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Christina N. Kennedy  
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## ACCEPTANCE

This dissertation, THE EFFECTS OF PRAISE NOTES ON THE DISRUPTIVE BEHAVIORS OF ELEMENTARY STUDENTS WITH EMOTIONAL BEHAVIORAL DISORDERS IN A RESIDENTIAL SETTING, by CHRISTINA KENNEDY, was prepared under the direction of the candidate's Dissertation Advisory Committee. It is accepted by the committee members in partial fulfillment of the requirements for the Degree of Doctor of Philosophy in the College of Education, Georgia State University.

The Dissertation Advisory Committee and the student's Department Chair, as representatives of the faculty, certify that this dissertation has met all standards of excellence and scholarship as determined by the faculty. The Dean of the College concurs.

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## ABSTRACT

### THE EFFECTS OF PRAISE NOTES ON THE DISRUPTIVE BEHAVIORS OF ELEMENTARY STUDENTS WITH EMOTIONAL AND BEHAVIORAL DISORDERS IN A RESIDENTIAL SETTING

by  
Christina Kennedy

In this study, the effects of two secondary tier positive behavioral support strategies, teacher praise notes (TPNs) and peer praise notes (PPNs), were investigated using an alternating treatments single-subject design in residential classroom settings with eight elementary students with emotional and behavioral disorders (E/BD) in grades one through five who displayed disruptive behaviors. These students were selected based on the following criteria: (a) identified as using attention-seeking behaviors to disrupt classroom instruction, and (b) accrued an average of three or more office discipline referrals (ODRs) during classroom instruction since the beginning of the semester. Teacher praise notes are notes written by the teacher to a student regarding observed appropriate classroom behaviors while peer praise notes are written by the students to peers of their choice regarding observed appropriate behaviors. The type of praise notes were counterbalanced across each session. Duration recording was used to record the length of disruption per student during all sessions. Data were analyzed by visual analysis. The results suggest that TPNs and PPNs decreased disruptive behaviors of the students with E/BD in a residential setting; however, there was minimal to no fractionation between the two interventions. Limitations and future for research directions are discussed.

THE EFFECTS OF PRAISE NOTES ON THE DISRUPTIVE BEHAVIORS OF  
ELEMENTARY STUDENTS WITH EMOTIONAL AND BEHAVIORAL  
DISORDERS IN A RESIDENTIAL SETTING

by  
Christina Kennedy

A Dissertation

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Doctor of Philosophy  
in  
Education of Students with Exceptionalities  
in  
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in  
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Atlanta, Georgia  
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## CHAPTER 1

### USE OF PRAISE WHEN WORKING WITH STUDENTS WITH EMOTIONAL AND BEHAVIORAL DISORDERS

Researchers state that behavioral and social deficits of children with emotional and behavioral disorders (E/BD) in urban schools are prevalent (Coie, 1994; Kamps, Kravits, Stolze, & Swaggart, 1999). Students with E/BD do not experience many positive relationships with their teachers and/or peers as compared to other students (Nelson, Caldarell, Young, & Webb, 2008). Anti-social behaviors such as aggression and negative peer interactions appear to begin early in the student's school career and often predict patterns of school and peer difficulties (Campbell, 1994). Kazdin, Mazurick, and Bass (1993) found that children with behavior problems early in their school careers are more likely to continue to exhibit antisocial behaviors and experience interpersonal problems during later years. Adequate social development in school may be considered the foundation of personal and social adjustment in life (Mathur & Rutherford, 1996). Often teachers avoid the problem behaviors of aggressive youth and do not provide the social reinforcement for desired positive classroom behaviors. This may encourage behavior problems to become a pattern (Farmer, Farmer, & Gut, 1999).

#### **Disruptive Behaviors of Students with Emotional and Behavioral Disorders**

Most behaviors can be listed into two categories: internalizing and externalizing. Examples of internalizing problem behaviors include social withdrawal, anxiety, depression, and psychosomatic reactions (Eisenberg et al., 2001). Internalizing behaviors may be triggered by sadness, anxiety, and fear. These students often have difficulty with social interactions and appear to be more withdrawn as well as keep to themselves

(Eisenberg, Cumberland, Spinrad, Fabes, Shepard, Reiser, et al., 2001). Students with E/BD frequently experience peer rejection and display internalizing symptoms.

Researchers speculate that low self-concept and peer rejection, along with poor social relationships may lead to underachievement in academic settings (Kavale & Forness, 1996). Whereas internalizing behaviors can often be difficult to notice, externalizing behaviors include more observable behaviors such as aggression and impulsivity.

Researchers state that students' aggressive and defiant behaviors often disrupt the learning of others, threaten safety, overwhelm teachers, and are detrimental to the students' own chances for success (Gresham et al., 2003). Both types of behaviors can be triggered by internal and external stimuli in the school setting, leading to poor student/teacher relations as well as to poor peer relations (Nelson et al., 2008). When students with E/BD are unable to meet the social demands and behavioral expectations for school success, school may become a stressor in their lives (Lane, Barton-Arwood, Nelson, & Wehby, 2008).

Previous research conducted by Nelson et al. (2004) investigated how particular types of internalizing and externalizing problem behaviors related to academic performance. They suggest that externalizing behaviors, not internalizing, were associated with academic performance. Extending this research, Lane and colleagues (2008) used the *Social Skills Rating System* (SSRS: Gresham & Elliot, 1990) to assess internalizing and externalizing behaviors of elementary and secondary students with E/BD served in self-contained classrooms. Social and behavioral data indicated that the previous research was only partially accurate. Externalizing and internalizing behavioral variables were predictive of broad reading and written expression deficits only.



Moreover, students with internalizing behaviors performed better on writing assessments. Lane et al. suggest that schools must provide more direct instruction in overall school adjustment, such as following rules and social skills, so that academics and social adjustment can be improved for students with E/BD. “Adolescents with E/BD display lower levels of social adjustment and higher levels of problem behaviors than students with learning disabilities” (Nelson et al., 2008, p. 6).

The outlook for students with E/BD is not positive. Researchers have found that behavior problems do not go away with time. In a longitudinal study by Hymel and colleagues (1990), student behaviors were evaluated on a variety of measures from second grade to fifth grade. Internalizing and externalizing behaviors were observed in 87 children. Results showed predictive links between early peer rejection as well as aggression and future social difficulties and behavior problems. Without preventative programs, students with E/BD may face a future of rejection and isolation from their peers.

Individuals with disabilities are often viewed in society as different and undesirable (Turner & Lewis, 1996). Due to this, there is a need for preventative programs that will support appropriate social behaviors in school settings for students with E/BD to help them be accepted in not only the school setting but in the public eye in general (Kamps et al., 1999). The social interactions between students as well as the interaction between students and teachers is a main variable for school success (Farmer et al., 1999). It is often left to school personnel to foster and train students in appropriate interaction skills. Therefore, there is a need for teacher and peer training to address social skills and appropriate classroom behaviors (Farmer et al., 1999). One method for

training teachers is to change their discipline strategies so that they do not reinforce problem behaviors. Teachers also must learn to improve the interactions between peers as well as the interactions between teacher and students (Farmer et al., 1999). This will ensure that positive behaviors are socially reinforced. Of importance is that preventative social skills programs and trainings can be implemented in the natural classroom setting.

### **Students with Emotional and Behavior Disorders in Residential Settings**

Without social skills and preventative programs in the typical school setting, many students face the risk of alternative placements (Gagnon & Leone, 2001). Students with disruptive behaviors are at risk for being excluded from typical educational settings. The current trend of zero-tolerance policies tend to provide enhanced academic opportunities to the majority of students by removing the “troublemakers” (Gagnon & Leone, 2001). For students whose behaviors exceed the controls of a typical school placement, residential schools, a more restrictive placement on the continuum of services, may be considered. Residential schools are 24-hour therapeutic educational settings where students’ social, emotional, and educational needs can be monitored continuously (Kauffman & Smucker, 1995). According to the U. S. Department of Education (2002), students with E/BD are placed in residential schools more frequently than any other disability area. Furthermore, the number of students with E/BD placed in residential facilities grows each year. Currently, more than 80,000 students with E/BD are educated in day treatment or residential schools (United States Department of Education, 2002).

The student population (e.g., characteristics, length of stay, referral sources) in residential schools is variable, often a reflection of the purpose/mission of the specific school (Gagnon & Leone, 2001). Due to the variability and diversified nature of these

schools, there are three major concerns when summarizing the literature. First, the quality of studies is lacking due to the lack of control group and random sampling procedures (Gagnon & Leone, 2001). Second, it is difficult to access students for follow-up studies. Third, there is a lack of research showing positive effects on the disruptive, delinquent behaviors of the students (Gagnon & Leone, 2001). Therefore, there is much to be learned by further investigating students in these facilities.

Gagnon and Leone (2006) conducted a random survey that was mailed to teachers and administrators in elementary schools (public, private, day treatment, and residential). Student characteristics were among the factors that they examined through this survey. They found three primary areas: (a) enrollment, (b) services received, and (c) involvement of outside agencies. It was evident that the involvement of outside agencies has an impact on this student population. The majority of students in residential school have a history of abuse or neglect and are often involved with agencies such as the Department of Juvenile Justice, the Department of Human Resources, and the Department of Family and Children's Services. Many students have been in several foster care placements throughout their lives and have moved between multiple school settings. Gagnon and Leone (2006) hypothesize that this involvement of outside agencies in the lives of students with E/BD in residential settings would have a significant impact on student academic and behavioral performance in the school setting. Also, it is important to note that each student brings their own unique history and set of experiences to the school setting each day.

There is literature to support Gagnon and Leone's (2006) contention that the involvement of parents and other factors have significant effects on the disruptive

behaviors of students in future settings. Scaramella, Conger, and Simons (1999) examined parental or caregiver characteristics in the inhibition of growth of internalizing and externalizing behaviors over time. The authors hypothesized that different parenting characteristics would either compensate for or buffer the development of internalizing and externalizing behaviors. Data were collected yearly on 319 families over a 5 year period. Parenting was found to produce a compensatory and a buffering effect on the level of externalizing behavior problems. Adolescents with low hostility showed fewer behavior problems. The type of parenting style to which children were exposed to during junior high was related to the growth of externalizing behaviors over the 5 year period. Parents who displayed poor behavior management skills during early adolescence and who interacted in a hostile manner with their children placed their children at increased risk for externalizing behaviors in the future.

