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An Examination of Teachers' Natural Praise-to-Reprimand Ratios and Teachers' Perceptions of Self-Efficacy and Stress

Sara Hayn
Eastern Illinois University

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Specialist in School Psychology
Graduate Degree Program

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Abstract

The current study examined teachers' natural use of praise and reprimand in middle and high school (sixth through twelfth grade) general education classrooms. In addition, the relations between praise and reprimand and teacher stress and self-efficacy were examined. Praise and reprimand data were collected via 20-minute, direct observation (940 total observation minutes). On average, middle and high school teachers delivered 11.7 total praises per hour and 10.4 total reprimands per hour (1.1 to 1 praise-to-reprimand ratio). Middle school teachers delivered 12.8 total praises per hour and 14.5 total reprimands per hour (0.9 to 1 praise-to-reprimand ratio) and high school teachers delivered 7.0 total praises per hour and 11.5 total reprimands per hour (1.4 to 1 praise-to-reprimand ratio). There was no statistically significant difference between middle and high school teachers' use of praise. Middle school teachers reprimanded more frequently than high school teachers did, and this difference was statistically significant. In terms of teacher stress and self-efficacy, teachers who reported higher levels of stress used more reprimands, and teachers who reported higher levels of self-efficacy used fewer reprimands. Lastly, teacher-reported stress was negatively correlated with teacher self-efficacy. Implications and future directions are discussed.

An Examination of Teachers' Natural Praise-to-Reprimand Ratios and Perceptions of Self-efficacy and Stress

Introduction

Teaching is considered a 'high-stress' profession; approximately one fourth of school teachers describe teaching as extremely stressful (Kyriacou, 2001). This is not surprising considering that in the past 20 years more teachers have been evaluated based on students' state-standardized testing performance (von der Embse, Pendergast, Segool, Saeki, & Ryan, 2016; Kyriacou, 2001) all while striving to provide inclusive classroom instruction to students with diverse learning needs (Avramidis, Bayliss, & Burden, 2000). A further complication is that students who struggle academically are more likely to exhibit behavioral challenges (Barry, Lyman, Klinger, 2002; Frick, et al., 1991; Hinshaw, 1992). Therefore, teachers are faced with high-stakes evaluations (which are tied to their pay and tenure status), adequately addressing the learning needs of all students in their classes, and effectively managing student behavior.

Teachers who effectively manage student behavior may experience less stress and more confidence in their teaching abilities. Collie, Shapka, and Perry (2012) found that teachers who reported higher levels of stress (related to students' behavior) also reported lower teacher efficacy. Teachers commonly report that they are insufficiently trained to manage student behavior problems (Begeney & Martens, 2006; Nahal, 2010), and increased levels of stress and poor self-efficacy related to dealing with student misbehavior may explain why teachers decide to leave the field of education (Collie et al., 2012). Collie et al. (2012) found that student discipline, related workload, and sense of teaching efficacy were directly related to job satisfaction. Ingersoll (2001) surveyed

teachers and found that 25% of those who left the field cited student discipline problems as a contributing factor. Therefore, examining simple, evidence-based teacher strategies, like praise-to-reprimand ratios, has the potential to positively impact teacher stress, increase teacher self-efficacy, and result in the retention of quality educators that might otherwise leave the field. The purpose of this study is to examine the relation between teachers' praise-to-reprimand ratios and teacher self-efficacy and stress. The next section will begin by reviewing praise and reprimand definitions, rates, and their impact on student behavior.

Teacher Praise and Reprimands

Definitions. White (1975) was the first to study the natural occurrence of teacher praise and reprimands over 40 years ago. In her study, White used the terms "approval" and "disapproval" to examine praise and reprimand rates among first through twelfth grade teachers. Approval was defined as "a verbal praise or encouragement" (White, 1975, p. 368). Disapproval was defined as "any verbal criticism, reproach, or statement that indicated that the student's behavior should change from what was unacceptable to acceptable to the teacher" (White, 1975, p. 368).

Early researchers defined praise and reprimand strictly by verbal remarks (Beaman & Wheldall, 2000); however, there are other ways teachers can communicate their approval and disapproval (e.g., giving a high five, giving a "disapproving look" or guiding a student physically to a desired location). In 1985, Nafpaktitis, Mayer, and Butterworth included gestures in their definition of reprimand (i.e., any verbal criticism, disapproving gesture, and implementation of punitive contingencies such as isolation, penalties, and fines). Nafpaktitis et al. also included gestures in their definition of praise

(i.e., verbal praise, approving gestures, physical contact, recognition, and delivery of token or tangible rewards).

Recent studies have broken praise and reprimands down into narrower categories. Praise is commonly described as either general or behavior-specific (Floress & Jenkins, 2015; Reinke, Stormont, Herman, Wachsmuth, & Newcomer, 2015). Floress and Jenkins (2015) defined general praise (GP) as "any nonspecific verbalization or gesture that expresses a favorable judgment on an activity, product, or attribute of the student" (e.g., Good job! or Way to go!; p. 4). Behavior-specific praise (BSP) was defined as "any specific verbalization or gesture that expresses a favorable judgment on an activity, product, or attribute of the student" (e.g., You did a great job picking up all your crayons! Floress & Jenkins, 2015, p. 4).

Reinke et al. (2015) divided reprimands into two categories: explicit and harsh. Explicit reprimand was defined as a "verbal comment or gesture by the teacher to indicate disapproval of behavior; concise (brief) in a normal speaking tone" (e.g., That was not a good choice; Reinke et al., 2015, p. 163). Harsh reprimand was defined as a "verbal comment or gesture to indicate disapproval of behavior using a voice louder than typical for the setting or a harsh, critical, or sarcastic tone" (e.g., Do you think that standing on the table is a good decision? Reinke et al., 2015, p. 163). For the current study, praise and reprimand definitions were gleaned from the literature (Floress & Jenkins, 2015; Reinke et al., 2015). Definitions for BSP and GP will be used; however, reprimands will be further divided into four categories (i.e., mild, medium, harsh, and gesture). Operational definitions are described in detail in the method section. The next section will review natural praise-to-reprimand rates.

Natural rates. As mentioned previously, White (1975) was the first to investigate the natural occurrence of teacher praise and reprimand rates in the absence of intervention. White and colleagues measured teachers' natural frequency of praise and reprimands simultaneously via direct observation. Observations took place in first through twelfth grade classrooms during teacher-led instruction. In total, 8340 observation minutes were collected and results indicated that as teachers taught older students, their praise and reprimand rates declined. Jenkins et al. (2015) included White's findings in their review of teachers' praise rates and recalculated White's praise rates into early elementary (first and second grade), late elementary (third through fifth grade), middle school (sixth through eighth grade), and high school (ninth, tenth, and twelfth grade) so that comparisons between grade levels could be made. For the current study, White's reprimand rates were re-calculated into the same grade level groups. First and second grades teachers delivered 43.7 praises and 33.2 reprimands per hour (1.3 to 1 ratio). In third-fifth grade, teachers averaged 21.0 praises and 31.2 reprimands per hour (0.7 to 1 ratio). In middle school, teachers averaged 17.1 praises and 28.1 reprimands per hour (0.6 to 1 ratio). In high school teachers used 8.4 praises on average per hour and 15.0 reprimands per hour (0.6 to 1 ratio; Jenkins et al., p. 5).

Heller and White (1975) examined the natural rates of verbal praise and reprimands simultaneously during teacher-lead instruction. Rates were collected among 10 middle school teachers who taught seventh through ninth grade. Students were divided into two groups, low and high ability. High ability students scored at or higher than national reading norms, while low ability students scored below national reading norms.

The overall natural rate of praise and reprimands observed across both groups of students was 17.1 praises and 31.2 reprimands per hour (0.6 to 1 ratio), which is consistent with findings reported by White (1975) among teachers in grades 6, 7, and 8 (i.e., 0.6 to 1 ratio). When the two ability groups were compared, results indicated that teachers used more reprimands with students in the low ability group (38.1 reprimands per hour) compared to the high ability group (24.3 reprimands per hour). Although the current study will not be examining the difference between praise-to-reprimand ratios among low and high achieving students, this finding emphasizes that students who have higher academic challenges are more likely to exhibit behavior problems and are also more likely to receive teacher reprimands (Heller & White, 1975).

Nafpaktitis, Mayer, and Butterworth (1985) expanded upon previous research by examining teachers' natural praise and reprimand rates (verbal and nonverbal) in relation to student on-task behavior in the classroom. Previous studies (Heller & White, 1975; White, 1975) focused solely on verbal reprimands; however, Nafpaktitis et al. (1985) argued that nonverbal gestures are important to measure because teachers can unknowingly and unintentionally attend to students' behavior. Nafpaktitis and colleagues measured praise and reprimand rates as well as students' disruptive, off-task, and on-task behaviors concurrently during teacher-lead instruction. However, praise and reprimands were only recorded following student disruptive, off-task, or on-task behavior.

Eighty-four teachers from 29 schools with students in grades 6-9 were observed. On average, teachers used 54.0 praises and 17.4 reprimands per hour (3.1 to 1 ratio). This ratio was much higher than the ratios reported by White (1975) among sixth, seventh, and eight grade classrooms or White and Heller (1975) among seventh, eighth, and ninth

grade classrooms (0.6 to 1 and 0.6 to 1, respectively). These differences may be attributed to Nafpaktitis et al. adding nonverbal examples into the operational definitions for praise and reprimand.

Nafpaktitis et al. (1985) also reported that teacher reprimand rates were related to student behavior. Classrooms with lower teacher reprimands had higher rates of student on-task behavior; whereas classrooms with higher teacher reprimands had more student disruptive and off-task behaviors. Floress, Jenkins, Reinke, and McKown (2017) found a similar relation between teacher BSP and student off-task behavior. Although teacher praise and student behavior were not collected simultaneously, classrooms with higher BSP had less student off-task behavior. Interestingly, Floress and colleagues did not find a similar relation between GP and off-task behavior, which may stress the importance of collecting both praise and reprimand data more precisely so that subcategories can be teased apart and compared.

Although their study was not conducted in the United States, Thomas, Presland, Grant, and Glynn (1978) found a lower observed praise-to-reprimand ratio among seventh grade teachers during teacher-led instruction (i.e., 12.0 praises and 34.9 reprimands per hour; 0.3 to 1 ratio). This ratio is consistent with findings reported by Heller and White (1975) and White (1975). On the other hand, Wheldall, Houghton, and Merrett (1989) found a higher praise-to-reprimand ratio observed among sixth through tenth-grade teachers during instruction (i.e., 38.3 praises and 31.9 reprimands; 1.2 to 1 ratio), which is closer to the 3.1 to 1 ratio among sixth through ninth grade reported by Nafpaktitis et al. (1985).

