988; Joyce & Showers, 1982; Villa et al., 2005). An extension of the literature may include allowing teachers to choose which strategies they would like to learn through teacher coaching.

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