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Teachers' Use of Diverse Praise: A Middle and High School Sample

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Teachers' Use of Diverse Praise:

A Middle and High School Sample

(TITLE)

BY

Aubrey Toosley, M.S.

THESIS

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
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Abstract

The current study examined teachers' use of diverse praise or the use of verbal statements or gestures of approval that are delivered in a variety of distinguishable ways in response to desired student behavior. Verbatim general praise and behavior-specific praise data collected during the 2017-18 academic year were analyzed from a larger study where a total of 1,320 observed minutes were collected across 66 middle and high school classrooms. Teachers used an average of 1.7 total diverse praise categories per observation. Both middle and high school teachers used more general diverse praise categories compared to behavior-specific diverse praise categories. The most commonly observed categories included the adjective (e.g., great; 68%), work (e.g., nice work, 18%), and compliance/appreciation (e.g., thank you, 18%) GDP categories. Overall, the only GDP categories coded included general praise that was delivered verbally. There was no statistically significant difference between middle and high school teachers' use of diverse praise. When comparing overall middle school (sixth through eighth grade) and high school (ninth through twelfth grade) total diverse praise (TDP), general diverse praise (GDP), and behavior-specific diverse praise (BSDP) numbers were similar and the averages obtained from each category were relatively stable (i.e., without trend).

Teachers' Use of Diverse Praise: A Middle and High School Sample

Introduction

Student misbehavior in the classroom is not uncommon. For instance, misbehavior might include students talking back, not paying attention to instruction, or engaging in disruptive behavior (i.e., talking to a peer, making audible noises unrelated to the lesson, and blurting out in class; Gage, Scott, Hirn, & MacSuga-Gage, 2018). Student misbehavior is disruptive to the learning environment (Tsouloupas, Carson, & Matthews, 2014) because it takes teacher attention away from classroom instruction (Gage et al., 2018). Instead of teaching, teachers are likely to react to student misbehavior by reprimanding and then re-establishing classroom order so they can resume teaching. Dealing with student misbehavior takes up valuable time that would be better served teaching. Furthermore, time spent addressing student misbehavior may vary (in length and difficulty) depending on the disruptive behaviors of the student and the classroom management skills of the teacher (Tsouloupas et al., 2014). Therefore, it is vital for teachers to have proper and effective skills to minimize student disruptive behavior and maintain and restore a positive classroom environment after disruptive behavior occurs (Tsouloupas et al., 2014). This is especially important considering that children with academic challenges are more likely to exhibit behavior problems (Gage et al., 2008); and since NCLB legislation (No Child Left Behind [NCLB], 2002), more students with behavioral and academic challenges are receiving instruction within the general education classroom (Heflin & Bullock, 2010).

One simple strategy that decreases student disruptive behavior and increases student appropriate behavior is praise; however, the screening of teachers' effective use

of praise as a Tier 1 (universal) strategy is rarely (if ever) assessed (Floress & Jenkins, 2015; Myers, Simonsen, & Sugai, 2011). One reason that teachers' effective praise use is not universally screened may be that the important components related to using praise effectively are generally unknown. The current praise recommendations (except for behavior-specific praise) in the literature are subjective and difficult to objectively measure. Therefore, studying components of praise that can be objectively measured, like diverse praise, will assist in future experimental manipulation of objective praise components to determine which are most important.

Diverse praise (DP) is defined as "the use of verbal statements or gestures of approval that are delivered in a variety of distinguishable ways in response to desired student behavior" (Floress & Beschta, 2018, p. 3). Thus far, Floress and Beschta (2018) is the only study to have examined teachers' use of diverse praise. The purpose of this study is to improve upon the Floress and Beschta study and to examine diverse praise among middle and high school teachers. The next section will review the importance of teacher classroom management.

Teacher Classroom Management

Behavior management takes up a large portion of teachers' daily work responsibilities. Unfortunately, many teachers report struggling with behavior management because they receive little training prior to entering the field (Begeny & Martens, 2006). When teachers have poor behavior management skills, there are many potential negative side-effects. First, teachers may be more likely to burnout and leave the field of education (Ingersoll & Smith, 2003). They are more likely to be exhausted, dissatisfied with their jobs, and ultimately less committed to their jobs (Tsouloupas et al.,

2014). Increased stress related to higher demands, low levels of training, and ineffective discipline practices have a strong impact on teacher turnover. Stress related to student misbehavior is negatively related to teacher health, increased teacher absenteeism, and increased rates of teacher burnout related to emotional exhaustion (Klassen & Chiu, 2010).

Relatedly, teachers with limited behavior management training and greater stress may feel less capable. Teachers who report receiving limited behavior management training also self-reported low levels of self-efficacy (Klassen & Chiu, 2010). Teachers who have little confidence in their abilities to manage student behavior, may be no better off than teachers who lack the skills to effectively manage their classroom (Wolters & Daugherty, 2007). Higher teacher self-efficacy is related to greater teacher warmth, higher responsiveness to student needs, and greater enthusiasm towards teaching. Teachers with high levels of self-efficacy are judged to be more effective in their teaching compared to those with low levels of self-efficacy (Wolters & Daugherty, 2007). On the other hand, teachers with low levels of self-efficacy are more rigid in their teaching methods and use higher levels of student-directed criticism (Wolters & Daugherty, 2007).

Poor classroom instruction is another negative side-effect of ineffective classroom management. For example, teachers with poor classroom management training are more likely to spend time dealing with student misbehavior rather than instructing students (Atiles, Gresham, & Washburn, 2017). Students are less likely to reach educational goals (e.g., common core standards; Common Core Standards Initiative, 2018) when teachers are unable to teach, because they are addressing misbehavior (Tsouloupas et al., 2014).

The extensive amount of time spent on discipline may have overarching consequences, such as loss of direct instruction, missed opportunities to work and learn with peers, and a decreased desire to participate (Zimmermann, Schütte, Taskinen, & Köller, 2013). Students with ongoing behavior problems are more likely to academically struggle, because their behavioral concerns interfere with their attention to academic activities and time spent on schoolwork (Zimmerman et al., 2013). Misbehaving students also miss out on important functions of the classroom that contribute to achievement, such as cooperative learning. Students exhibiting behavior problems are more likely to have poor achievement because of the distractions caused by misbehavior including outbursts, inattention, cursing, and other antisocial or aggressive behaviors (Zimmerman et al., 2013). These distractions take away from time needed for instructional activities. Direct instruction is hindered by misbehavior in the classroom which inhibits the much-needed practice involved in achieving mastery of a topic. Teachers tend to remove misbehaving students (i.e., out of the classroom or to the back of the class) to reduce disruption; however, these strategies impede learning, because the student is less academically engaged or misses instruction entirely (Ratcliff et al., 2010).

Ongoing behavior problems are likely to negatively influence the student-teacher relationship in addition to the student's self-esteem (Zimmerman et al., 2013). Students with behavior problems have a diminished desire to participate in class because of concurrent negative interactions with their teacher and peers (Zimmerman et al., 2013). High levels of teacher stress are related to less positive, and even avoidant, interactions between the teacher and the misbehaving student (Abidin & Kmetz, 1997). Teacher praise may counteract many of these negative outcomes (i.e., teacher stress, student poor

self-esteem, poor student-teacher relationships), because when used effectively, teacher praise reduces student disruptive behavior.

Teacher Praise: An Effective Classroom Management Tool

Praise defined. In 1981, Brophy wrote an article titled *Teacher Praise: A Functional Analysis*, which is the most cited article on teacher praise. In his article, Brophy (1981) describes praise as a statement that reflects approval or admiration in response to a student's behavior. He also makes the point that praise goes beyond merely giving a student feedback for a correct response. In the literature, two types of praise are commonly described, behavior specific praise (BSP) and general praise (GP; Jenkins, Floress, & Reinke, 2015). BSP is when a teacher provides approval for a specific behavior (Allday et al., 2012; Brophy 1981). For example, if a teacher were to say, "I like how quietly you walked to your seat," this praise would be BSP. General praise is when a teacher provides approval but does not identify the specific behavior that led to the approval (Sutherland et al., 2000). Examples of GP include "good," "fantastic," or "thank you."

Increasing teachers' praise. Researchers have demonstrated the functional relation between teacher praise and student disruptive behavior since the 1960s (Hall, Lund, & Jackson, 1968; Madsen, Becker, & Thomas, 1968; Ward & Baker, 1968). In these studies, teachers were taught to show approval for appropriate or desired student behaviors while simultaneously ignoring inappropriate or disruptive behaviors. Results indicated that when teachers increased their use of praise and ignored student inappropriate behavior, student behavior improved. When teachers are taught to increase

their use of praise, a variety of student problem behaviors improve (e.g., shout-outs, talking out of turn, noncompliance; Hall et al., 1971).

More recent studies have continued to examine the impact of increased teacher praise on student behavior (Sutherland et al., 2000; Stormont, Smith, & Lewis, 2007; Reinke, Lewis-Palmer, & Martin, 2007; Dufrene, Lestremau, & Zoder-Martell., 2014). Sutherland et al. (2000) examined the rate of a teacher's use of BSP with fifth-grade students with emotional and behavioral disorders (EBD). At baseline, the teacher's average rate of BSP was 1.3 per 15-min session. During intervention, the teacher was told the benefits of BSP, its positive effects on student on-task behavior, and a criterion of six BSP per 15-min session was set based on his baseline BSP rate. Before each intervention session, the teacher was reminded of the goal rate and BSP examples. Then, the teacher received verbal feedback on his rate of BSP during a social skills lesson. The teacher was praised for the BSP statements he used and specific examples of BSP observed during the session were described. Results indicated that the teacher's rate of BSP increased to 6.7 per 15-min session during the intervention phase. In addition, during intervention, when the teachers' rate of BSP increased, so did student on-task behavior (Sutherland et al., 2000).

