Preschool Teacher's Use of Praise: Comparing General, At-Risk, and Special Education Classrooms

Jessica Berlinghof

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Preschool Teacher’s Use of Praise: Comparing General, At-Risk, and Special Education Classrooms

BY
Jessica Berlinghof

THESIS
SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF SPECIALIST IN SCHOOL PSYCHOLOGY IN THE GRADUATE SCHOOL, EASTERN ILLINOIS UNIVERSITY CHARLESTON, ILLINOIS 2016

I HEARBY RECOMMEND THAT THIS THESIS BE ACCEPTED AS FULLFILLING THIS PART OF THE GRADUATE DEGREE CITED ABOVE
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Abstract

The current study examined six preschool teachers' natural use of praise. Two of the teachers taught in general education classrooms, two taught in at-risk classrooms, and two taught in special education classrooms. Over 10 hours (approximately 100 minutes in each classroom) of direct behavioral observation of teachers' use of praise were conducted across classrooms. Results did not indicate that teachers' use of praise was statistically different based on classroom type (i.e., general, at-risk, and special education). However, special education teachers used twice as many praise statements compared to teachers in general education and at-risk classrooms and the effect sizes for these differences were large, suggesting that results would have reached significance with a larger sample size. Across all preschool classrooms, teachers used more general praise statements compared to behavior-specific praise statements. This difference was statistically significant. Lastly, teachers delivered more praise to individual and large groups of students compared to small groups of students, which was a statistically significant difference.
Preschool Teachers’ Use of Praise: Comparing General, At-risk, and Special Education Classrooms

Preschool-aged children are notorious for misbehavior. As many as 50% of non-clinical parents report that their young children misbehave (Achenbach & Edelbrock, 1981), and as many as 25% of children ages 2-3 years old experience severe behavior problems (Webster-Stratton, 1997). When children with behavior problems start school, their misbehaviors are likely to elicit negative interactions with their teachers, and in turn develop into negative relationships with peers and teachers. In fact, many preschoolers are expelled from preschool due to behavior problems (Gilliam & Shahar, 2006). For instance, Gilliam & Shahar (2006) found that on average, out of every 1000 students enrolled in a preschool program in Massachusetts, about 27.42 are expelled. Expulsion due to behavior problems is high for preschool students even though research demonstrates that disruptive behavior is naturally higher among this population (Webster-Stratton, 1997).

One easy and effective strategy that decreases disruptive student behavior is teacher praise. Existing preschool intervention studies have focused on increasing teachers’ use of praise to decrease preschool students’ disruptive behavior (Filecheck, McNeil, Greco, & Bernard, 2004; Smith, Lewis, & Stormont, 2010; Stormont, Smith, & Lewis, 2007); however, there is little research on preschool teachers’ natural rates of praise in preschool classrooms. Knowing the average rate of praise among preschool teachers and determining an optimal rate of praise may help inform intervention and set a standard for how to use this simple and easy strategy with preschool students. This research is particularly important given the potential for preventing behavior problems in young children and improving disruptive behavior among children at-risk for behavior...
disorders. For children already exhibiting misbehavior, early intervention is likely to have the most impact on decreasing disruptive behavior and potentially detrimental long term effects (Conroy & Brown, 2004). The purpose of the current study is to contribute to the current literature by examining preschool teachers’ natural rates of praise in preschool classrooms.

**Teacher Praise**

Praise is a simple and effective strategy that has been used in the classroom to increase students’ adaptive and appropriate behavior as well as foster positive teacher-student interactions. Praise, as defined by Hester, Hendrickson, and Gable (2009), is a verbal statement that follows a target behavior and provides a student with positive feedback and/or acknowledges a students’ desired behavior. Praise can be broken down into two types: general praise and behavior specific praise (BSP). General praise (which may sometimes be referred to as unlabeled praise in the literature) is given to “commend the worth of or to express approval or admiration” (Brophy, 1981, p. 5). It is defined as a praise statement that is given but does not specify the desired behavior that elicited the praise (Sutherland, Wehby, & Copeland, 2000). Examples of general praise include saying “good job” or “nice” following some desired behavior. BSP (which may sometimes be referred to as labeled praise in the literature) is defined as a praise statement that specifies the desired behavior that elicited the praise (Brophy, 1981; Gable, Hester, Rock, & Hughes, 2009; Sutherland et al., 2000). An example of BSP is “I really like the way you are sitting quietly” because the desired behavior, sitting quietly, was specifically mentioned and praised. Brophy (1981) suggested that BSP is superior to
general praise; however, there may be other factors that influence whether or not praise is effective.

**How to use praise effectively.** Though there are generally accepted methods for delivering effective praise, it is important to note that no study has experimentally manipulated BSP versus general praise. Brophy (1981) stated that BSP is superior to general praise; however, this recommendation is based on the literature and theoretical underpinnings of behavioral psychology (Floress & Jenkins, 2015). Despite the lack of research support, it is generally accepted that effective praise is contingent, specific, and sincere (Brophy, 1981; Gable, Hester, Rock, & Hughes, 2009). In addition praise is thought to be effective when the teacher delivers praise in close proximity to the student and when the praise is credible (Brophy, 1981; Gable, Hester, Rock, & Hughes, 2009; Sutherland, Wehby, & Copeland, 2000). Previous research (Brophy, 1981; Conroy, Sutherland, Snyder, Al-Hendawi, & Vo, 2009) suggested that teachers need to be aware of their affect while delivering praise in order for praise to be credible. A teacher who delivers praise to students with positive affect (e.g., a smile or look of excitement) is more likely to seem credible to the student. According to Brophy (1981), students with behavior problems may receive as much praise as students without behavior problems, but teachers deliver praise to students with behavior problems with increased negative affect, and therefore praise delivery to students with behavior problems tends to be less credible. Though praise is a simple strategy to apply in the classroom, many teachers do not utilize praise to its full potential and as a result, teachers experience many students with behavior problems.
The Development of Disruptive Behavior and Noncompliance

During their preschool years, children begin to demonstrate better self-control and increased autonomy (Campbell, 2002; McMahon & Forehand, 2005). Preschool children are also better at maintaining their attention towards teacher or parent directed activities compared to children not yet old enough to attend preschool. Preschool-aged children also become more interactive and cooperative with their peers (Spria & Fischel, 2005). Likely because preschool-aged children are more capable and independent, parents and teachers start giving them more directives (e.g., to dress for outside, to go to the bathroom, to write their name, or to clean-up). Although children in preschool are more capable of complying with directives, they are less likely to comply (Kuczynski & Hildebrandt, 1997). Researchers have theorized that children are less willing to comply because of their developing autonomy (Kuczynski & Hildebrandt, 1997). For instance, when given a directive, young children try to comply "their own way," by finding the most lenient response that they can give without creating too much conflict. These behaviors are often viewed as noncompliance, which is typical among young children; however, children who are repeatedly unwilling to comply on an everyday basis may be at-risk for more significant problem behaviors.

The coercive model. Many times, disruptive behavior and noncompliance are learned through a pattern of coercive interactions between children and their parent or caregiver (Patterson, 1982). Understanding the coercive model is important because overtime children learn to generalize these patterns of behavior to the school setting.