Just as biological parents have a significant effect on the future behaviors of their children, foster parents also have an effect on the children placed into their care. The type of parenting skills being incorporated, as well as the number of foster placements, may affect the student. The relationship between change in foster placement and problem behaviors over a 12 month period was examined by Newton, Litrownik, and Landsverk (2000). The *Child Behavior Checklist* (Achenbach & Rescorla, 2001) was used to evaluate 415 youth in foster care. Results suggest inappropriate foster placements that involve volatile home situations and the number of overall foster placements both contribute negatively to internalizing and externalizing behaviors. Reciprocally, externalizing behaviors were the main factor in the number of foster care placements of each student. Students who displayed externalizing behaviors were more likely to move

from placement to placement due to their behaviors, while their inappropriate behaviors were maintained due to multiple placements.

Regardless of a child's custody situation, stressful life events can set the stage for future behavior problems. Kim, Conger, Elder, and Lorenz (2003) used data from a six year longitudinal study to examine the reciprocal influences between stressful life events and adolescent displays of internalizing and externalizing behavior problems. The study showed that stressful life events significantly predicted delinquent behaviors one year later. This situation creates a snowball effect and each year predicts the next year's behavioral model for the student. Students with aggressive, externalizing behaviors do not make friends and have difficulty within social settings. Also they display problems with focus, energy level, and emotional dysregulation, leading to reduced school achievement (Kim et al., 2003). Students with internalizing behaviors appear to be sad and withdrawn which increases their risk of being socially neglected. In addition, some students are overlooked by teachers due to their lack of overt, disruptive behavioral patterns (Kim et al., 2003).

Van Acker and Grant (1996) found that children at-risk for the development of aggression experienced more negative social situations at school and also experienced differentially negative treatment by teachers. By using direct observations of 206 students identified to be at-risk for aggression as identified by teacher ratings and peer nominations, the authors found that the interaction of students and teachers differed significantly on the basis of risk for aggression. Teachers in the study provided a greater number of behavioral requests to students in the high-risk group. In turn, these students were more likely to display noncompliant behavior. Teachers were observed to provide

significantly more reprimands than praise statements to the high-risk group than to the mid-risk group. A key finding was that praise was a random event while reprimands were a predictable teacher behavior for students at-risk for aggressive behaviors. This confirms that students may increase the predictability of the classroom through their inappropriate behaviors.

In addition to the characteristics and experiences mentioned previously, students with E/BD may develop low self-efficacy or beliefs concerning their capabilities to organize and implement actions necessary to learn or perform behaviors at certain success levels (Bandura, 1997). Teachers must learn to recognize that low self-efficacy is a modifiable, task specific, set of beliefs that are generally derived from frequent failures (Margolis & McCabe, 2004). By designing classroom programs that reinforce effort and persistence and use teacher and peer modeling, teachers can help strengthen a students' self-efficacy.

### **Theoretical Basis**

Bandura's social cognitive theory seeks to explain learning in the naturalistic setting (Gredler, 2005). Having an interactive, social environment provides authentic opportunities for students to acquire complex skills and abilities through the observation of modeled behaviors and the consequences that follow. According to social cognitive theory, learning occurs either enactively through actual "doing" or vicariously by "observing." Behaviors that result in positive outcomes for the individual are retained. Those behaviors that lead to negative outcomes are either refined or discarded. Bandura (1986) projected that behavioral consequences, rather than strengthening behaviors, serve

as sources of information and motivation. These consequences inform humans of the appropriateness of the behavior. It is this cognition of behavior that affects learning.

One of the key areas of interest in social cognitive theory is the idea of vicarious learning. Vicarious sources of information accelerate learning over what would be possible if the individual had to perform every behavior for learning to occur (Bandura, 1971). Students learn by observing others. Modeling also is a critical component in social cognitive theory. Modeling refers to changes in behavior, cognition, and affect that occur from observing one or more models. Bandura (1986) refers to response facilitation which is described as modeling actions that serve as social prompts for observers to behave accordingly.

Students acquire much information about their capabilities through knowledge of how others perform. Observing others who are similar to themselves succeed raises observers' self-efficacy and motivates them to try a specific task or perform a specific behavior (Schunk, 1987). Watching similar others or peers fail at a task also can lead to avoidance of the task by the learner (Schunk, 1987). Watching and learning from peers, in addition to observing modeled teacher behaviors, reinforces appropriate learner behaviors. Using this theory in a classroom setting is an easy to use, research based method.

For example, Kamps and colleagues (1999) conducted a study using well-known, common interventions for students at-risk for E/BD as well as students already diagnosed with E/BD. The study targeted 52 students in grades one through seven in an urban school setting. Direct observations were used to assess several behaviors including compliance with behavioral requests, rates of aggression, negative verbal remarks, and

peer interactions. The intervention program was a universal prevention program consisting of classroom management, social skills, and peer tutoring. Students learned “classroom survival skills” (p. 182) such as following directions, task completion, making appropriate choices, and accepting consequences by watching and learning from each other. Also, skills were selected that promoted positive peer interactions such as giving compliments and modeling appropriate play. Praise by teachers and peers were components throughout the program. Peer tutoring in reading also was an integral component using tutor/tutee roles. After one year, findings showed that the intervention improved performance of appropriate requests for attention, positive peer interactions, and decreased aggression and disruption for the target group. When looking at the many components of this particular study, praise was one aspect that has been researched (Nelson et al., 2009; Burnett, 2002; Burnett, 1999).

### **Praise**

The term “praise” means to value highly (Burnett, 2002). This involves commending someone for their worth or expressing approval or admiration of someone or something. Praise can be given in multiple forms. Praise may be verbal and spoken directly to the person or object of admiration such as telling a student that they did a great job of completing a difficult math problem or it can be in written form such a writing “Excellent job” on a returned test. A common use of praise in the classroom setting is when a teacher makes a verbal comment to a student or group of students about their behavior, motivation, or quality of work. Verbal praise is easy to give (Nelson et al., 2009). Written praise is used less frequently in educational settings (Elwell & Tiberio, 1994). However, there are times when written praise is given to students. Often teachers



comment on student work by writing on the papers before handing them back to the student. Also, teachers often make praise comments on report cards when students receive excellent grades. Research has shown that positive reinforcement in general is effective in motivating students to do well academically and socially (Burnett, 2002). In light of this research, the data show that the rates of teacher praise for students with E/BD range from 1.2 to 4.5 per hour per student as opposed to the suggested ratio of 3:1 praise to reprimands (Sutherland, 2000).

Although it seems intuitive that teacher praise is desirable for students, this is dependent on how the student perceives the praise. Teacher praise may not be considered a reward for each and every student. Elwell and Tiberio (1994) examined student perceptions of teacher praise received in the classroom and how it impacted student feelings toward behavior and academic success. The 620 students were in grades seven through twelve and were administered the *Praise Attitude Questionnaire* (Elwell & Tiberio, 1994) during class. Results indicated that these students perceived verbal praise as an important component in their social and academic success. However, students found teacher verbal praise to be more important as an outcome of academic performance rather than behavioral expectations. This is somewhat inconsistent with other findings (Sutherland, 2000; Gunter & Jack, 1994) and may be attributed to the age of the students. Elwell and Tiberio (1994) hypothesized that peer acceptance may be more important at this age.

Shores and Wehby (1999) analyzed the classroom social behavior of students with E/BD and their interactions with their teachers. Research consistently reports low rates of positive interactions between students with E/BD and their teachers as well as

inconsistency of these positive interactions. The authors suggest that increased teacher praise may lead to increases in positive behavior. Therefore, increases in appropriate student behavior should follow. Shores and Wehby (1999) pose that future research be expanded in the area of teacher's praise behavior to understand the variables that affect and maintain patterns of teacher and student behaviors and what role teacher praise plays in developing positive relationships between students and their teachers.

Burnett (2002) examined the relationships between teacher praise and 747 elementary-aged students' perceptions of their relationship with their teacher. Burnett (1999) previously found that positive statements to students were more effective than verbal reprimands. Although students reported that negative feedback or frequent reprimands from the teacher affected their relationship with the teacher, satisfied students reported a more positive teacher relationship even though they received more negative teacher feedback regarding academic work. However, these same satisfied students also received more "general" praise, although not necessarily related to the classroom environment specifically in comparison to the dissatisfied students. Future studies should focus on the amount of general praise and how it relates to student satisfaction.

The positive behavioral interventions and support (PBIS) framework is frequently used in classrooms across the country to reinforce student behavior. The PBIS framework is focused on student success and is designed toward specific, individualized school needs. There are three tiers that support all students with the secondary tier focused on small groups of students who do not respond to the primary tier. Giving students daily report cards (Chafouleas et al., 2007) and conducting check-in, check-out procedures for students (Filter et al., 2007) are two widely used secondary supports.

These secondary supports can be efficiently implemented in real life classroom settings and are often comprised of additional praise (Morrison & Jones, 2007). In a recent study conducted by Morrison and Jones (2007), the use of positive peer reporting (PPR) was extended as a class-wide, secondary PBIS intervention. In this study, procedures were implemented so that all students in the classroom had the chance to provide and receive praise. Two third grade classrooms with a total of 27 students participated. One student was diagnosed with a disability and two were in the eligibility process. The intervention included the teacher reading a PPR script to the class each day before lunch. The script detailed the steps for giving praise and procedures for how to allow the students to practice making praise statements to each other. Next, a wheel of chance was used to randomly select a number. A chance card was read to the student with that number. Chance cards held phrases like, “Give praise to the student to your right” or “Give praise to a student selected by the teacher” (Skinner et al., 2002, p. 117). After a student made an appropriate praise statement, the teacher rewarded both students with a piece of candy or sticker. Next, chance cards were read to each remaining student according to the number on their cards for approximately 15 minutes. Following the intervention, the teachers observed decreased maladaptive social behaviors. Other observations noted decreases in maladapted social behaviors in other locations in the school setting, showing that this 15 minute PPR session not only improved social behavior during its specified time but generalized into other settings as well.

In another study where teachers and students jointly provided praise, Skinner, Veerkamp, Kamps, and Andra (2009) evaluated teacher and peer attention on the inappropriate vocalizations and disruptions of a first grade student with Attention Deficit

Hyperactivity Disorder. Praise was defined as “a positive teacher remark following an academic response or behavioral compliance” by the student (Skinner et al., p. 246). Peer behaviors were defined as verbal or visual prompts to engage the student in the academic activity or reminding the student to remain on-task. The student received teacher and peer attention for on-task behavior and completion of assignments. A token economy also was in place to reinforce these behaviors. Teacher and peer attention was given on a three minute schedule. Results showed that this intervention was effective in decreasing the disruptive behaviors of this student.

### **Teacher Praise**

Many studies have shown that reinforcement for students with E/BD within self-contained settings is a positive influence on appropriate class behaviors (Gunter & Jack, 1994). Gunter and Jack (1994) indicated that interactions between teachers and students with aggressive behaviors are rarely positive in nature. Their findings indicated that the following scenario is not uncommon: a student engages in a disruptive act, the teacher redirects the student back to the academic task, which leads the students to engage in more disruptive behaviors. Findings indicate that students rarely received positive reinforcement or praise even when the students were engaged in appropriate classroom behavior. Conversely, it was noted that when teachers did increase positive reinforcement, disruptive behaviors decreased. Also, negative student/teacher interactions decreased with the introduction of praise.