In a similar study, Stormont, Smith, and Lewis (2007) examined whether increasing teachers' use of praise and precorrection would decrease preschool students' problem behavior. Precorrection is a strategy used to prevent misbehavior from occurring. Teachers were taught to increase praise and precorrection through a two-day workshop on the implementation of program-wide positive behavior supports as well as two in-services on this same topic. During observations, teachers' frequency of BSP and

reprimands were recorded using 15-min intervals for a total of 15 intervals. Use of precorrection was recorded based on its occurrence or nonoccurrence in the first five minutes of the observation (Stormont et al., 2017). The frequency of student problem behaviors was also recorded during intervals. Results indicated that when teachers increased their use of praise and precorrection, student problem behaviors (i.e., off-task, oppositional, aggressive, & disruptive) decreased.

Reinke et al. (2007) examined whether providing general education teachers' visual performance feedback would increase teachers' use of BSP and decrease students' disruptive behavior. Disruptive behavior included negative interactions, talking out of turn, noncompliance, and other behaviors related to disrupting or interfering with classroom activities. Six elementary students, chosen by principal recommendation and teacher report of disruptive behavior, from a general education classroom were observed during this study. Two randomly chosen same-sex peers were also observed during each observation to be used as peer comparisons. Results indicated that when teachers were provided a visual representation of their use of BSP, their use of BSP increased and both the target students' disruptive behavior and teacher reprimands decreased. In addition, teachers increased their use of BSP with peer comparisons, even though teachers were not explicitly told to praise these students. Using more praise and fewer reprimands likely assists in creating a positive classroom environment (Walker, Colvin, & Ramsey, 1999). In addition, more praise and fewer reprimands encourages positive student-teacher interactions and ultimately positive student-teacher relationships (Lago-Delello, 1998).

Operant Conditioning Theory and Praise

When used correctly, praise decreases student inappropriate behavior because when teachers attend to appropriate behavior (e.g., raising one's hand) while ignoring misbehavior (e.g., talking out of turn), students learn what behaviors lead to teacher attention and which do not (Gable, Hester, Rock, & Hughes, 2009; Partin et al., 2010). This is in line with operant conditioning theory and positive reinforcement. Operant conditioning theory states that the probability or reoccurrence of a behavior depends on the consequence that has followed that behavior in the past (Touretzky & Saksida, 1997). For example, a person who receives a reward for returning a lost wallet, is more likely to return lost items to others in the future (if receiving a reward was reinforcing). In the classroom, operant conditioning occurs when a teacher uses strategies that either increase or decrease the probability of a student's behavior reoccurring. For example, a student who is sitting quietly and then selected to be the teacher's helper with the smartboard is more likely to sit quietly in the future (if being selected as the teacher's helper is reinforcing to that student).

There are four key principles to operant conditioning: positive reinforcement, positive punishment, negative reinforcement, and negative punishment (Powell, Honey, & Symbaluk, 2017). Reinforcement refers to the addition or removal of a stimulus that results in the strengthening of a behavior. On the other hand, punishment refers to the addition or removal of a stimulus that results in the weakening of a behavior (Powell et al., 2017). Positive reinforcement increases the probability of a response to occur again. It occurs during or after the response, or desired behavior (Pedrini & Pedrini, 1972). If teacher praise follows a student's behavior and that behavior increases in frequency, the

teacher praise strengthened (or positively reinforced) that student's behavior (Pedrini & Pedrini, 1972). Hence, when this occurs, praise is considered a form of positive reinforcement because it strengthens the likelihood that the student's behavior will occur again in the future (Hester, Hendrickson, & Gable, 2009). For example, a teacher might target prosocial behaviors in the classroom and praise a student for helping a peer clean up a spill. If that peer is observed to exhibit helping behavior again, it is likely that the teacher's use of praise was a form of positive reinforcement that strengthened that student's likelihood of helping (Alberto & Troutman, 2009; Kerr & Nelson, 2010; Hester, Hendrickson, & Gable, 2009).

Students with behavior problems. Unfortunately, the students who are likely to benefit the most from praise are the ones who receive the least praise (Sutherland, Lewis-Palmer, Stichter, & Morgan, 2008; Sutherland, Wheby, & Copeland, 2000). Sutherland et al., (2008) reviewed the literature to examine the influence of teacher instructional behaviors and classroom contexts on learning and behavior problems among students with emotional and behavioral disorders (EBD). Teacher instructional variables (i.e., providing accommodations and positive attention) and classroom contexts (i.e., classroom management strategies and teacher-student interactions) were examined to determine their effect on student outcomes (i.e., problems in behavior and learning). Various studies highlighted in the Sutherland review illustrate the impact of instructional variables on at-risk students. For example, at-risk students typically receive more attention for misbehavior and less attention (reinforcement) for prosocial behavior. Relatedly, poor student-teacher relationships are negatively correlated with student attention (i.e., praise and opportunities to respond; Van Acker, Grant, & Henry, 1996).

Poor student-teacher relationships and less attention for prosocial behaviors may work in combination, especially for teachers who are resistant to increasing their use of praise with students who are at-risk for behavior problems (Lago-Delello, 1998).

Negative teacher-student relationships tend to develop over time and persist through the years (Hamre & Pianta, 2001). Establishing clear expectations, routines, and rules in the classroom (i.e., effective classroom management strategies) help to reduce problem behaviors, increase academic success, and create a positive classroom environment (Emmer & Stough, 2001; Kameenui, 1995; Mayer, 1999). Further, quality instruction (e.g., frequent praise and opportunities to respond) is essential to the development of positive teacher-student relationships, promoting prosocial student behavior (Sutherland, Alder, & Gunter, 2003), increasing academic engagement, and decreasing problem behaviors (Sutherland et al., 2000).

The findings reported by Sutherland et al. (2008) are particularly concerning for students with EBD and are illustrated in Van Acker et al.'s study that examined the effects of classroom context with at-risk students on teacher-student relationships (1996). This study was conducted in the natural classroom environment (i.e., teachers were not told to do anything different during their classroom instruction). Findings indicated that high levels of noncompliance resulted in more teacher reprimand than praise. Similarly, students in the high-risk group received more reprimands than those in the low risk group. Van Acker and colleagues also reported that as levels of negative attention from teachers increased, so did inappropriate student behavior. The authors reported that teachers appeared to praise randomly, while reprimands were more predictive. The next section will discuss how operant conditioning theory also explains why teacher

reprimand of student inappropriate behavior likely maintains (or strengthens) student inappropriate behavior.

At-risk students and operant conditioning. Students with problem behaviors are more likely to evoke teacher reprimand (Sutherland et al., 2008), because behaviorally at-risk students begin to reliably predict which behaviors will lead to teacher attention (i.e., reprimand, rather than teacher praise). Although teachers may intend to decrease student misbehavior by reprimanding, for at-risk students, it is more likely that teacher reprimands may strengthen misbehavior (Pisacreta, Tincani, Connell, & Axelrod, 2011). Teachers are more likely to reliably respond to at-risk student problem behavior using reprimands, thereby inadvertently strengthening student problem behavior. Teacher responses can function to strengthen (reinforce) appropriate or inappropriate behavior depending on which is being attended to (Conroy et al., 2009). It is common for teachers to use more reprimands and fewer praises with students with behavior problems (Lago-Dellalo, 1998; Nelson & Roberts, 2000; Russell & Lin, 1977). When teachers attend to inappropriate behavior frequently and pay little attention to appropriate behavior, students may find that obtaining teacher attention via reprimands is a desirable and reliable consequence for misbehavior. In addition, students may demonstrate fewer instances of prosocial behavior because they are unable to predict when their prosocial behavior will lead to teacher praise.

Praise Recommendations

Behavior-specific praise. There are various recommendations for ensuring that praise is used effectively; however, many of these recommendations have not been studied experimentally. Brophy (1981) was the first to argue that BSP is a superior use of

praise compared to GP. Behavior-specific praise is purported to be superior, because when a teacher specifically identifies what was approved (e.g., “Nice job, you remembered to write your name on your paper!”), it increases the likelihood that the student will make the connection between the specific behavior and approval (Conroy et al., 2009). Behavior-specific praise increases the likelihood that students will make a connection between their behavior and the teacher’s approval of that behavior (Hawkins & Heflin, 2011; Sutherland et al., 2000). Many studies have demonstrated that when teachers are taught to increase their use of BSP, student behavior improves (Dufrene et al., 2014; Fullerton, Conroy, & Correa, 2009; Reinke, Herman, & Stormont, 2013; Sutherland et al., 2000).