The studies reviewed thus far reported total praise and total reprimand rates, rather than measuring praise and reprimand at the subcategory level (e.g., GP, BSP, mild reprimand, harsh reprimand). Reinke, Herman, and Stormont (2013) observed 33 elementary classrooms (kindergarten through third grade) during teacher-lead instruction and reported natural praise and reprimand rates by subcategories. On average, teachers delivered 33.6 total praises per hour (25.8 GP per hour and 7.8 BSP per hour) and 40.2 total reprimands per hour (39.0 explicit reprimands per hour and 1.2 harsh reprimands per hour (Reinke et al., 2013). Therefore, teachers delivered fewer total praises than total reprimands per hour (0.84 total praise to 1 total reprimand) and the ratio for BSP to total reprimands was 0.19 to 1. It is important to examine total praise to total reprimand and BSP to total reprimands because the literature consistently describes BSP as a superior form of praise compared to GP (Brophy, 1981; Smith & Rivera, 1993; Walker, 1979). BSP is generally seen as superior to GP because when a teacher uses BSP he/she creates a clear connection (for the child) between teacher approval and a specific behavior (Hawkins & Heflin, 2011). Although BSP is preferred, recommended praise-to-reprimand ratios are not specific in terms of praise or reprimand type. Therefore, it is assumed that the recommended ratios are referring to total praise and total reprimands. All middle and high school rates are summarized in Table 1. The next section reviews the recommended praise-to-reprimand ratio and the effect on student behavior.

Recommended rates and student behavior. Higher praise-to-reprimand ratios have been linked to various educational benefits including a positive learning environment, increases in appropriate student behavior, and increases in student engagement (Stitcher, Lewis, Whittaker, Richter, & Trussell, 2009). When teachers

provide praise that identifies students' effort, rather than criticizing faults or mistakes, a welcoming academic environment is created in which students are more likely to interact in the learning process (Trussell, 2008).

Although no study has experimentally manipulated ratios, recommended praise-to-reprimand ratios in the classroom range from 3:1 (Sprick, 1985) to 4:1 (Walker, Colvin, & Ramsey, 1995; Walker, Ramsey, & Gresham, 2004). Providing a recommendation for an ideal praise ratio can be traced back to John Gottman, a professor of psychology at the University of Washington who was a cofounder of the Seattle Marital and Family Institute, also known as the "Love Lab" (Flora, 2000). Based on the observation of 2000 couples, Gottman developed a ratio model that predicted that spouses who were observed to engage in at least five positive interactions (approval) for every aversive interaction (criticism) would remain married (i.e., not divorce; Flora, 2000).

Gottman, Coan, Carrere, and Swanson (1998) examined positive-to-negative ratios among 130 newlywed couples who were video-taped during one, 15-minute conversation. The couple's interactions were categorized into five positive codes (i.e., interest, validation, affection, humor, or joy) and ten negative codes (i.e., disgust, contempt, belligerence, domineering, anger, fear/tension, defensiveness, whining, sadness, or stonewalling). Couples who had a positive-to-negative ratio of 5 to 1 during the conversation were predicted to stay together, while couples with lower ratios were predicted to divorce. A follow-up with the couples found that Gottman and colleagues predicted divorce with 83% accuracy (Gottman et al., 1998). The following section will

discuss studies that have examined praise-to-reprimand ratios and student outcomes in the classroom setting.

Research findings have demonstrated that using both a positive (i.e., praise) and negative (i.e., reprimand) approach in combination may be important for effective classroom management. For example, Pfiffner, Rosen, and O'Leary (1985) examined whether an all-positive approach to classroom management was effective in increasing on-task behavior and academic performance. Eight students (five, second grade and three, third grade) and a special education teacher were observed for one hour a day for 46 days. An ABCBACA design was implemented where the following phases were manipulated: (A) the teacher's baseline use of praise and reprimands, (B) eliminating reprimands (teacher was instructed to eliminate reprimands and implement praise as usual, and (C) enhanced praise (continue to not use reprimands but increase rates of praise). The authors reported that the all-positive (enhanced praise) phase (phase C) was not as effective in increasing student on-task behavior as phase A. The authors concluded that using a management system that includes both positive (praise) and negative (reprimand) consequences is most effective in decreasing students' on-task behavior because on-task behavior was highest in phase A, when teachers used reprimands. During phase A, when both positive and negative consequences were used, the ratio of praise to reprimand was 3.1 to 1; 3.8 to 1; and 3.5 to 1, respectively. Pfiffner et al. (1985) argued that using both positive and negative consequences (at least 3 positives to 1 negative) created a more effective and positive learning environment.

Good and Grouws (1977) suggested that a similar ratio (3.5 praises to 1 reprimand) was ideal. In their study, they examined whether teacher praise and negative

feedback influenced students' academic achievement. Forty-one classroom teachers were observed during instruction and found that teachers who used a 3 to 1 praise-to-reprimand ratio had students with higher student achievement scores on the Iowa Test of Basic Skills. The next section reviews previous studies measuring teacher stress.

Teacher Stress

Teaching is a high stress profession (Collie et al., 2012). Teacher stress is defined broadly as any unpleasant, negative emotion (e.g., anger, anxiety, frustration, depression) experienced by a teacher related to their work as a teacher (Kyriacou, 2001). Stress is likely related to various sources, including relationships with parents, relationships with other professionals, and workload (Klassen & Chiu, 2010). However, many teachers report that classroom management and high levels of student disruptive behavior are common teacher stressors (Griffith, Steptoe, & Cropley, 1999; Klassen & Chiu, 2010; Kyriacou, 1987). Examining teacher stress, as it relates to student disruptive behavior, may provide insight into why teachers decide to leave the field of education.

Teachers who reported high levels of stress also reported a greater likelihood to leave the field (Center & Steventon, 2001). Ingersoll (2001) surveyed teachers who had decided to leave the field due to dissatisfaction, and found that 25% of these teachers reported that student discipline was a factor in their decision to leave. These studies suggest that teacher stress may be related to managing student disruptive behavior; however, it is unclear whether specific management strategies (e.g., teachers' use of praise and reprimand) are related to teacher stress and potentially their decision to leave the field of education.

Research findings suggest that students with behavior problems receive less teacher praise and more teacher reprimands compared to children without behavior problems (Sutherland, Lewis-Palmer, Stichter, & Morgan, 2008; Sutherland & Oswald, 2005). Students who are off-task or disruptive evoke few positive interactions from their teacher, which likely leads to more off-task and disruptive behavior (Merret & Wheldall, 1986). On the other hand, as teacher praise increases, reprimands decrease (Caldarella, Williams, Hansen, & Wills, 2015; Reinke et al., 2008; Wills, Iwaszuk, Kamps, & Shumate, 2014). If teachers who praise more frequently, have classrooms with less disruptive behavior, these teachers may also experience less stress related to student disruptive behavior. Similarly, teachers who reprimand more frequently (and praise less frequently), may experience more stress related to student disruptive behavior.

Teacher Stress and Self-efficacy

It is easy to imagine how dealing with students' disruptive behavior (e.g., not following directions, talking back, repeatedly doing things asked not to do) would be stressful. When students are disruptive, teachers not only attempt to manage the disruptive student, but also try to manage the aftermath of the disrupted learning environment (e.g., students who are distracted from learning). Dealing with this type of stressful situation may influence teachers' confidence in their ability to teach effectively (Miller, Ferguson, & Byrne, 2000; Poulou & Norwich, 2000). Teachers' perceived stress, related to students' behaviors, is negatively correlated with their teaching self-efficacy (Collie et al., 2012; Klassen & Chiu, 2010).

Collie et al. (2012) conducted a study to examine an explanatory model of the interrelationships between stress, teaching efficacy, and job satisfaction and their relation

to teachers' perceptions of school climate and social-emotional learning (SEL). Participants included 664 elementary and secondary teachers from general and special education classrooms. Each teacher completed a survey that included items measuring stress, teaching efficacy, job satisfaction, school climate, and SEL. Teachers who reported high levels of stress, due to student behavior and discipline, reported lower teaching efficacy (Collie et al., 2012). This finding suggests a negative relationship between teachers who experience high stress (related to student behavior problems) and teachers' confidence in their abilities to manage students with behavior problems.

In a similar study, Klassen and Chiu (2010) examined the relationships among years of experience, self-efficacy, stress, and job satisfaction. In their study, 1,430 teachers (grades K – 12th) completed a survey that included demographic questions, a 12-item self-efficacy scale, a 2-item job satisfaction scale, an item measuring job stress, and a 7-item scale measuring sources of job stress. Klassen and Chiu reported that teachers with higher overall teaching stress had lower job satisfaction. Specifically, teachers with high classroom stress had poor self-efficacy (Klassen & Chiu, 2010).

Another factor that can affect self-efficacy is behavioral strategies teachers use. Emmer and Hickman (1991) wanted to determine if efficacy in classroom management and discipline was distinct from overall teacher efficacy. In addition, they created a scale to measure teacher efficacy in classroom management and discipline. Participants in their study were 40 undergraduate teacher education students enrolled in a practicum course and 30 student teachers in their last semester prior to graduating with a teaching degree. Each participant completed the efficacy scale, and supervisors of the student teachers rated participants on teaching and managerial performance. Emmer and

Hickman found that teacher education students and student teachers who use strategies such as encouraging student effort, praising, giving extra attention to positive behaviors, and developing plans of change for children with problem behaviors reported higher levels of self-efficacy.

A teacher's self-efficacy in classroom management may also be influenced by how overwhelmed or exhausted he or she is due to managing disruptive student behavior. Dicke et al. (2014) examined the relation between emotional exhaustion (due to classroom disturbances) and teacher education students' self-efficacy in classroom management. Each student teacher was surveyed and those who had higher self-efficacy in classroom management also reported fewer student disturbances and lower emotional exhaustion (Dicke et al., 2014). Similarly, Aloe, Amo, and Shanahan (2014) conducted a meta-analysis of 16 studies related to classroom management and self-efficacy. Results of the meta-analysis found that higher levels of self-efficacy were significantly correlated with lower feelings of burnout and more feelings of accomplishment.

Teacher Stress, Self-efficacy, and Strategies

Training teachers how to implement effective strategies to decrease disruptive behaviors may be one way to combat teacher stress. A study conducted by Zhai, Raver, and Li-Grining (2011) suggested that strategies for classroom management can be taught to teachers and decrease teacher stress; however, learning these strategies did not increase teachers' self-confidence in implementing the strategies. In this study, The Chicago School Readiness Project (CSRP) was used to teach effective behavior management strategies (outside and inside the classroom). Examples of strategies included: building positive relationships with students; providing students with a variety of choices; having

pre-determined clear, objective classroom rules; using praise effectively to increase target behaviors; and understanding how to use incentives with individual students and classroom-wide to decrease behavior problems.

In addition to teaching effective behavior management strategies, stress-reduction workshops were implemented. Zhai and colleagues found that teachers reported an increase in their perceptions of job control and resources, but a decrease in their self-confidence in current behavior management strategies (as measured by perceptions of job control, job demands, and confidence in behavior management; Zhai et al., 2011). This study suggests that even though teachers learned about effective classroom management (e.g., praise and incentives) and stress reduction strategies, they may not necessarily implement these strategies, which may explain the decrease in teacher confidence after learning about these strategies.

Clunies-Ross, Little, and Kienhuis (2008) examined teachers' self-reported and actual use of classroom management strategies and the relationships among these strategies, stress, and student behavior. The authors categorized classroom management strategies as proactive (i.e., teacher behaviors that can be used to lessen the likelihood of a student demonstrating inappropriate behavior and altering a situation before problems escalate) or reactive (i.e., teacher behaviors that occur following a student's inappropriate behavior) strategies. For example, establishing a predetermined set of classroom rules was considered a proactive strategy, whereas providing a punitive consequence for an inappropriate behavior (e.g., taking away recess) was considered a reactive strategy. Teachers' self-reported classroom management strategies were reportedly consistent with the classroom management strategies teachers were observed to use. The authors found

that reactive strategies (reprimands) significantly predicted higher teacher stress and were significantly correlated with lower student on-task behavior; however higher rates of proactive strategies did not predict lower teacher stress (Clunies-Ross et al., 2008). Classroom management strategies may be an important factor in reducing teacher stress. Studies by Zhai et al. (2011) and Clunies-Ross et al. (2008) suggest that teaching effective strategies may reduce or prevent higher levels of teacher stress and increase self-efficacy in classroom management.

