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The Effects of an Interdependent Group Oriented Contingency and Performance Feedback on the Praise Statements of Pre-Service Teachers During a Summer Day-Camp for Children with Disabilities

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Abstract

Teacher praise is one of the most important elements of teaching and learning. Behavioral consultation with and without performance has been shown to be an effective method for increasing instructional praise. The authors used an ABCBC design to investigate the effects of an interdependent group oriented contingency (GC) and the GC plus performance feedback (GC+) on the rate of praise per student of six pre-service teacher group leaders during an eight week summer camp for children with disabilities. The results showed that the GC was partially or totally effective in increasing praise for three of the participants over baseline levels and the GC+ was effective in increasing praise of all six participants. The results are discussed within the context of literature on behavioral consultation.

Keywords

Teacher Praise, Behavioral Consultation, Performance Feedback, Summer Camp

Teacher praise is an instructional behavior that is an essential element of effective instruction (Emmer, 1988; Heward, 2003; Sutherland, Wehby, & Yoder, 2002). Praise has been demonstrated to have a positive effect on student behavior in a variety of research studies (e.g., Kirby & Shields, 1972; Lannie & McCurdy, 2007; Sutherland et al., 2002; Sutherland & Wehby, 2001; Sutherland, Wehby, & Copeland, 2000). Teacher praise not only helps to increase pro-social behaviors, but high levels of praise have also been shown to decrease in anti-social behavior (Madsen, Becker, & Thomas, 1968; Espin & Yell, 1994; Thomas, Nielson, Kuypers, & Becker, 1968). Thus, developing and utilizing methods to systematically increase praise statements by those working with children with disabilities is an important goal.

Effective teacher praise contains several key characteristics. First, praise should be descriptive and should describe the behavior and not be an evaluative statement of the behavior (Brophy, 1981; Kohn, 1993; Paine, Radicchi, Rosellini, Deutchman, & Darch, 1983). Descriptive praise should describe what the student is actually doing. Descriptive praise conveys to the students what is expected of them. Second, the student's name should be used in the praise statement (Paine et al., 1983; Thomas, 1991). However, teachers may want to share praise privately in some cases with some students to avoid teasing by their peers, especially in older students. Ward (1976) noted that praise given in the presence of a peer group may be punishing to a student. Third, the praise statements should be varied (Kohn, 1993; Thomas, 1991). Praise should be given for different students and different activities. Teachers should make sure that their praise statements are not repetitious and monotonous. Fourth, praise should be given contingently (O'Leary & O'Leary, 1977). The praise must be contingent on the performance of the behavior to be reinforced. Fifth, praise should be used convincingly (Paine et al., 1983). The person giving the praise should show they mean what they say by using enthusiastic and expressive language and not monotonous phrases. Sixth, praise is non-disruptive (Paine et al., 1983). The praise statements should not disrupt the academic learning environment. Finally, praise should be immediate. Praise should follow within one to two seconds after the appropriate behavior occurs. Teachers should follow the "if-then" rule. This rule means that *if* the student is doing something that you want to encourage, *then* the student should receive praise for that behavior (Paine et al., 1983).

However, researchers have noted that teacher praise is used infrequently and ineffectively in classrooms (Sutherland et al., 2000; Alber & Heward, 2001; Alber, Heward, & Hippler, 1998; Kohn, 1993; Brophy, 1981). Studies have shown that teachers provide an extremely low rate of praise to students in the general and special education classrooms (Brady & Taylor, 1989; Gable, Hendrickson, Young, Shores, & Stowitschek, 1983). One reason for the low rates of praise in the classroom may be that teachers are resistant to using praise as a reward and/or reinforcer because praise may be harmful to children (Skinner, Williams, & Neddenriep, 2004; Lepper, Keavney, & Drake, 1996; Ryan & Deci, 1996; Kohn, 1993). A second reason for low rates of praise by teachers is that the classroom is an extremely busy place where praiseworthy efforts by students often go unnoticed by the teacher (Craft, Alber, & Heward, 1998). Another reason for low rates of praise is that teachers give more disapproval statements rather than approval statements. White (1975) found that the rates of teacher approval was relatively high during first and second grades, but the rates dropped with each grade level and continued throughout high school. He found that the number of teacher disapproval statements increased every grade after second grade. Thomas, Presland, Grant, & Glynn (1978) found similar results, in that, more attention is paid to undesirable behaviors than to appropriate behaviors. In most classrooms, the rates of disapproval statements exceed the rates of approval (Sutherland & Wehby, 2001; Sutherland et al., 2000). Other studies have also reported low rates of teacher praise (Baker & Zigmond, 1990; Deno, Maruyama, Espin, & Cohen, 1990).