Fullerton et al. (2009) examined whether training teachers on how to use BSP and GP to address problem behaviors in the classroom would increase teachers’ use of BSP and have a positive effect on student problem behaviors. Four early childhood teachers who taught in classrooms with students with EBDs participated in the study. Following training, teachers increased their use of BSP and target students’ compliance and on-task behavior increased. Other studies have examined the effects of increasing teachers’ BSP and have found that increased rates of BSP increased student task completion and on-task behavior (Allday et al., 2012; Sutherland et al., 2000). Allday et al. (2012) trained teachers to use BSP in the classroom and results showed that both teachers’ use of BSP and student on-task behavior increased (for students with EDB or at-risk for EBD). Other researchers have provided evidence for positive outcomes resulting from BSP in the general education classroom, including increased student engagement, academic

responding, and task completion (Brodén, Bruce, Mitchell, Carter, & Hall, 1970; Ferguson & Houghton, 1992).

Contingent praise. Researchers have also stressed the importance of praising student appropriate behavior immediately (Sutherland et al., 2001). For example, praising a student at the beginning of the day for efficiently completing a writing assignment rather than praising the student for the same behavior at the end of the day. Studies support the use of strategically placed praise rather than using praise spontaneously (Myers, Simonsen, & Sugai, 2011; Sutherland et al., 2000). Contingent praise increases student attending and compliance beyond delivering effective instruction alone (Brodén et al., 1920; Wilcox, Newman, & Pitchford, 1988; Matheson & Shriver, 2005). Matheson and Shriver (2005) trained teachers on how to give effective commands to increase compliance and task engagement of three students in a general education classroom. Although implementing effective commands increased student compliance, the combination of effective commands and teacher praise contingent on student compliance was most effective.

High praise to reprimand ratio. When training teachers to use praise, a high praise to reprimand ratio is encouraged and supported by the literature (Clunies-Ross et al., 2008; Stichter et al., 2009). For example, researchers recommend a praise to reprimand ratio of 4:1 (Good & Grouws, 1977; Myers et al., 2011; Piffner, Rosen, & O'Leary, 1985; Trussell, 2008). A study conducted by Myers et al. (2011) evaluated the effects of using an RTI approach along with training in schoolwide positive behavioral interventions and supports (SWPBIS) on increasing desired teacher behavior. This training included information based on using a 4:1 praise to reprimand ratio and how to

use specific, contingent praise. After training, student disruptive and off-task behavior decreased. In addition to maintaining a high praise to reprimand ratio, determining whether praise is functioning as positive reinforcement is important and how often it is.

Function. Brophy (1981) argued that for praise to be effective, it must be reinforcing to the student. He urged that teachers often overlook whether praise is reinforcing (i.e., strengthening behavior), instead assuming that praise is inherently reinforcing. In other words, regardless of the student, this is assuming all students find praise enjoyable (i.e., rewarding). Teachers must consider unique student characteristics when using praise to increase the likelihood that praise will function as a reinforcer for a specific child (Floress & Beschta, 2018). For example, children who are inherently shy may prefer to be praised by a teacher in a one-on-one setting or with written praise at the top of their paper, rather than praised publicly in front of the class. Praise is also less likely to increase student appropriate behavior when the function for the child's misbehavior is escape (i.e., getting out of a task) rather than teacher attention. It is also important to differentiate praise (Gable et al., 2009) based on the student's skill level; for example, praising a child for putting his backpack in his cubby (even when this is a classroom expectation and all the other students in the class put their backpacks away consistently without praise). Using differentiated praise and meeting the student at their skill level increases the likelihood of making behavioral improvements specific to that student (Floress & Beschta, 2018; Partin et al., 2010).

Subjective recommendations. Despite the objective praise recommendations described above (i.e., behavior specific, contingent, higher ratio, function), researchers have also offered subjective recommendations. For example, in addition to praise being

specific and contingent, researchers argue that it should also be sincere and enthusiastic (Brophy, 1981; O'Leary & O'Leary, 1977). Unfortunately, sincerity and enthusiasm are subjective characteristics, because they are difficult to quantify or measure. One person's idea of enthusiasm or sincerity may be different from another person. Henderlong and Lepper (2002) examined this in their study where they reviewed the sincerity of praise and possible factors affecting how it is perceived. Ultimately, Henderlong and Lepper concluded that sincere praise could not be differentiated from falsified praise.

While subjective praise recommendations may be helpful when providing praise consultation and training, it presents a problem in research because these characteristics are difficult to measure. Therefore, examining whether characteristics like sincerity or enthusiasm are critical to the effective use of praise cannot be adequately determined. This is likely why no study has provided empirical support to suggest that praise is more likely to be effective when it is enthusiastic or genuine. It is important to accurately measure recommended praise characteristics (e.g., behavior-specific, contingent, higher ratio) so that researchers can experimentally manipulate these characteristics to determine which increase the likelihood of effective praise use. Diverse teacher praise has the potential to be an objective and measurable praise characteristic; however little research on teachers' use of diverse praise exists (Floress & Beschta, 2018).

Teachers' Diverse Use of Praise

Floress and Beschta defined diverse teacher praise as "the use of verbal statements or gestures that are delivered in a variety of distinguishable ways in response to desired student behavior" (2018, p. 3). It is used to measure whether a teacher identifies various appropriate behaviors in a variety of ways. Teachers' use of diverse

praise has not been extensively studied; however, it has the potential to influence students' behavior positively. For example, diverse praise may be a better use of praise for similar reasons to why BSP is purported to be a better use of praise. Firstly, teachers who use diverse praise may (more readily) become a discriminative stimulus for the availability of praise compared to teachers who do not use diverse praise. A discriminative stimulus is a stimulus that increases a particular response due to its association with an increase in reinforcement following the response (Michael, 1982). In other words, teachers who use a variety of praise may become a signal to students that praise is readily available. In turn, students may increase their use of appropriate behavior in the presence of this teacher because they are more likely to receive praise (Floress & Beschta, 2018). Teachers are encouraged to use BSP rather than GP because students are more likely to make a clearer connection between their specific behavior and teacher approval. Similarly, teachers who use diverse praise may be easier for students to identify (and, therefore, cue them to exhibit appropriate behavior) than teachers who do not use diverse praise. Both BSP and diverse praise provide noticeable signals to the student that may increase the likelihood that they demonstrate appropriate behavior.

Secondly, diverse praise may be an important praise characteristic because when teachers use diverse praise students may be less likely to habituate to their use of praise. Habituation is the reduction of a behavioral response due to the repeated presentation of a stimulus (Rankin et al., 2009). Students are more likely to habituate to the same presentation of praise (regardless of whether the praise is specific or general). For example, a teacher may use the same GP statement "great job, good work, nice working" or a teacher may use the same BSP statement "good sitting, great sitting, excellent

sitting.” Both examples of GP and BSP are repetitive and do not demonstrate diverse praise. The GP examples meet the GP definition, because it is not clear what the student is doing exactly. Although there is some variety in the use of the words “great, good, and nice” the focus is on the work or job the student is doing. The BSP examples meet the BSP definition because “sitting” is a specific behavior that was identified. However, this example is repetitive (not diverse) because the teacher is not identifying various behaviors (e.g., sitting, cleaning-up, working). On the other hand, an example of diverse GP would include “good job,” “nice try,” and a “hi-five” while an example of diverse BSP would include “good job keeping your hands to yourself,” “thank you for sitting quietly in your seat,” and “excellent! you remembered to raise your hand.” Children may be less likely to habituate to a teacher’s use of praise when they use a variety of GP and BSP praises.

Thirdly, diverse praise may be an important praise characteristic because diverse praise may be associated with a higher quality of reinforcement due to its novelty. Students may become accustomed to the same praise used by a teacher and become habituated to that form of reinforcement (Shriver & Allen, 2008). Diverse praise may decrease the likelihood that students become habituated to praise by having teachers use a variety of statements rather than engaging in the same repetitive praise. Thus, these components explain the importance of studying diverse praise and its possible effectiveness as a strategy to increase appropriate student behavior. The next section will detail the first study to examine general education teachers’ (kindergarten through fifth grade) use of diverse praise.

Floress and Beschta's (2018) study was the first to examine teacher's diverse praise. The authors had two aims: first, to determine whether diverse praise could be objectively measured and second, to determine on average how many diverse praise categories general education teachers (kindergarten through fifth grade) used. The authors created a system for coding both general diverse praise (GDP) and behavior specific diverse praise (BSDP). There are eight GDP categories (i.e., work, adjective, effort, compliance/appreciation, gesture, tangible, physical, and miscellaneous) and an infinite number of BSDP categories. To code teachers' diverse praise, their verbatim use of praise was first identified as GP or BSP. Then, each incident of GP was coded using the eight GDP categories and each BSP incident was coded based on the number of different approved behaviors identified. For example, if a teacher had five verbatim GP incidents that included: (a) pat on the back (physical), (b) smile (*gesture*), (c) verbal "Nice try" (effort), (d) thumbs-up (*gesture*), and (e) verbal "Awesome!" (adjective), the teacher's total GDP was four for that observation because smile and thumbs-up were both in the gesture category. If a teacher had three verbatim BSP incidents that included: (a) verbal "Good job *raising your hand* to speak," (b) verbal "Josh, nice work *raising your hand!*" and (c) verbal "Good job completing your homework," the teacher's total BSDP was two because two praises focused on hand raising. Thus, diverse praise is determined by considering the teachers' overall sample of incidents of praise to quantify the number of different GDP categories used and the number of different BSDP categories used. For each teacher, the number of total BSDP categories and the number of total GDP categories used on average across that teacher's observations were calculated.