Sutherland (2000) conducted a review of the literature on the effect of teacher praise on behavior and academic outcomes for students with E/BD. In addition, he reviewed the use of praise in these classrooms as a means to provide educational

personnel with methods to assist in monitoring and increasing their use of praise. Sutherland concluded that teacher praise, especially behavior specific praise (e.g., I like the way that you entered the classroom without talking, Thank you for beginning your assignment as soon as you sat down, etc.), had a positive influence on behavioral and academic outcomes for students with E/BD. However, results of the four studies examined showed that rates of praise across all studies were much lower than the suggested 3:1 (Shores, Gunter, & Jack, 1993) with reprimands distributed at much higher rates than praise statements. Across all observations, more than 20% of the observed time was spent in negative teacher/student interactions with positive interactions accounting for less than 5% of the observed times.

Ferguson and Houghton (1992) examined the effectiveness of contingent teacher praise on student's on-task behavior. Three teachers and 24 randomly selected elementary-aged students were observed following a teacher training in the use of praise. In this study, the selected teachers were taught to develop a discipline plan by establishing classroom rules, applying consequences to rule violations, and providing positive feedback with verbal feedback by the teacher (Canter & Canter; 1988; Ferguson & Houghton, 1992). Teachers delivered at least one positive verbal comment to each student during each designated 30-minute lesson. Results suggest that on-task behaviors increased. The authors hypothesized that by increasing on-task behaviors, there was a decrease in off-task, disruptive behaviors.

The link between specific teacher praise and increased appropriate behaviors in early childhood also has been investigated. By using a multiple baseline across participants design, Fullerton et al. (2009) demonstrated a causal relation between the

increase of four teachers specific praise statements and an increase in the engagement and compliance of four students with E/BD. Teachers completed training on the use of specific praise statements such as “You did a nice job washing your hands.” Teachers identified five specific praise statements that could be used to encourage the target child’s appropriate behavior. Teachers posted cards containing these statements in obvious places around the classroom to encourage the use of the praise statements. During implementation, all four teachers increased their rate of behavior specific praise statements and all four students demonstrated increased compliance and engagement.

Nelson et al. (2009) investigated the use of teacher-written praise notes and their connection to the use of appropriate social skills and placement in in-school suspension within a middle school setting. Participants were 70 teachers and 1,809 sixth and seventh grade students. Teachers wrote praise notes to students whose behavior exemplified the positive behavior goals of the school. After evaluating the praise note and office discipline referral (ODR) data using SPSS software, a significant correlation was found between the total number of praise notes written to students and the number of ODRs per student. Findings indicated that as the number of praise notes increased, the number of ODRs decreased.

Although previous studies have been conducted on the effectiveness of teacher praise and positive reinforcement for students with E/BD, the literature is scarce when it is applied to residential settings for students with E/BD. Kennedy and Jolivet (2008) extended the literature on positive reinforcement with students with E/BD in a residential setting. A multiple baseline design across settings was used to evaluate the effects of increasing teachers positive verbal reinforcement on the amount of time two middle

school students with E/BD in a residential setting were spending outside of the classroom for separations or in-school suspensions. A positive relation was demonstrated between increased positive verbal reinforcement in the classroom by the teacher and decreased amounts of time spent outside the classroom. Future directions indicated replicating the study at a similar facility with a larger number of students.

### **Peer Praise**

Moroz and Jones (2002) researched the use of peer praise and PPR on the social activity levels of three elementary school children in a public school setting who were socially withdrawn, had low rates of peer interactions, and had poor ratings on the *Diffident Syndrome of the Adjustment Scales for Children and Adolescents*. Peer praise has been shown to be effective in reorganizing peer social networks that involve bullying or other coercive practices by students (Skinner et al., 2002). By setting aside time each day for students to give each other descriptive praise for appropriate social skills and behaviors, reinforcers for appropriate classroom behaviors and expectations are increased. The PPR in this study consisted of the teacher rewarding students that publically praised one of the students during a brief, daily session. Before the first day on the intervention, the teachers explained the concept of PPR in a scripted manner. During the initial lesson, the teacher covered four main steps in the PPR procedure for the students: (1) look at the person, (2) smile, (3) describe what they said or did, and (4) say something like “good job.” The teacher then modeled this procedure using different examples and the students were given a chance to practice. On the first day of the intervention, the teacher announced the “star,” the child that was the participant in that classroom. On that day and each day to follow, students were given a short amount of

PPR time between morning recess and during a structured academic time. The teacher would announce that it was time to praise the star, remind them of the steps in the procedure, and then the students were allowed to give praise on a voluntary, random basis. The teacher praised all positive statements made by the students. Also, there were group contingency rewards given to the whole class by the teacher. Positive peer reporting was effective in increasing social engagement in all three students. These findings suggest that daily peer praise may improve the social interactions across diverse settings and subjects.

Nelson and colleagues (2008) introduced the idea of peer praise notes (PPN) and possible positive effects on the social involvement of withdrawn adolescents. Three adolescents were chosen for intervention based on their minimal social interaction with classmates. It was explained by the teacher that the students would be given a 15-minute peer activity time four days a week for the purpose of socializing. Once a week the students received a short lesson on peer relations. Students were given instruction on how to correctly write a praise note. The teacher placed two PPNs on each student's desk every morning. Students were allowed to choose to whom they would give the notes. However, students were instructed to write every student in the class each week. The teacher set a class goal each week and the students voted on a class reward if they met the goal. Students were given several minutes to write their PPN each day before the peer activity time. The number of PPNs written each day was tallied and the teacher praised the students. Social involvement was defined as either actively talking with a peer or playing a game with a peer. All three students increased their social interaction percentages over the course of the intervention and maintained high levels of interaction



after the intervention was withdrawn. This suggests that writing PPNs may be an effective use of class time as well as an effective method of increasing social interaction among students with E/BD with internalizing behaviors.

Teacher and peer praise, as well as PPNs, have encouraged students to recognize and report helpful, appropriate classroom behaviors and peer relations. The literature on PPNs has shown an increase in the social behaviors of withdrawn students (Nelson et al., 2008; Moroz & Jones, 2002; Sutherland, 2000); however, the themes of promoting positive teacher/student interactions as well as the research on teacher praise support the conclusion that this positive reinforcement strategy (praise notes) will increase students' positive behaviors and interactions in the classroom setting.

### **Future Research Directions**

Although praise is used as a school and classroom intervention (Lannie & McCurdy, 2007; Morrison & Jones, 2006), there are specific areas which warrant future research. First, it is unclear if teacher praise or peer praise is more effective in improving the behaviors of students with E/BD. Both types of praise have been independently researched; however, there is scant research comparing the two (DuPaul & Eckert, 1994).

Second, the use of praise as a secondary tier class-wide intervention is gaining popularity in schools (Lannie & McCurdy, 2007). It has been proven effective with the general population and beginning studies are showing positive results with students with E/BD (Kamps et al., 1999). Due to the fact that more and more students are being served in alternative school settings, research needs to be extended to more severe populations such as those in residential and alternative settings (Gagnon & Leone, 2001; Kennedy & Jolivette, 2008). Students in these settings are a vulnerable population due to their nature

of severe emotional and behavioral difficulties as well as their involvement with outside state agencies and multiple foster and facility placements. Teachers who work in this field are in need of effective, easy to implement class-wide interventions.

Third, the format in which praise is delivered needs to be further investigated. While praise is used commonly in verbal form, written forms of praise are less researched (Morrison & Jones, 2006). Using written forms of praise provides students with something tangible to keep and to view when needed. However, praise notes also require reading and writing skills so students must be able to read to understand the praise notes (Nelson et al., 2008). Teachers and students can read notes together which will not only improve reading decoding and fluency for the student, but also help to develop a positive relationship between teacher and student. Having the students write their own praise notes also may provide needed practice and instruction in written expression. Future studies in this area can determine the use of written praise on reading and written expression skills.

Fourth, the social validity of praise has not been measured as a part of the intervention. It is important to receive feedback from teachers, students, and parents to understand how the implementation of praise interventions is perceived. Social validity measures will also determine teacher willingness to implement praise notes in the future.

The use of teacher and peer praise in the classroom setting with students with E/BD is an area of research that needs further development. Praise is an easy to implement and cost-effective intervention (Nelson et al., 2009). In general, when teachers observe appropriate behaviors occurring in their classrooms, they provide verbal praise. However, there is a lack of research to support the use of written praise in the

classroom. Often teachers write supportive praise comments on progress reports and report cards, but this is not a common daily occurrence. Teacher praise is widely supported; however, peer praise has less research to support its use. While it appears to be common knowledge that students are influenced by their peer groups during the school-aged years and beyond, there is not sufficient data to support the use of peer praise in the classroom setting.

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## CHAPTER 2

### THE EFFECTS OF PRAISE NOTES ON THE DISRUPTIVE BEHAVIORS OF ELEMENTARY STUDENTS WITH EMOTIONAL AND BEHAVIORAL DISORDERS IN A RESIDENTIAL SETTING

Researchers have shown that students with emotional and behavioral disorders (E/BD) lack positive social interactions with both peers and teachers (Nelson et al., 2008). Such deficits or excesses may lead to disruptive classroom behaviors, inconsistent academic performance, and poor social adjustment later in life (Gunter & Jack, 1994). The many problems associated with behavioral and social skill deficits by students with E/BD have been reported (Coie, 1994; Kamps et al., 1999). Generally, students with E/BD do not demonstrate cooperative or positive relationships in the classroom with their teachers or peers. The absence of positive relationships in the classroom often leads to peer rejection. This rejection may lead to internalizing feelings of inadequacy such as low self-concept (Coie, 1994) or more displays of externalizing behaviors. In addition, students with E/BD often have confrontational relationships with their teachers, consisting primarily of being reprimanded for disruptive behavior (Gunter & Jack, 1994). Not only do these interactions affect the student with E/BD, but researchers have shown that aggressive and antisocial behaviors disrupt the classroom learning environment of all students by threatening the safety of others and overwhelming teachers (Gresham et al., 2003). Also, the internalization of rejection in the classroom setting has been linked to underachievement in academic settings (Kavale & Forness, 1996).

One important aspect of schooling is the training of appropriate social and interaction skills. To meet this training need, school personnel should develop a system to incorporate the necessary social and interaction skills between their students and to



demonstrate these skills within their interactions with their own students. Mathur and Rutherford (1996) pose that proper social development in school could be the cornerstone of personal and social adjustment throughout one's life. Students with E/BD need more direct instruction in social skills during school years than their typical peers. Many postulate that students with disabilities are viewed differently or in less favor than those without disabilities (Turner & Louis, 1996). Due to the prevalent issues with social adjustment within this population of students, it is clear that there is a need for universal, preventative programs to address the social needs of students with E/BD.