Many teachers need help increasing the rate of praise statements toward their students (Alber & Heward, 2001; Elwell & Tiberio, 1994). Increasing the rate of teacher praise may increase such academic behaviors as student motivation, task engagement, and actual learning (Sutherland et al., 2000). Sutherland, Wehby, & Yoder (2001) suggested that teachers with high rates of praise have high rates of opportunities to respond to academic requests (OTR) while teachers with low rates of praise have low rates of OTR.

One method used to increase teacher praise is behavioral consultation and performance feedback. Usually behavior consultation consists of brief, daily or weekly meetings between a direct care staff person such as a teacher, and a clinician for the purposes of providing support in learning and behavioral goals (Noell, Witt, Slider, Connell, Gatti, Williams, et al., 2005; Sutherland, Wehby, & Copeland; 2000). For example, Jones, Wickstrom, & Friman (1997) used behavioral consultation alone and in conjunction with performance feedback (data based information on the rate of praise) to increase the level of praise for three teachers of students with disabilities. Jones et al., (1997) found that without performance feedback the teachers were not using praise very often or very effectively. Likewise, Reinke, Lewis-Palmer, & Martin (2007) found visual performance feedback in the form of graphic representations of the rate of teacher praise to be an effective method for increasing teacher praise.

Much of the research on the use of behavioral consultation to increase teacher use of praise has occurred within the context of the classroom. We could find no research that specifically investigated the use of behavioral consultation and performance feedback on praise outside of the context of the school setting. Therefore, the purpose of this study was to investigate the use of daily behavioral consultation with and without performance feedback on the rates of praise statements made by teacher group leaders at a summer camp for students with disabilities.

Method

Participants and Setting

The study was conducted during a day camp for students with disabilities in a large urban area in the southern United States. The summer camp ran five days a week for four hours per day. The eight-week camp was comprised of thirty children campers with disabilities per week. Their ages ranged from six years old to twenty-one years old. The campers had various disabilities such as Down Syndrome, autism, cerebral palsy, and intellectual disabilities. However, the campers did not attend the entire eight-week camp. There were new campers each week. The campers all had moderate to severe disabilities. Campers participated in such activities as free play, organized games, swimming, arts and crafts, and social skills instruction.

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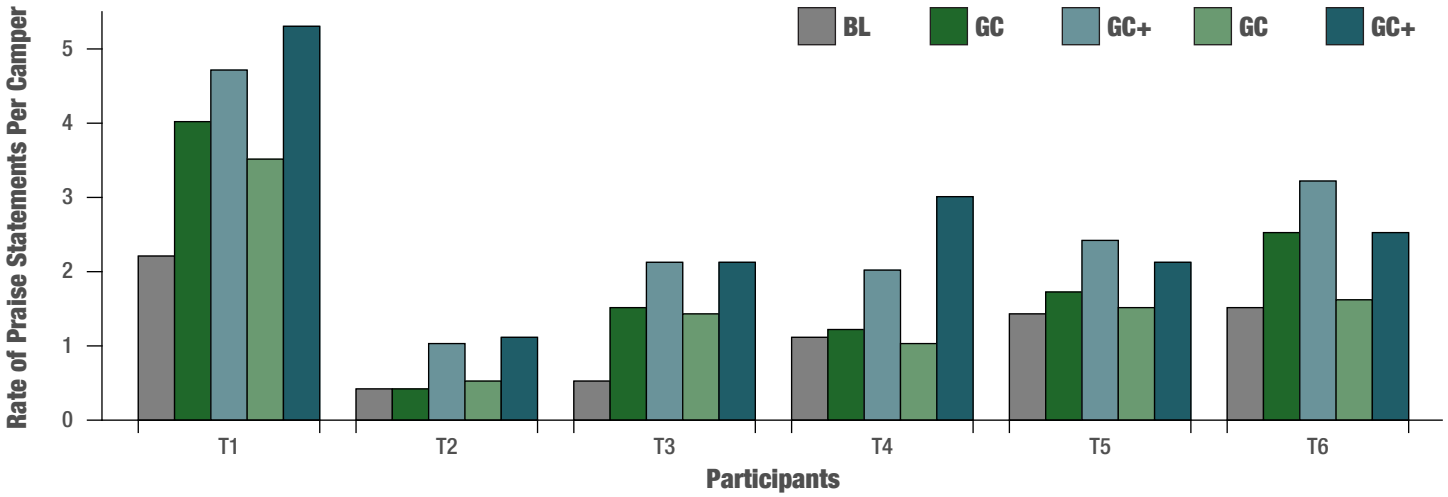