Verbatim praise data obtained from 28 general education teachers were coded for diverse praise (Floress & Beschta, 2018). On average, 200 min of teacher observation data were collected for each teacher (5,721 min in total) with individual observations ranging from 2 to 58 min. Results indicated that on average teachers used 3.7 total diverse praise categories per observation (p.1197). The number of GDP categories used on average per observation was higher than the number of BSDP categories used on average per observation. This difference was statistically significant. The authors also examined whether early elementary teachers (kindergarten through second grade) used more diverse praise categories than late elementary teachers (third through fifth grade); however, this difference was not statistically significant. The authors also examined which GDP categories were used most and found that the adjective and compliance/appreciation categories were used most frequently.

There were limitations to the Floress and Beschta (2018) study: most concerning, the observation lengths, from which the verbatim praise data were gathered, varied (i.e. ranged from 2 to 58 min). Observers were trained to start and stop observing (noting the times) based on whether the teacher was at the front of the classroom teaching. Teacher instruction tends to be shorter in kindergarten classrooms (e.g., 5-10 min) compared to fourth and fifth grade classrooms (e.g., 20-30 min). However, varying observation length is a limitation, because this may have influenced the number of diverse praise categories used by teachers per observation. For example, a teacher who was observed for 10 minutes may have had more opportunity to use diverse praise than a teacher who was observed for two minutes. Future studies should examine diverse praise using a uniform observation length (e.g., 20 min). In addition, since diverse praise has only been studied

in an elementary teacher sample, it is important to study diverse praise among middle and high school teachers. Previous research suggests that teacher praise declines in older student classrooms (middle and high school; Floress et al., 2017; White, 1975).

Therefore, studying diverse praise among middle and high school teachers would answer whether middle and high school teachers use fewer diverse praise categories compared to the elementary teacher sample in the Floress and Beschta (2018) study.

Summary and Current Study

Behavior management is essential in the classroom, especially since more students with academic and behavioral concerns receive instruction within the general education environment (Heflin & Bullock, 2010). Furthermore, many teachers report that they would benefit from additional behavior management training (Begeny & Martens, 2006). Praise is an easy to implement, cost-effective strategy that teachers can use to increase student appropriate behavior and decrease disruptive behavior. There is evidence to suggest that praise is effective when it is behavior specific, contingent, used frequently, and functions as a reinforcer (Brophy, 1981; Floress & Beschta, 2018). While the literature outlines the importance of using praise enthusiastically and sincerely, these recommendations are subjective and, therefore, difficult to measure. It is important to study characteristics that increase the likelihood that praise is used effectively. Diverse praise has the potential to be an important praise characteristic and preliminary research suggests that it can be objectively measured. Teachers who use diverse praise may serve as a discriminative stimulus for the availability of praise and increase the likelihood of student appropriate behavior (Floress & Beschta, 2018). Diverse praise may be more salient in that students easily make the connection between teacher approval and their

behavior. Furthermore, due to the novelty of diverse praise, students may be less likely to habituate to a teacher who uses diverse praise.

Floress and Beschta (2018) provided evidence that diverse praise can be objectively measured; however, there are aspects of this study that can be improved, and additional questions can be answered. First, diverse praise has only been studied once and it is important to determine whether other samples of verbatim praise can be quantitatively measured. Second, in the original study, the observation lengths varied, and it is important to replicate this study using observation lengths that are uniform. Third, diverse praise has only been examined in elementary school teachers and it is important to determine to what extent middle and high school teachers use diverse praise. Therefore, the current study aimed to examine middle and high school teachers use of diverse praise by answering the following research questions:

- 1) What is the average number of diverse praise categories used among middle and high school teachers? This was examined across all teachers in the sample, middle school (sixth through eighth grade), high school (ninth through twelfth grade), and at each grade level. As grade level increases, teacher praise rates decline (Floress et al., 2017; White, 1975). Therefore, it was hypothesized that middle and high school teachers would use fewer diverse praise categories compared to findings in the original study (Floress & Beschta, 2018).
- 2) Do middle and high school teachers use more GDP than BSDP categories on average per observation? Teachers use more GP than BSP (Reinke, Lewis-Palmer, & Martin, 2007; Reinke et al., 2013; Floress & Jenkins, 2015) and Floress and Beschta (2018) found that elementary teachers used more GDP than BSDP;

therefore, it was hypothesized that teachers would use more GDP categories than BSDP categories.

- 3) Is there a difference between the average number of diverse praise categories used by middle and high school teachers? No specific prediction was made because no study has examined diverse praise among middle and high school teachers.
- 4) What are the most commonly used GDP categories among middle and high school teachers? Based on prior research (Floress & Beschta, 2018), it was hypothesized that the most commonly used GDP categories would be the adjective, compliance/appreciation, and work categories.

Method

Participants

This study used archival data collected during the 2017-18 academic year from a sample of 66 middle and high school teachers. Teachers were general education teachers who were employed at seven middle schools and eight high schools in Central Illinois (see Table 1 for school demographics). Data in the original study were collected to examine middle and high school teachers' natural use of praise and reprimand during lecture-based instruction in the general education classroom. Thirty eight percent of the 66 participants were middle school teachers while the remaining (68%) were high school teachers. Participants ranged in age from 23 to 67 years (mean age = 39 years). Most participants were Caucasian (98%) and female (71%). Seventy-four percent of the teachers reported having 20 or fewer years of experience, while 26% reported having over 20 years of experience. Thirty-two percent of teachers held a bachelor's degree

while 68% held a master's degree. Half of the sample (47%) reported taking a behavior management class as part of their teacher education program.

In the original study, each of the 66 participants were directly observed while teaching a lecture-based class for 20 min. Lecture-based was defined as the teacher standing in the front of the class with the expectation that students were facing and listening to the teacher's instruction. Special education teachers and those who did not teach a minimum of 20 min of lecture-based instruction (e.g., study hall, band, P.E.) were excluded from participation. A gift card valued at five dollars was given to the first 40 teacher participants and the remaining participants received chocolate.

Measures

Diverse praise categories included TDP, GDP, and BSDP. Each category was coded by examining all praises used by the teacher in a single observation. Measuring and calculating total TDP, GDP, and BSDP are explained below.

Behavior specific diverse praise (BSDP). To measure BSDP, verbatim data from the original study were re-examined to ensure that praise identified as BSP was consistent with the BSP definition used in the original study. If BSP was miscoded, it was recoded. Next, the BSP data were coded for BSDP based on the Floress and Beschta (2018) definition, and the total number of different BSDP categories were counted for each teacher-observation. BSDP categories are counted based on the number of different behaviors targeted by the teacher. If the target behavior was the same for two BSP statements, they were counted as one BSDP category. For example, one BSP, "I like how you are standing in line" and another BSP, "You are doing a good job standing in line" would be coded as one BSDP category because both BSP statements target "standing in

line.” A third BSP, “I like how quietly you are sitting,” would be counted as a separate BSDP category, because it targeted a different behavior (i.e., "sitting"). The total number of BSDP categories used during the 20-min observation was totaled for each teacher participant.

General diverse praise (GDP). To measure GDP, verbatim data from the original study were re-examined to ensure that praise identified as GP was consistent with the GP definition used in the original study. Next, GP data were coded using the eight categories described by Floress and Beschta (2018, p. 1195) and the number of different GDP categories used in a single 20-min observation were counted. If GP were coded for the same GDP category multiple times during a single observation, it was only counted once. For example, if a teacher had three GPs, including (a) gave student fist bump, (b) gave student hi-five, and (c) said “Excellent!” the first two statements were counted as one GDP category because they met the definition of the physical GP category. Therefore, this teacher would have a total of two GDP categories for this observation (i.e., one physical category and one adjective category). The total GDP categories used during the 20-min observation was totaled for each teacher participant. Each of the eight GDP categories and definitions used to code GP are listed below (see Appendix A for definitions and examples).

Praise work. The "job" category refers to “a task a child is doing or has completed and emphasizes the child's work (e.g., good job) while expressing approval.”

Praise adjective. The adjective category refers to “either a single adjective, or an adjective with enhancement being used to express approval (e.g., great, super, nice).”

Praise effort. The praise effort category is characterized by “the use of the word

"try", or a similar term which emphasizes that the child is putting forth effort (e.g., nice try, great start)."

Praise compliance/ appreciation. The praise compliance or appreciation category "uses the term "thank you" to communicate approval for compliance, or appreciation for something that a student did (e.g., thank you)."

Praise gesture. The praise gesture category is characterized by "verbal gestures (e.g., give yourself a thumbs-up), or nonverbal gestures (e.g., giving a thumbs-up)."

Praise tangible. The praise tangible category is characterized by "either a verbal gesture (e.g., telling a student to move their card), or nonverbal tangible (e.g., teacher giving a child a sticker)."

Praise physical. The praise physical category is characterized "either verbally (e.g., give yourself a pat on the back), or nonverbally (e.g., the teacher giving a hi-five)."

Praise miscellaneous. The praise miscellaneous category is "utilized when there is a praise statement so unique that it cannot be categorized into any of the other categories."

Total diverse praise (TDP). The calculated totals of GDP and BSDP were added together to determine total diverse praise (TDP).