Children look to their parents to learn how to socialize appropriately. When parents continuously react harshly and negatively to situations, their children learn to act
reciprocally in the same manner (Scaramella & Leve, 2004). An example of this pattern might be: a parent tells a child it is time to clean up and the child refuses and begins to whine or cry; the parent finds the child's fussing and complaints unpleasant and tells the child he or she may continue to play for 5 more minutes. In this example the parent and child are mutually, negatively reinforced. The demand to clean up is removed from the child and the whining and fussing is removed for the parent. The next time the parent tells the child to clean up the child may again fuss and cry, but likely at a greater intensity because that is what led to avoiding the demand in the past. However, this time the parent may become more forceful with the child by raising their voice or harshly guiding the child to comply. In this situation, when the child complies, the parent is positively reinforced for becoming increasingly aggressive. Over time the intermittent and increasingly harsh or negative reactions between the parent and the child increase as both are reinforced for maladaptive responses to the situation (e.g., the child gets out of work and continues to play and the parent either avoids dealing with a fussy, noncompliant child or becomes aggressive and the child complies) (Scaramella & Leve, 2004). These interactions may generalize into other settings, such as the school, where the reciprocal harsh or negative reactions may occur between the teacher and student.

Teachers commonly use coercive strategies (i.e., threats, nags, or reprimands) to reduce students' problem behaviors (Gable, Hester, Rock, & Hughes, 2009). Although coercion may initially reduce problem behaviors, when teachers use this strategy they attend to undesirable student behaviors, and overtime may inadvertently increase the behavior they were trying to reduce (Gable, Hester, Rock, & Hughes, 2009). When teachers only attend to problem behaviors, and fail to recognize appropriate student
behaviors, students learn that misbehavior is a predictable way to gain teacher attention. Therefore, student problem behavior is maintained by teacher attention, albeit negative (Conroy, Sutherland, Snyder, Al-Hendawi, & Vo, 2009). Therefore it is important to facilitate positive interactions early on with young children at home and school in an effort to reduce maladaptive or problem behaviors and promote prosocial behaviors. One evidence-based strategy that decreases disruptive behavior is praise.

The Functional Relationship between Praise and Disruptive Behavior

Many studies have examined the impact of training teachers to systematically reinforce appropriate student behaviors while ignoring disruptive behavior. Madsen, Becker, and Thomas (1968) found that when teachers were trained to remove their attention (through planned ignoring) and simultaneously use contingent praise for appropriate behavior, student inappropriate behavior decreased. Similarly, Ward and Baker (1968) found that training teachers to systematically deliver praise and attention to task-relevant behaviors while ignoring “deviant” behavior, students’ deviant classroom behavior decreased. When teachers ignore students’ disruptive or inappropriate behaviors, students learn that teacher attention will no longer be given when disruptive or inappropriate behaviors occur. By pairing planned ignoring with attention for appropriate behaviors, children learn which behaviors will receive attention and which will not. Ignoring inappropriate behavior and attending to appropriate behavior allows students to discriminate between appropriate and inappropriate behaviors, which ultimately leads to fewer inappropriate behaviors and more appropriate behaviors (Hester, Hendrickson, & Gable, 2009). Despite research suggesting the effectiveness of praise on reducing
students' problem behaviors, students still very frequently experience problem behaviors in the classroom.

**Disruptive Behavior and Detrimental Outcomes**

Misbehavior among preschool-aged children is typical (Richman, Stevenson, & Graham, 1982). Achenbach and Edelbrock (1981) reported that as many as 50% of nonclinical parents report that their children misbehave, and in her review of the literature, Campbell (1995) found that 10 to 15% of preschool children display problem behaviors in the moderate to severe range. Although the prevalence of behavior problems among preschool children is typical, without early intervention children with persistent and intense problem behaviors are more at risk for detrimental outcomes compared to their peers (Landrum, Tankersley, & Kauffman, 2003).

Negative teacher-student relationships can form as early as preschool (Conroy, Sutherland, Snyder, Al-Hendawi, & Vo, 2009; DeKruif, McWilliam, Ridley, & Wakely, 2000). Jack et al. (1996) found that teachers of students with severe problem behaviors were more likely to interact negatively with these students rather than positively. In fact, many preschool-aged children with behavior problems are expelled from preschool. Webster-Stratton (1990) found that before reaching kindergarten over 50% of children with conduct problems were asked to leave two or more preschools, and Gilliam (2005) found that preschool-aged children were 3.2 times more likely to be expelled than school-aged children (grades K-12). Considering this, it should not be surprising that students who experience more negative teacher interactions are more likely to form negative opinions about school or do poorly in school. It is well documented that behavior problems negatively affect student achievement across grade levels (Claessens &
Dowsett, 2014; Sprira & Fischel, 2005). Expelling preschool children at a higher rate than older children effectively puts preschool-aged children at a great risk for missed learning opportunities that are likely to have profound long term academic outcomes. In sum, children with behavior problems are more likely to have discordant teacher-student interactions, negative views toward school, and poor academic achievement; however, early intervention can help.

Early Intervention

Many studies have demonstrated that children who experience problem behavior in preschool are likely to continue to exhibit these problem behaviors in later grades (Campbell, 2002). Researchers have estimated that nearly 25% of two to three year old children experience severe problem behavior (Webster-Stratton, 1997), and that many of these children will maintain these problem behaviors one to two years later (Campbell, 2002). Interventions for problem behaviors become less effective as children grow older, and many children who experience problem behavior do not receive the interventions they need (Conroy & Brown, 2004). Therefore, early intervention is key to reducing disruptive behavior problems among children.

Children who do not receive early intervention are more likely to experience long term detrimental academic and social outcomes (Conroy, Hendrickson, & Hester, 2004). Despite the importance of early intervention, many young children who are at-risk for disruptive behavior may be under-identified and untreated (Fantuzzo, Bulotsky, McDermott, Mosca, & Lutz, 2003). According to Conroy and Brown (2004), mandated policies and practices generally fail to identify younger children who are probably most at need for intervention. For instance, the Individuals with Disabilities Education Act
(IDEA) states that in order for a child to be classified as having an Emotional and Behavioral Disorder (EBD), the child must have displayed the problem behavior “over a long period of time and to a marked degree that adversely affects the child’s educational performance” (IDEA, 2004, § 300.8). This language likely impedes early intervention services for young children at-risk for behavioral problems (who are most likely to respond to intervention) because their behavioral concerns are not prolonged or severe (Conroy & Brown, 2004). These policies are not preventative or early intervention focused; rather they serve to provide services to students’ whose problem behaviors have been well established. In order to prevent behavior problems, it is important for schools to take proactive approaches to increase children’s adaptive and appropriate behaviors. Considering the functional relationship between praise and disruptive behavior, and that by nature preschool-age children display more problem behaviors than older children, it is important to consider studies that have evaluated using praise to reduce behavior problems in preschool classrooms.

**Praise as an Intervention in Preschool Classrooms**

Stormont, Smith, and Lewis (2007) and Smith, Lewis, and Stormont (2010) examined the effects of teacher praise on student problem behaviors in two Head Start classrooms. The researchers found that when students were oriented to the appropriate behaviors that were expected of them and then immediately praised for displaying the appropriate behaviors, preschoolers’ problem behaviors decreased. In another study, Tiano and McNeil (2006) demonstrated that preschool teachers can be trained to increase their use of praise (a component of the intervention program, Teacher-Child Interaction Training; TCIT, which was implemented). Lyon et al. (2009) also taught preschool
teachers to increase their use of praise and ignore student inappropriate behavior by implementing TCIT. These studies demonstrate that preschool teachers can be taught to increase their use of praise with preschool-age students, and when preschool teachers increase their use of praise with preschool-age students, students' undesirable behaviors are likely to decrease. Despite the evidence that suggests that praise effectively decreases preschool problem behavior, it is still unclear whether there is an optimal rate of praise that leads to a decrease in student disruptive behavior.