### **Students with Emotional and Behaviors Disorders and Disruptive Behaviors**

Researchers have shown that students displaying behavioral problems early in their school careers will continue to demonstrate antisocial and aggressive behaviors during later years as well (Kazdin et al., 1993). Farmer and colleagues (1999) state that these patterns of behavior problems between students, as well as the negative interactions between students and teachers, are a major factor in poor school success. Previous studies (Scott, 2001; Sugai, Simonsen, & Horner, 2008) provide clear data that implementing positive behavioral interventions and supports (PBIS) can be associated with decreased student inappropriate behaviors.

The PBIS framework is focused on student success as opposed to student failure and is designed toward specific school issues while supporting all students (Morrison & Jones, 2007). There are three tiers in the framework (Sugai & Horner, 2002; Sugai et al., 2008). The first tier is the primary intervention for use with all students and staff in all school locations. This would include the implementation of an instructional or behavioral strategy across the entire school population. The second tier is geared toward

students who did not respond to the primary tier and need additional supports. The tertiary tier is for students who were not responsive to the first two tiers. Of the three tiers, secondary tier interventions require minimal time to implement (Scott, 2001) and are used to prevent future problem behaviors. This tier incorporates similar features across various students (Fairbanks, Simonsen, & Sugai, 2008) such as ( a) strategies to increase daily structure, (b) the provision of more frequent behavioral prompts, (c) the delivery of additional praise for appropriate behavior, and (d) strategy delivery by small group or classroom. Common features shared by many secondary tier interventions include instruction on targeted skills, self-monitoring strategies, acknowledgements for appropriate behavior, frequent performance feedback, and peer tutoring (Fairbanks et al., 2008).

Praise notes can be applied class-wide and target multiple students at once. Research shows that classes that use secondary tier class-wide interventions are likely to increase student engagement and learning while decreasing behavior problems (Conroy et al., 2008). In addition, when class-wide interventions are incorporated, teacher-student interactions become more positive (Conroy et. al., 2008). Research shows that teachers are then able to focus on teaching appropriate behaviors (Conroy et. al., 2008). These interventions also allow each student in the class to enjoy the benefits of the intervention.

A population for which secondary-tier PBIS interventions may be useful is for students with E/BD in residential facilities. These students often face additional behavioral challenges and require a variety of tiered support. The majority of students residing in residential facilities have had little opportunity for positive reinforcement (Gagnon & Leone, 2006) as they have moved through various foster placements and

outside agencies providing few opportunities and little time to establish positive relationships with their caregivers. In alternative school settings, such as residential, generally there are multiple primary support interventions in place (Gagnon & Leone, 2001). With these primary supports in place, secondary interventions add a further layer for students that have been exposed to the primary support for longer lengths of time without responding appropriately. Many students reside in residential settings for longer than one school year and require more in depth interventions than the primary interventions already in place.

One form of positive reinforcement this population of students may benefit from is praise. Currently, there is a lack of praise research in residential settings for students with E/BD (Kennedy & Jolivette, 2008). Shores and Wehby (1999) suggest that future researchers expand the knowledge-base of teacher praise and the variables that affect and maintain specific positive patterns of teacher and student behaviors. Expansion of praise research may help determine what role teacher and peer praise have on improving social behavior of students with E/BD in residential classrooms.

### **Praise**

Praise is a form of approval provided to someone. Praise expresses to someone that they are of worth or have done something of worth to others (Burnett, 2002). Praise comes in many forms, such as verbally by telling someone how well they did a task or in written form such as a note or letter expressing admiration. Within the classroom setting, praise often is delivered in verbal form (Burnett, 2002). Teachers generally praise students for answering questions correctly or following classroom rules. In addition, teachers use written praise when they make comments on report cards for good grades or

on tests when a student has done well. However, these written comments on progress reports and report cards are typically general in nature (Nelson et al., 2009) and occur infrequently when researchers suggest praise should be more frequent and behavior specific (Andrews et al., 1996).

### **Teacher Praise**

Researchers have demonstrated that the interactions between teachers and students with E/BD are primarily negative in nature (Gunter & Jack, 1994; Van Acker & Grant, 1996). Findings indicate that students do not consistently receive feedback for demonstrating positive behavior, but often do receive negative feedback for demonstrating negative behaviors (Gunter & Jack, 1994; Van Acker & Grant, 1996). This interaction may lead to an increase in negative behaviors for students seeking teacher attention. However, it has been noted that when teachers provide more positive reinforcement and praise, negative student behaviors decrease (Gunter & Jack, 1994).

Several researchers have shown that teacher praise is effective in decreasing disruptive behaviors (Canter & Canter, 1998; Ferguson & Houghton, 1992; Sutherland, 2000). After Sutherland (2000) conducted a review on the praise literature, he concluded that behavior specific teacher praise had a positive influence on behavioral and academic outcomes for students with E/BD. He also noted that in the studies reviewed, the rates of praise were not the suggested 3:1 ratio (Shores, Gunter, & Jack, 1993). Recently, Kennedy and Jolivette (2008) found a positive relation between increased verbal reinforcement within a residential classroom setting with decreased amounts of time spent in in-school suspension for students with E/BD in a residential facility. They report that when the number of positive verbal statements to two students were increased, the

frequency of time spent outside of the classroom due to negative behaviors decreased. By implementing verbal reinforcement, the two students spent much more time within the classroom setting for instruction. In another study, Nelson and colleagues (2009) found that using teacher-written praise notes decreased the number of office discipline referrals (ODRs) for middle school students. The teachers were taught how to use praise and then reinforced for actual use of praise notes to students demonstrating appropriate social skills.

### **Peer Praise**

Additional studies have shown similar results when positive peer reporting was implemented. Positive peer reporting (PPR) consists of a structured, peer mediated social skills intervention (Skinner et al., 2002). Students are instructed to provide praise to one another when they observe positive behaviors and to comment upon attributes observed in one another during a scheduled class period. Such praise also may be given through the use of peer praise notes. Peer praise notes (PPN) are positive comments of the same type as PPR, but in written format (Nelson et al., 2008). It has been suggested that when the praise or feedback is written to a peer, picked at random or a peer of the student's choice, improved social relations may result (Nelson et al., 2008). Both types have shown not only to improve classroom behavior but also increase the amount of positive social interaction between peers, lasting beyond the implementation of the PPR (Nelson et al., 2008).

Positive peer reporting has been shown to be effective in positively restructuring peer social networks (Skinner et al., 2002). This intervention allows students to have time each day to reflect on and to administer descriptive praise to their peers for

appropriate social skills and behaviors recently observed. By incorporating this intervention, natural reinforcers and appropriate classroom behaviors are increased. Moroz and Jones (2002) found that PPR was effective in increasing the social engagement of three students. By using daily sessions of peer praise, they found that social interactions improved across students and settings.

### **Teacher and Peer Praise**

Research by Skinner and colleagues (2009) shows that using teacher praise and peer praise can have positive effects on students' classroom behaviors. They studied whether teachers and peers could successfully implement praise targeted at one specific student in the classroom. The first grade student had not responded to the classroom positive behavioral supports provided and engaged in high rates of disruptions such as vocalizations and aggression. After functional analyses were completed, an intervention package consisting of five interventions was implemented: (1) differential reinforcement of alternative behaviors, (2) differential reinforcement of other behaviors, (3) function-based fixed time reinforcement, (4) self-monitoring of on-task behaviors, and (5) a token economy. Findings showed that the students' disruptive behaviors decreased during academic instruction with the implementation of the above interventions which included praise from both teacher and students. The use of teacher and peer praise within the classroom setting for students with E/BD has been proven effective (Lannie & McCurdy, 2007). The use of this positive behavioral support serves as a means to provide teachers, school personnel, and peers with an easy and effective way of monitoring and increasing the use of praise with students with E/BD.

Research involving teacher praise in the classroom with students with E/BD attests to the fact that it is easy to implement within the real life, classroom setting (Nelson et al., 2009). It simply involves acknowledging the appropriate behaviors of students. Also praise is a cost-effective intervention that can be used as frequently as needed by the teacher, peers, or any school personnel (Nelson et al., 2009). However, there is a need to generalize this secondary-tier intervention to alternative settings, such as residential schools due to the complex needs of the students with E/BD served in these schools.

Few researchers have explored the use of written praise and its effects on social skills in the classroom setting (Nelson et. al., 2009). To address this deficit, Nelson and colleagues studied the connection between written teacher praise (praise notes) and disruptive behaviors leading to ODRs of middle school students. Participants were 70 middle school teachers and 1,809 sixth and seventh grade students. Teachers taught specific social skills to the students and then supplied written praise notes to students demonstrating the skills taught. The data suggest that as praise notes increased, ODR rates decreased. This leads to the conclusion that increasing teacher praise in the written form may decrease disruptive behaviors in the classroom (Nelson et. al, 2009).

### **Area of Research**

First, little is known in the comparison of teacher and peer written feedback and their effectiveness. However, research offers specific characteristics of verbal teacher and peer praise that have been shown to be effective with students with E/BD (Canter & Canter, 1988; Ferguson & Houghton, 1992; Sutherland, 2000; Skinner, 2002; Nelson et al., 2008). Characteristics of effective praise included the use of both contingent praise

and behavior specific praise. For example, teachers must clearly state the exact positive behavior that the student is exhibiting and comment on its specific effect on academic and/or social achievement. Many studies have focused on peers and social learning to address the social skills deficits of children with behavior problems (Sancilio, 1987; Strain, 1982). Positive Peer Reporting (PPR) uses teaching and rewarding other students for providing praise to more socially isolated students in the class (Ervin, Miller, & Friman, 1996). Several studies have shown PPR to be an effective strategy to decrease negative social interactions (Bowers et al., 1999; Ervin et al., 1996; Jones, Young, & Friman, 2000). While both teacher and peer praise have been found effective in decreasing negative social interactions, there is little research that compares the two within the same study.

Second, the maintenance of praise notes on student behavior is not known at this time. Of the two articles reviewed regarding praise notes (Nelson et. al, 2009), no maintenance data were provided. This is a gap in research that should be investigated to determine if praise notes have a lasting effect on student behavior. Last, social validity has not been reported on the majority of praise studies. While the effectiveness of praise on student behavior is of major concern, it is also important to note how the effects of the intervention are perceived by those directly and indirectly involved. This is an area that requires further investigation.