Figure 1. This chart depicts the rate of praise statements per camper (PPC) given by each participant across experimental conditions.

The participants in the study were six pre-service teacher group leaders, two female and four male, whose ages ranged from 18 to 30 years of age and who had little experience working with students with disabilities. Four of the participants were undergraduate students seeking a degree in education in fields such as music, general education, and special education. One of the participants was a graduate students majoring in special education. One participant was a graduate of a local university with a degree in business, but wanted to go back to school to get a degree in special education. The participants served as group leaders during the camp and were responsible for supervision of the campers and the volunteer helpers. Group leaders also had to teach a daily social skills lesson as well as conduct daily evaluations in the form of progress reports on the behavior of the campers.

Measurement

Because the participants had a variable number of campers each day due to illness or non-attendance the rate of praise statements per camper made by each participant was the dependent variable. The number of campers each day for each participant ranged from four to seven campers. Overall, the number of campers per participant was equivalent across group leaders and conditions. The data reported in Figure 1 below were taken when participants were observed during randomly selected ten-minute sessions each day. Neither the participants nor the students knew when praise statements were going to be counted. During these times the number of praise statements given towards children was counted using a hand held counter to count the frequency of the praise statements of the participants by the researcher who had been trained in collecting data using this method.

Reliability was collected using the total agreement method (Cooper, Heron, & Heward, 2007) and was calculated by the following formula.

$$\text{agreement \%} = \frac{\text{smaller tally}}{\text{larger tally}} \times 100$$

Reliability data were collected in 24% of the sessions by a second trained observer. Reliability averaged 90% across sessions. The range was from 77% to 100%.

Design and Procedures

The study employed an A-B-C-B-C withdrawal design (Kennedy, 2005). There were five phases (baseline, group oriented contingencies, group oriented contingencies with performance feedback, group oriented contingencies, and group oriented contingencies with performance feedback). Each phase change was initiated following two to three days of a stable rate of group leader praise in each phase.

Prior to the baseline participants were trained on praise procedures during two thirty-minute sessions over the course of the first two days of camp. The training consisted of the primary researcher directly instructing the group leaders on the research supporting direct behavioral praise statements in the classroom, giving examples and non-examples of direct behavioral praise statements, modeling, and role play. Role play consisted of the primary researcher playing the role of the teacher and the group leader playing the role of the children. During this time, the researcher demonstrated examples and non-examples of praise and encouraged the group leaders to identify each statement as an effective praise statement or not. Examples of praise statements included, "Way to go, _____", I like the way you _____", "Awesome job", and "Keep up the good work." Non-examples of praise statements included, "Yes", "OK", and any negative statement about the child when they completed a task or exhibited an appropriate behavior. As a reminder to the participants, signs were posted in several areas of the recreation center saying, "Have you praised your students lately?" and "Praise, it does a body good". No other contingencies for praise were in place during baseline.

During the group oriented contingency (GC) phase the first author met with the participants each morning and encouraged them to remember to provide lots of positive feedback to their campers. As an incentive to increase praise, the participants were divided into two teams of three with 15 children with disabilities children per team (T1, T3, T5 v. T2, T4, and T6). Praise statements of each team member were added together for a weekly total for that team. At the end of each week, the team with the most praise statements was treated to a snack at a local ice cream establishment by the first author.