Rates of Teacher Praise

Knowing how much praise is necessary to reduce disruptive behavior among preschool-age children could greatly inform consultation practices. For instance, a consultant could evaluate a preschool teachers’ rate of praise and make recommendations based on sufficient or insufficient rates of praise (i.e., increasing praise to effective rates or examining other areas of behavior management; Floress & Jenkins, 2015). The natural rates of teacher praise might be a starting point in assessing the necessary amount of praise needed to influence student behavior. Unfortunately, information regarding the natural rates of teacher praise is limited, and even more limited among preschool teachers. The following section will review praise rates among general education, special education, and preschool classrooms.

General education classrooms. White (1975) was one of the first researchers to look at rates of approval and disapproval in general education classrooms. Approval statements were defined as “verbal praise or encouragement” (White, 1975, p. 368). Sixteen different studies were compiled, which included 104 different teachers in first through twelfth grade. The total observation time was 8340 minutes. White (1975) found
that first and second grade teachers had the highest rates of approval statements, and after second grade, rates of approval statements drastically dropped. In first and second grade, teachers praised at an average rate of 43.7 praises per hr. In later elementary (i.e. grades 3-5) the average rate of teacher praise was 20.8 praises per hr. The downward trend in praise continued in middle school where the average rate of praise was 17.1 praises per hr, and in high school, where the lowest praise rates were seen at 8.4 praises per hr (White, 1975).

Brophy (1981) compiled results from six different studies that used the Brophy-Good dyadic interaction coding system to examine teacher praise in first through eighth grade general education classrooms. This system coded teachers’ praise in response to student academic performance or classroom behavior. Praise, was defined as a specific statement that “expresse[s] positive teacher affect… and/or place[s] the student’s behavior in context by giving information about its value or its implications about the student’s status” (Brophy, 1981, p. 6). Teachers praised more frequently for academic performance compared to classroom behavior or conduct. However, overall rates for both academic praise and classroom behavior praise were low (2.00 praises per hr and 4.38 praises per hr, respectively).

More recently, Burnett and Mandel (2010) examined teachers’ rates of praise among five, general education classrooms in Australia. Rates of praise were low, and general praise was used more often (29 praises per hr) than praise that specifically targeted effort or ability (1.75 praises per hr; Burnett & Mandel, 2010).

Floress and Jenkins (2015) examined teachers’ natural rates of praise in four general education kindergarten classrooms. Observation time totaled 889 minutes, and
across all four classrooms, teachers praised on average 47.3 praises per hr. Teachers also used more general praise statements than BSP statements (38.5 per hr and 8.8 per hr, respectively).

**Special education classrooms.** Many children in special education exhibit challenging behaviors (Bayat, 2011). When faced with students with challenging behaviors, teachers are more likely to develop coercive interactions with students in an attempt to elicit appropriate or compliant behavior from these students. Unfortunately, coercive strategies where teachers and students engage in a reciprocal harsh or negative manner are more likely to create negative student-teacher relationships. Although special education students are likely to benefit the most from teacher praise because it may help mitigate coercive strategies, rates of teacher praise in special education classrooms are lower than in general education classrooms (Gable et al., 1983). Gable et al. (1983) examined differences in rates of approval and disapproval statements between teachers who teach at different levels of exceptionality (i.e., students with intellectual disabilities, multiple handicaps, learning disabilities and/or behavior disorders). Approval statements were defined as a praise or reward for the child or children’s behavior. In total there were 97 teachers in kindergarten through eighth grade and observations totaled 970 minutes. On average, approval statements were delivered at a rate of 9.78 per hr. However, approval statement rates were highest for teachers of students with multiple handicaps (13.5 per hr) and intellectual disabilities (11.4 per hr), and much lower for students with learning disabilities and/or behavior disorders (4.4 per hr; Gable et al., 1983).

Shores et al. (1993) examined rates of “positive consequences” among integrated and segregated classrooms serving students with severe behavior disorders. Children
were between the ages of 6 and 12, and classrooms included regular education classrooms, integrated classrooms, and special education classrooms. Positive consequences were defined as verbal statements or gestures that indicate approval of behavior, or verbal statements that specify which positive consequence will follow the behavior. Overall, teachers’ use of positive consequences was infrequent. Teachers of students high in aggression in self-contained classrooms delivered positive consequences slightly less frequently (3.99 per hr) than teachers of nonaggressive students in self-contained classrooms (4.49 per hr). In general education classrooms, teachers of students high in aggression delivered positive consequences slightly more frequently (1.2 per hr) than teachers of nonaggressive students (0.42 per hr; Shores et al., 1993).

Sutherland, Wehby, and Copeland (2000) examined the effect of observation-feedback intervention on the rates of teacher behavior-specific praise statements (BSPS), and also examined the effect of increasing teacher BSPS on on-task behavior of students with emotional and behavioral disorders. It is important to note that since the second aim of the study was to increase rates of BSPS, it is likely that inclusion criterion was low rates of BSPS, and therefore the teacher’s rate of BSPS at baseline may not be representative of special education teachers’ typical rate of BSPS. The researchers defined BSPS as “verbal praise for a desired student behavior specified in the praise statement” (p. 4). Non-behavior-specific praise was also recorded in the study and defined as “verbal praise that did not specify the desired behavior for which the student was being praised” (p. 4). Results of the study indicated that at baseline, rates of non-behavior-specific praise were 13.4 praises per hr and 5.2 BSPSs per hr (Sutherland, Wehby, & Copeland, 2000).
Preschool Classrooms. All preschool praise research, to our knowledge, has focused on studies that have examined the effects of increasing praise on student behavior, not natural rates of praise among preschool teachers. Although baseline rates of praise can be derived from intervention studies, these studies may not be ideal for estimating preschool teachers’ natural rates of praise because teachers selected for intervention studies may be selected due to low rates of praise. Unfortunately, no research has examined natural rates of preschool teachers’ use of praise; therefore to obtain an estimate of praise rates in preschool classrooms, preschool intervention studies will be reviewed.

Filcheck, McNeil, Greco, and Bernard (2004) implemented a Level System intervention in a preschool classroom with high levels of student disruptive behavior. The teacher was trained to increase her use of praise and the frequency of the teacher’s use of labeled (i.e., BSP) and unlabeled (i.e., general praise) praise were recorded. At baseline the teacher used .07 BSP statements a minute (4.2 an hr), and .25 general praise statements a minute (15 per hr).

In a different study, Stormont, Smith, and Lewis (2007) examined the effects of praise on preschool children’s problem behavior in two Head Start Classrooms. Three teachers, with low rates of praise, and who used more reprimands than specific praise statements, were taught to increase their use of praise. Generally at baseline, teachers delivered less than .2 behavior specific praise statements per min (12 per hr); the researchers did not present data regarding the teachers’ use of general praise statements.

In a similar study conducted by Smith, Lewis and Stormont (2010), the researchers again examined the effects of increasing rates of teacher praise on students’
challenging behavior. Three teachers were selected due to low rates of praise and high reprimand rates. Baseline rates of BSP statements for the three teachers in the study were extremely low, ranging from 0 to 0.01 BSP statements a minute (0.6 per hr) and less than .02 general praise statements a minute (1.2 per hr).

No studies, to our knowledge, have examined the natural rates of preschool teachers’ use of praise in the classroom. Current rates may be gleaned from preschool intervention studies that aim to increase teachers’ use of praise; however the baseline rates that are presented may not accurately represent the natural rates of praise among other preschool teachers. Furthermore, the baseline rates of preschool teacher praise in the studies reviewed were extremely low (i.e., ranged from 0.6 BSP praises per hr to 12 BSP praises per hr, and 1.2 general praises per hr to 15 general praises per hr). More research is needed to determine preschool teachers’ natural rates of praise.