Literature Summary and Impact of Proposed Research

Teaching is a high-stress profession (Collie et al., 2012), which may (in part) be related to dealing with student disruptive behavior (Griffith et al., 1999; Klassen & Chiu, 2010; Kyriacou, 1987). Furthermore, teachers who report higher levels of stress due to student disruptive behavior are more likely to report lower self-efficacy in managing student misbehavior (Collie et al., 2012). Teachers who report low self-efficacy are more likely to report feeling "burned out" or fatigued (Aloe et al., 2014) and are more likely to report dealing with student misbehavior (Dicke et al., 2014). These findings are particularly disturbing because dealing with student misbehavior may contribute to teachers' decision to leave the field of education (Ingersoll, 2001). In addition, this leads to larger teacher shortage problems within the field. Universally training teachers to use effective, easy-to-implement, cost-effective strategies that promote appropriate student behavior and decrease student problem behaviors may assist in retaining high-quality teachers. For example, when teachers are trained to deliver more praise than reprimand (Nafpaktitis et al., 1985), student disruptive and off-task behavior decreases (Stitcher et

al., 2009; Trussell, 2008) and teachers report more self-efficacy in managing student behavior (Emmer & Hickman, 1991).

Unfortunately, no study has identified an ideal praise-to-reprimand ratio, although recommended ratios range from 3-4 praises to 1 reprimand (Good & Grouws, 1977; Pfiffner et al., 1985). Examining teachers' natural praise-to-reprimand ratios can provide insight into what teachers typically do in the classroom and is more likely to inform whether universal training is warranted. However, few studies have examined teachers' natural praise-to-reprimand ratios, especially among middle and high school teachers. Previous findings suggest that middle and high school teachers provide low praise-to-reprimand ratios (i.e., 0.50 to 1; Heller & White, 1975; Thomas et al., 1978; White, 1975) except for the study conducted by Natpakititis et al. (1985), which reported an average ratio of 3 praises to 1 reprimand. These studies are dated and it is unclear whether the findings (from more than three decades ago) are consistent with teachers' use of praise and reprimand today. Lastly, although student disruptive behavior is related to teacher stress (Griffith et al., 1999; Klassen & Chiu, 2010; Kyriacou, 1987), it is unclear whether teachers who naturally have a low praise-to-reprimand ratio report more stress and lower self-efficacy. For these reasons, examining teachers' natural use of praise and reprimand and the relation of this ratio to teacher stress and self-efficacy is an important area of study. Research on this topic is likely to inform the need for universal teacher training and teacher job quality in relation to behavior management strategies.

Current Study

The current study has two aims. The first is to measure the natural ratio of praise and reprimand among middle and high school classrooms. The natural ratio is described

as the current praise to reprimand ratio delivered by a teacher prior to any intervention or manipulation of praise or reprimands. The second is to examine whether a relation exists between teachers' natural use of praise and reprimand and stress and whether a relation exists between teachers' natural praise and reprimand and self-efficacy. The following research questions were posed:

1) What is the average praise-to-reprimand ratio among middle school and high school teachers? It is predicted that middle school teachers will have a 1:1 praise-to-reprimand ratio, while high school teachers will have a lower ratio (e.g., 0.6: 1 praise to reprimand). Based on past research, middle school teachers' ratios have ranged from 0.3:1 to 3.1:1 praise to reprimand, with an average ratio of 1:1 praise to reprimand (Thomas et al., 1978; Heller & White, date; White, 1975; Wheldall et al., 1989; Nafpaktitis et al., 1985). Based on the White (1975) high school sample, the average praise-to-reprimand ratio was 0.6 to 1 (with a downward trend in praise as grade level increased); therefore, middle school teachers are predicted to use more praises to reprimands (e.g., 1:1) compared to high school teachers (e.g., 0.6:1).

2) Do teachers who report higher levels of stress have lower praise-to-reprimand ratios? Teachers report that managing student disruptive behavior is stressful (Griffith et al., 1999; Klassen & Chiu, 2010; Kyriacou, 1987) and when teachers increase their use of praise, student disruptive behavior decreases (Stitcher et al., 2009; Trussell, 2008). Therefore, it is predicted that teachers who have a lower praise-to-reprimand ratio (e.g., less praise to reprimands) will report higher levels of stress.

3) Do teachers who report lower levels of self-efficacy have lower praise-to-reprimand ratios? Currently, there is no research on teachers' self-efficacy and praise-to-

reprimand ratios; however, teacher stress and self-efficacy are negatively correlated (Collie et al., 2012; Klassen & Chiu, 2010). Furthermore, student disruptive behavior is a source of teacher stress (Griffith et al., 1999; Klassen & Chiu, 2010; Kyriacou, 1987) and when teachers use effective behavior management strategies (i.e., praise), student disruptive behavior decreases (Stitcher et al., 2009; Trussell, 2008). Therefore, it is predicted that teachers who report lower levels of self-efficacy will have a lower praise-to-reprimand ratio.

4) Do teachers who report lower levels of self-efficacy report higher levels of stress? Research suggests that there is a negative relationship between stress and self-efficacy among teachers (Collie et al., 2012; Klassen & Chiu, 2010); therefore, it is predicted that teachers who report lower levels of self-efficacy will report higher levels of stress.

Method

Participants and Setting

Forty-seven middle and high school, general education teachers from nine schools located in Central Illinois participated in the study. Of the 47 participants, 18 were middle school teachers and 29 were high school teachers (see Table 2). Every teacher held a teaching certificate and a bachelor's degree. Sixty-eight percent (n = 32) of the participants also held a master's degree. Teachers who participated taught classes in which teacher-led instruction took place so that (in total) a 20-minute observation could be completed. For example, teachers who taught traditional, lecture-based subjects such as English, math, science, and social studies were invited to participate. General education teachers whose classroom makeup included general and special education

students were also invited to participate. Teachers excluded from the study included those who taught classes that are not conducive to at least 20-minutes of teacher-led instruction (e.g., band/or physical education).

All participants identified as white/Caucasian and 32% were male. Most participants (66%) had been teaching 15 or fewer years (11 teaching 1-5 years, 10 teaching 6-10 years, 10 teaching 11-15 years). Approximately 50% (n = 21) of participants reported that they took a behavior management class as part of their teacher education program. However, of those who took a behavior management class, a majority reported the class was through a master's program not through a four-year education program. Small incentives were provided for their participation (i.e., $5 gift card or chocolate).

Materials and Instruments

Teacher demographic questionnaire. The teacher demographic questionnaire included 13 items. Teachers were asked to provide their name, age, sex, race, years of teaching experience, level of education, type of teaching certificate (i.e., general education or special education), any special teacher training (e.g., crisis management training or reading interventionist training) and location of training, the name of the class observed (e.g., Freshman Algebra or Senior English), a description of the student population of the class observed (e.g., all general education, some general education and some special education, all special education), a rating of the behavioral difficulty of the class observed compared to other classes taught in the past, and if they took a behavior management class (see Appendix C).

Teacher stress measure. The teacher stress measure was obtained from Yoon (2002) and is a 3-item scale on which teachers rated their perceived stress related to managing student disruptive behaviors. Teachers rated the two items "Having to deal with behavioral problems in class, I have considered leaving this profession" and "I am very satisfied with my teaching career" on a 7-point scale where 1 = "not true at all" and 7 = "very true." Teachers rated the third item "How stressful do you find handling behaviorally challenging students" on a 5-point scale where 1 = "not at all stressed" and 5 = "extremely stressed." These three items were used to measure teacher stress and how teacher stress influenced student-teacher relationships among a sample of 113 elementary (kindergarten through 5th grade) teachers. Internal consistency between the items was acceptable (Cronbach's alpha = 0.69; Yoon, 2002). Information on evidence of validity was not provided in the article. A total stress score was calculated using the total of the three items. Reverse scoring was used with the second item, "I am very satisfied with my teaching career".

Teacher self-efficacy measure. The teacher self-efficacy measure was obtained from Yoon (2004) and is a 5-item scale on which teachers rate their perceived ability to manage student disruptive behaviors. Teachers rated the 5 items, "I can successfully handle the situation, when one of my students gets disruptive and oppositional," "I have ability to resolve conflicts with students," "I feel competent to handle a disruptive, aggressive student in my classroom," "I feel helpless when I attempt to manage students' noncompliant behaviors," and "Conflict escalates when I try to handle a student's disruptive behavior" on a 7-point scale, where 1 = "not true at all" and 7 = "very true." These 5 items were used to measure self-efficacy in a study in which 98 elementary

teachers (kindergarten through fifth grade) read hypothetical bullying vignettes and then rated their self-efficacy on each. The author hypothesized that teachers who perceived bullying more seriously would have higher self-efficacy (regarding behavior management). Internal consistency between the items was good (Cronbach's alpha = 0.86; Yoon, 2004). Information on evidence of validity was not provided in the article. The total self-efficacy score in the current study was calculated using the total of the five items. Reverse scoring was used with the last two items, "I feel helpless when I attempt to manage students' noncompliant behaviors," and "Conflict escalates when I try to handle a student's disruptive behavior."

The items from Yoon (2002) were adapted from the Teacher Efficacy Scale (TES) created by Gibson and Dembo (1984). The TES is a 30-item scale measuring teacher efficacy. Internal consistency between the items was acceptable (Cronbach's alpha = 0.79; Gibson & Dembo, 1984). Gibson and Dembo (1984) reported convergent and divergent validity measures for teacher efficacy using open-ended and closed-ended formats. The closed-ended measure used was the TES, and the open-ended measure involved asking teachers to check 10 out of 20 variables they thought contributed most to a student's success or failure in school. Teacher efficacy was positively correlated (r = 0.42) using the different methods (open-ended and closed-ended) and demonstrated evidence of convergent validity. In their study, Gibson and Dembo (1984) also measured teachers' verbal ability and flexibility. The correlations between teacher efficacy using one of the two methods and verbal ability using the opposite method (r = 0.08, r = 0.09) and between teacher efficacy using one of the two methods and flexibility using the opposite method (r = 0.21, r = -0.06) were low and demonstrated divergent validity.

Praise and reprimand data collection form. Praise and reprimand data were collected by the researcher and four trained research assistants during 20-minute direct observations in classrooms using the praise and reprimand data collection form. This form included 20, I-minute intervals. For each interval, praise and reprimands were broken down by type and delivery method. Praise had two types (BSP and GP) and three delivery methods (individual, small group, and large group). Reprimand had four types (mild, medium, harsh, and gesture) and three delivery methods (individual, small group, and large group). Operational definitions for praise and reprimands are detailed below. Because delivery method was not examined in the current study, operational definitions for delivery are not provided. To complete the form, the observer first indicated the date of the observation, the school code, and the teacher code. A cued audio tape that identifies the interval that is being observed (e.g., 1, 2, 3) was used to ensure standardization and keep observers aligned with the correct interval. Observers used a frequency count to mark the number of praise and reprimands observed during each corresponding minute of the 20-minute observation. In addition to the frequency count, the observer recorded the praise or reprimand statement or gesture verbatim. Following the observation, each category of praise and reprimand was totaled together including total praises and total reprimands. The following operational definitions were used to code praise and reprimands (see Appendix D).