During the performance feedback phase (GC+), participants were shown their daily graphs of the rate of praise per camper. Each morning, the participants met with the first author who showed them their daily praise graph. During the meeting the participants set a goal of the number of praise statements they intended to give to the campers. The goals were posted daily on the graphs located in the camp administration room. Each afternoon, the first author reported the number of praise statements given that day by each of the participants during a group meeting. There was no contingency in place for the participants' goal statements, but just as in the previous phase, praise statements of each team member were added together for a weekly total for that team. At the end of each week, the team with the most praise statements was treated to a snack at a local ice cream establishment by the first author.

Results

Figure 1 depicts the rate of praise statements per camper (PPC) given by each participant across experimental conditions. During baseline, the PPC for T1 ranged from 1.8 to 2.4 PPC and had a mean of 2.2 PPC (*SD* = .27). T2's PPC ranged from .1 to .6 with a mean of .4 (*SD* = .14). T3 ranged from .3 to 1 PPC and had a mean of .5 (*SD* = .22). T4, T5, and T6 PPC ranged from .7 to 1.3, 1 to 1.8, and 1 to 2 respectively. The mean scores for T4, T5, and T6 were 1.1, 1.4, and 1.5 PPC respectively (*SD* = .22, .27, .33 respectively). Overall PPC averaged 1.2 across the six participants during baseline.

When the GC alone condition was implemented the PPC for T1, T3, and T6 increased over baseline levels. For T1, the range increased to 3.8 to 4.2 PPC while the range for T3 and T6 increased to 1.3 to 1.6 and 2.0 to 2.6 respectively. The three participants averaged 4.0 (*SD* = .17), 1.5 (*SD* = .11), and 2.5 (*SD* = .35) PPC respectively. For T2, T4, and T5 the average PPC did not increase for T2 and increased only slightly for T4 from 1.1 in baseline to 1.2 PPC (range, 1.0–1.3, *SD* = .16). T5 had an increase of 1.7 from 1.4 in baseline (range, 1.3–2.0, *SD* = .29). Overall, PPC had a mean of 1.9 across the six participants during this condition.

When the performance feedback phase (GC+) was implemented, the data show an increase in the PPC across all six participants over baseline and the GOC alone conditions. T1 showed a small increase from 4.0 to 4.7 average PPC (range 4.0–5.2,

SD = .54) while the other five participants showed larger increases. T2 had a mean of 1.0 PPC (range .9–1.0, *SD* = .29), T3 had a mean of 2.1 PPC (range 1.9–2.3, *SD* = .38), T4 had a mean of 2.0 PPC (range 1.7–2.3, *SD* = .47), T5 had a mean of 2.4 PPC (range 2.3–2.5, *SD* = .44), and T6 had a mean of 3.2 PPC (range 3.0–3.5, *SD* = .51). Overall PPC had a mean of 2.5 across the six participants during this condition.

In a return to the GC alone conditions for two days the PPC of each participant decreased to levels comparable to the first GOC condition. T1 had a mean of 3.5, T2 had a mean of .5, T3 had a mean of 1.4, T4 had a mean of 1.0, T5 had a mean of 1.5, and T6 had a mean of 1.6 PPC respectively. Overall PPC had a mean of 1.6 across the six participants during this condition.

When we returned to the performance feedback phase for two days the level of PPC increased of each participant increased to levels comparable to the first performance feedback condition. T1 had a mean of 5.3, T2 had a mean of 1.1, T3 had a mean of 2.1, T4 had a mean of 3.0, T5 had a mean of 2.1, and T6 had a mean of 2.5 PPC respectively. Overall PPC had a mean of 2.7 across the six participants during this condition.

Discussion

In general, the data show that daily consultation and the GC was partially or totally effective in increasing group leader praise for three of the participants (TI, T3, and T6) but was not as effective for the other three participants compared to baseline. However, the GC coupled with performance feedback (GC+) was effective in increasing praise over baseline and the GC alone condition for all six of the participants. These effects were replicated in a second GC+ condition. The most pronounced gains were with T2 and T4 who saw their rate of praise double when the performance feedback was implemented. The findings from this study were consistent with other studies that found that behavioral consultation and performance feedback increased praise of the participants (e.g., Reinke et al., 2007).