**Literature Summary and Impact of Proposed Research**

It is clear that disruptive behavior is common among young children. Researchers have found that as many as 25 to 50% of parents reported that their children misbehave or experience severe behavior problems (Achenbach & Edelbrock, 1981; Webster-Stratton, 1997). There are various detrimental outcomes for students who display disruptive behavior. For instance, students often have strained relationships with their teachers, negative peer interactions, and poor academic outcomes (e.g., Campbell, 2002; Claessens & Dowsett, 2014; Webster-Stratton, 1990). Detrimental effects are even worse for children who demonstrate disruptive behaviors in preschool, which is why early intervention is essential.
One easy and simple early intervention solution is teaching preschool teachers how to effectively use praise. Researchers have repeatedly demonstrated the functional relationship between praise and disruptive behavior (e.g., Madsen, Becker, & Thomas, 1968; Smith, Lewis, & Stormont, 2010). Unfortunately, the optimal rate at which praise should be delivered to have an effect on student behavior (at any grade level) remains unknown. Based on the current, limited literature, the natural rates of teacher praise in general education classrooms is low (e.g., Brophy, 1981; White, 1975) and teachers use BSP statements less frequently than general praise statements (e.g., Floress & Jenkins, 2015). Rates of teacher praise in special education classrooms is even lower than in general education classrooms and children in special education with more behavior problems are praised less frequently than children in special education without behavior problems (Gable, 1983; Shores et al., 1993).

No studies have examined the natural rates of praise among preschool teachers. Estimates can be hypothesized based on previous intervention research (Filcheck, McNeil, Greco, & Bernard, 2004; Smith, Lewis, & Stormont, 2010; Stormont, Smith, & Lewis, 2007). However, intervention research does not allow for an accurate account of what is typical for the majority of preschool teachers, and therefore it is difficult for this information to inform consultative practices. If school psychologists were aware of an optimal preschool praise rate, they could train preschool teachers to use praise effectively, which would likely decrease preschool student disruptive behavior and positively impact preschool expulsion rates.

Floress and Jenkins (2015) recommended that for praise to be effective, 3-5 BSPs should be delivered every 10 minutes (18-30 per hr). This recommendation was given
based on natural rates of kindergarten teachers’ use of praise and has not been tested experimentally. The current study aims to measure rates of preschool teachers’ praise in general education, at-risk, and special education preschool classrooms. Establishing a base rate for preschool teachers’ use of praise will add to the limited literature on preschool teachers’ natural use of praise in the classroom, will allow comparison to kindergarten teachers’ natural use of praise in the classroom (Floress & Jenkins, 2015), and may add support to the 3-5 BSP per 10 minute recommendation, which could be tested experimentally in future studies.

**Research Questions**

This study aims to contribute to the literature on natural rates of teachers’ use of praise within preschool classrooms. The following research questions will be examined:

1) What is the average rate of praise (i.e., total, general, & BSP) for general, at-risk, and special education preschool classrooms? Previous studies that examined general education classrooms found low rates of BSP. Floress and Jenkins (2015), for instance, found that kindergarten, general education teachers used 8.8 BSPs per hr. Studies examining special education classrooms found that teachers’ use of BSPs was much lower (e.g., Sutherland, Wehby, & Copeland, 2000).

2) Are there differences in rates of praise among the different types of preschool classrooms (i.e., general, at-risk, and special education)? Based on previous research examining differences in rates of praise among general education and special education classrooms (Sutherland, Wehby, & Copeland, 2000), it was found that general education teachers praised more often than special education teachers. In addition, research demonstrated that teachers of special education students who exhibit more behavior problems were likely to praise less than
teachers of special education with students with fewer behavior problems (Gable et al., 1983). It is likely that students in special education classrooms will exhibit more behavior problems than students in general education and at-risk classrooms. Therefore it is hypothesized that there will be a significant difference between teachers’ use of praise in general education preschool classrooms and special education preschool classrooms. 3) Do preschool teachers use more general praise or BSP? Studies have demonstrated that teachers use more general praise (e.g., Burnett & Mandel, 2010; Floress & Jenkins, 2015; Sutherland, Wehby, & Copeland, 2000). Therefore, it is hypothesized that preschool teachers will also use general praise more frequently than BSP. Lastly, 4) Do preschool teachers deliver praise more frequently to individual students rather than large groups of students or small groups of students. There has only been one study to examine this type of praise delivery (Floress & Jenkins, 2015). In their study, Floress and Jenkins (2015) found that kindergarten teachers praised individual students more frequently than small (two to six students) or large (seven or more students) groups of students. Therefore, it is hypothesized that preschool teachers will likely praise individual students more frequently than small or large groups of students.

Methods

Participants and Setting

Teacher participants included six female preschool teachers from three preschools in Central Illinois and students in their classrooms. Five of the teachers had Bachelor’s degrees and one had a Master’s degree. The two general education teachers were certified to teach general education. Both at-risk teachers were certified to teach general education, and only one of the teachers was also certified to teach special education. One special
education teacher was certified to teach general education and special education while the other special education teacher was certified to teach early childhood and had a concentration in special education. On average teachers had 13.5 years of teaching experience (range 6-29 years; see Table 1). Preschool classrooms included students ranging from 3-5 years of age. Specific preschool classroom demographic information is reported in Table 2. Two classrooms were considered general education classrooms (i.e., they were housed in a private school and this preschool program was not provided public funding). One general education classroom included 23 students and the other had 13 students. Two of the classrooms were considered at-risk classrooms. Children who qualified for the at-risk preschool program were identified as at-risk for academic failure through a preschool screener (e.g., DIAL-4). In addition, some of these students may have been identified as experiencing other environmental risk factors (e.g., being from a low income family) that may also put them at-risk for academic failure. At-risk preschool programming allows students to adjust to preschool classroom expectations and also develop academic pre-requisite skills before reaching kindergarten. One at-risk classroom had 15 students and the other had 17 students. The last two classrooms were special education classrooms. Students in these classrooms were identified as having a disability and these classrooms received public funding. One of the special education classrooms had 10 students and the other had 11 students. Both the at-risk and special education classrooms were part of a public school programming that received state funding.

The two general education classrooms were housed within a private elementary school where 94% of the students were Caucasian, 5% were two or more races, and 1% were Black (GreatSchools.org). Since this was a private school, information regarding
socioeconomic status and percentage of students identified as having a disability were not reported. According to Illinois Report Card, one of the special education classrooms was housed in an elementary school where 83.3% of the students were Caucasian, 7.9% of students were Black, 2.8% of students were Asian, 0.5% of students were Hispanic, and 5.6% of students were Multiracial. Approximately 62% of students at the school were identified as low income, and 32% were identified as having a disability. The other special education classroom and both at-risk classrooms were housed within an elementary school where 90% of the students were Caucasian, 3.9% were Black, 1.9% were Hispanic, 1.7 were Asian, 0.4% were American Indian, and 2.1% were multiracial (Illinois Report Card). Approximately 52% of the students at this school were identified as being from a low-income household and about 17% of the student population was identified as having a disability.

**Materials and Instruments**

Frequency praise data were collected in general education, at-risk, and special education classrooms via direct classroom observation. The type of praise (i.e., BSP or general) and delivery (i.e., large group, small group, or individual praise) was recorded using praise recording forms (Appendix A). The form contained six boxes (three columns and two rows). The three columns were used to record the frequency of praise by delivery type, and the two rows were used to record the frequency of praise by type of praise. Therefore the six boxes allowed observers to record teachers’ use of 1) individually delivered BSP, 2) small group BSP, 3) large group BSP, 4) individually delivered general praise, 5) small group general praise, and 6) large group general praise. To complete the form, observers listed the teachers’ code (given at the beginning of the study to ensure
teacher and classroom confidentiality), the duration of the observation period, the subject that was being taught, and whether or not there were any other adults present in the room during the observation period. Operational definitions for praise type and praise delivery are provided below.