The purpose of this study was to research the effects of written teacher and peer praise notes on the duration of disruptive classroom behaviors of students with E/BD in a residential facility. The specific research questions include: (a) what effect does written teacher praise notes or peer praise notes have on the disruptive behaviors of elementary



students with E/BD in a residential classroom setting, (b) will one type of praise note (teacher or peer) be more effective in decreasing disruptive behaviors of elementary students with E/BD in a residential classroom setting, (c) will changes in student behavior maintain after the discontinuation of the interventions, and (d) what is the social validity of teacher or peer praise notes when implemented in the residential classroom setting?

## **Method**

### **Participants and Setting**

Eight elementary aged students (7 – 11 years of age) with emotional and behavioral disorders (E/BD) in grades two through four participated. All students met the state criteria for emotional disturbance and were served in a 24-hour a day/7-day a week residential facility. Students were selected if their disruptive classroom behavior was attention-maintained as determined by teacher nomination, archival record review, and a functional behavior assessment (FBA); and five or more office discipline referrals (ODRs) were accrued during academic instructional time since the beginning of the semester prior to baseline. The eight students were assigned to three different Art groups and attended Art class on a rotating schedule. Art class met every third day to accommodate the three groups of students (Brandon and Ruth; Brian, Naz, and Lucas; and Matt, Jack, and Landon). Refer to Table 1 for student demographics.

In addition, one Art teacher who was certified in special education and had three years of teaching experience in the residential facility, and two behavior specialists assigned to the Art class and trained to work with students with E/BD participated in the study. Refer to Table 2 for adult demographics. The interventions were implemented in the self-contained Art classroom with the same teacher, behavior specialists (two people

Table 1

*Student Demographics*

Student	Age	Grade	IQ	Gender	Ethnicity	ODRs Prebaseline Referrals in Past 3 Mos.	Total No. of Referrals	Referral Behavior	Length of Stay (Mos.)	No. of Out of Home Placements
Brandon	10	3	84	Male	Black	11	11	Defiance	26	4
Brian	8	2	93	Male	Black	5	5	Peer interactions	12	5
Jack	11	4	61*	Male	White	9	9	Disruption, off-task	10	1
Landon	8	2	99	Male	White	5	5	Disruption	6	5
Lucas	8	2	80	Male	White	5	5	Cursing	10	7
Matt	10	4	83	Male	Black	7	7	Noncompliance	6	2
Naz	10	4	95	Male	Black	5	5	Disruption	20	3
Ruth	8	2	101	Female	Black	12	12	Disruption, off-task	4	3

*Note.* \* Psychological evaluation notes that this score is not to be considered a true estimate of intellectual functioning.

Table 2

*Adult Demographics*

Position	Age	Gender	Ethnicity	Yrs of Experience	Degree Held
Art Teacher	43	Female	White	3	M.A., Dance Movement
Behavior Specialist	29	Female	Black	6	M.P.A., Public Administration
Behavior Specialist	27	Male	Black	2	B.A., Health and Human Performance
Data Collector	35	Female	White	16	M.Ed., Special Education
Data Collector	26	Female	Black	0	B.A., Psychology

share the same duty across the week), and students present each session. The classroom is arranged in a typical Art classroom format with three tables that allow two to three students at each table. Students are required to work in close proximity to each other and to share common art items that are given per table. Art class was identified as the intervention period per student based on the teacher reported number of classroom disruptions and confirmed by office discipline referral data.

The residential facility houses an average of 74 students in grades 1 through 12. The students live in housing units designated by gender, age, and therapeutic need. All students attend an on-campus school five days per week and are assigned based on grade level. This facility has been implementing facility-wide positive behavioral interventions (FWPBIS) and supports for the past 3 years (Jolivette, Kennedy, Patterson, Houchins, & McDaniel, 2010) with fidelity above the minimum 80/80 score from the School-Wide

Evaluation Tool (Horner et al., 2004). The universal tier behavioral expectations of Show respect, Take responsibility, Accept adult directions, Respond appropriately (STAR) were established for all areas of the facility with lesson plans created to teach all students these expectations. Students receive STARs upon displaying the expected appropriate school-wide behaviors. These coupons are used to purchase items and/or privileges in the STAR store every two weeks.

### **Materials**

Materials for this study included (a) teacher and peer PPN templates (Appendix A): created in the shape of stars to compliment FWPBIS, (b) an observation form to record data from each session (Appendix B), (c) a fidelity checklist (Appendix C), (d) a social validity survey (Appendix D), and (e) the *Functional Assessment Checklist for Teachers and Staff* (March et al., 2000) (Appendix E).

### **Dependent Variables and Data Collection**

The dependent variables were (a) disruption, and (b) ODRs. Disruption was defined as inappropriate social behaviors such as physical aggression, verbal threats to peers and adults, sexually explicit language, profanity, inappropriate physical boundaries, out of seat, teasing, and inappropriate noises. Specific operational definitions of students disruptive behavior were individualized per information gathered from the FBA (see Table 3). The duration of the disruption was calculated by marking the start and stop time for each occurrence of the behavior and summarizing the time in the Art classroom during the last 15 minutes of class. [Two to three time per week (three groups rotated daily for Art with group 1 having Art Monday and Thursday, group 2 having Art Tuesday and Friday, and group 3 having Art on Wednesday and the next Monday) on a rotating

Table 3

*Operational Definitions of Student Behaviors*

Student	Behavior	Operational Definition of Disruptive Behavior
Brandon	screaming cursing running away	using a voice that is much louder than the accepted “inside voice” using profanity towards a teacher or peer leaving the classroom without permission
Brian	provoking threatening teasing	teasing a peer in an attempt to begin an altercation using verbalizations to show harmful intent towards a peer using verbalizations in an attempt to begin an altercation
Jack	off-task behavior out of seat	not focusing on the given assignment for more than 2 minutes leaving the assigned desk or chair without permission
Landon	inappropriate language Provoking poor boundaries	using profanity or suggestive language towards a teacher or peer teasing a peer in an attempt to begin an altercation not maintaining the invisible arms length boundary required in school
Lucas	inappropriate language	using profanity or suggestive language towards a teacher or peer
Matt	refusing to come to class	not arriving to the classroom at the scheduled start time
Naz	talking out off-task refusal to work	speaking out in the classroom without being called upon by the teacher not focusing on the given assignment for more than 2 minutes not beginning the assignment within the 2 minute start time
Ruth	stealing talking out out of seat	taking something that belongs to another student or the teacher speaking out in the classroom without being called upon by the teacher leaving the assigned desk or chair without permission

basis.] The percentage of time spent in disruptive behaviors was calculated per student. The frequency of ODRs were calculated per student per phase using the data in the SWIS data collection system (May et al., 2000) and are displayed in table format (see Table 4).

### **Functional Behavior Assessment**

A functional behavioral assessment (FBA) was conducted to examine the antecedents of disruptive behavior and the consequences that follow or maintain the disruptive behavior. In this study, the FBA process included a review of documentation (i.e., ODRs), teacher interviews using the *Functional Assessment Checklist for Teachers and Staff* (FACTS-Part B: March et al., 2000), and direct observation of the problem behavior (see Table 5). First, ODRs were reviewed to identify students who may benefit from secondary tier PBIS interventions (Nelson, Benner, Reid, Epstein, & Currin, 2002). By reviewing the information in SWIS prior to the study, the perceived function of specific students was identified. Second, a FACTS interview was conducted for each student with the student's homeroom teacher. Target disruptive behaviors were operationally defined for each student per FACTS data. Third, a minimum of five classroom observations occurred to identify/confirm antecedents, targeted behaviors, and consequences for each student identified for possible inclusion over a four week period. Last, all of the data were triangulated to determine if the function of the disruptive behaviors per student were attention seeking (adult or peer). Only students whose disruptive behaviors were attention seeking behaviors were included.

### **Research Design**

An alternating treatments single-subject design was used to evaluate the effects of Teacher Praise Notes (TPNs) and Peer Praise Notes (PPNs) on the students' disruptive

Table 4  
*Frequency of ODRs Per Student*

Week	Brandon	Brian	Jack	Landon	Lucas	Matt	Naz	Ruth
Baseline	9	3	2	6	3	4	9	1
Intervention								
(TPN/ PPN)	(2/1)	(1/1)	(1/0)	(4/3)	(0/0)	(0/0)	(0/0)	(0/0)
Most Effective Int.	0	0	n/a	n/a	0	0	n/a	0
Maintenance	0	0	n/a	n/a	0	0	n/a	0

Table 5

*Summary of Functional Behavioral Assessment (ODRs and FACTS)*

Student	No. of ODRs Prebaseline	FACTS				Current Efforts to Control Behaviors
		Problem Behaviors Identified	Antecedent Events	Things Obtained	Behaviors	
Brandon	11	Screaming, cursing, running away	Academic failure	Adult and peer attention	Scheduling, seating, reprimands	
Brian	5	Provoking, threatening, teasing	Negative social, conflicts at home	Adult and peer attention	Reprimands, ODR	
Jack	9	Off-task, out of seat	n/a	Adult attention	Reprimands	
Landon	5	Inappropriate language, provoking boundaries	Academic failure, conflicts at home	Adult and peer attention	Reprimands, ODR	
Lucas	5	Inappropriate language	Academic failure	Adult attention	Reprimands	
Matt	7	Refusing class	Academic failure	Peer attention, avoidance	Reprimands	
Naz	5	Talking out, off-task, refusal to work	Negative social	Adult and peer attention	Reprimands, ODR	
Ruth	12	Stealing, talking out, out of seat	n/a	Adult and peer attention	Reprimands, verbal prompts	



behavior during the last 15 minutes of Art class (Kazdin, 1982; Richards, Taylor, Ramasamy, & Richards, 1999). The two interventions were counterbalanced each session across classes.

### **Implementer and Data Collector Training**

The teacher and behavior specialists were trained on the two interventions by reviewing the script, materials, fidelity checklists, and research design. Training took place before the study began for approximately one hour after school on two consecutive days until the teacher was able to recite the script with 100% mastery and list the target behaviors without assistance. Also, two data collectors were trained on the data collection procedures for this study. The components of the data collection procedures were explained step-by-step in a training session, as well as examples and non-examples of disruptive behaviors to be marked per the specific operational definitions per student. After the initial training session took place, in vivo data collection occurred until a minimum of 98% agreement occurred for the duration of disruptions between the researcher and the data collectors as well as between both data collectors.

### **Student Training**

Before the intervention began, the teacher taught the whole class a lesson on appropriate classroom behaviors and appropriate peer relations by showing students how to interact with each other with links to FWPBIS (i.e., STAR behaviors) as well as praise notes (this training session is indicated on each student's graph). The teacher modeled how to respond to different requests by peers as well as how to approach peers to initiate play. The Art teacher used the following script, "Today, we are going to talk about the importance of following classroom rules and the benefits of forming positive peer

relationships. We're going to go around the room and I want each of you to give me reasons you should follow class rules" (the teacher added reasons for following class rules that were not stated). "Now, tell me why forming positive relationships is a good thing". (the teacher added reasons as necessary). The teacher stated that on some days the students would be given writing activity time to acknowledge their classmates' observed appropriate behaviors during class time (Appendix A). Finally, the teacher introduced praise notes and discussed how the praise notes were to be used in class. The teacher then demonstrated examples of positive praise notes such as complimenting each other on their enthusiasm for learning or helping others as related to the FWPBIS rules. The teacher concluded the lesson by showing the students a copy of the praise notes and allowing them to practice writing praise notes with teacher and peer feedback.