Limitations

One limitation of this study was that the participants were not fully trained teachers. Although improving teacher praise is a worthy goal for any teacher, veteran teachers performance during GC and the GC+ condition may be markedly different from the results we obtained. Another limitation is that the participants did not get to choose the reinforcer. Typically when a GC is implemented the learner gets to choose the reinforcer (Cooper et al., 2007). Although we made every attempt to identify potential reinforcers, we settled for a reinforcer that all the participants could agree to and one that we could afford. A third limitation to this study was that the effect of the increased frequency of praise on the behavior of the campers was not measured. Due to the fact that the campers changed weekly, data could not be collected to measure this variable. Finally, another limitation of this study is that the effectiveness of GC+ was not replicated against baseline conditions. Thus, it was not possible to see a possible functional relation between the GC+ and baseline conditions due to a lack of replication.

Implications for Practice

One important contribution to this study is to replicate and extend the data to show the generality of behavioral consultation with performance feedback as a research supported method for also improving the behavior of teachers outside of the traditional school setting. Conceivably, demonstrating good behavior on the part of an instructor is important for students to see and hear not only for the effects of reinforcement but also as a model of socially appropriate behavior. The final contribution of this study is that participants all said they enjoyed the game and thought that it helped them to deliver more praise and deliver more praise contingently. When we embarked on this study we were somewhat concerned that the adults would find GC juvenile. Instead, they appeared to have fun with the game and trying to meet their goal. The limitations notwithstanding, we believe behavioral consultation, GC, and performance feedback is an appropriate, worthwhile, non-coercive tool that can be used by administrative staff to increase the most important means a teacher has to reinforce good behavior.

References

Alber, S.R., & Heward, W.L. (2001). Teaching students to recruit positive attention: A review and recommendations. *Journal of Behavioral Education, 10(4)*, 177-204.

Alber, S.R., Heward, W.L., & Hippler, B.J. (1998). Teaching middle school students with learning disabilities to recruit positive teacher attention. *Exceptional Children, 65*, 253-270.

Baker, J.M., & Zigmond, N. (1990). Are regular education classes equipped to accommodate students with learning disabilities? *Exceptional Children, 56*, 516-526.

Brady, M.P., & Taylor, R.D. (1989). Instructional consequences in mainstream middle school classes: Reinforcement and corrections. *Remedial and Special Education, 10(2)*, 31-36.

Brophy, J.E. (1981). Teacher praise: A functional analysis. *Review of Educational Research, 51(1)*, 5-32.

Craft, M.A., Alber, S.R., & Heward, W.L. (1998). Teaching elementary students with developmental disabilities to recruit teacher attention in a general education classroom: Effects on teacher praise and academic productivity. *Journal of Applied Behavior Analysis, 31(3)*, 399-415.

Cooper, J.O., Heron, T.E., & Heward, W.L. (2007). *Applied Behavior Analysis* (2nd ed.). Upper Saddle River, New Jersey: Pearson.

Deno, S., Maruyama, G., Espin, C., & Cohen, C. (1990). Educating students with mild disabilities in general education classrooms: Minnesota alternatives. *Exceptional Children, 57*, 150-161.

Elwell, W.C. & Tiberio, J. (1994). Teacher praise: What students want. *Journal of Instructional Psychology, 21*, 322-328.

Emmer, E. T (1988). Praise and the instructional process. *Journal of Classroom Interaction, 23,* 32-39.

Espin C., & Yell, M. (1994). Critical indicator of effective teaching for preservice teachers: Relationships between teaching behaviors and ratings of effectiveness. *Teacher Education and Special Education, 17*, 154–169.

Heward, W. L. (2003). Ten faulty notions about teaching and learning that hinder the effectiveness of special education. *Journal of Special Education, 36*, 186-205.

Gable, R.A., Hendrickson, J.M., Young, C.C., Shores, R.E., & Stowitschek, J.J. (1993). A comparison of teacher approval and disapproval statements across categories of exceptionality. *Journal of Special Education, 6*, 15-22.

Jones, K.M., Wickstrom, K.F., & Friman, P.C. (1997). The effects of observational feedback on treatment integrity in school-based consultation. *School Psychology Quarterly, 12*, 316-326.