**Praise type.** BSP was defined as “any specific verbalization or gesture that expresses a favorable judgment on an activity, product or attribute of the student.” Examples of BSP include “that is a pretty picture that you made,” “thank you for sitting so nicely,” or “that is nice sharing.” In addition, if a teacher described a student’s behavior (e.g., “You raised your hand”), and then provided a gesture (e.g., thumbs up or gold star) it was counted as a BSP. General praise was defined as “any nonspecific verbalization or gesture that expresses a favorable judgment on an activity, product, or attribute of the student.” Some examples of general praise include, “Great,” “Thank you,” or a thumbs up.

**Praise delivery.** Large group delivery of praise was defined as “the 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 small group.” Some examples of large group delivery of praise include “Wow you guys did a nice job saying that together,” or after a large group/whole class answers a question the teacher responds “Good.”

Small group delivery of praise was defined as “the use of praise toward 2-6 students that is identified by the teacher describing the small group, using the group’s name, or gesturing to the group”. Examples of small group delivery of praise included the teacher saying, “The back row is sitting nicely,” or after a small group of students
answered the teacher, the teacher responded “Great.” The difference in student make-up between a large group (7 or more students) versus a small group (2-6 students) was developed based on a kindergarten pilot study (Floress & Jenkins, 2015), which used the same definitions. Floress and Jenkins (2015) collected praise data across four kindergarten classrooms and based on preliminary observations teachers tended to group students at tables of no more than six. Therefore, 6 or fewer appeared to be different from when the teacher addressed the entire class (i.e., 7 or more).

Individual delivery of praise was defined as “the 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 of individual delivery of praise include a teacher responding “Good” after a student answers the teacher, or if the teacher says “Nice work, Johnny.”

**Direct Observation Training**

The primary researcher and three research assistants (two graduate and one undergraduate student) were trained to conduct direct-classroom observations. Observers were engaged in multiple trainings before conducting classroom observations individually. First, observers were provided operational definitions for types of praise (i.e., BSP and general) and delivery of praise (i.e., large group, small group, and individual), and then observers discussed examples and non-examples of praise statements. Additionally, observers were trained to only observe during whole group instruction. Whole group instruction was defined as an activity where the teacher was at the front of the class and the students were expected to be listening and paying attention to the teacher (e.g., teaching a lesson, reading a story, conducting “calendar time”). Many
times, the students were sitting on the carpet while the teacher led an activity. Observers were trained to start the observation when the teacher took lead of the class (e.g., the teacher told the students to come to the carpet) and end the observation when the teacher was no longer leading an activity or students were told to go to their seats to work independently or in small groups. Reliability training was obtained between the primary researcher and the research assistants during three observations within the classroom. When inter-observer agreement (IOA) reached 80% or greater with the primary researcher for all three classroom observations, the observer was considered trained. Across all three training observations IOA was 88% or higher between the primary researcher and the three research assistants.

**Procedures**

Prior to data collection, approval from Eastern Illinois University’s Institutional Review Board was obtained. In addition, permission to solicit teacher participants was granted from the principal or director at each of the preschools. Eight teachers were approached with the opportunity to participate in the study via email. Seven of the eight teachers initially agreed to participate, but one of the teachers was moved into a kindergarten classroom and no longer met inclusion criteria (i.e., preschool teacher). Ultimately, six teachers agreed to participate. The primary researcher met with each of the teachers to explain the purpose of the study and obtain informed consent (Appendix B). In addition, teachers were asked to complete a demographics form which included age, sex, and racial background, as well as information regarding teacher training and experience (Appendix C). It is important to note that the researcher did not state that teacher praise would be observed specifically; instead, the researcher explained that
"teachers' use of classroom behavior management skills" would be observed. Teachers were told that classroom management skills would be observed, rather than praise, to reduce the likelihood of teacher reactivity. If teachers knew that researchers were observing praise, they may have intentionally or unintentionally changed how often they praised students in their classroom. Lastly, at the initial meeting, the primary researcher obtained a daily schedule from each teacher to coordinate observation times (i.e., times when the teacher would be conducting whole group instruction). The primary researcher contacted each teacher weekly about the days and times that the observations would take place. This was done so that if there was a change in the teachers’ schedule that was incompatible with observing, the observer would know in advance and potentially schedule an alternative time to observe.

The primary researcher and research assistants used the praise recording form to collect praise frequency data. A total of 703 direct observation minutes were collected across all six preschool classrooms and approximately 100 direct observation minutes (range 102-143) were collected in each classroom. Across the six classrooms, 38.9% of the praise observations were collected using two observers so IOA could be calculated. IOA was calculated using percent agreement (i.e., the number of praise agreements divided by the number of praise agreements plus praise disagreements). Across all teachers, IOA was 93.9% (range 82%-100%).

Data Analyses

To answer the first research question, what is the average rate of praise for general, at-risk, and special education preschool classrooms, the frequency of BSP, general praise, and total praise was totaled and averaged across each type of preschool
classroom (i.e., general, at-risk, and special education classrooms). The second question was, are there differences in rates of praise among the different types of preschool classrooms (i.e., general, at-risk, and special education)? In order to determine if there were significant differences between classroom type, ANOVAs were conducted for each type of praise. ANOVAs are conducted when there is one independent variable with multiple conditions (i.e., classroom type; general, at-risk, and special education) and one dependent variable (e.g., BSP). In order to answer question three, do preschool teachers use more general praise or BSP, a t-test was conducted to determine if there was a significant difference in the rate of general praise compared to BSP across all six preschool classrooms. A t-test is used to compare means, or averages, of two different groups (e.g., general praise and BSP). To answer question four, do preschool teachers deliver praise more frequently to individual students rather than large groups of students or small groups of students, multiple t-tests with a Bonferroni correction were conducted. In this case multiple t-tests were used to compare the means of the three types of praise delivery and the Bonferroni correction was used to reduce the likelihood of making a Type I error (i.e., obtaining a false-positive result).

**Results**

**Observations**

The primary researcher and three research assistants (i.e., two graduate students and one undergraduate student) collected frequencies of teacher praise regarding type (i.e., general praise or BSP) and delivery (i.e., large group, small group, or individual student) during teacher-led whole group instruction. A total of 703 direct-observation min (i.e., approximately 11.7 hrs) were collected across six preschool teachers, resulting in 46
observations. On average, 7.7 observations (range 6-11 observations) were conducted for each teacher. Because the observations were dependent on teacher class-wide instruction, observation lengths varied (range 4-35 min), with an average observation length of 15.3 min (average range 12.3-20.4 min).

**Frequency of Praise**

Across all six preschool classrooms, the average rate of total praise was 61.5 praises per hour (see Table 3). Rates of total praise ranged from 33-105.6 praises per hour across the six preschool classrooms. There were differences noted between the different types of praise used. The average rate of BSP across all six preschool classrooms was 14.4 praises per hour (range 5.4 – 30 per hr). General praise was used more frequently and the average rate of general praise was 47.1 praises per hr (range 27.3-75.9 per hr).

Praise frequencies were also reported based on classroom type (see Table 4). For total use of praise, teachers in special education classrooms praised more frequently (91 per hr) than teachers in at-risk classrooms (49.1 per hr) and teachers in general education classrooms (45.8 per hr). Special education teachers were observed to deliver BSP (23.1 per hr) more frequently than general education teachers (8.1 per hr) and at-risk teachers (12.4 per hr). In addition, special education teachers delivered general praise more frequently (67.9 per hr) than general education teachers (37.7 per hr) and at-risk teachers (36.7 per hr).