Coder Training

The primary investigator (PI) and undergraduate research student were trained to code GDP and BSDP so inter-rater reliability (IRR) could be calculated. First, the PI and research assistant studied the BSDP and GDP category definitions. Examples and non-examples were reviewed, then questions and discussion were prompted by the university supervisor. Next, the PI and research assistant independently coded three sets of verbatim

observations (obtained from the Floress & Beschta data sample). Once each rater met at least 80% agreement with the university supervisor on three verbatim observations, they were considered trained and coded the middle and high school data set.

Procedures

In the original study, IRB and administrator approval were secured. Then, the original PI advertised the study to school faculty during a faculty meeting or was given permission to email faculty to recruit them for the study. Email recruitment included a flyer with the description of the study and participation requirements. Prior to being observed, teachers provided the PI optimal times when lecture-based instruction occurred, so observations could be scheduled. All observations took place during class-wide instruction and observers were trained to start and stop the observation if class-wide instruction was not taking place (e.g., teacher stepped out of the classroom). Teachers were not aware that the PI was observing praise and reprimand. Rather, (to reduce teacher reactivity) teachers were told that the purpose of the study was to examine teachers' classroom management skills. Confidentiality was ensured by assigning each teacher an ID code and School ID code that was used on all observation forms. Then, the teacher's frequency of GP and BSP statements and/or gestures were recorded verbatim on the observation form. Data were collected by the PI researcher and five trained observers over four consecutive semesters. Inter-observer agreement (IOA) was collected during 38% of the observation minutes. IOA for BSP was 98% (range 90-100%) and 92% (range 60-100%) for GP. IOA percentages indicated acceptable and consistent reliability among the observers.

For the current study, IRB approval was secured. Then GP and BSP verbatim data was extracted from the data collection forms used in the original study. The primary investigator checked the GP and BSP data for accuracy to make sure that GP and BSP collected in the original study were labeled correctly. Data were organized in Microsoft EXCEL by teacher. Then, the EXCEL document was duplicated so each data set could be coded individually (by two trained coders). Each rater coded the EXCEL sheet individually using the GDP and BSDP definitions. After applying the codes, raters added up how many different GDP and BSDP categories (and TDP categories) were used per observation. If there were disagreements, the raters met to discuss and resolve the discrepancy. Inter-rater reliability (IRR) was calculated by first comparing individual codes. For example, if one rater coded the GP items into GDP categories 1, 3, 6 and the second rater coded the GP items into categories 1, 3, 5; there would be two agreements and one disagreement. Using percent agreement (i.e., number of agreements divided by agreements plus disagreements) IRR would be 67% for the example above (Cooper et al., 2007). Percent agreement for TDP, GDP, and BSD were calculated for each observation and then averaged across all observations. Inter-rater reliability was calculated for all observations. Inter-rater reliability for TDP was 97% (range 50%-100%), GDP was 95% (range 33%-100%), and IRR for BSDP was 100%. These results indicate consistent and acceptable reliability agreement between raters.

Data Analysis

To answer the first research question, "What is the average number of diverse praise categories used among middle and high school teachers," the average number of GDP, BSDP, and TDP categories coded per 20-min observation were calculated. For

each teacher (20-min observation), the total GDP, total BSDP, and TDP was calculated. Then, averages were calculated for each grade level (i.e., sixth grade, seventh grade), middle school grades (i.e., sixth grade through eighth grade), and high school grades (i.e., ninth grade through twelfth grade).

The second research question, “Do middle and high school teachers use more GDP than BSDP categories on average per observation,” was answered by using the average number of BSDP categories per 20-min observation (across all teachers) and the average number of GDP categories per 20-min observation (across all teachers). A *t*-test was conducted to determine whether there were significant differences in the average number of GDP and BSDP categories used per observation across all middle and high school teachers.

To answer the third research question, “Is there a difference between the average number of diverse praise categories used by middle and high school teachers,” the average number of TDP categories per 20-min observation (across all middle school teachers) was used as well as the average number of TDP categories per 20-min observation (across all high school teachers). Observations from sixth, seventh, and eighth grade teachers were used to calculate middle school teachers' averages and observations from ninth, tenth, eleventh, and twelfth grade teachers were used to calculate high school teachers' averages. A *t*-test was used to compare the average number of middle school teacher TDP categories per observation and the average number of high school teacher TDP categories per observation.

Finally, to answer the fourth research question, “What are the most commonly used GDP categories among middle and high school teachers,” each teacher-observation

was examined to determine which GDP categories were coded during that observation. The presence of a coded GDP category among each teacher-observation and grade level were totaled to obtain a total number of instances of GDP codes. This was used to obtain a percentage of each category by dividing the total number of instances of GDP by the total instances of each category. For example, if the work/job category was identified in 12 of the 73 coded GDP instances, it would be concluded that the work/job category was used in 16 percent of the observations. This was done for each of the eight GDP categories and percentages for each grade (see Table 3) and across all middle and high school grades (see Figure 1).

Results

The data used in this study were archival data from a study that examined middle and high school teachers' natural use of praise and reprimand during lecture-based instruction in general education classrooms. Each of the 66 participants were observed for 20 min while teaching a lecture-based class. A total of 1,320 observed minutes were collected across all middle and high school teachers. All observations were the same length (i.e., 20 min) to account for the limitation of varying observation lengths seen in the Floress and Beschta (2018) study. Each of the diverse praise categories including TDP, GDP, and BSDP were coded by examining all praises used by the teacher during the 20-min, single observation.

Diverse Praise

Descriptive statistics were calculated to report the average number of TDP, GDP, and BSDP categories coded per 20-min observation (see Table 2). Results were examined by grade level and then by middle school grades (sixth through eighth) and high school

grades (ninth through twelfth). Across all 66 teachers, the average number of TDP categories coded per observation was 1.7 (range 0-9). On average, teachers used one GDP category per observation (1.1 GDP, range 0-4) and less than one BSDP category per observation (0.6 BSDP, range 0-7).

Next, diverse praise was examined by grade level. The twelfth-grade classrooms (5 teachers) had the lowest average TDP (0.2, range 0.0-1.0), GDP (0.2, range 0.0-1.0), and BSDP (0.0, range 0.0-0.0). The ninth-grade classrooms (12 teachers) had the highest average TDP (2.7, range 0-9) and BSDP (1.5, range 0-4) and the second highest average GDP (1.2, range 0-7). However, one ninth grade observation was an outlier. For instance, one teacher used two GDP categories and seven BSDP categories (nine total TDP categories). This was a clear outlier as no other teacher used nine TDP categories in a single observation. One other teacher came close (i.e., an eighth-grade teacher used eight TDP categories). All other teachers in the sample used less than five TDP categories. Therefore, this one teacher's observation likely influenced the overall ninth grade average (which was the highest average TDP and BSDP across all grade levels). When the outlier was removed, the ninth-grade average TDP was 2.1 (range 0-5), BSDP was 0.6 (range 0-3), and GDP was 1.5 (range 0-4). With the outlier removed, TDP dropped from 2.7 to 2.1 and BSDP dropped from 1.5 to 0.6, which was consistent with other TDP and BSDP grade level averages. With the ninth-grade outlier removed, tenth grade (3 teachers) had the highest average TDP (2.3, range 1-3) and GDP (1.7, range 1-3), and the second highest average BSDP (0.7, range 0-2). Eighth grade had the highest average BSDP (0.8, range 0-6).

Across all grade levels, the average TDP, GDP, and BSDP categories observed per 20-min observation were relatively stable (i.e., without trend). The average categories observed varied little across grades (see Table 2). When comparing overall middle school (sixth through eighth grade) and high school (ninth through twelfth grade) TDP, GDP, and BSDP numbers were similar. Middle School TDP was 1.8 (range 1.5-2.0), GDP was 1.3 (range 1.1-1.5), and BSDP was 0.6 (range 0.5-0.8). High School TDP was 1.6 (range 0.2-2.7), GDP was 1.0 (range 0.2-1.7), and BSDP was 0.6 (range 0.0-1.2).

GDP compared to BSDP

A paired samples *t*-test for dependent means was conducted using the average number of GDP and BSDP categories coded per observation by middle school and high school teachers to answer the second research question, “Do middle and high school teachers use more GDP than BSDP categories on average per observation?” Results indicated the average number of GDP categories coded per observation ($M = 1.11$, $SD = .83$) was significantly different, $t(65) = 3.13$, $p = .002$ (one tailed) from the average number of BSDP categories observed per observation ($M = .59$, $SD = 1.3$). This was a medium effective size (Cohen’s $d = 0.47$). Results from a one-tail, unequal variance *t*-test found a probability of $p = .002$, demonstrating a significant difference in the average number of diverse praise categories coded per observation. Directionality was demonstrated through this one-tail *t*-test. This finding supports the hypothesis that, on-average, teachers use more GDP categories than BSDP categories (Table 2).

TDP: Middle School and High School Teachers

A *t*-test for independent means was conducted using the average number of TDP categories coded per observation for middle school and TDP categories coded per

observation for high school to answer the third research question, "Is there a difference between the average number of diverse praise categories used by middle and high school teachers?" At an alpha level of 0.05, results indicated that there was not a significant difference between middle school teachers' use of TDP ($M = 1.66$, $SD = 1.73$) and high school teachers' use of TDP ($M = 1.76$, $SD = 1.74$), $t(65) = -0.23$, $p = 0.4$ (one-tailed). Furthermore, the effect size for this difference was very small ($d = 0.06$). A prediction was not made for this research question due to the lack of research examining diverse praise among middle and high school teachers.