Kennedy, C. H. (2005). *Single-Case Designs for Educational Research.* Allyn and Bacon: Boston, Massachusetts.

Kirby, F. D., & Shields, F. (1972). Modification of arithmetic response rate and attending behavior in a seventh-grade student. *Journal of Applied Behavior Analysis, 5*, 79-84.

Kohn, A. (1993). *Punished by rewards: The trouble with gold stars, incentive plans, A's, praise, and other bribes.* Houghton Mifflin Company: New York.

Lannie, A. L. & McCurdy, B. (2007). Preventing disruptive behavior in the urban classroom: Effects of the good behavior game on student and teacher behavior. *Education and Treatment of Children, 30*, 85-98.

Lepper, M.R., Keavney, M., & Drake, M. (1996). Intrinsic motivation and extrinsic rewards: A commentary on Cameron and Pierce's meta-analysis. *Review of Educational Research, 66(1)*, 5-32.

Madsen, C.H., Becker, W.C., & Thomas, D.R. (1968). Rules, praise, and ignoring: Elements of elementary classroom control. *Journal of Applied Behavior Analysis, 1*, 139-150.

Noell, G. H., Witt, J. C., Slider, N. J., Connell, J. E., Gatti, S. L., Williams, K. L., Koenig, J. L., Resetar, J. L., & Duhon, G. J. (2005). Treatment implementation following behavioral consultation in schools: A comparison of three follow-up strategies. *School Psychology Review, 34*, 87-106.

O'Leary, K., & O'Leary, S. (Eds.) (1977). *Classroom management: The successful use of behavior modification.* 2nd ed. Pergamon: New York.

Paine, S.C., Radicchi, J., Rosellini, L.C, Deutchman, L., & Darch, C.B. (1983). *Structuring your classroom for academic success.* Research Press Company: Champaign, Illinois.

Reinke, W.M., Lewis-Palmer, T., & Martin, E. (2007). The effect of visual performance feedback on teacher behavior-specific praise. *Behavior Modification, 31(3)*, 247-263.

Ryan, R.M., & Deci, E.L. (1996). When paradigms clash: Comments on Cameron and Pierce's claim that rewards do not undermine intrinsic motivation. *Review of Educational Research, 66*, 33-38.

Skinner, C.H., Williams, R.L., & Neddenriep, C.E. (2004). Using interdependent group-oriented reinforcement to enhance academic performance in general education classrooms. *School Psychology Review, 33(3)*, 384-397.

Sutherland, K.S. Wehby, J.H., & Yoder, P.J. (2002). Examination of the relationship between teacher praise and opportunities for students with EBD to respond to academic requests. *Journal of Emotional and Behavioral Disorders, 10(1)*, 5-13.

Sutherland, K. S., & Wehby, J. H. (2001). Exploring the relation between increased opportunities to respond to academic requests and the academic and behavioral outcomes of students with EBD: A review. *Remedial and Special Education, 22*, 113-121.

Sutherland, K.S., Wehby, J. H. & Copeland, S. R. (2000). Effect of varying rates of behavior-specific praise on the on-task behavior of students with EBD to respond to academic requests. *Journal of Emotional and Behavioral Disorders, 8*, 2-8.

Thomas, J. (1991). You're the greatest! A few well-chosen words can work wonders in positive behavior reinforcement. *Principal, 71,* 32-33.

Thomas, D.R., Nielsen, L.J., Kuypers, D.S., & Becker, W.C. (1968). Social reinforcement and remedial instruction in the elimination of a classroom behavior problem. *Journal of Special Education, 2*, 291-306.

Thomas, J.D., Presland, I.E., Grant, M.D., & Glynn, T.L. (1978). Natural rates of teacher approval and disapproval in grade-7 classrooms. *Journal of Applied Behavior Analysis, 11*, 91-94.

Ward, J. (1976) Behavior modification in education: An overview and a model for programme implementation. *Bulletin of the British Psychological Society, 29(8)*, 257-268.

White, M.A. (1975). Natural rates of teacher approval and disapproval in the classroom. *Journal of Applied Behavior Analysis, 8*, 367-372.

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