The second research question (Are there differences in rates of praise among the different types of preschool classrooms?) was answered by conducting ANOVAs for total praise, BSP, and general praise. At an alpha level of .05, results indicated that there was not a significant difference in the rates of total praise used in the different types of
preschool classrooms, $F (2, 3) = 4.576, p = .123$. However, when comparing special education to general education there was a large effect size. When comparing special education to at-risk, there was a large effect size, Cohen’s $d = 2.41$. There was a small effect size found when comparing general education and at-risk, Cohen’s $d = .27$. At an alpha level of .05, results indicated that there was not a significant difference in rates of BSP used in the different types of preschool classrooms, $F (2, 3) = 2.079, p = .271$. However, when comparing special education to general education there was a large effect size, Cohen’s $d = 2.22$. When comparing special education to at-risk, there was a large effect size, Cohen’s $d = 1.21$. There was a medium effect size found when comparing general education and at-risk, Cohen’s $d = .60$. At an alpha level of .05, results indicated that there was not a significant difference in rates of general praise used in different types of preschool classrooms, $F (2, 3) = 6.18, p = .086$. However, when comparing special education to general education there was a large effect size, Cohen’s $d = 2.64$. When comparing special education to at-risk, there was a large effect size, Cohen’s $d = 2.32$. There was no effect found when comparing general education and at-risk, Cohen’s $d = 0$. See Table 5 for effect size calculations. According to Cohen (1988), an effect size between .2 and .5 is considered small, an effect size between .5 and .8 is considered medium, and an effect size at or above .8 is considered large. Larger effect sizes suggest that with a larger sample size, results may have reached significance.

The third research question (Do preschool teachers use more general praise or BSP) was answered by conducting a $t$-test for dependent means. Teachers used more general praise per hour ($M = 47.1, SD = 18.3$) than specific praise ($M = 14.4, SD = 9.5$),
which was a statistically significant difference, \( t(5) = -7.47, p < .01 \) (one-tailed), Cohen’s \( d = 2.24 \) (large).

The fourth research question (Do preschool teachers deliver praise more frequently to individual students rather than large groups of students or small groups of students) was answered by using multiple \( t \)-tests with a Bonferroni correction. When looking at total praise, at a Bonferroni adjusted alpha level of .017 (.05/3), teachers delivered total praise to individual students (\( M = 49.9 \)) significantly more often than to small groups of students (\( M = 1.0 \), \( t(5) = -4.20, p = .004 \), Cohen’s \( d = 2.43 \) (large)). Teachers also delivered total praise to individual students significantly more often than to large groups of students (\( M = 10.5 \), \( t(5) = -3.36, p = .010 \) Cohen’s \( d = 1.94 \) (large)). Finally, teachers delivered total praise to large groups of students significantly more often than to small groups of students, \( t(6) = 5.39, p < .01 \), Cohen’s \( d = 3.13 \) (large).

When looking at BSP, at a Bonferroni adjusted alpha level of .017 (.05/3), teachers delivered BSP to individual students (\( M = 12.1 \)) significantly more often than to small groups of students (\( M = 0.5 \), \( t(5) = -3.09, p = .013 \), Cohen’s \( d = 1.79 \) (large). In addition, teachers delivered BSP significantly more often to large groups of students (\( M = 1.8 \)) more frequently than to small groups of students, \( t(9) = 2.731, p = .012 \), Cohen’s \( d = 1.55 \) (large). There was not a significant difference in teachers’ use of BSP with individual students and large groups of students; however, there was a large effect size (Cohen’s \( d = 1.58 \), large), suggesting that with a larger sample size, results may have indicated that teachers praise individual groups of students more frequently than large groups of students.
When looking specifically at the use of general praise, at a Bonferroni adjusted level of .017 (.05/3), teachers delivered general praise to individual students \((M = 37.8)\) significantly more often than to large groups of students \((M = 8.7), t (5) = -3.52, p = .008, Cohen’s \(d = 2.03\) (large). Teachers also delivered general praise to individual students more often than small groups of students \((M = 0.6), t (5) = -4.56, p = .003, Cohen’s \(d = 2.63\) (large). In addition, teachers delivered general praise to large groups of students significantly more often than to small groups of students, \(t (6) = 5.76, p < .01, Cohen’s \(d = 3.26\) (large).

**Discussion**

The current study examined preschool teachers’ rates of praise across different classroom types. Findings indicated that across all classroom types, preschool teachers on average provided 61.5 total praise statements per hour or about one praise statement per minute. Special education preschool teachers used more total praise, general praise, and behavior-specific praise compared to at-risk and general education preschool teachers. At-risk and general education preschool teachers provided similar rates of total praise, general praise, and behavior-specific praise, although at-risk teachers had slightly higher rates of behavior-specific and total praise statements. Preschool teachers used more general praise compared to behavior-specific praise and this difference was statistically significant. Finally, teachers delivered praise to individual or large groups of students more than to small groups of students. The current study examined the naturally occurring rates of preschool teachers’ use of praise without intervention in preschool classrooms, which provides important information on what indirect service providers (e.g., school psychologists) might expect when providing consultation services to
Preschool teachers working with young children. Results from this study along with additional future research, may help inform teacher praise intervention and possibly set a recommended standard for how frequently teachers should use praise within general, at-risk, and special education preschool classrooms.

First, this study provided naturalistic praise rates for a group of preschool teachers. The average total rate of praise ranged from 33 to 105.6 per hour. This means that in a classroom of 20 preschool students, a teacher may have been delivering 1 to 5 praise statements per student per hour. This is a wider range of praise compared to findings reported from an elementary teacher sample (kindergarten – 5th grade students) where teacher total praise rates ranged from 22.5 to 45.1 per hour (or 1 to 2 praise statements per student per hour; Floress, Jenkins, Reinke, & Baji, under review). Total praise rates found in the current study (61.5) were also higher compared to studies examining the use of praise with young children. White (1975) found an average rate of 43.7 praise statements per hour among 1st and 2nd grade teachers and Floress and Jenkins (2015) found an average rate of 47.3 praises per hour among kindergarten teachers. It is not surprising to find higher rates of praise among younger students, as this finding was documented first by White in 1975 who examined 1st through 12th grade teachers’ use of praise and found a downward trend in praise frequency among teachers who taught older students. Floress et al. (under review) also found a trend toward decreasing rates of specific praise as teachers taught older students.

Second, although no statistically significant differences were found between rates of praise across different classroom types (i.e., general, at-risk, special education), large effect sizes were found which indicates that non-significant results may be due to the
small sample size. For instance, when looking at descriptive statistics, special education teachers used far more general, BSP and total praises than either of the other types of teachers, and large effect sizes were found. Because preschool students in general education, at-risk, and special education classrooms have different needs (e.g., students in general education classrooms may be able to work more independently, whereas students in special education classrooms may need more one-on-one attention and guided prompting), these differences may naturally influence the frequency in which teachers in these classrooms praise. This finding is particularly interesting because in older children the opposite has been reported. That is, older students receiving special education (especially those who receive services to address behavior problems) tend to receive fewer teacher praise statements (Gable, Hendrickson, Young, Shores, & Stowitschek, 1983). These findings are also promising because students in special education, especially those students with frequent behavior problems, are likely to need more praise to increase appropriate behaviors, learn what is expected of them, and to increase their academic motivation (Bayat, 2011; Corpus, Ogle, & Love-Geiger, 2006). On the other hand, it is possible that even though preschool students in special education classrooms received twice as many praise statements as preschool students in at-risk and general education classroom, preschool students in special education may need an even higher number of praises than what was observed to naturally occur in this study. For instance, if teachers of preschool students naturally praise at a higher rate it will be important for future research to determine if further increasing teacher praise is needed to have an influence on improving student behavior. Specifically, future studies should experimentally examine the functional relationship between praise and desirable student
behavior across the different types of preschool classrooms. This information is likely to inform whether preschool students in special education classrooms benefit from increased teacher praise beyond naturally occurring rates.