Operational definition: Praise type. Praise was coded as either BSP or GP. BSP included any specific verbalization or gesture that expressed a favorable judgment on an activity, product, or attribute of the student (e.g., I like that you are working quietly on your assignments). GP was defined as any nonspecific verbalization or gesture that

expressed a favorable judgment on an activity, product, or attribute of the student (e.g., good job or that's awesome).

Operational definition: Reprimand type. Reprimands were coded as either mild, medium, harsh or gesture. A mild reprimand was any verbal comment (using a normal speaking tone) that indicated disapproval of a student(s) behavior. The verbal comment could have been an instruction following student misbehavior. A mild reprimand was concise (brief) and may have been described as a "redirection" of student misbehavior. Disagreeing with a student with the absence of sarcasm or a critical tone was considered a mild reprimand (e.g., This is not the time to be talking or You know better).

A medium reprimand was defined as any verbal comment (using a sarcastic or critical tone) that indicated disapproval of a student(s) behavior. The verbal comment could have been in the form of a question that was disapproving and had a mocking, rude, or critical tone (e.g., Is that a good choice? or Is that the way a high school student should behave?). A sarcastic reprimand was recorded as a medium reprimand if the teacher disagreed with the child using a critical tone (e.g., I don't remember telling you to sit and talk to your friends (sarcastic tone) or No, it's not cold in here).

Harsh reprimands included any verbal comment (using a louder than typical tone for the setting) by a teacher that indicated disapproval of a student(s) behavior. Harsh reprimand was recorded if the reprimand implied negative consequences (e.g., a threat) or any prolonged discussion (30 sec or longer) about misbehavior (e.g., One more disruption and someone is going to ISS or How many times do we need to go over _____!).

A reprimand gesture included any gesture (without speaking) that indicated disapproval of a student behavior (e.g., hands on hips). If a teacher physically guided or

prompted a student to a preferred area or activity, gesture reprimand was marked (e.g., shaking head to communicate "stop doing that" or student refuses to get up from desk and teacher touches elbow to indicate "get up").

Direct Observation Training

The primary researcher and four research assistants were trained to conduct direct-classroom observations. Observers went through a detailed training process prior to conducting classroom observations. First, each observer was provided a list of operational definitions of praise (i.e., BSP and GP) and reprimands (i.e., mild, medium, harsh, and gesture; see Appendix D). Examples and non-examples of each type or praise and reprimand were discussed in a group format where questions were encouraged. The observers were also provided with operational definitions for the delivery of praise and reprimands (i.e., large group, small group, and individual; see Appendix D) and examples and nonexamples were discussed. Next, each observer coded three training videos and demonstrated reliability with a previously trained observer at 80% or higher before coding live. Each observer coded at least one live observation in the classroom with a previously trained observer and demonstrated 80% reliability or higher before observing and collecting data independently.

Procedure

Prior to collecting direct observation data, approval from Eastern Illinois University's Institutional Review Board (IRB) was obtained. Administrators from the nine schools were contacted to obtain approval to ask teachers to participate in the study. A recruiting flyer (see Appendix E) was sent to teachers to provide a brief explanation of the study and what they were asked to do. Teachers who agreed to participate, provided

preferred observation times during which they were likely to lecture for at least 20-minutes. Each teacher was assigned a code to ensure confidentiality. The teacher code was used on the teacher's observation forms and his/her teacher questionnaire. All observations were completed in a single 20-minute setting, except one teacher observation that needed to be completed in two sessions. Following the observation session, the teacher completed the teacher stress and teacher self-efficacy questionnaires (Appendix C) and left them in a sealed envelope to be picked up by the researcher or a research assistant. After the questionnaire was retrieved, the researcher or research assistant left either a $5 gift card (first 40 participants) or chocolate at the school for the teacher.

The primary researcher and research assistants used the praise and reprimand recording form to collect praise and reprimand frequency data. A total of 940 direct observation minutes were collected across all 47 classrooms. Across the classrooms, 34.0% of the observations were collected using two observers so interobserver agreement (IOA) could be calculated for praise and reprimands. IOA was calculated using percent agreement (i.e., the number of agreements divided by the number of agreements plus disagreements). Across all teachers, total praise IOA was 94.5% (range 78%-100%) and 97.4% (range 90%-100%) for total reprimands. Since BSP was used for analyses, IOA was calculated for BSP as well. Across all teachers, IOA was 98.0% (range 90%-100%) for BSP. IOA percentages indicate reliability among observations was adequate and consistent among observers.

Data Analysis

To answer research question one (What is the average praise-to-reprimand ratio among middle school and high school teachers) praise and reprimand data were collected through direct observations. Observations were analyzed using frequency counts for total praise and total reprimand. Total praise was calculated by adding together GP and BSP for each teacher observation. Total reprimand was calculated by adding together mild, medium, harsh, and gesture reprimand for each teacher observation. Ratios were created for each teacher by dividing the total praise by total reprimand observed during the 20-minute observation for that teacher. Average rates of teacher praise, reprimand, and ratios were broken down by each teacher, grade, and middle school and high school.

To analyze the second research question (Do teachers who report higher levels of stress have lower praise-to-reprimand ratios) a Pearson's *r* correlation coefficient was used. Before calculating Pearson's *r*, the total stress score was calculated on the items from the stress measure. The total was used to calculate Pearson's *r* along with the frequency total of praises and reprimands for each teacher. The ratio of praise to reprimand was used to analyze a relationship with total stress for teachers in which a ratio could be calculated. Pearson's *r* values with a *p*-value of 0.05 or lower were considered significant.

To analyze the third research question (Do teachers who report lower levels of self-efficacy have lower praise-to-reprimand ratios) a Pearson's *r* correlation coefficient was used. The total self-efficacy score was calculated prior to performing the analysis and then total self-efficacy was analyzed using total praise, total reprimand, and praise-to-reprimand ratios for teachers in which a ratio could be calculated.

To analyze the final research question (Do teachers who report lower levels of self-efficacy report higher levels of stress) a Pearson's *r* was used. The totals of the stress and self-efficacy measures were used to calculate Pearson's *r*.

Results

Observations

The primary researcher and four research assistants (i.e., one graduate students and three undergraduate students) collected frequencies of teacher praise type (i.e., general or behavior-specific) and reprimand type (mild, medium, harsh, or gesture) during teacher-led whole group instruction. A total of 940 direct-observation minutes (15.7 hrs.) were collected across 47 middle and high school teachers. Each observation was 20 minutes for each teacher.

Frequency of Praise and Reprimand

Across all 47 teachers, the average rate of total praise was 11.7 (range, 0-54) praises per hour and the average rate of total reprimand was 10.4 (range, 0-39) reprimands per hour (see Table 3). Across all 47 teachers, the average praise-to-reprimand ratio was 1.1 to 1. Middle school teacher praise was consistent across grades (i.e., average sixth grade teacher praise = 12.0 per hour; seventh grade = 12.7 per hour; and eight grade = 13.3 per hour). Middle school teacher reprimands were variable across grades with sixth grade teachers using the most reprimands on average (30.0 per hour) compared to seventh (1.3 per hour) and eighth grade (3.4 per hour) teachers. In high school classrooms, there was a downward trend in praise as grade level increased (i.e., average ninth grade teacher praise = 22.9 per hour, tenth grade = 13.5 per hour, eleventh grade = 6.3 per hour, twelfth grade = 1.0 per hour). Reprimand averages among high

school teachers were highest among ninth and tenth grades (i.e., ninth grade = 7.9 per hour, tenth grade = 7.5 per hour, eleventh grade = 1.5 per hour, twelfth grade = 4.0 per hour).

Ratios among Grade Level

To address research question one (What is the average praise-to-reprimand ratio among middle school and high school teachers?), praise-to-reprimand ratios were calculated for each 20-min teacher observation by collecting frequency counts of praise and reprimand. For example, if during a 20-minute observation, a teacher gave two BSPs and one GP statement, the total praise score would be three. If during the same observation, three mild reprimands and one gesture reprimand were recorded, the total reprimand score would be four. Total praise and total reprimand scores were used to calculate ratios; however, because some observations resulted in the absence of either praise or reprimands (e.g., zero total praises and 5 total reprimands) average use of praise and average use of reprimand were calculated across individual grades, middle school grades (i.e., sixth, seventh, and eighth), and high school grades (i.e., ninth, tenth, eleventh, and twelfth) and then converted into ratios (see Table 3). For example, to calculate the average praise-to-reprimand ratio among sixth grade teachers (n = 2) all sixth grade teachers' use of total praise was added together (e.g., 8 praises) and divided by the total number of sixth grade teachers (e.g., 2). Similarly, all sixth-grade teachers' use of total reprimands (e.g., 20 reprimands) were added together and divided by the total number of sixth grade teachers (e.g., 2). Then a ratio of praise to reprimand was calculated by dividing the average use of total praise (e.g., 4) by the average use of total

reprimand (e.g., 10). Therefore, the average praise-to-reprimand ratio for sixth grade teachers was 0.4 to 1.

Across middle and high school teachers (sixth through twelfth grade), tenth grade teachers had the highest praise-to-reprimand ratio (4.5 to 1), while twelfth grade teachers had the lowest ratio (0.3 to 1). In comparing middle school and high school teachers, high school teachers, on average, had a higher praise-to-reprimand ratio 1.4 to 1 (range 0.3 to 1-4.5 to 1) than middle school teachers 0.9 to 1 (range 0.4 to 1–1.7 to 1).

Additional analyses were conducted to determine whether there was a difference between total praise among middle and high school teachers and whether there was a difference between total reprimands among middle and high school teachers. A t-test for independent means was conducted on total praise. No significant difference was found among praise rates between middle school and high school teachers with a very small effect size (d = 0.18). A t-test for independent means was also conducted on total reprimands. At an alpha level of 0.05, results showed middle school teachers (M= 5.12, SD= 4.39) used reprimands at a significantly higher rate compared to high school teachers (M= 2.80, SD = 3.24), t (45) = -2.07, p = 0.04 (two-tailed), d = 0.60. In other words, this sample of middle school teachers (grades 6-8) reprimanded more frequently than high school teachers (grades 9-12), with a medium effect.

Additional analyses were also conducted to determine if there were differences between total praise and total reprimand at each grade level. A one-way analysis of variance (ANOVA) was conducted on teacher praise among eight grade levels. Results showed there were no significant differences in praise or reprimand rates among grade

levels. However, a medium effect size ($\eta^2 = 0.15$) was found for praise and a large effect size ($\eta^2 = 0.28$) was found for reprimand among the grade levels.

Teacher Stress and Self-efficacy

The second research question (Do teachers who report higher levels of stress have lower praise-to-reprimand ratios?) was addressed by calculating Pearson's *r* correlation coefficients. Because some teacher observations could not produce a praise-to-reprimand ratio (e.g., a teacher praised 4 times with 0 reprimands), Pearson's *r* was calculated for teacher stress and total praise and teacher stress and total reprimand. At an alpha level of 0.05, there was not a significant relationship between teacher stress and teacher praise, $r = 0.11, p = 0.23$ (one-tailed). At an alpha level of 0.05, there was a significant positive relationship between teacher stress and total reprimand, $r = 0.26, p = 0.04$ (one-tailed). In other words, teachers who reported higher levels of stress used more reprimands, while teachers who reported lower levels of stress used fewer reprimands. Cronbach's alpha for the 3-item scale was 0.73, suggesting that with this sample, the scale had acceptable reliability among the items.