### **Independent Variables**

The independent variables were Teacher Praise Notes (TPNs) and Peer Praise Notes (PPNs). All sessions included approximately 25 minutes of instructional time followed by 15 minutes to write and read praise notes, and a final 15 minutes for peer activity time. Each phase is described below.

**Baseline.** The teacher conducted class as typically instructed. The teacher announced that the next 15 minutes was peer activity time and which activities they may take part in (e.g., specific games, drawing, cards). Peer activity time consisted of the students interacting by playing games with self-selected partners or in small groups. Peer activity time occurred during Art class during the last 15 minutes. Duration of each disruptive behaviors were recorded.

**Teacher Praise Notes.** Teacher Praise Notes (TPNs) were written on the STAR form (see Appendix A). The teacher wrote TPNs for each student (whether in the study or not) in class that day. The behavior specific statements about the positive behaviors witnessed during the school day were written (e.g., “I like the way that you began your work as soon as I assigned it” or “It was great to see you helping your peer today when he was confused about the lesson”). Teacher praise notes were publicly given to each student before the 20 minute peer activity time in which students engaged in peer activity time. Students had one to two minutes to read their praise notes or to sit quietly if they chose not to read the notes. The data collector documented occasions when students refused to read their notes. The teacher or behavior specialist asked each student two questions after they privately read their praise notes: (1) What did your note say? and (2) What do you think about that? The student responses to these questions were recorded verbatim on a separate form.

**Peer Praise Notes (PPNs).** Peer praise notes (PPNs) followed the guidelines by Nelson et al. (2008) where the Art teacher placed one blank PPN (see Appendix A) on each student’s desk before peer activity time each day of the PPN intervention. Students were instructed to write their note to a peer of their choice while the teacher and behavior specialist circulated through the room to assist students when needed. Peer activity time consisted of 15 minutes of time to play games and engage with other students. The teacher or behavior specialist assigned to the classroom collected the PPNs and reviewed them for content while the students were recording their homework assignments and packing their belongings. If the content was not appropriate, the teacher or behavior specialist assisted the student in writing an appropriate praise note. Such assistance

included giving the students examples of appropriate classroom behaviors and providing assistance with word choice. The PPN was then distributed to the students by the teacher before the peer activity time began. Students had one to two minutes to read their praise notes or to sit quietly if they chose not to read the notes. The teacher or behavior specialist asked each student two questions after they privately read their praise notes: (1) What did your note say? and (2) What do you think about that? The student responses to these questions were recorded verbatim on a separate form. The data collector documented occasions when students refused to read their notes. The teacher verbally praised the students for completing the notes appropriately.

**Most effective intervention.** Since PPN and TPN were class-wide interventions, the decision of what constituted the most effective intervention for phase three was based on several factors. Data of the target students in the class were visually inspected for fractionation. If there was fractionation, then the intervention with the lowest fractionated percentage of disruptive behavior for the majority of the students was selected. This decision rule held true for Brandon, Brian, Lucas, Matt, and Ruth. If there was no fractionation of the data, then the students in the class remained in phase two with both interventions. This decision rule held true for Jack, Landon, and Naz.

### **Maintenance**

Maintenance probes occurred at two-day intervals after intervention was discontinued and followed the same procedures as baseline. The probes took place during the same class and peer activity time without peer notes.

### **Social Validity**

Three surveys (see Appendix D: student, teacher, and unit supervisor) were completed one week after the last session of the study. The teacher and unit supervisor

independently completed a survey per participating student after the last intervention session. Surveys were read aloud to the students as a group by a data collector after the last intervention session during Art class. These surveys consisted of five questions each with a rating scale of one to three for each item. Space for additional comments was included.

### **Fidelity**

A fidelity checklist (see Appendix C) was used to determine what percentage the implementer adhered to the procedures of each phase. The number of steps correctly followed by the implementer was divided by the total number of expected steps, and the sum multiplied by 100%. Also, interobserver agreement for procedural fidelity was calculated using the smaller number of observed steps divided by the larger number of observed steps multiplied by 100. For Brandon and Ruth, fidelity was calculated for 44% of sessions at a mean of 95% (range 50% - 100%) with IOA for 50% of fidelity sessions at a mean of 90% (range 50% - 100%). For Brian, Naz, and Lucas, fidelity was calculated for 43% of sessions at a mean of 99% (range 50% - 100%) with IOA for 54% of sessions at 100%. For Matt, Jack, and Landon, fidelity was calculated for 46% of sessions at a mean of 96% (range 50% - 100%) with IOA for 61% of sessions at a mean of 93% (range 50% - 100%).

### **Interobserver Agreement**

Interobserver agreement was calculated for the duration of disruptive behaviors. The total agreement formula was the smaller total duration of one observer divided by the larger duration of the other observer and the sum multiplied by 100% (Kennedy, 2005). The mean interobserver agreement for Brandon was calculated 32% of sessions at a mean

of 96% (range 75% - 100%). On one instance, one data collector documented the time spent in the hallway in a separation as disruptive behavior while the other stopped collecting duration data when the student left the room. The mean innterobserver agreement for Brian was calculated for 38% of sessions at a mean of 96% (62% - 100%). During baseline, one data collector noted an additional 9 minutes of teasing that was unnoticed by the teacher and the second data collector. The mean interobserver agreement for Jack was calculated for 30% of sessions at a mean of 100%. The mean interobserver agreement for Landon was calculated for 20% of sessions at a mean of 100%. The mean interobserver agreement for Lucas was calculated for 42% of sessions at a mean of 100%. The mean interobserver agreement for Matt was calculated for 40% of sessions at a mean of 100%. The mean interobserver agreement for Naz was calculated for 36% of sessions at a mean of 99.5% (range 94% - 100%). The mean interobserver agreement for Ruth was calculated for 29% of sessions at a mean of 99.8% (range 99% - 100%). Office discipline referrals were recorded through the SWIS system already in place at the school (see Table 4).

## Results

**Brandon.** As shown in Figure 1, Brandon's mean baseline percentage of time spent in disruptive behavior in Art was 71% (range, 1% to 100%) over a 4-week period. During the second phase, Brandon's TPN mean percentage of time spent in disruptive behavior decreased to 25% (range 0% to 75%) and his PPN mean percentage decreased to 0% across all data sessions over a 3-week period. Based on visual inspection, it was determined that PPN was the more effective intervention. During the final PPN phase, Brandon's mean percentage of time spent in disruptive behavior was 0% across all

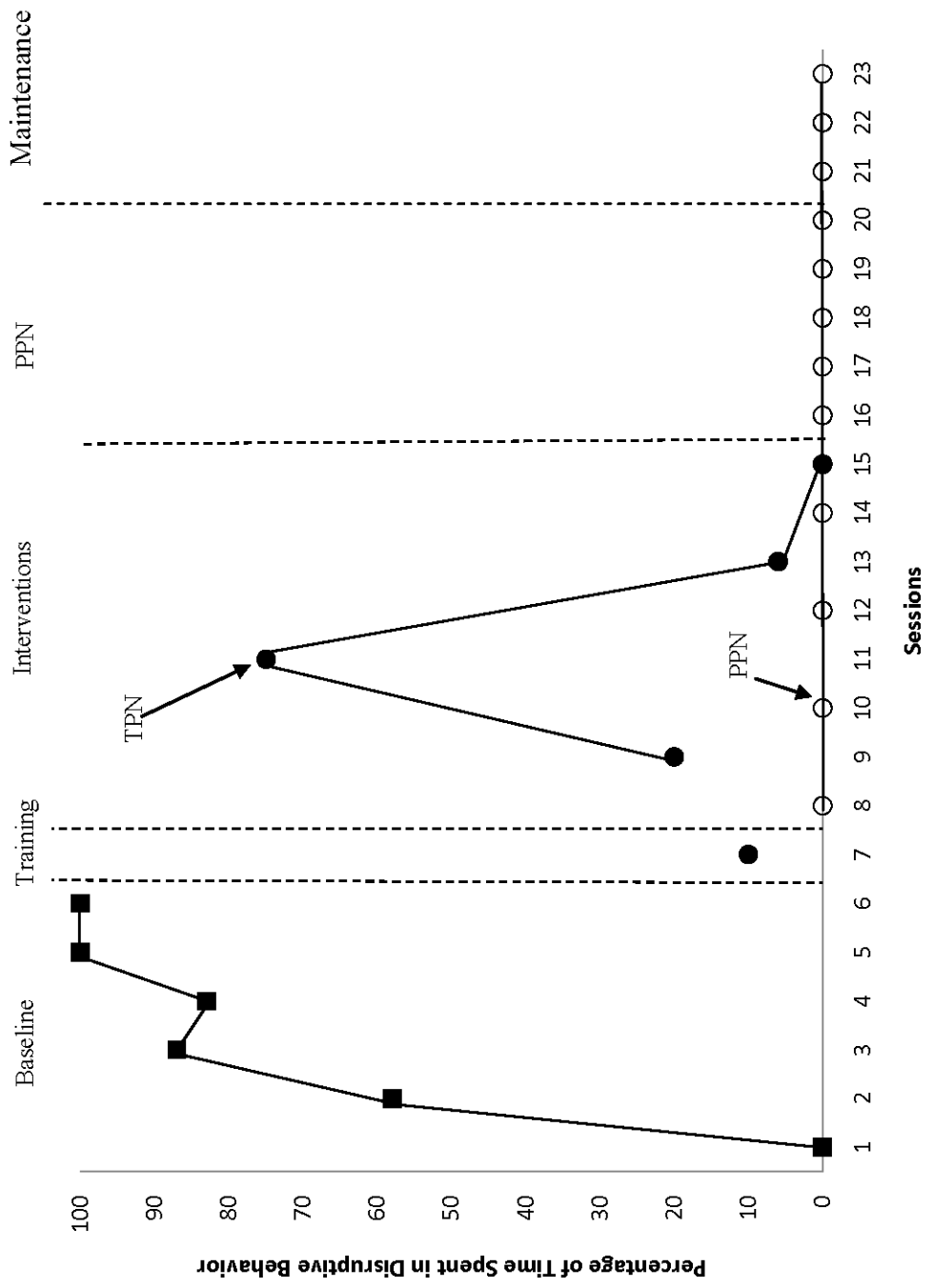


Figure 1. Percentage of Time Spent in Disruption per Social Activity Period for Brandon.

sessions. Maintenance probes conducted at two day intervals after intervention demonstrated that Brandon spent 0% of the observed time displaying disruptive behaviors. The ODRs Brandon received per phase were: baseline 9; TPN 2 and PPN 1; and most effective 0 (see Table 4). He chose to read his praise notes each session. The content of Brandon's praise notes were summarized as praise for staying in his seat and being patient (see Table 6). Brandon indicated that he did not like one type of praise note over the other on the social validity form.