Third, as predicted, preschool teachers used general praise \( (M = 47.06 \text{ per hr}) \) more frequently than BSP \( (M = 14.41) \). These rates were different from what has been reported in the preschool praise literature and is likely due to the fact that no other study has examined preschool teachers' natural use of praise in the classroom. Existing preschool praise studies have examined increasing teacher praise and differences between the current results and results reported in praise training studies is likely due to the fact that in praise training studies, teachers are selected due to their low rates of praise (e.g., Filcheck, McNeil, Greco, & Bernard, 2004; Stormont, Smith, & Lewis, 2007). Therefore, the existing literature may not accurately reflect the majority of teachers' typical or natural praise use.

Additionally, teachers were more likely to use general praise than BSP, even though existing studies recommend the use of BSP as a means to reduce undesirable behaviors while increasing desirable behaviors (e.g., Brophy, 1981; Gable, Hester, Rock, & Hughes, 2009). It may be possible that teachers are more likely to use general praise rather than BSP due to the automaticity of general praises; these praises may come more naturally to teachers whereas targeting a specific behavior to praise may take more effort from the teacher (Floress, Jenkins, Reinke, & Baji, under review).

Fourth, the current study found that teachers were more likely to deliver praise to individual students more frequently than small groups of students (i.e., 2-6 students), and this was consistent for all types of praise (i.e., general, BSP, and total). Teachers were
also more likely to deliver total praise and general praise to individual students more frequently than large groups of students. Across all types of praise, teachers were more likely to deliver praise to large groups of students than small groups of students. Large effect sizes were found when comparing each classroom type, which suggests that the current findings would also be found in a larger sample. These results are similar to those reported by Floress and Jenkins (2015), where teachers were more likely to deliver praise to individual students. Future studies should investigate whether praise is more effective when delivered to individual students, and also what student variables (e.g., grade level) may affect whether or not students prefer individual praise.

**Limitations**

The current study is a first step in understanding preschool teachers’ natural rates of praise; however, there are some limitations to note. The first limitation was the small sample size of teachers. With only six teachers, two from each type of classroom (i.e., general education, at-risk, and special education) it is difficult to generalize the findings to all preschool teachers. Future studies could look at increasing the sample size as a means of finding statistically significant results. Another limitation was that the classification for why students in the special education classroom were eligible for special education was unknown to the researchers. Knowing students’ eligibility classification may be important because different classifications may suggest a higher level of need (e.g., multiple children with autism spectrum disorder and self-injury vs. multiple children with intellectual delay). Children with higher levels of need may unintentionally elicit more or less teacher praise. Previous research has found that students that have been classified as having behavior disorders were less likely to receive...
praise (Gable, Hendrickson, Young, Shores, Stowitschek, 1983). It is less common for preschool-aged children to be classified as having a behavior disorder because mandated policies state that children must have displayed the problem behavior “over a long period of time” (IDEA, 2004, § 300.8), and children in preschool do not have an opportunity to demonstrate these behaviors over a long period of time, since they are new to the school setting. It is unclear whether the current study found higher rates of praise in special education preschool classrooms because the students were in a special education classroom or because of the make-up within the special education classrooms sampled (e.g., students are not classified as having a behavior disorder). It is possible that special education students in elementary school are qualitatively different than special education preschool students and these differences may influence how teachers praise. Future researchers should obtain information on student special education classifications to help determine whether student needs within special education influence teacher praise.

**Implications**

The current study adds to the literature by examining preschool teachers’ natural rates of praise. Knowing the frequency at which preschool teachers naturally praise can help to inform consultative practice and interventions. It is important for future research to examine what would be an effective, recommended rate of praise. Also, the current study found that preschool teachers delivered praise more frequently than an elementary sample of teachers (Floress & Jenkins, 2015), and other studies have found that teachers of younger students deliver praise more frequently (White, 1975). This is a promising finding because preschool-aged children frequently display undesirable behaviors (e.g., Achenbach & Edlebrock, 1981), and praise is a simple intervention to help reinforce
desired behaviors and ultimately foster positive interactions between teachers and
students early on.

In addition, the current study looked to examine whether there were differences in
different types of preschool teachers’ use of praise. Though no significant differences
were found, special education teachers did deliver praise at a higher frequency. This
difference may be due to differences in training programs, in that teachers in special
education training programs may be taught more explicitly to deliver rewards, such as
praise, to elicit desirable behaviors from students.

Similar to previous studies, preschool teachers in the current study used much less
behavior specific praises than general praises. Therefore, though teachers are praising
frequently, teachers may not be intentionally, systematically delivering praise as a means
to deliver feedback on behavior, or academic work, and as a result, students may not
benefit from the praise to the greatest extent possible. Therefore, it is likely that most
teachers would benefit from praise training that distinguishes the difference between
general and specific praise. Previous studies have found success when implementing
interventions to increase delivery of praise (e.g., Filcheck, McNeil, Greco, & Bernard,
2004), and it may be beneficial to train teachers to self-monitor their use of praise so that
they are delivering intentional praise more frequently.

Lastly teachers delivered praise to large groups and individual students more
frequently than small groups of students. In addition, teachers praised individual students
more frequently than large groups of students. It is important for future studies to
examine whether praising individual students or large groups of students is more
effective. This way teachers can be trained to systematically deliver the most effective
combination of praise to students (e.g., individual, behavior specific). Overall, this study adds valuable information to the current literature regarding preschool teachers’ natural rates of praise and to classroom management in general.
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Table 1

**Teacher Demographics**

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<tr>
<td><strong>Highest Educational Degree Obtained</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Four Year College Degree</td>
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<td>83</td>
</tr>
<tr>
<td>Master’s Degree</td>
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<td>17</td>
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</table>
Table 2

Preschool Classroom Demographics

<table>
<thead>
<tr>
<th>Class Type</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General Education</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total students</td>
<td>36</td>
<td>100</td>
</tr>
<tr>
<td>3 year olds</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>4 year olds</td>
<td>21</td>
<td>58</td>
</tr>
<tr>
<td>5 year olds</td>
<td>12</td>
<td>33</td>
</tr>
<tr>
<td>Males</td>
<td>17</td>
<td>47</td>
</tr>
<tr>
<td>Females</td>
<td>19</td>
<td>53</td>
</tr>
<tr>
<td><strong>At-risk</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total students</td>
<td>32</td>
<td>100</td>
</tr>
<tr>
<td>3 year olds</td>
<td>11</td>
<td>34</td>
</tr>
<tr>
<td>4 year olds</td>
<td>12</td>
<td>38</td>
</tr>
<tr>
<td>5 year olds</td>
<td>9</td>
<td>28</td>
</tr>
<tr>
<td>Males</td>
<td>21</td>
<td>66</td>
</tr>
<tr>
<td>Females</td>
<td>11</td>
<td>34</td>
</tr>
<tr>
<td><strong>Special Education</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total students</td>
<td>21</td>
<td>100</td>
</tr>
<tr>
<td>3 year olds</td>
<td>5</td>
<td>24</td>
</tr>
<tr>
<td>4 year olds</td>
<td>8</td>
<td>38</td>
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<td>5 year olds</td>
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<td>38</td>
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<tr>
<td>Males</td>
<td>15</td>
<td>71</td>
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<tr>
<td>Females</td>
<td>6</td>
<td>29</td>
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Table 3