A ratio could not be created for 17 of the 47 participants due to no observed praise or reprimand during the observation. Data from 30 of the 47 teachers could be calculated to obtain a praise-to-reprimand ratio. Using the ratios calculated for these 30 teachers, Pearson's *r* was calculated to determine whether there was a relation between teacher praise-to-reprimand ratios and teacher stress. No significant relation was found between the ratio and stress.

The third research question (Do teachers who report lower levels of self-efficacy have lower praise-to-reprimand ratios?) was addressed by calculating Pearson's *r*

correlation coefficients. Pearson's *r* was calculated between teacher self-efficacy and teacher praise and teacher self-efficacy and teacher reprimand. At an alpha level of 0.05, there was not a significant relationship between teacher self-efficacy and total praise, $r = -0.21$, $p = 0.08$ (one-tailed). At an alpha level of 0.05, there was a significant negative relationship between teacher self-efficacy and total reprimand, $r = -0.41$, $p = 0.002$ (one-tailed). In other words, teachers who reported higher levels of self-efficacy, used fewer reprimands; whereas teachers who reported lower levels of self-efficacy used more reprimands. Using the ratios calculated for 30 teachers, Pearson's *r* was calculated to determine whether there was a relation between teacher self-efficacy and teacher praise-to-reprimand ratios. No significant relation was found between the ratio and self-efficacy. Cronbach's alpha for the 5-item scale was 0.67 which indicates the scale has acceptable reliability among the items.

The fourth research question (Do teachers who report lower levels of teacher self-efficacy report higher levels of teacher stress?) was addressed by calculating a Pearson's *r* correlation coefficient. At an alpha level of 0.05, there was a significant negative relationship between levels of self-efficacy reported by teachers and levels of stress reported by teachers, $r = -0.44$, $p = 0.001$ (one-tailed). In other words, teacher stress and teacher self-efficacy was inversely related. Teachers who reported higher self-efficacy, reported lower stress and teachers who reported lower self-efficacy, reported higher stress.

Because BSP is purported to be a superior use of praise in terms of positively influencing student appropriate behavior, additional analyses were conducted to determine whether a relation existed between BSP and stress and BSP and self-efficacy.

To answer these questions, Pearson's *r* correlation coefficients were calculated. At an alpha level of 0.05, there was not a significant relation between BSP and levels of stress. However, at an alpha level of 0.05, there was a significant negative relation between BSP and teacher self-efficacy, $r = -0.31, p = 0.02$. In other words, teachers who used BSP more frequently reported lower levels of self-efficacy. This is an interesting finding considering no relation was found between total teacher praise and teacher self-efficacy ($r = -0.21, p = 0.08$). Possible explanations for these findings are provided in the discussion section.

Discussion

The current study examined middle and high school teachers' natural use of praise and reprimand. Teachers' natural use of praise and reprimand rates were correlated with teachers' stress and self-efficacy ratings. High school teachers had a higher average praise-to-reprimand ratio compared to middle school teachers and although no significant differences were found between total praise rates among middle and high school teachers, middle school teachers reprimanded significantly more often than high school teachers. Surprisingly, middle school and high school teachers who used more BSP, reported lower levels of self-efficacy; however, middle school and high school teachers who used fewer total reprimands, reported higher levels of self-efficacy. This study provides natural praise-to-reprimand rates among middle and high school teachers, while also examining teacher stress and self-efficacy. The findings have the potential to increase our understanding of how teachers naturally use praise and reprimand at the secondary level and how these strategies relate to teachers' stress and self-efficacy.

First, it was predicted that high school teachers would have a lower praise-to-reprimand ratio than middle school teachers, but results from this study found that high school teachers had a higher praise-to-reprimand ratio than middle school teachers. The current study's middle school teachers' average praise-to-reprimand ratio was consistent with the average ratio of past research. Nafpaktitis et al. (1985) reported the highest praise-to-reprimand ratio among middle school teachers, which was much higher compared to the current study's middle school teachers. The current study and the Nafpaktitis et al. (1985) study both included gestures in their praise and reprimand definitions, so including gestures is not likely the reason for the higher praise-to-reprimand ratio reported by Nafpaktisis et al.

It is in interesting to note that previous studies (which have examined the natural praise and reprimand rates among middle or high school teachers) were published more than 30 years ago, and these rates (except for the Nafpaktisis et al., 1985 study) are consistent with the current findings (i.e., an approximate 1 to 1 praise-to-reprimand ratio). This consistency is interesting considering the present-day emphasis on preventative behavior management practices (e.g., Positive Behavior Intervention Supports; PBIS), that were not stressed 30 years ago. Furthermore, it is important to note that none of the praise-to-reprimand ratios reported in the current study overall, middle school, and high school are consistent with best practice recommendations (i.e, 4 to 1 praise-to-reprimand ratio; Walker et al., 1995; Walker et al., 2004).

Further analyses were conducted to determine whether there were differences between middle school and high school teachers' natural use of praise and reprimand. No significant praise differences were found. However, a downward trend was observed as

grade level increased. This is consistent with the White (1975) findings. Praise rates averaged across middle and high school in the current study (i.e. 11.67 total praises per hour) were lower than praise rates (from a recently published study; Floress et al., 2017) averaged across kindergarten through fifth grade (i.e., 34.8 total praises per hour; p.7). These findings provide additional support for the claim that as grade level increases, teachers tend to praise less.

Middle school teachers used reprimands significantly more often than high school teachers. Because middle school teachers reprimanded more, this likely influenced the overall ratio. It is possible that there was more disruptive behavior among middle school classrooms and as a result, middle school teachers were prompted (e.g., by disruptive behavior) to use more reprimands. Nafpaktisis et al. (1985) collected data for student on-task behavior along with teacher praise and reprimand rates. In their study, over 50% of the classrooms found that students were on-task 70% of the observed intervals, which may have influenced the 3.1 praise to 1 reprimand rate. It is also possible that teachers today (more than 30 years after the Nafpaktisis et al. study was published) are less tolerant to misbehavior (and therefore reprimand more frequently) or that students today have more mental health issues (Reinke et al., 2008) and because teachers are not prepared to adequately manage these behavioral concerns, they rely on reprimanding student behavior more frequently.

Second, a significant relation was not found for teacher stress and praise rates, but a significant relation was found between teacher stress and reprimand rates. In other words, teachers who used more reprimands reported higher levels of stress related to classroom management. Although past research has found that intentionally increasing

teacher praise decreases student disruptive behavior (Stitcher et al., 2009; Trussell, 2008); focusing only on praise may not be enough to adequately support teachers' emotional wellbeing. It is possible that training teachers to both increase their use of praise, while also decreasing their use of reprimands may increase students' appropriate behavior and positively impact teachers' mental health. Although it stands to reason that training teachers to increase their use of praise would in effect decrease teachers' use of reprimand, no study has examined how this relates to teachers' stress or mental health. Along the same lines, Clunies-Ross et al. (2008) examined teachers' use of proactive (i.e., praise) and reactive (i.e., reprimands) strategies in relation to teacher stress and found that reactive strategies predicted higher teacher stress; however, the researchers did not manipulate teacher praise to determine if increasing teacher praise would decrease teacher stress.

Third, a significant relation was not found between self-efficacy and total praise, but a significant negative relation was found between self-efficacy and total reprimands. This finding is consistent with past research that has examined stress, self-efficacy, and student disruptive behavior. Previous researchers (Collie et al., 2012; Griffith et al., 1999; Klassen & Chiu, 2010; Kyriacou, 1987; Stitcher et al., 2009; Trussell, 2008) have examined the relation between teacher stress (related to student misbehavior) and teachers' confidence or self-efficacy in managing student misbehavior. Collie et al. (2012) found a significant negative relation between teachers' stress and teachers' self-efficacy related to teaching. In other words, teachers who reported more stress were less likely to report confidence in their teaching abilities. Similarly, Stitcher et al. (2009) found that higher praise-to-reprimand ratios (i.e., fewer reprimands) were linked to

appropriate student behavior. It is possible that when teachers recognize their classroom is well-behaved, they in turn have a higher sense of self-efficacy in classroom management. Measuring how teachers perceive the overall difficulty in managing their class may be an important aspect when measuring teachers' well-being. Considering our results and past research, it may be critical to examine how teachers' perceptions of their behavior management influences their self-efficacy in managing student behavior.

Lastly, teachers who reported lower levels of self-efficacy reported higher levels of stress. This finding was supported by our hypothesis and past research (Collie et al., 2012; Klassen & Chiu, 2010). Collie et al. (2012) found that teachers who reported high levels of stress (related to student misbehavior) were also less confident in their teaching abilities (i.e., lower teaching self-efficacy). Klassen and Chiu (2010) measured sources of teacher stress in relation to several variables (i.e., years of experience, self-efficacy, and job satisfaction) and found that teachers who reported high classroom stress also reported poor self-efficacy.

BSP, Stress, and Self-efficacy

BSP has been purported to be a superior form of praise (Floress & Jenkins, 2015; Floress et al., 2017). For this reason, exploratory analyses were conducted to determine whether there were stronger correlations between BSP and stress and BSP and self-efficacy, as no correlations were found between total praise and stress and total praise and self-efficacy. A significant relationship was not found between BSP and stress; however, a negative relation was found between BSP and self-efficacy. This finding was counter to what was expected. Teachers who were observed to use BSP more frequently, reported lower levels of self-efficacy.

One explanation may be related to teachers' strategic use of praise. Brophy (1981) warned that teachers often use praise, but that it does not effectively strengthen students' appropriate behavior because teachers are not using it functionally. In other words, teachers may use praise without *actually* influencing student appropriate behavior, because simply delivering praise without considering function may not be reinforcing to students (especially students in need of targeted intervention). Additionally, teachers may use praise more frequently, but continue to reprimand at a high rate. If reprimand rate is positively related to stress and negatively related to self-efficacy, teachers' high reprimand use (despite a high BSP rate) may be detrimental to teachers' well-being. Lastly, there is still much to learn and understand regarding the effective use of praise (Floress, Beschta, Meyer, & Reinke, 2017). Few studies have examined praise beyond verbal, individual, and specific delivery. Other aspects of praise may be important to ensure effective use of this simple strategy.

Limitations and Future Directions

The study is the first in recent years to evaluate the total praise-to-reprimand rates among middle and high school, general education teachers; however, there are limitations and future areas of study to consider. For one thing, findings reported in this study cannot be generalized to all middle and high school teachers, as this sample took place in rural Central Illinois and all the teacher participants were Caucasian. Therefore, it is unclear whether these results would be similar for teachers working in suburban or urban settings. Furthermore, there were 47 teachers who participated in this study, which is not a large sample and is not representative of all middle and high school teachers across the United States. Future research should strive to collect data with a larger, more representative

sample. To do this, researchers need to develop a strategic plan to overcome geographic restrictions that come with collecting direct observation data.