Use of GDP Categories

To answer research question four "What are the most commonly used GDP categories among middle and high school teachers?" an examination of each teacher-observation was conducted to determine which of the eight possible GDP categories were used during the observation. The presence of a coded GDP category among each teacher-observation and grade level were totaled to obtain a total number of instances of GDP codes. This was used to obtain a percentage of each category by dividing the total number of instances of GDP by the total instances of each category. For example, there were 10 total instances of GDP used among eighth grade teachers and two of those were coded for the work category. Therefore, eighth grade teachers used the GDP work category 20% compared to other GDP categories. After each teacher-observation was analyzed individually, teacher-observations were grouped into grade levels to determine which GDP categories were observed across the observations for that grade level. This process was repeated to determine which GDP categories were used across all 66 observations (both middle and high school observations). Table 3 illustrates the percentage of specific

GDP category codes used compared to the total number of GDP category codes used. For example, there were 73 GDP codes across the 66 observations (both middle and high school) and 12 of those codes were for the work/job category (16%; see Table 3). In looking at grade level only, across the four sixth-grade teacher observations there were six total GDP codes and three of them were for the adjective category. Therefore, among sixth-grade teachers 50% of the GDP codes were for the adjective category (see Table 3).

This process was repeated for all grade levels to graphically depict which GDP categories were used most often across all grades (see Figure 1). The most commonly observed categories included the adjective (e.g., great; 68%), work (e.g., nice work, 18%), and compliance/appreciation (e.g., thank you, 18%) GDP categories. The following categories were also coded during teacher observations: effort (e.g., good try, 2%) and miscellaneous (e.g., you are on fire, 5%). The remaining three categories (gesture e.g., thumbs up; tangible e.g., homework pass; and physical e.g., hi-five) were not observed during any of the 20-min teacher observations. Thus, the only GDP categories coded included general praise that was delivered verbally.

The most prevalent GDP categories were also examined by grade level, middle school, and high school (see Table 3). Teachers in middle school (60%) and high school (63%) used the adjective category most commonly. In fact, eleventh and twelfth grade teachers only used the adjective GDP category. The second most common category among middle school teachers was the compliance/appreciation category (17%) followed by the work category (13%). The second most common category among high school teachers was the work category (19%) followed by the adjective compliance/appreciation

category (16%). Middle school teachers used the miscellaneous category (10%; i.e., “you’re on fire”), but high school teachers did not.

Discussion

The current study analyzed archival data from a previous study that examined 66 middle and high school teachers' natural use of praise and reprimand by collecting 1,320 min of direct observation. To measure diverse praise, this study examined the verbatim praise responses from the original study. The average number of TDP categories coded per observation across the 66 teachers was 1.7 which suggests that middle and high school teachers used approximately two, diverse praise categories on average (including both GDP and BSDP categories). Ninth grade used the most TDP categories (almost three TDP categories) on average, while twelfth grade used the least (0.2 TDP categories). There was a statistically significant difference between the average number of GDP and BSDP categories per observation, suggesting teachers use more GDP categories than BSDP categories on average. There was no significant difference found between middle school and high school teachers' use of TDP, suggesting similar diverse category use across middle and high school teachers. The three most commonly used GDP categories were the adjective, work, and compliance/appreciation categories. All GDP categories were verbal, none of the non-verbal categories were used (i.e., gesture, tangible, and physical). This study is the first to examine middle and high school general education teachers' use of diverse praise and therefore these results provide an estimate of diverse praise among secondary teachers. These results also highlight an aspect of praise that remains unstudied, which may promote additional research related to diverse praise and ultimately on the characteristics that increase teachers' effective use of praise.

First, this study provides an average number of diverse praise categories coded per observation across middle and high school teachers. On average, secondary teachers used 1.7 TDP (range 0.2 to 2.7) categories, 1.1 GDP (range 0.2 to 1.7) categories, and 0.6 BSDP (range 0 to 1.2) categories. These diverse praise averages were lower compared to the Floress and Beschta (2018) study, which examined diverse praise among elementary classrooms. Across kindergarten through fifth grades, teachers used 3.7 TDP categories (range 1.8-5.3), 2.2 GDP categories (range 1.6-2.6), and 1.5 BSDP categories (range 0.2-2.8, p. 1197). While these averages are higher, it is important to note that Floress and Bestcha (2018) had a smaller sample (i.e., 28 teachers) and each teacher was observed multiple times for a total of 200 min. The current study had a larger sample (i.e., 66 teachers), but each teacher was only observed once for 20 min. Despite these differences, in both the elementary and secondary samples, teachers used more GDP than BSDP categories. This may be because teachers tend to use more GP than BSP (Reinke, Lewis-Palmer, & Martin, 2007; Reinke et al., 2013; Floress & Jenkins, 2015).

Although the frequency of teacher praise tends to decrease as grade levels increase (Floress et al., 2017; Jenkins, et al., 2015; White, 1975), downward trends in TDP, GDP, and BSDP categories were not observed in the current sample. For example, the average number of TDP, GDP, and BSDP categories among middle school were 1.8, 1.3, 0.6 and the average number of TDP, GDP, and BSDP categories among high school were 1.6, 1.0, 0.6. Even when looking at individual middle school and high school grades (see Table 2) a trend is not discernable.

In comparison to the elementary DP study, Floress and Beschta (2018) reported a decreasing trend of TDP, GDP, and BSDP categories from fifth grade to kindergarten (p.

1198). These differences may be related to the differences in samples and how many observations were completed with each teacher. It is also possible that there are individual variables among middle school and high school students, the environment, or teachers that may influence the way teachers use diverse praise with older students compared to younger students. This may relate to the idea that praise is more reinforcing for teachers when students are younger (White, 1975). White argued that teachers are better able to see the direct effect of their praise on their students' learning when students are younger. White also argued that teachers expect older students to take more responsibility for their own learning compared to younger students (White, 1975). If teachers do not observe how their behavior (e.g., praise) influences student learning, they may be less likely to use praise because the immediate reinforcing value is lost. Teachers' use of diverse praise categories may be stagnant with middle school and high school students because teachers find praising older students less enjoyable compared to younger students. This may explain why teachers use fewer diverse praise categories with older students in general.

Second, middle and high school teachers used more GDP categories (1.1) than BSDP categories (0.6) on average. This difference was statistically significant. This was consistent with the Floress and Beschta (2018) study where a statistically significant difference between GDP and BSDP categories (0.64 and 0.44, respectively p. 1197) was also reported. As mentioned previously, this may be related to the fact that teachers naturally use more GP compared to BSP (Reinke, Lewis-Palmer, & Martin, 2007; Reinke et al., 2013; Floress & Jenkins, 2015). Since the current study used archival data, which originally collected teachers' natural use of praise (i.e., GP and BSP) and teachers

naturally use more GP than BSP, it makes sense that teachers would also use more GDP categories. When there are more instances of GP to code for diverse praise compared to BSP, there are more opportunities for GP to fall into different GDP categories. Teachers may naturally use less BSP because it is more effortful than GP (Floress, Jenkins, Reinke, & McKown, 2018). Similarly, a teacher who gets into the routine of specifically praising students for “sitting appropriately on the rug” may not think to diversify their praise and identify other ways students are doing things appropriately (e.g., walking in the room, raising their hand, sharing classroom materials). It may be important to not only teach teachers how to praise specific behavior (i.e., use BSP), but also teach them how to identify a variety of appropriate student behaviors.

Third, the difference between middle and high school teachers' use of diverse praise was not statistically significant and the effect size was small. Both middle and high school teachers used (on average) about the same number of TDP categories. As mentioned previously, teachers who teach younger grades tend to deliver more praise than teachers who teach older grades (Floress et al., 2017; White, 1975). It is likely that teachers who teach younger grades may also use more diverse praise categories than teachers who teach older grades. Furthermore, the approach teachers use with middle and high school students may be more similar than the approach teachers use with elementary students. Thus, the way in which middle and high school teachers vary their praise may be more similar than the way elementary teachers vary their praise. Middle and high school teachers may not work as hard to comment, attend, or praise middle and high school student behavior, which may influence their use of diverse praise. Floress and Beschta (2018) also did not find a statistically significant difference between early

(kindergarten through second grade) and late (third through fifth grade) elementary teachers' use of diverse praise. Future studies should examine differences between elementary teachers' and secondary teachers' (middle and high school) use of diverse praise, as differences may be detected between these groups.

Last, the current study determined the use of each GDP category among each grade level as well as across middle and high school observations. The percentage of specific GDP category codes used compared to the total number of GDP category codes used was identified, rather than the number of times the category was used in a single observation. All middle and high school teachers failed to use the gesture, tangible, and physical GDP categories and used the adjective, work, and compliance/appreciation GDP categories most commonly. It may be easier for teachers to use the adjective (e.g., awesome!), work (e.g., great job!), or compliance/appreciation (e.g., thank you) categories because these types of praise do not require much effort and in some instances may be automatic (e.g., saying thank you after a student complies). On the other hand, teachers may not use the gesture, tangible, or physical GDP categories because they may be considered more difficult to provide. For instance, teachers may have to prepare these types of praise in advance (which requires planning) or purchase them (i.e., tangible). Some teachers may also be uncomfortable giving students hugs or other types of physical praise (e.g., fist bump). Floress and Beschta (2018) also found that tangible, gesture, and physical GDP categories were used less frequently. It is also possible that these categories are used less often because teachers do not naturally think to use these categories. In this case, it may be helpful to explicitly suggest or model how to use praise that would fall into these categories.