**Brian.** As shown in Figure 2, Brian's mean baseline percentage of time spent in disruptive behavior in Art was 40% (range 8% to 100%) over a 4-week period. During the second phase, Brian's TPN mean percentage of time spent in disruptive behavior decreased to 9% (range 0% to 67%) and his PPN mean percentage decreased to 24% (range 0% to 100%). Based on visual inspection, it was determined that TPN was the more effective intervention. During the final TPN phase, Brian's mean percentage of time spent in disruptive behavior was 0% across all sessions. Maintenance probes conducted at two day intervals after intervention demonstrated that Brian spent 0% of the observed time displaying disruptive behaviors. The ODRs Brandon received per phase were: baseline 3; TPN 1 and PPN 1; and most effective 0 (see Table 4). He chose to read his praise notes each session. The content of Brian's praise notes were summarized as praise for remaining on task, following directions, and working well with peers (see Table 6). Brian indicated that he did not prefer one type of praise note over the other on the social validity form.

**Jack.** As shown in Figure 3, Jack's mean baseline percentage of time spent in disruptive behavior in Art was 35% (range 0% to 100%) over a 4-week period. During



Table 6

*Summary of Types of Praise Notes Received*

Student	Summary of Praise Notes
Brandon	staying in class, working quietly, staying in seat, waiting for turn,
Brian	on task, creative, following directions, cleaning up, focusing on work, participation, good attitude, nice to peers, talking quietly
Jack	good attitude, helping the class, hard working and creative, stayed in seat, working on assignments, sharing, following directions, helping peers, coming to class quietly,
Landon	listening to staff/teacher, sitting quietly, following directions, turning around behavior, staying in seat, great attitude, focusing on assignments, working quietly, completing assignments
Lucas	focusing, being a helper, working quietly, following directions, helping peers, completing work
Matt	creative, following directions, teamwork, helping peers, focusing, working independently, using skills, being kind to peers, working quietly
Naz	generous, following directions, sitting quietly, controlling temper, being patient, working with peers, helping teacher, working neatly, being helpful, listening, paying attention
Ruth	energetic, following directions, finishing work

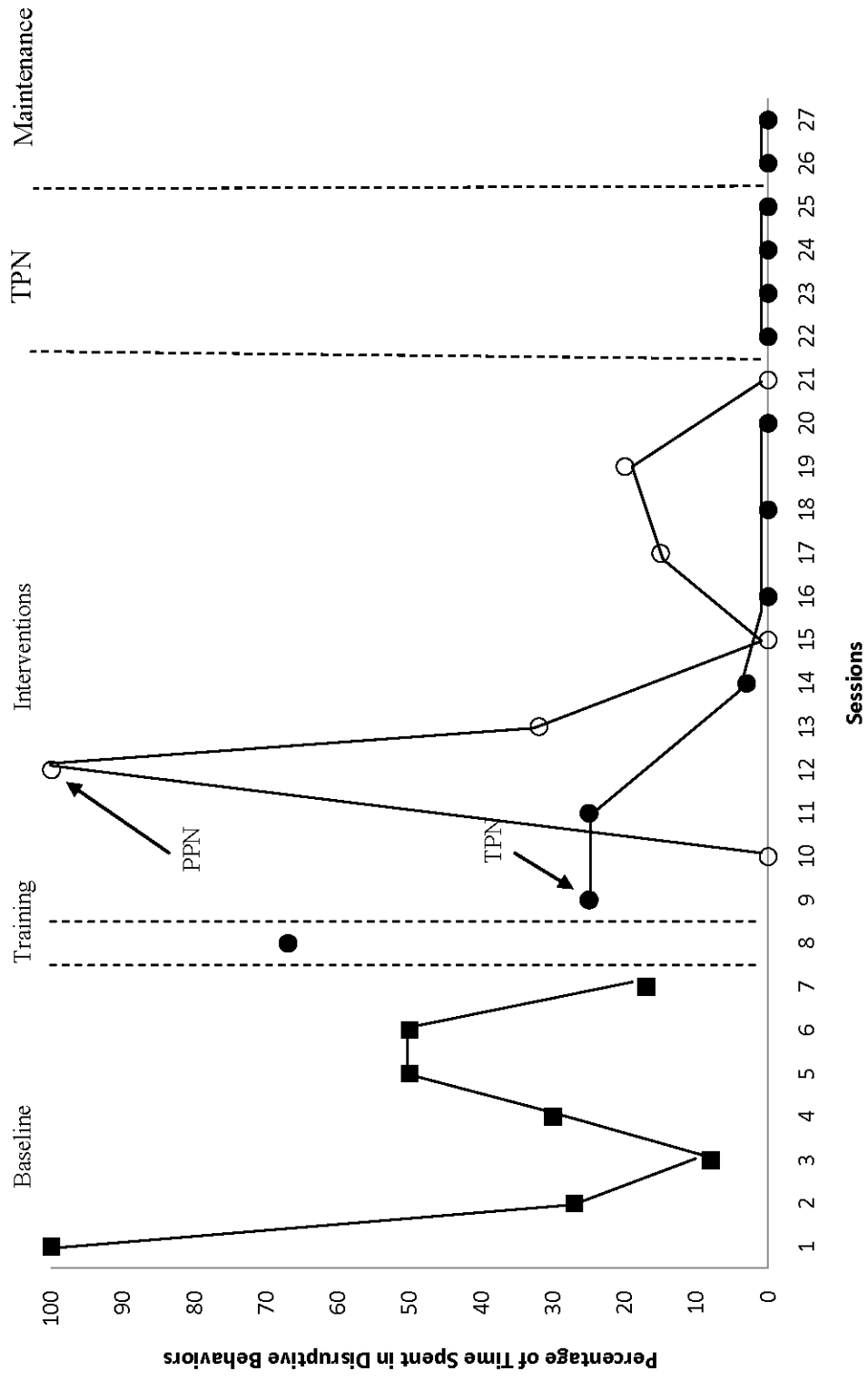


Figure 2. Percentage of Time Spent in Disruption per Social Activity Period for Brian.

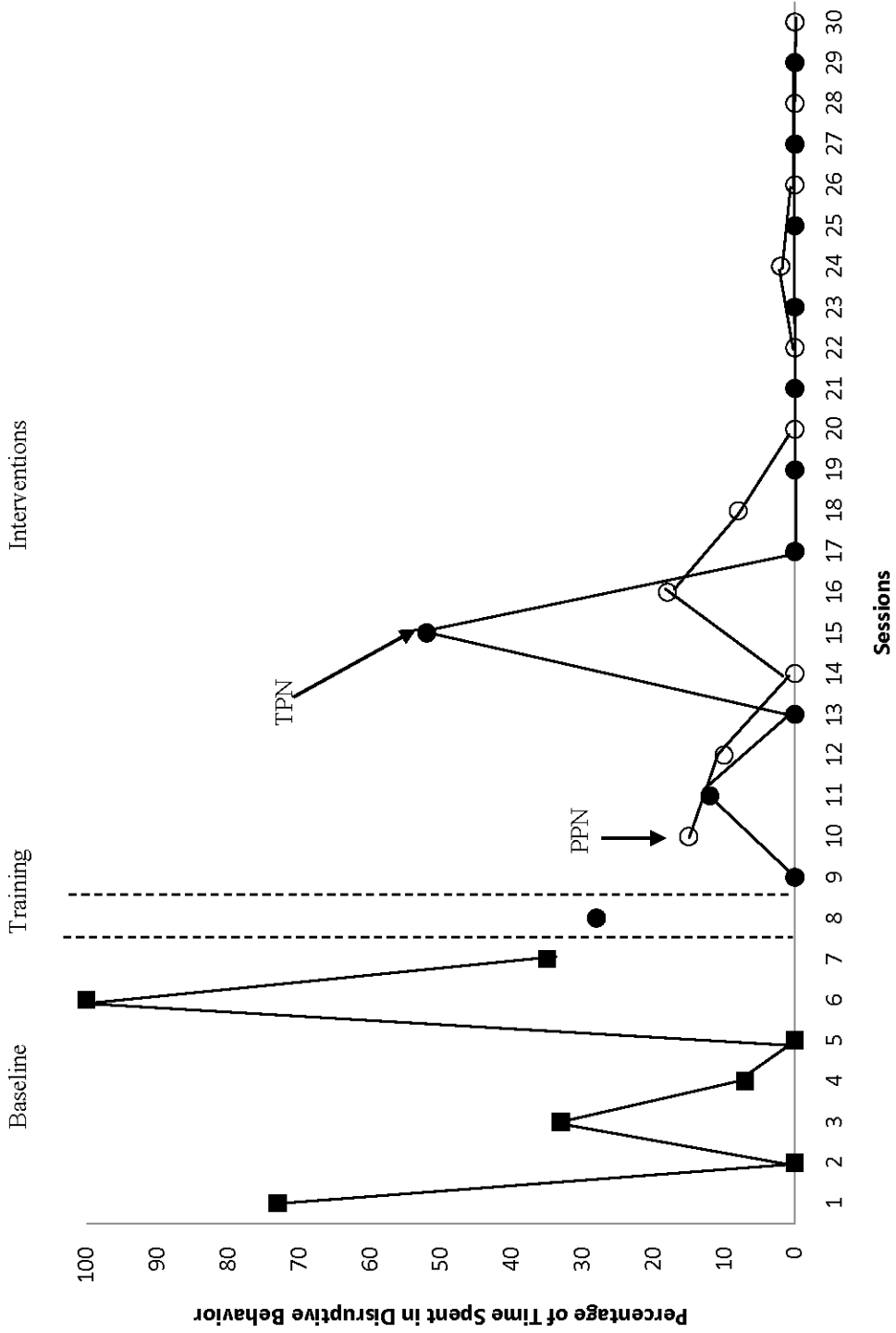


Figure 3. Percentage of Time Spent in Disruption per Social Activity Period for Jack.

the second phase, Jack's TPN mean percentage of time spent in disruptive behavior decreased to 6% (range 0% to 52%) and his PPN mean percentage decreased to 5% (range 0% to 18%). Based on visual inspection, it was determined that both interventions were equally effective at decreasing percentage of time spent in disruptive behaviors. Therefore, Jack and two other students (Landon and Naz) did not change to the most effective intervention as originally planned. The ODRs Jack received per phase were: baseline 2; TPN 1; and PPN 0 (see Table 4). He chose to read his praise notes each session. The content of Jack's praise notes were summarized as praise for working hard on his class assignments (see Table 6). Jack indicated that he did not prefer one type of praise note over the other on the social validity form.