*Teachers’ Mean and Range of Observed Rate of Praise Statements per Hour*

<table>
<thead>
<tr>
<th>Praise Type</th>
<th>Mean</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behavior-Specific</td>
<td>14.4</td>
<td>5.4</td>
<td>30.0</td>
</tr>
<tr>
<td>General</td>
<td>47.1</td>
<td>27.3</td>
<td>75.9</td>
</tr>
<tr>
<td>Total Praise</td>
<td>61.5</td>
<td>33.0</td>
<td>105.6</td>
</tr>
</tbody>
</table>
Table 4

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

<table>
<thead>
<tr>
<th>Classroom Type</th>
<th>BSP Mean</th>
<th>General Mean</th>
<th>Total Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Education</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teacher 1</td>
<td>8.1</td>
<td>37.7</td>
<td>45.8</td>
</tr>
<tr>
<td>Teacher 2</td>
<td>5.4</td>
<td>27.3</td>
<td>32.7</td>
</tr>
<tr>
<td></td>
<td>10.1</td>
<td>45.7</td>
<td>55.8</td>
</tr>
<tr>
<td>At-Risk</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teacher 1</td>
<td>12.4</td>
<td>36.7</td>
<td>49.1</td>
</tr>
<tr>
<td>Teacher 2</td>
<td>18.7</td>
<td>40.8</td>
<td>59.5</td>
</tr>
<tr>
<td></td>
<td>5.4</td>
<td>32.1</td>
<td>37.5</td>
</tr>
<tr>
<td>Special Education</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teacher 1</td>
<td>23.1</td>
<td>67.9</td>
<td>91</td>
</tr>
<tr>
<td>Teacher 2</td>
<td>30</td>
<td>75.8</td>
<td>105.8</td>
</tr>
<tr>
<td></td>
<td>16.7</td>
<td>60.5</td>
<td>77.3</td>
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</table>
**Behavior Specific, General, and Total Praise Effect Sizes**

<table>
<thead>
<tr>
<th>Class</th>
<th>Class</th>
<th>Cohen's $d$</th>
<th>Description</th>
<th>Cohen's $d$</th>
<th>Description</th>
<th>Cohen's $d$</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gen Ed</td>
<td>Sp Ed</td>
<td>2.22</td>
<td>Large</td>
<td>2.64</td>
<td>Large</td>
<td>2.60</td>
<td>Large</td>
</tr>
<tr>
<td>Gen Ed</td>
<td>At-Risk</td>
<td>.60</td>
<td>Medium</td>
<td>0</td>
<td>None</td>
<td>.27</td>
<td>Small</td>
</tr>
<tr>
<td>Sp Ed</td>
<td>At-Risk</td>
<td>1.21</td>
<td>Large</td>
<td>2.32</td>
<td>Large</td>
<td>2.41</td>
<td>Large</td>
</tr>
</tbody>
</table>

Note: Cohen's $d$ effect size descriptions for small: .2, medium .5, and large, $d = .8$ (Cohen, 1988).
## Appendix A

<table>
<thead>
<tr>
<th></th>
<th>Individual</th>
<th>Small Group (2-6)</th>
<th>Large Group (7+)</th>
<th>General Praise</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behavior</td>
<td>Specific</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Behavioral Classroom Skills - Data Collection Form

Observer Information

Observer: _______________________________  Role(circle): Primary or Reliability  Partner(s): ______________________________________

Observation Information

Start Time: ______________  End Time: ______________  Total Time: ______________  Time of Day (circle): AM  PM

School: _______________________________  Teacher ID: _______________________________

Subject/Lesson Observed (reading, writing, math, etc.): ____________________________________________

Other Adults (Aid, Parent, etc.): ________________________________________________________________

Special Notes (presentation by class guest, student was sick, fire drill, etc.)

__________________________________________________________________________________________

__________________________________________________________________________________________

__________________________________________________________________________________________
Appendix B

CONSENT TO PARTICIPATE IN RESEARCH

Preschool Teachers’ Use of Behavioral Skills in the Classroom and Student Classroom Behavior

You are invited to participate in a research study conducted by Dr. Margaret Floress, Jessica Berlinghof, and Rebecca Rader 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 preschool setting.

• PURPOSE OF THE STUDY

The purpose of the study is to examine teachers’ use of behavioral skills in the preschool classroom. Research suggests that specific teacher skills are linked to better student outcomes, but there is little information about how often teachers use these skills in general. Furthermore, there is limited information examining these skills within preschool classrooms or relating them to measures of student behavior.

The goal of the current study is to determine the typical, or normative, rate of behavioral skills used among preschool teachers during classroom instruction. In addition, we are interested in whether there is a relationship between the rate of behavioral skills used and student classroom behavior. We are not asking you to do anything differently. We simply want to count the number of times you use specific behavioral skills.

Our goal is to help educators, administrators, and researchers understand on average how frequently teachers use specific behavioral skills within a preschool classroom setting and whether or not this rate is related to measures of student classroom behavior.

• PROCEDURES

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

1) Complete 2 rating scales for each child in your classroom. First we will ask you how many students are enrolled in your class, and then we will provide you with numbered rating scale “packets” for each student. The packets can be completed on your own time and should take approx. 5-10 minutes to complete. Once the packets are completed and returned to the researcher, you will complete an EIU finance form and then be provided $125 to compensate your time and efforts.

2) Allow research assistants to complete approximately ten, 30 minute observations in your classroom. The trained research assistants will sit in an inconspicuous place in your classroom and will quietly and unobtrusively observe. Research assistants will be measuring teachers’ use of behavioral skills as well as student behavior.

3) Provide the researchers with a typical weekly schedule. This schedule will be used to schedule observations. We will check with you ahead of time to double check that the observation time is satisfactory.

• 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. You will be completing brief rating scales for the students in your classroom, which could be tiresome as well.
Student rating scales and observational data will be anonymous and only identification numbers will be used. If requested, general results regarding the study can be provided to participants or school administrators, but information regarding observations of a specific classroom will not be disclosed. Any information will be combined across other preschool teachers participating in the study.

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

There appear to be several benefits to you and to 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 preschool classrooms work. Additionally, when looking at the research about teachers' use of behavioral skills in the general education classroom, there is a very limited amount of information available. There have been a few studies examining behavioral skills in preschool classrooms, but hardly any information exists about normative levels of behavioral skills. This study is an initial step in what is hopefully a study that will be conducted across the nation.

- **INCENTIVES FOR PARTICIPATION**

You will receive $125 for participating in the study. A check will be provided from EIU once all rating scales have been collected and you have agreed to the observation schedule. If you receive the $125, but the classroom observations are not complete, research assistants will continue to observe in your classroom until the observations are complete.

- **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. First, rating scales that you complete for the students in your classroom will not contain children's names. Identification numbers will be used to conceal the identity of children and the ratings that are provided for them. Second, you will be assigned an identification number that will be used to collect observational data.

The rating scales will be housed inside a locked filing cabinet in the office of one of the researchers for approximately 3 years. After three years, all rating scales 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.  Jessica Berlinghof, B.A.  Rebecca Rader, B.S., B.A.


mfloress@eiu.edu  jberlinghof@eiu.edu  rarader@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: eiurp@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.
### Appendix C

| 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): | High School Diploma | 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 reading intervention. |
| Location of Training / Provided by: | ____________________________ |
| Time of Class (circle): | Morning | Afternoon |
| My Classroom 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 |