GDP categories were examined by grade level to see if teachers in certain grades tended to use (or not use) certain categories. It is interesting to note that ninth grade teachers were the only teachers to use the effort GDP category (e.g., nice try or great effort!). Teachers who taught eleventh and twelfth grade only used the adjective GDP category. The reason for this may be due to the ease of delivery provided by this type of praise as it only requires the use of one word. Thus, this praise may occur automatically and without much thought. This means that teachers were using one-word adjectives to show their approval (e.g., awesome, great, good, nice) and not providing approval of students related to their effort, work, or compliance. Floress and Beschta (2018) also reported that teachers used the adjective and compliance/appreciation category more frequently in their sample.

Limitations

This study adds to the literature on teachers' diverse use of praise, but there are limitations to note. First, this study used data from a sample of 66 middle and high school teachers. Although this sample is larger than the original study, the sample size is still small. Despite the size, participants were gathered from seven middle schools and eight high schools, which provides some diversity in that participants were drawn from various schools. Unfortunately, all the schools were located to Central Illinois and most teachers were Caucasian (98%) and female (71%) which limits generalizability. Future studies should consider a larger and more diverse sample to increase generalizability of results in terms of location and participant characteristics.

Next, this study used verbatim archival data and it is possible that some of the original praise statements were written down incorrectly or not captured in the original

study. Future researchers should consider using video to collect teacher praise to help ensure that no praise codes are missed or incorrectly captured. Relatedly, some GP phrases can be difficult to categorize, especially considering teacher nuances. For example, the phrase “you got it” was categorized in the adjective category because it seemed most like the adjective category (e.g., Excellent!) and was not so unique that it was placed in the miscellaneous category (e.g., Boy, you guys are sharp today!). Additional examples should be added to the GDP category definitions as larger samples of data are collected to better capture a variety of teacher nuances. This would aid in reliably measuring teachers' use of GDP for future research.

Another possible limitation was that each teacher was only observed for a single 20 min observation. This may not be enough time to capture a teacher's full use of diverse praise. There are factors that could affect a teacher's use of diverse praise such as the teaching activity, teacher's mood, time of day, and classroom make-up. Thus, determining how many observation minutes are necessary to obtain a reliable sample of a teachers' use of diverse praise would be an important area of future research.

Implications for Practice and Future Research

This study provides various implications for future research and practice. First, there has only been one other study to examine diverse praise (Floress & Beschta, 2018), so future research in general is needed. It is important to replicate teachers' use of diverse praise in both elementary and secondary schools. While it is unclear whether diverse praise increases the likelihood that teachers use praise effectively, it is a question that should be further explored. It stands to reason that a teacher who uses the GP work category 14 times, is not thinking about using praise strategically. If the goal is to

increase various adaptive student behaviors, it is important to teach teachers how to do that explicitly. This may be accomplished by training teachers *how* to use diverse praise and to examine whether student classroom behavior improves after teachers receive training. Teachers should be trained to use praise beyond focusing on general and behavior-specific praise. Although BSP is purported to be a superior form of praise (compared to GP), the use of BSDP may prove to be an even more powerful use of praise than BSP alone.

Middle and high school teachers did not use the tangible, physical, and gesture GDP categories and the most commonly used GDP categories included verbal praise. Future research might examine whether certain GDP categories (if any) more positively impact student behavior than others. It is also possible that certain GDP combinations (both verbal and non-verbal) positively impact student behavior and the classroom environment. It is unclear whether teachers who use more GDP categories (i.e., provide more diverse GP) have a more positive impact on student behavior or the student-teacher relationship; however, this is an important area of future study. It may also be helpful to survey teachers about their use of GDP categories and their acceptability of using a variety of praise categories. This information may guide how teachers are trained to use diverse praise and ultimately increase their acceptability of this strategy.

Another area of future research relates to the participant characteristics in this study. The participants varied in their age, years of experience, educational degree, and their experience with behavior management training. Determining whether there are differences among these teachers in their use of diverse praise may be a viable source of research to add to this field of study. This type of study has not been conducted in the

area of diverse praise. Understanding how (if) these characteristics relate to teachers' use of diverse praise would be helpful when training teachers to use praise.

Further, future research may consider the aspect of frequency in terms of diverse praise. It may be useful to diverse praise training for teachers to understand whether the frequency of the diverse praise is also a factor in its effectiveness. Future studies should determine how the frequency, or total diverse praise, affects the effectiveness of diverse praise overall. The amount of diverse praise provided may be an impactful factor that has yet to be considered. This current study focused more on the diversity of the praise provided as seen in the method for calculating general diverse praise and behavior specific diverse praise. Both GDP and BSDP regarded the use of the same category or same praise behavior as one instance of diverse praise. Therefore, future research should determine whether multiple instances (or repeated praise statements) of the same diverse praise is important to the effective use of praise.

In conclusion, this study replicates previous research that demonstrates that diverse praise can be reliably measured. It also emphasizes the potential benefits of measuring diverse praise and other praise characteristics which may enhance understanding of how to use praise effectively. Understanding how praise training can be enhanced is essential in providing teachers with an easy to implement, universal strategy to use in the classroom as a way to prevent and address behavioral concerns.

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Table 1.

| <i>Teacher and Classroom Demographics</i> | | <i>n</i> | <i>%</i> |
|--|-------------------------------|----------|----------|
| <i>Teacher Sex</i> | | | |
| | Male | 19 | 29% |
| | Female | 47 | 71% |
| <i>Teacher Racial Background</i> | | | |
| | American Indian/Alaska Native | 1 | 2% |
| | White/Caucasian | 65 | 98% |
| <i>Age</i> | | | |
| | 23-29 | 11 | 17% |
| | 30-39 | 26 | 39% |
| | 40-50 | 16 | 24% |
| | 50+ | 11 | 17% |
| | No Response | 2 | 3% |
| <i>Grade Taught</i> | | | |
| | Sixth Grade | 4 | 6% |
| | Seventh Grade | 13 | 20% |
| | Eighth Grade | 8 | 12% |
| | Ninth Grade | 12 | 18% |
| | Tenth Grade | 3 | 5% |
| | Eleventh Grade | 11 | 17% |
| | Twelfth Grade | 5 | 8% |
| | Multiple High School Grades | 10 | 15% |
| <i>Years of Teaching Experience</i> | | | |
| | 1-5 | 12 | 18% |
| | 6-10 | 15 | 23% |
| | 11-15 | 13 | 20% |
| | 16-20 | 9 | 14% |
| | 20+ | 17 | 26% |
| <i>Highest Educational Degree Obtained</i> | | | |
| | Four Year College Degree | 21 | 32% |
| | Master's Degree | 45 | 68% |
| <i>Classroom Make-up</i> | | | |
| | Only general ed. students | 26 | 39% |
| | Mostly general ed. students | 38 | 58% |

| | | | |
|--|---|----|-----|
| | Equal mix general ed. and special ed. students | 2 | 3% |
| <hr/> | | | |
| <i>Classroom Difficulty Rating</i> | | | |
| | Much less difficult | 13 | 20% |
| | Somewhat less difficult | 19 | 29% |
| | Average difficulty | 23 | 35% |
| | Somewhat more difficult | 8 | 12% |
| | Much more difficult | 3 | 5% |
| <hr/> | | | |
| <i>Behavior Management Class Taken</i> | | | |
| | Yes | 31 | 47% |
| | No | 33 | 50% |
| | No Response | 2 | 3% |
| <hr/> | | | |

Table 2

Average Number of Diverse Praise Categories per Observation by Grade Level

| Grade | N | TOT | TDP | | GDP | | BSDP | |
|------------------|----|------|------|-----------|------|-----------|------|-----------|
| | | | Mean | Range | Mean | Range | Mean | Range |
| 6 th | 4 | 80 | 2.0 | (0.0-3.0) | 1.5 | (0.0-2.0) | 0.5 | (0.0-1.0) |
| 7 th | 13 | 260 | 1.5 | (0.0-4.0) | 1.1 | (0.0-2.0) | 0.5 | (0.0-2.0) |
| 8 th | 8 | 160 | 2.0 | (0.0-8.0) | 1.3 | (0.0-2.0) | 0.8 | (0.0-6.0) |
| MS Total | 25 | 500 | 1.8 | (1.5-2.0) | 1.3 | (1.1-1.5) | 0.6 | (0.5-0.8) |
| 9 th | 12 | 240 | 2.7 | (0.0-9.0) | 1.5 | (0.0-4.0) | 1.2 | (0.0-7.0) |
| 10 th | 3 | 60 | 2.3 | (1.0-3.0) | 1.7 | (1.0-3.0) | 0.7 | (0.0-2.0) |
| 11 th | 11 | 220 | 1.3 | (0.0-4.0) | 0.8 | (0.0-1.0) | 0.5 | (0.0-3.0) |
| 12 th | 5 | 100 | 0.2 | (0.0-1.0) | 0.2 | (0.0-1.0) | 0.0 | (0.0-0.0) |
| Assorted HS | 10 | 200 | 1.4 | (0.0-3.0) | 1.0 | (0.0-2.0) | 0.4 | (0.0-2.0) |
| HS Total | 41 | 820 | 1.6 | (0.2-2.7) | 1.0 | (0.2-1.7) | 0.6 | (0.0-1.2) |
| MS/HS Total | 66 | 1320 | 1.7 | (0.2-2.7) | 1.1 | (0.2-1.7) | 0.6 | (0.0-1.2) |

Note: TDP = Total Diverse Praise; GDP = General Diverse Praise; BSDP = Behavior Specific Diverse Praise; Assorted HS = classes with students in more than one grade level. *TOT* = Total Observation Time in Minutes (20 Minute Observations per each classroom (*N*)).