The stress and self-efficacy measures used may be another limitation of the study. These measures were selected because the items directly related to managing student behavior in the classroom. However, only a few studies (Yoon, 2002; Yoon, 2004) have used these measures and therefore there is limited information on the reliability and validity of the instruments. Adequate internal consistency has been reported (stress scale: Cronbach's alpha = 0.69; Yoon, 2002; self-efficacy: Cronbach's alpha = 0.86; Yoon, 2004), but consistency between the items could be improved. Similar reliability figures for these scales were found in the current study (stress: Cronbach's alpha = 0.73 and self-efficacy: Cronbach's alpha = 0.67). On the other hand, few stress or self-efficacy scales have adequately measured teacher stress or self-efficacy related to managing student behavior. It is possible, that by adding additional items (i.e. making each measure longer than 3-5 items) may improve results. According to Churchill and Peter (1978), a valid scale should include a core number of items to increase reliability and several unique items to create variance among the participants. Results from the current study support future examination of stress and self-efficacy and teacher use of reprimands. Significant results were found when comparing stress and self-efficacy with reprimand use, however, no significant results were found with praise.

The brief (20-minute) observation length may have also limited the current findings. A shorter observation was advantageous because it allowed for a larger sample (i.e., 47 teachers compared to 28 teachers; Floress et al., 2017); however, it was a problem in that each teacher was only sampled for a short period of time. Some teachers

were never observed to praise or reprimand during the 20-minute observation and therefore a ratio could not be calculated, which occurred with 17 teachers. Observing teachers over multiple observations may help overcome this limitation. Observations were not all collected during the same time of day, which may have also influenced results. It is unclear whether teachers change their behavior management styles from morning to afternoon (possibly related to fatigue or frustration). Future studies might keep observation times consistent or examine whether teachers' use of praise and reprimand are consistent across classes taught in the morning and afternoon.

In addition, future studies could examine different research questions using similar data collection procedures. Participant groups could be created a priori to examine differences between subjects taught, gender, and years of teaching experience. A multiple regression could be used to examine if certain teacher aspects (gender, years of experience, praise-to-reprimand ratio) predict levels of teacher stress and self-efficacy. Lastly, the current study found teachers who used fewer reprimands had higher self-efficacy levels while teachers who used more BSP reported lower self-efficacy levels. Future studies could examine teachers' perceptions of self-efficacy related to the type of classroom management strategy used: BSP (proactive strategy) or reprimands (reactive strategy). In other words, do teachers report higher self-efficacy levels due to their perception of management style (i.e., use of BSP or reprimands). Similarly, no study has examined the relation between praise and reprimands with mental health. Clunies-Ross et al. (2008) conducted a similar study examining the use of proactive and reactive strategies in relation to teacher stress. They found teachers who used reactive strategies (reprimands) predicted higher levels of teacher stress. Future studies could build upon the

current study and intervene with teachers' current use of praise and reprimand by increasing praises and decreasing reprimands to find if there is an impact on levels of teacher stress and self-efficacy.

The goal of this study was to examine the use of praise and reprimands in a middle school and high school sample in relation to levels of teacher stress and self-efficacy. Overall, this study adds to the existing literature on teacher praise and reprimands. Many existing studies are outdated and not representative of current teaching practices. Continued research is needed to gather additional information on the natural rate of praise and reprimands among current teachers so results can be generalized to other teacher populations (i.e., urban settings). In addition to studying teachers' natural rates, future research should manipulate the use of praise and reprimands teachers use to see if a change in rate increases teachers' levels of self-efficacy in classroom management and decreases levels of teacher stress due to managing student behavior.

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Table 1.

Summary of Past Natural Rates in Middle and High School Samples

Author (Year)	Grade Level	Praise	Reprimand	Ratio
White (1975)	6-8	17.1	28.1	0.6 to 1
White (1975)	9-12	8.4	15.0	0.6 to 1
Heller & White (1975)	7-9	17.1	31.2	0.6 to 1
Nafpaktitis et al. (1985)	6-9	54.0	17.4	3.1 to 1
Thomas et al. (1978)	7	12.0	34.9	0.3 to 1
Wheldall et al. (1989)	6-10	38.3	31.9	1.2 to 1

Table 2.

Teacher and Classroom Demographics

		n	%
Teacher Sex			
	Male	15	32
	Female	32	68
Teacher Racial Background			
	White/Caucasian	47	100
Grade			
	Sixth	2	4
	Seventh	9	19
	Eighth	7	15
	Ninth	8	17
	Tenth	2	4
	Eleventh	10	21
	Twelfth	3	6
	Multiple High School Grades	6	13
Years of Teaching Experience			
	1-5	11	23
	6-10	10	21
	11-15	10	21
	16-20	5	11
	20+	11	23
Highest Educational Degree Obtained			
	Four Year College Degree	15	32
	Master's Degree	32	68
Classroom Make-up			
	Only general ed. students	24	51
	Mostly general ed. students	21	45
	Equal mix general ed. and special ed. students	2	4
Classroom Difficulty Rating			
	Much less difficult	10	21
	Somewhat less difficult	14	30
	Average difficulty	15	32
	Somewhat more difficult	6	13
	Much more difficult	2	4
Behavior Management Class Taken			
	Yes	21	45
	No	22	47
	No Response	4	8

Table 3.

Teachers' Mean and Range of Observed Rate of Praise and Reprimand Statements per Hour

		Total Praise		Total Reprimand		Ratio
Grade	N	Mean	Range	Mean	Range	
6	2	12.00 (0.40)	6.00 – 18.00 (0.10 – 0.30)	30.00 (0.50)	21.00 – 39.00 (0.35 – 0.65)	0.40 to 1
7	9	12.67 (0.21)	0.00 – 42.00 (0.00 – 0.70)	1.33 (0.02)	0.00 – 6.00 (0.00 – 0.10)	1.73 to 1
8	7	13.29 (0.22)	0.00 – 48.00 (0.00 – 0.80)	3.43 (0.06)	0.00 – 24.00 (0.00 – 0.40)	0.69 to 1
Total MS	18	12.83 (0.21)	0.00 – 48.00 (0.00 – 0.80)	14.50 (0.24)	0.00 – 39.00 (0.00 – 0.65)	0.89 to 1
9	8	22.88 (0.38)	0.00 – 54.00 (0.00 – 0.90)	7.88 (0.13)	0.00 – 21.00 (0.00 – 0.35)	2.90 to 1
10	2	13.50 (0.23)	3.00 – 24.00 (0.05 – 0.40)	7.50 (0.13)	0.00 – 33.00 (0.00 – 0.55)	4.50 to 1
11	10	6.30 (0.11)	0.00 – 27.00 (0.00 – 0.02)	1.50 (0.03)	0.00 – 12.00 (0.00 – 0.20)	0.84 to 1
12	3	1.00 (0.02)	0.00 – 3.00 (0.00 – 0.05)	4.00 (0.07)	0.00 – 9.00 (0.00 – 0.15)	0.25 to 1
Multiple HS	6	7.00 (0.12)	0.00 – 15.00 (0.00 – 0.25)	11.50 (0.19)	0.00 – 30.00 (0.00 – 0.50)	0.61 to 1
Total HS	29	10.95 (0.18)	0.00 – 54.00 (0.00 – 0.90)	7.77 (0.13)	0.00 – 39.00 (0.00 – 0.65)	1.41 to 1
Total	47	11.67 (0.19)	0.00 – 54.00 (0.00 – 0.90)	10.35 (0.17)	0.00 – 39.00 (0.00 – 0.65)	1.13 to 1

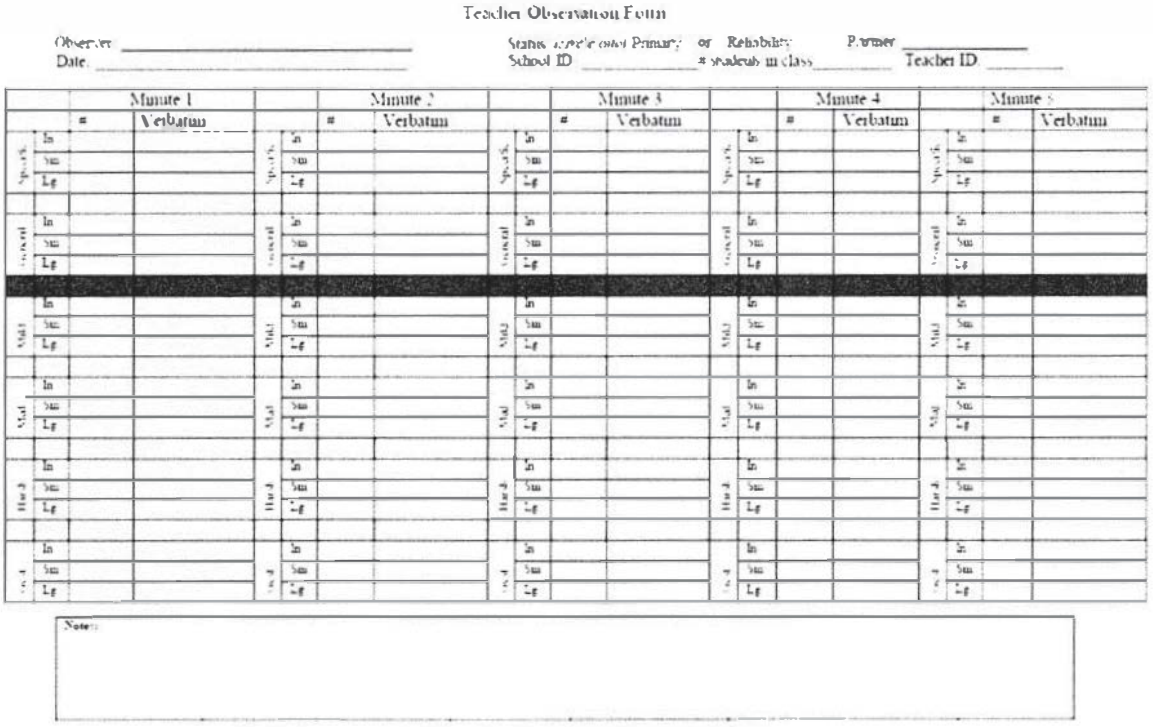
Note: Rate per min is provided in parentheses

Table 4.

Teachers' Mean and Range of Total Self-efficacy and Stress Scores

		Total Self-efficacy		Total Stress	
Grade	N	Mean	Range	Mean	Range
6	2	32.50	32 – 33	6.00	5 – 7
7	9	30.22	25 – 34	7.67	6 – 11
8	7	30.29	23 – 35	7.57	3 – 13
Total MS	18	28.83	23 – 35	7.44	3 – 13
9	9	30.13	23 – 35	10.38	6 – 16
10	2	30.00	28 – 32	6.50	6 – 7
11	10	32.80	28 – 35	6.10	3 – 15
12	3	32.33	32 – 33	6.67	4 – 11
Multiple	6	31.67	26 – 35	7.50	5 – 11
Total HS	29	31.59	23 – 35	7.66	3 – 16
Total	47	31.17	23 – 35	7.57	3 – 16

Appendix A



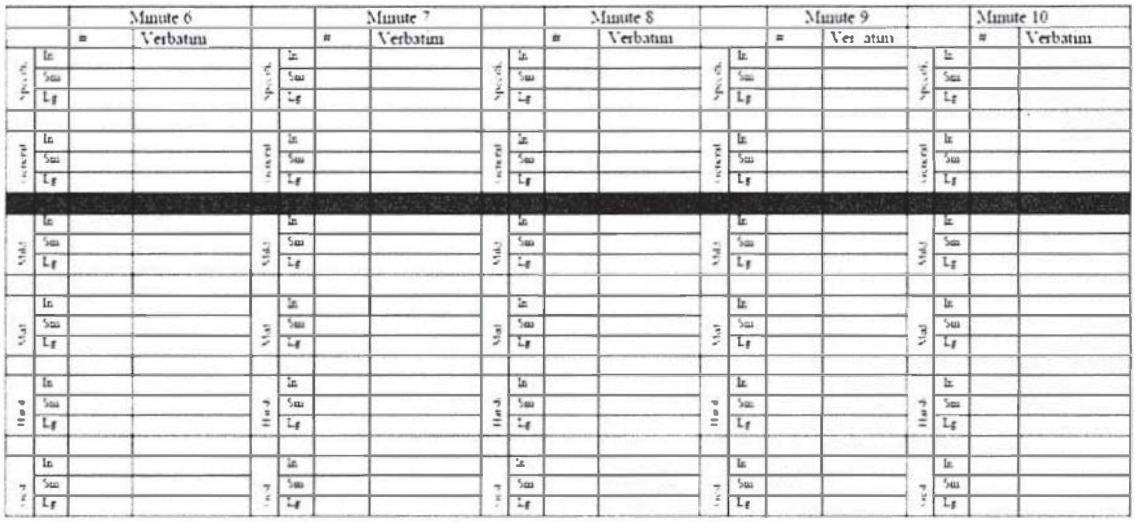
Teacher Observation Form

Observer _____ Status (circle one) Primary or Reliability Planner _____

Date _____ School ID _____ # students in class _____ Teacher ID _____

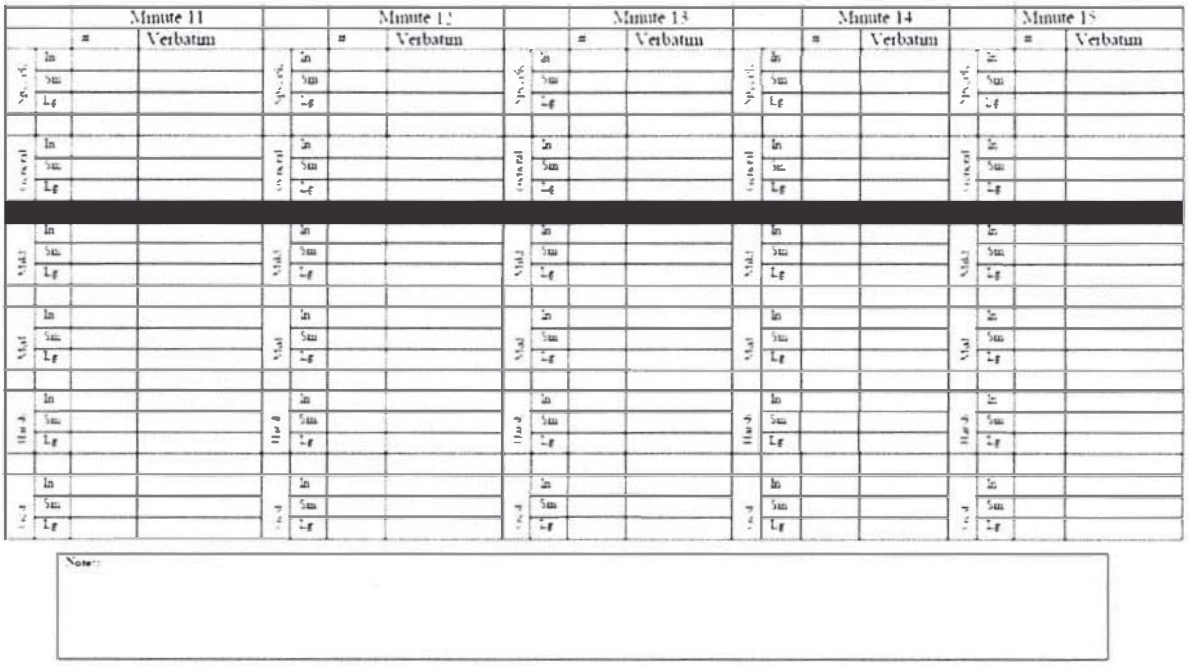
		Minute 1			Minute 2			Minute 3			Minute 4			Minute 5		
		#	Verbatim		#	Verbatim		#	Verbatim		#	Verbatim		#	Verbatim	
Specific	In			Specific	In		Specific	In		Specific	In		Specific	In		
	Sm				Sm			Sm			Sm			Sm		
	Lg				Lg			Lg			Lg			Lg		
General	In			General	In		General	In		General	In		General	In		
	Sm				Sm			Sm			Sm			Sm		
	Lg				Lg			Lg			Lg			Lg		
Mild	In			Mild	In		Mild	In		Mild	In		Mild	In		
	Sm				Sm			Sm			Sm			Sm		
	Lg				Lg			Lg			Lg			Lg		
Mod	In			Mod	In		Mod	In		Mod	In		Mod	In		
	Sm				Sm			Sm			Sm			Sm		
	Lg				Lg			Lg			Lg			Lg		
Hard	In			Hard	In		Hard	In		Hard	In		Hard	In		
	Sm				Sm			Sm			Sm			Sm		
	Lg				Lg			Lg			Lg			Lg		
	In				In			In			In			In		
	Sm				Sm			Sm			Sm			Sm		
	Lg				Lg			Lg			Lg			Lg		

Notes:



		Minute 6			Minute 7			Minute 8			Minute 9			Minute 10	
		#	Verbatim		#	Verbatim		#	Verbatim		#	Verbatim		#	Verbatim
Specific	In			Specific	In		Specific	In		Specific	In		Specific	In	
	Soc				Soc			Soc			Soc			Soc	
	Lg				Lg			Lg			Lg			Lg	
General	In			General	In		General	In		General	In		General	In	
	Soc				Soc			Soc			Soc			Soc	
	Lg				Lg			Lg			Lg			Lg	
Mod	In			Mod	In		Mod	In		Mod	In		Mod	In	
	Soc				Soc			Soc			Soc			Soc	
	Lg				Lg			Lg			Lg			Lg	
Mod	In			Mod	In		Mod	In		Mod	In		Mod	In	
	Soc				Soc			Soc			Soc			Soc	
	Lg				Lg			Lg			Lg			Lg	
Hard	In			Hard	In		Hard	In		Hard	In		Hard	In	
	Soc				Soc			Soc			Soc			Soc	
	Lg				Lg			Lg			Lg			Lg	
Hard	In			Hard	In		Hard	In		Hard	In		Hard	In	
	Soc				Soc			Soc			Soc			Soc	
	Lg				Lg			Lg			Lg			Lg	

Note:


Minute 11
Minute 12
Minute 13
Minute 14
Minute 15
#
Verbatim
Note:

Appendix B

CONSENT TO PARTICIPATE IN RESEARCH

Classroom Strategies and Teacher Perceptions

You are invited to participate in a research study conducted by Dr. Margaret Heiniss and Sara Hayn from the Psychology Department at Eastern Illinois University.

Your participation in this study is entirely voluntary. Please ask questions about anything you do not understand, before deciding whether or not to participate. You have been asked to participate in this study because you teach children in the middle school and high school setting.

- **PURPOSE OF THE STUDY**

The purpose of the study is to examine middle school and high school teachers' use of classroom management strategies in general education classrooms. Research suggests that specific teacher strategies are linked to positive student behavioral and academic outcomes, but there is little information about how often teachers use these strategies. Furthermore, there is no information examining these skills across middle school and high school (e.g., 7th -12th grades) general education classrooms or relating them to teachers' perceptions of classroom strategies and student discipline.

The goal of the current study is to determine the typical, or normative, rate of classroom strategies used among middle school and high school teachers during classroom instruction. In addition, we are interested in whether there is a relationship between the number of strategies used and teacher perceptions of strategies and student discipline. We are not asking you to do anything differently. We simply want to count the number of times you use specific strategies. Our goal is to help educators, administrators, and researchers understand how often teachers use classroom strategies within a typical classroom setting and whether or not there is a relation to teachers' perceptions of strategies and student discipline.

- **PROCEDURES**

If you volunteer to participate in this study, you will be asked to:

1) Allow research assistants to complete one, 20-minute observation in your classroom during class instruction (lecture). The trained research assistants will sit in an inconspicuous place in your classroom and will quietly and unobtrusively observe.
2) Provide the researchers with a schedule of personal observation times. Class instruction will be coordinated with research assistant schedules. A week prior to the observation we will communicate the name of the research assistant and confirm that the planned observation time still fits with your schedule.
3) Complete a brief questionnaire (approximately 5 minutes to complete).

- **POTENTIAL RISKS AND DISCOMFORTS**

It is unlikely that you will experience significant physical or psychological discomfort from participating in the study. However, research assistants will be observing your classroom, so there may be some degree of discomfort associated with being observed.

Observational and questionnaire data will be collected anonymously by assigning identification numbers (e.g., T-1, T-2). If requested, general results regarding the study will be provided to participants and school administrators, but information regarding observations of a specific classroom will not be disclosed. Any information will be combined across all participating classrooms in the participating schools.

- **POTENTIAL BENEFITS TO SUBJECTS AND/OR TO SOCIETY**

Participating in this study is likely to benefit you and the field of education in general. First, sometimes participants in these kinds of studies enjoy being part of research. It can be exciting to be involved in research that is geared towards helping other educators and researchers have a better understanding of the way that general education classrooms work. Additionally, there is little information regarding teachers' natural use of strategies in general education classrooms. There have been a few studies examining strategies in special education classrooms, but hardly any information exists about how teachers use classroom strategies in general education classrooms.

- **INCENTIVES FOR PARTICIPATION**

If you are one of the first 40 participants to participate in this study you will receive a small gift of appreciation valued at approximately $5.

- **CONFIDENTIALITY**

Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission or as required by law. Confidentiality will be maintained by several means. You will be assigned an identification number that will be used to collect observational data and questionnaire data.

Original observation and questionnaire data will be housed inside a locked filing cabinet in Dr. Floress' research lab for approximately 3 years. After 3 years, all observation and questionnaire data will be destroyed.

- **PARTICIPATION AND WITHDRAWAL**

Participation in this research study is voluntary and not a requirement or a condition for being the recipient of benefits or services from Eastern Illinois University or any other organization sponsoring the research project. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind or loss of benefits or services to which you are otherwise entitled. There is no penalty if you withdraw from the study and you will not lose any benefits to which you are otherwise entitled.

- **IDENTIFICATION OF INVESTIGATORS**

If you have any questions or concerns about this research, please contact:

Margaret Floress, Ph.D.
217-581-3523
mlfloress@eiu.edu

- **RIGHTS OF RESEARCH SUBJECTS**

If you have any questions or concerns about the treatment of human participants in this study, you may call or write:

Institutional Review Board
Eastern Illinois University
600 Lincoln Ave.
Charleston, IL 61920
Telephone: (217) 581-8576
E-mail: eiurb@www.eiu.edu

You will be given the opportunity to discuss any questions about your rights as a research subject with a member of the IRB. The IRB is an independent committee composed of members of the University community, as well as lay members of the community not connected with EIU. The IRB has reviewed and approved this study.

I voluntarily agree to participate in this study. I understand that I am free to withdraw my consent and discontinue my participation at any time. I have been given a copy of this form.