Table 3

Teachers' Use of GDP by Category

| Grade | % of GDP Categories Used by Grade | | | | | | | | | |
|------------------|-----------------------------------|------------|------|-----|--------|---------------|------|------|------|------|
| | <i>N</i> | <i>TOT</i> | Work | Adj | Effort | Comp/ Appr | Gest | Tang | Phys | Misc |
| 6 th | 4 | 80 | 0 | 50 | 0 | 33 | 0 | 0 | 0 | 17 |
| 7 th | 13 | 260 | 14 | 64 | 0 | 14 | 0 | 0 | 0 | 7 |
| 8 th | 8 | 160 | 20 | 60 | 0 | 10 | 0 | 0 | 0 | 10 |
| MS Total | 25 | 500 | 13 | 60 | 0 | 17 | 0 | 0 | 0 | 10 |
| 9 th | 12 | 240 | 22 | 50 | 6 | 22 | 0 | 0 | 0 | 0 |
| 10 th | 3 | 60 | 20 | 60 | 0 | 20 | 0 | 0 | 0 | 0 |
| 11 th | 11 | 220 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12 th | 5 | 100 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 |
| Assorted HS | 10 | 200 | 30 | 50 | 0 | 20 | 0 | 0 | 0 | 0 |
| HS Total | 41 | 820 | 19 | 63 | 2 | 16 | 0 | 0 | 0 | 0 |
| MS/HS Total | 66 | 1320 | 16 | 62 | 1 | 16 | 0 | 0 | 0 | 4 |

Note: GDP = General Diverse Praise, Assorted HS = classes with students in more than one grade level, Adj = Adjective, Comp/Appr = Compliance/Appreciation, Gest = Gesture, Tang = Tangible, Phys = Physical, Misc = Miscellaneous. *TOT* = Total Observation Time in Minutes (20 Minute Observations per each classroom (*N*)).

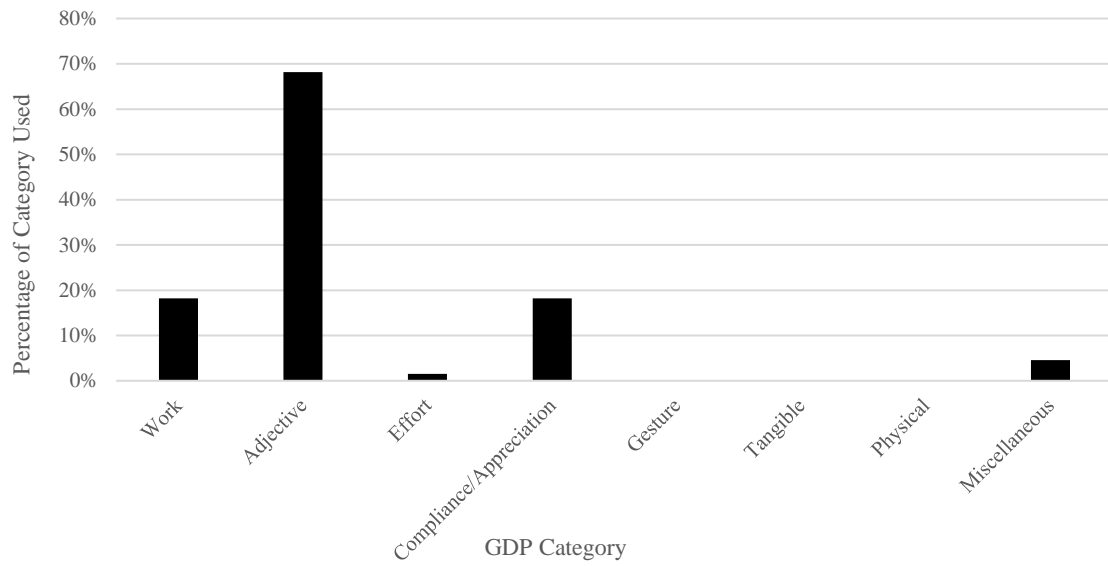


Figure 1. GDP categories used most frequently by middle and high school teachers. The presence of GDP category use by both middle and high school teachers.

Appendix A

Unique Praise Categories (Floress & Beschta, 2018)

GENERAL PRAISE CODING 1-7

| | |
|--|--|
| <p>1-Praise of Work <i>Definition: Uses the terms “job” or “work”. Refers to a task or something that the child has done or is working on. Provides approval of the task or (assumed) permanent product. *If emphasis is on both “job” and “you” – defer to Praise of Work category.</i></p> <p>1a-Good/great <u>job</u> 1b-good/great <u>work</u> 1c-Nicely <u>done</u>; you <u>did</u> perfect 1d-well done</p> | <p>5-Praise Gesture <i>Definition: Praise gesture can be a verbal gesture (e.g., telling the child to perform a gesture on themselves – “give yourselves a thumbs up”) or nonverbal gesture (e.g., giving a child the thumbs up sign) statement that communicates approval.</i></p> <p>5a-Round of applause 5b-marshmallow clap 5c-golf clap 5d-kiss your brain 5e-grass hopper clap 5f-the gun shoot 5g-thumbs up</p> |
| <p>2-Praise Adjective <i>Definition: An adjective is used as the primary means to demonstrate approval. The adjective may be present with enhancements, but it does not place it in another subcategory. For example, good and very good are the same subcategory. “Very” does not enhance the adjective “good.”</i></p> <p>2a-Good/Great, very good, that was good, looks great/good 2b-Super 2c-Excellent 2d-Wonderful 2e-Fantastic 2f-Perfect 2g-Like/love 2h-Nice, very nice, that was nice 2i-Awesome 2j-Absolutely 2k-Wow!</p> | <p>6-Praise Tangible <i>Definition: Praise tangible can be a verbal gesture (e.g., telling the child to give themselves a tangible “move your stick” or nonverbal tangible (e.g., teacher hands the child a sticker). The tangible can also be points to be exchanged for a larger reward.</i></p> <p>6a-Gold slip 6b-move bee 6c-move stick 6d-marbles in jar etc. 6e-star 6f-respect card 6g-smile tally 6h-ticket 6i-points toward a reward system 6j-homework pass 6k-pop/snack 6l-school bucks</p> |
| <p>3-Praise Effort <i>Definition: Uses the term “try” or a similar term to emphasize that the child is demonstrating or putting forth effort. Some examples do not detail what is specifically “good” (e.g., good choice). However, we acknowledge that some of these examples are approaching behavior specific (e.g., good question).</i></p> <p>3a-Good <u>try</u>, great <u>try</u> 3b-Good <u>start</u>, great <u>start</u> 3c- Good <u>idea</u>, <u>thinking</u> 3d- Good <u>guess</u> 3e-Good <u>question</u> 3f-Good <u>choice</u></p> | <p>7-Praise Physical <i>Definition: Praise physical can be a verbal gesture (e.g., telling the child to perform a physical praise on themselves – “give yourselves a pat on the back”) or the teacher giving the child a pat on the back or hi-five.</i></p> <p>7a-pat on the back 7b-hi-five 7c-fist bump 7d-coordinated hand shakes</p> |

| | |
|--|--|
| <p>4-Praise Compliance/Appreciation <i>Definition: Uses the term “thank you” or “thanks” to communicate approval for compliance or appreciation in something the student did.</i></p> <p>4a-thanks, thank you, gracias 4b-I appreciate that</p> | <p>M-Miscellaneous Praise <i>Definition: This category is used when a praise statement does not fit in any other category.</i></p> <p>Ma – You are on fire! Mb – I’m going to call home! Mc- You should be proud</p> |
|--|--|

BSP CODING

Directions: Read each of the BSPs and determine if there are any behavioral themes which can be consolidated. If a praise is more than general, but not quite BSP – count it as BSP or Miscellaneous (e.g., That was so much better – could be BSP). Count each instance of praised behavior one time.

Ex. I like how Ella is sitting quietly. I like how Jack is sitting patiently. Sitting is the behavioral theme or

*behavior that is being identified with approval. **Combine into one category = 1.***

*Ex. This class is smart. That was a smart thing to say. In the first praise statement the class is described as smart (attribute), in the second praise statement what the child is saying is being encouraged. Therefore, two different behavioral themes are identified and should be kept separate. **Keep as two categories and count each = 2***

Extra Rules/Notes:

Praise statements are re-entered into excel to capture the exact praise statements observed during direct observation. Upon entering praise statements into excel, coders may determine that a praise statement previously coded as “General Praise” is in fact “BSP.” The coder will make the appropriate change, even if it differs from the original observer’s code.