_____
Printed Name of Participant

_____ _____
Signature of Participant Date

I, the undersigned, have defined and fully explained the investigation to the above subject.

_____ _____
Signature of Investigator Date

This study IRB = 16-085 has IRB approval beginning on 9 27 2016-9 26 2017

Appendix C

Teacher Demographic Questionnaire

Your Name: _____

Sex (circle): Male Female

Age: _____

Racial Background (circle): American Indian Alaska Native | Asian | Black or African American | Native Hawaiian Other Pacific Islander | Caucasian or White

Other: _____

Do you have your teaching certificate (circle)? Yes No

I am a certified (circle): General Education Teacher | Special Education Teacher | Specials Teacher | Teacher's Aid

Other: _____

Years of Teaching Experience: _____

Highest Educational Degree Obtained (circle): Two Year College Degree | Four Year College Degree | Master's Degree | Doctoral Degree

Special Training: For example: Crisis management training (member of school's crisis management team), attended Autism Awareness Workshop, PBIS training, or received special training in teaching intervention.

_____

Location of Training / Provided by:

_____

Name of Class Observed For example: Freshman Algebra _____ (grade) (subject)

The Class observed includes (circle): **Only general ed. students** | **Mostly general ed. students and some special ed. students** | **An equal mix of general ed. students and special ed. students** | **Mostly special ed. students and some general ed. students** | **Only special ed. Students**

How would you rate the behavioral difficulty of the class observed (as a whole) compared to other classes you have taught in the past? (circle answer below)

1	2	3	4	5
Much less difficult	Somewhat less difficult	Average difficulty	Somewhat more difficult	Much more difficult

Teacher Perceptions of Behavioral Management

The questions in this scale ask you about your feelings and thoughts during the last month. In each case, you will be asked to indicate by circling how true the statement is applying to your everyday classroom management skills.

1. I can successfully handle the situation, when one of my students gets disruptive and oppositional.

Not true at all			Somewhat true			Very true
1	2	3	4	5	6	7

2. I have ability to resolve conflicts with students.

Not true at all			Somewhat true			Very true
1	2	3	4	5	6	7

3. I feel competent to handle a disruptive, aggressive student in my classroom.

Not true at all			Somewhat true			Very true
1	2	3	4	5	6	7

4. I feel helpless when I attempt to manage students' noncompliant behaviors.

Not true at all			Somewhat true			Very true
1	2	3	4	5	6	7

5. Conflict escalates when I try to handle a student's disruptive behavior.

Not true at all			Somewhat true			Very true
1	2	3	4	5	6	7

6. Having to deal with behavioral problems in class, I have considered leaving this profession.

Not true at all			Somewhat true			Very true
1	2	3	4	5	6	7

7. I am very satisfied with my teaching career.

Not true at all			Somewhat true			Very true
1	2	3	4	5	6	7

8. How stressful do you find handling behaviorally challenging students?

Not at all stressed		Somewhat stressed		Extremely stressed
1	2	3	4	5

Appendix D

BEHAVIORAL CLASSROOM DEFINITIONS: **Type of Praise**		
Behavior Specific Praise:	**Any specific verbalization or gesture that expresses a favorable judgment on an activity, product, or attribute of the student. Examples include:**	
	- That is a **pretty** picture you made! - That is a **cool** shirt you are wearing - **Terrific job** coloring your project - **Thank you** for sitting so nicely	- **I like** how you are sitting still - **Good job** getting right to work - That is **nice** sharing - You are sitting like I asked – **gives star**
General Praise:	**Any nonspecific verbalization or gesture that expresses a favorable judgment on an activity, product, or attribute of the student. Examples include:**	
	- Great - Nice Work - Thumbs up	- Perfect - Thank you - Hi-five
BEHAVIORAL CLASSROOM DEFINITIONS: **Type of Delivery**		
Large Group:	**Use of praise toward 7 or more students without using individual student names, physically touching individual students, making eye contact to a specific individual or small group, OR gesturing to an individual student or a small group. Examples include:**	
	- "Wow **you guys** did a nice job saying that together." - "**You** are doing a nice job." Phrase spoken outwardly to the group without eye contact to a specific student or group, use of a student or group name, or physical contact. - **After the large group (whole class) answers the teacher**, teacher responds back using praise (i.e., "good").	
Small Group:	**Use of praise toward 2-6 students that is identified by the teacher describing the small group or using the group's name OR gesturing to the group. Examples include:**	
	- Teacher **gestures** to the front row - Teacher says "the **back row** is sitting nicely" - Teacher says "the **lion group** is working well together" - **After a small group of students answers the teacher**, teacher responds back to the small group (i.e., "great").	
Individual:	**Use of praise toward a single student that is identified by the teacher using the student's name, physically touching the student, gesturing to the student, OR looking directly at the student. Examples include:**	
	- Teacher gives labeled or unlabeled praise and then names individual students. Count praise for how many students were named, even if only one statement of praise was used. - **After an individual student answers the teacher**, the teacher responds back to the individual (i.e., "awesome").	

BEHAVIORAL CLASSROOM DEFINITIONS: **Type of Reprimand**		
Mild Reprimand:	Any **verbal comment (using a normal speaking tone)** that indicates disapproval of a student(s) behavior. The verbal comment can be an instruction following student misbehavior. The reprimand is concise (brief). Also referred to as a "redirection" of student behavior. Disagreeing with a student with **the absence of sarcasm or a critical tone** would be identified as mild.	
	- No thank you - Not now	-No, come sit down (child at desk, while other children are at the rug) -That is not how we treat our friends
Medium (Sarcastic) Reprimand:	Any **verbal comment (using a sarcastic or critical tone)** that indicates disapproval of a student(s) behavior. The verbal comment can be in the form of a question that is disapproving and has a **mocking, rude, or critical tone**. A sarcastic reprimand is marked if the teacher disagrees with the child using a critical tone.	
	-I don't remember telling you to write about mumpkins! (sarcastic)	-No it's not cold in here! (critical) -Is that your best **work?** (critical, mocking)
Harsh Reprimand:	Any **verbal comment (using a louder than typical tone for the setting)** that indicates disapproval of a student(s) behavior. Harsh reprimand is also marked if the reprimand implies negative consequences (e.g., a threat).	
	-One more outburst and no recess (threat) -I won't tell you again (threat)	-Excuse Me! -How many times do I need to remind you to put your homework folder in your backpack!
Gesture Reprimand:	**Any gesture (without speaking)** that indicates disapproval of a student behavior (e.g., hands on hips). Teacher may also gesture by **physically guiding the child's body to a preferred area or activity**	
	-Teacher puts her hands on hips with a disapproving look towards students. -A child is not sitting on the carpet so the teacher moves over to the child, grabs the child's hand, and moves the child to the carpet. -A teacher shakes their head at a student when the student is disrupting class.	
BEHAVIORAL CLASSROOM DEFINITIONS: **Type of Delivery**		
Large Group:	Use of **reprimand toward 7 or more students** without using individual student names, physically touching individual students, making eye contact to a specific individual or small group, OR gesturing to an individual student or a small group.	
	-"Have you guys had too much sugar, you are really not listening today." -"Be quiet." Phrase spoken outwardly to the group without eye contact to a specific student or group, use of a student or group name, or physical contact. **-After the large group (whole class) laughs at a student who misbehaves**, teacher responds by saying (i.e., "you know better than to laugh at that").	
Small Group:	Use of **reprimand toward 2-6 students** that is identified by the teacher describing the small group or using the group's name OR gesturing to the group.	
	-Teacher **gestures** to the front row (hands on hips, disapproving look) -Teacher says "the **back row** is too loud" -Teacher says "**if the lion group keeps it up, they won't be going to recess**"	
Individual:	Use of **reprimand toward a single student** that is identified by the teacher using the student's name, physically touching the student, gesturing to the student, OR looking directly at the student. Examples include:	
	-Teacher uses reprimand statement and then names individual studeuts. Count reprimand for how many students were named, even if only one reprimand statement was used. **-After an individual student burbs**, the teacher responds back to the individual (i.e., "that is not appropriate").	

Additional Examples for Middle School and HS Teachers

SPECIFIC PRAISE: Any specific verbalization or gesture that expresses a favorable judgment on an activity, product, or attribute of the student. Examples: "Great point, thanks for contributing!" "I'm glad you got your work turned in on time" "Class, great job keeping your volume down."

MILD REPRIMAND: Any verbal comment (delivered in a normal tone considering the setting) by a teacher to indicate disapproval of student behavior. The verbal comment can be an instruction following student misbehavior. Reprimand is concise (brief) and may be described as a teacher "redirection" of student misbehavior. Disagreeing with a student with the absence of sarcasm or a critical tone would be considered a mild reprimand. Examples include: "This is not the time to be talking" "No thank you" "You know better" "Sit right here."

MEDIUM REPRIMAND: Any verbal comment (using a sarcastic or critical tone) by a teacher to indicate disapproval of student behavior. The verbal comment is concise (brief) and may be in the form of a question that is disapproving and has a mocking, rude, or critical tone (i.e., rhetorical, not a real question). Disagreeing with a student using a critical tone is considered a medium reprimand. Examples: "I don't remember telling you to sit and talk to your friends (sarcastic tone)" "No, it's not cold in here" "Is that your best work? (mocking)"

HARSH REPRIMAND: Any verbal comment (using a louder than typical tone for the setting) by a teacher to indicate disapproval of a student behavior. Harsh reprimands include the implication of negative consequences (i.e., a threat) or any prolong discussion (30 sec or longer) about misbehavior. Examples include: "One more disruption and someone is going to ISS" "Excuse me!" "I won't say it again" "How many times do we need to go over _____! (loud)."

GESTURE REPRIMAND: Any gesture (without speaking) that indicates disapproval of a student behavior (e.g., hands on hips). Gesture occurs when a student is physically guided or prompted to a preferred area or activity. Examples: Shaking head to communicate "stop doing that" Student refuses to get up from desk, teacher touches elbow to indicate "get up."

Appendix E

EASTERN

Psychology Department
600 Lincoln Avenue
Charleston, Illinois 61920-3099

Office: 217-581-2127
Fax: 217-581-6764
Web: http://psych.eiu.edu/

Classroom Strategies & Teacher Perceptions

You are invited to participate in a research study conducted by Margaret Floress, Ph.D & Sara Hayn, B.A., from the Psychology Department at Eastern Illinois University.

- **PURPOSE OF THE STUDY**

The purpose of the study is to examine middle school and high school teachers' use of classroom management strategies in general education classrooms. There is little information about how often teachers use specific strategies in general education, especially among middle school and high school teachers. We are also interested in the relationship between classroom strategies and teacher perceptions of classroom strategies and student discipline.

- **PROCEDURES**

If you volunteer to participate in this study, you will be asked to:

1) Allow research assistants to complete **ONE**, 20-minute observation in your classroom during class instruction (lecture).
2) Complete a Brief questionnaire (approximately 5 minutes to complete).

- **INCENTIVES FOR PARTICIPATION**

If you are one of the first 40 participants to participate in this study you will receive a small gift of appreciation (valued at approximately $5).

- **IDENTIFICATION OF INVESTIGATORS**

If you are interested in participating or hearing more information about this study, please contact:

Margaret Floress, Ph.D.
217-581-3523– office
812-219-8419 - cell
mfloress@eiu.edu