**Landon.** As shown in Figure 4, Landon's mean baseline percentage of time spent in disruptive behavior in Art was 73% (range, 17% to 100%) over a 4-week period. During the second phase, Landon's TPN mean percentage of time spent in disruptive behavior decreased to 14% (range 0% to 100%) and his PPN mean percentage decreased to 22% (range 0% to 100%). Based on visual inspection, it was determined that both interventions were equally effective at decreasing percentage of time spent in disruptive behaviors. The ODRs Landon received per phase were: baseline 6; TPN 4; and PPN 3 (see Table 4). He chose to read his praise notes each session. The content of Landon's praise notes were summarized as praise for listening to teacher directions and using coping skills when presented with difficult situations (see Table 6). Landon indicated that he did not prefer one type of praise note over the other on the social validity form.

**Lucas.** As shown in Figure 5, Lucas' mean baseline percentage of time spent in disruptive behavior in Art was 42% (range, 0% to 100%) over a 4-week period. During

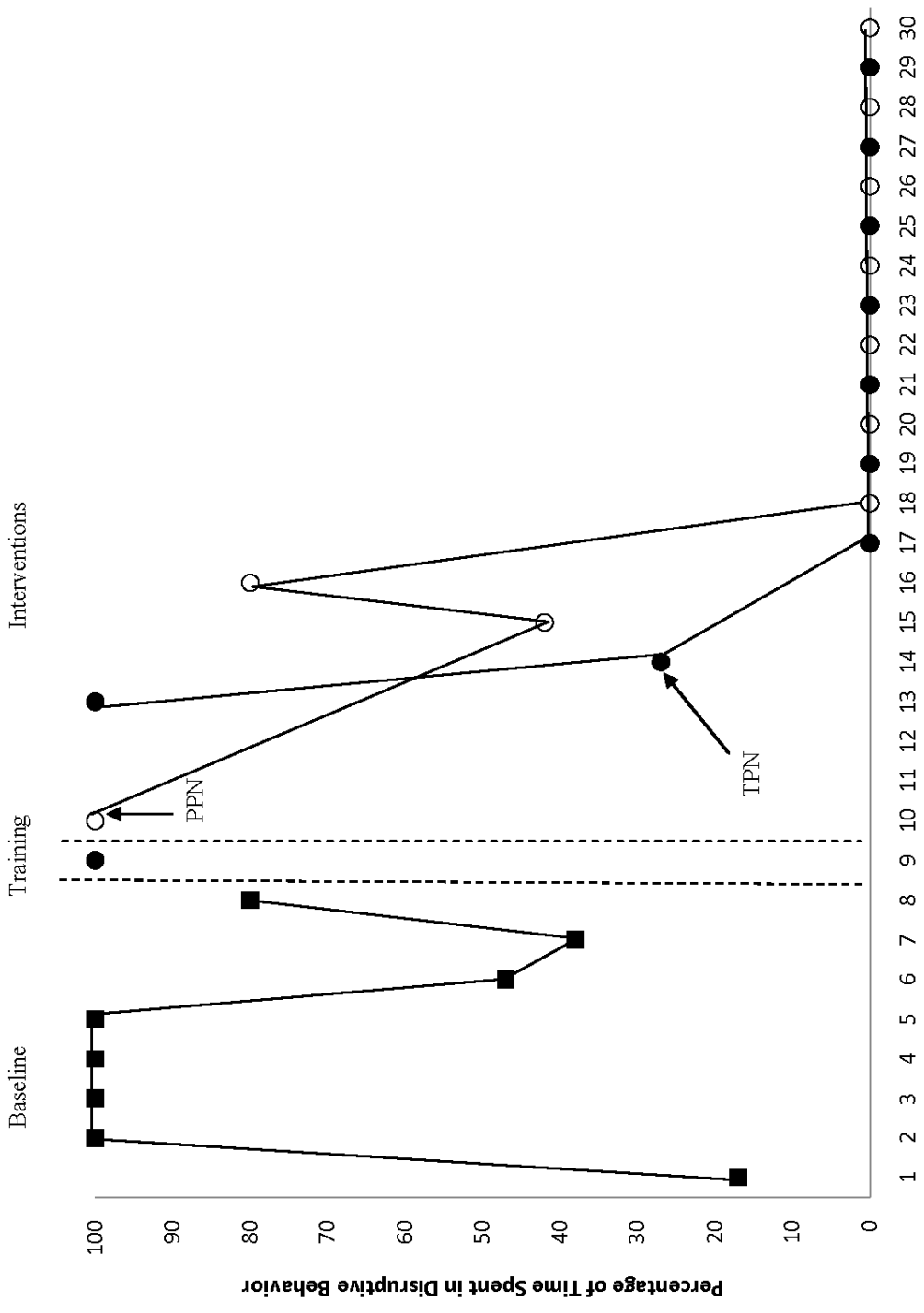


Figure 4. Percentage of Time Spent in Disruption per Social Activity Period for Landon.

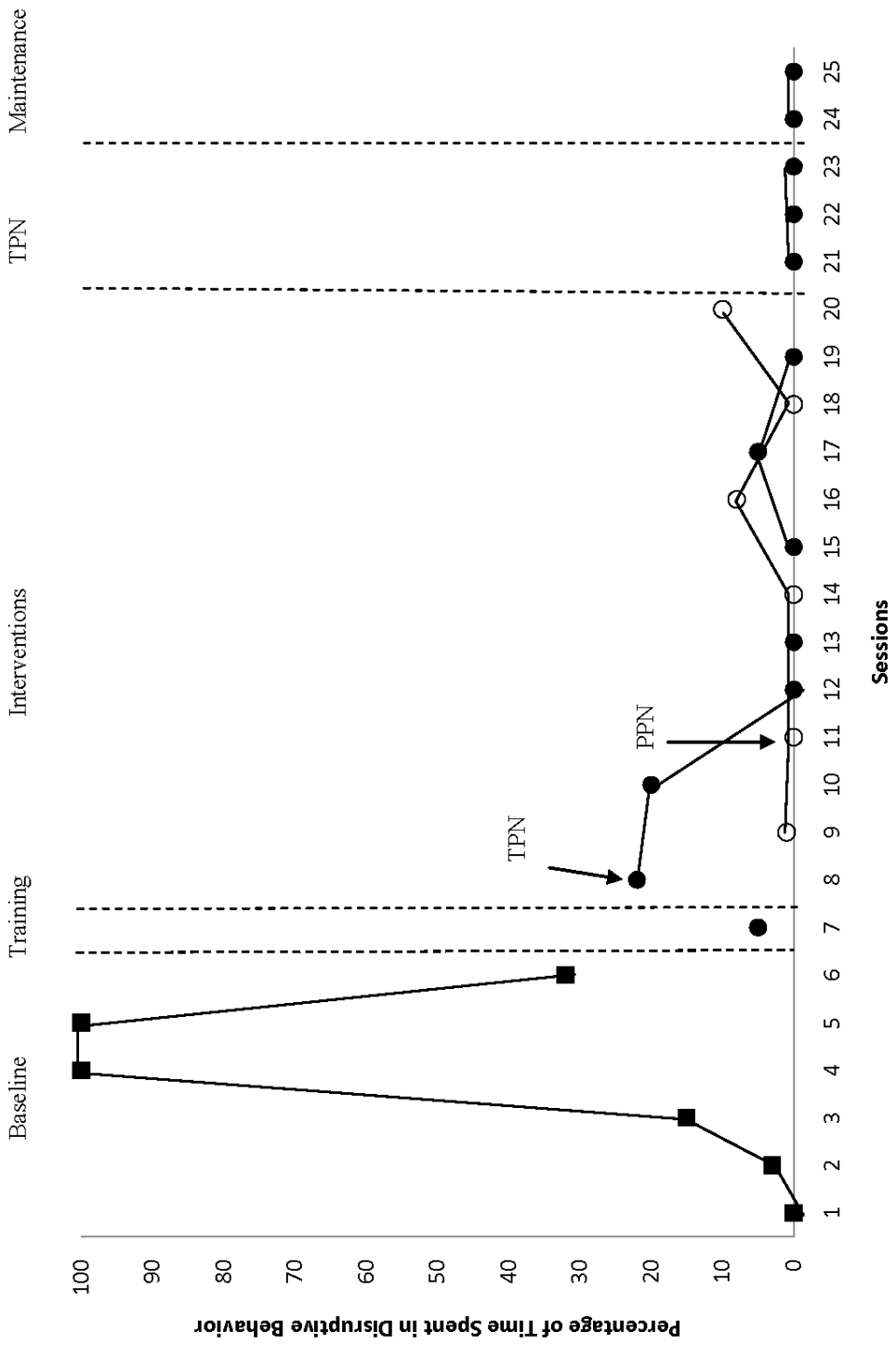


Figure 5. Percentage of Time Spent in Disruption per Social Activity Period for Lucas.

the second phase, Lucas' TPN mean percentage of time spent in disruptive behavior decreased to 7% (range 0% to 22%) and his PPN mean percentage decreased to 3% (range 0% to 10%). Based on visual inspection, it was determined that TPN was the more effective intervention. Although PPN had the lowest mean percentage, two high TPN data points in the beginning of phase attributed to this higher mean. The later data points showed a steady and stable TPN percentage. During the final TPN phase, Lucas' mean percentage of time spent in disruptive behavior was 0% across all sessions.

Maintenance probes conducted at two day intervals after intervention demonstrated that Lucas spent 0% of the observed time displaying disruptive behaviors. The ODRs Lucas received per phase were: baseline 3; TPN 0; and PPN 0 (see Table 4). He chose not to read his praise notes on one occasion. The content of Lucas' praise notes were summarized as praise for completing assignments and working well with his peers (see Table 6). Lucas indicated that he did not prefer one type of praise note over the other on the social validity form.

**Matt.** As shown in Figure 6, Matt's mean baseline percentage of time spent in disruptive behavior in Art was 9% (range, 0% to 32%) over a 4-week period. During the second phase, Matt's TPN mean percentage of time spent in disruptive behavior decreased to >1% (range 0% to 30%) and his PPN mean percentage decreased to 2% (range 0% to 5%). Based on visual inspection, it was determined that TPN was the more effective intervention. During the final TPN phase, Matt's mean percentage of time spent in disruptive behavior was 0% across all data points. Maintenance probes conducted at two day intervals after intervention demonstrated that Matt spent 0% of the observed time displaying disruptive behaviors. The ODRs Matt received per phase were: baseline 4;

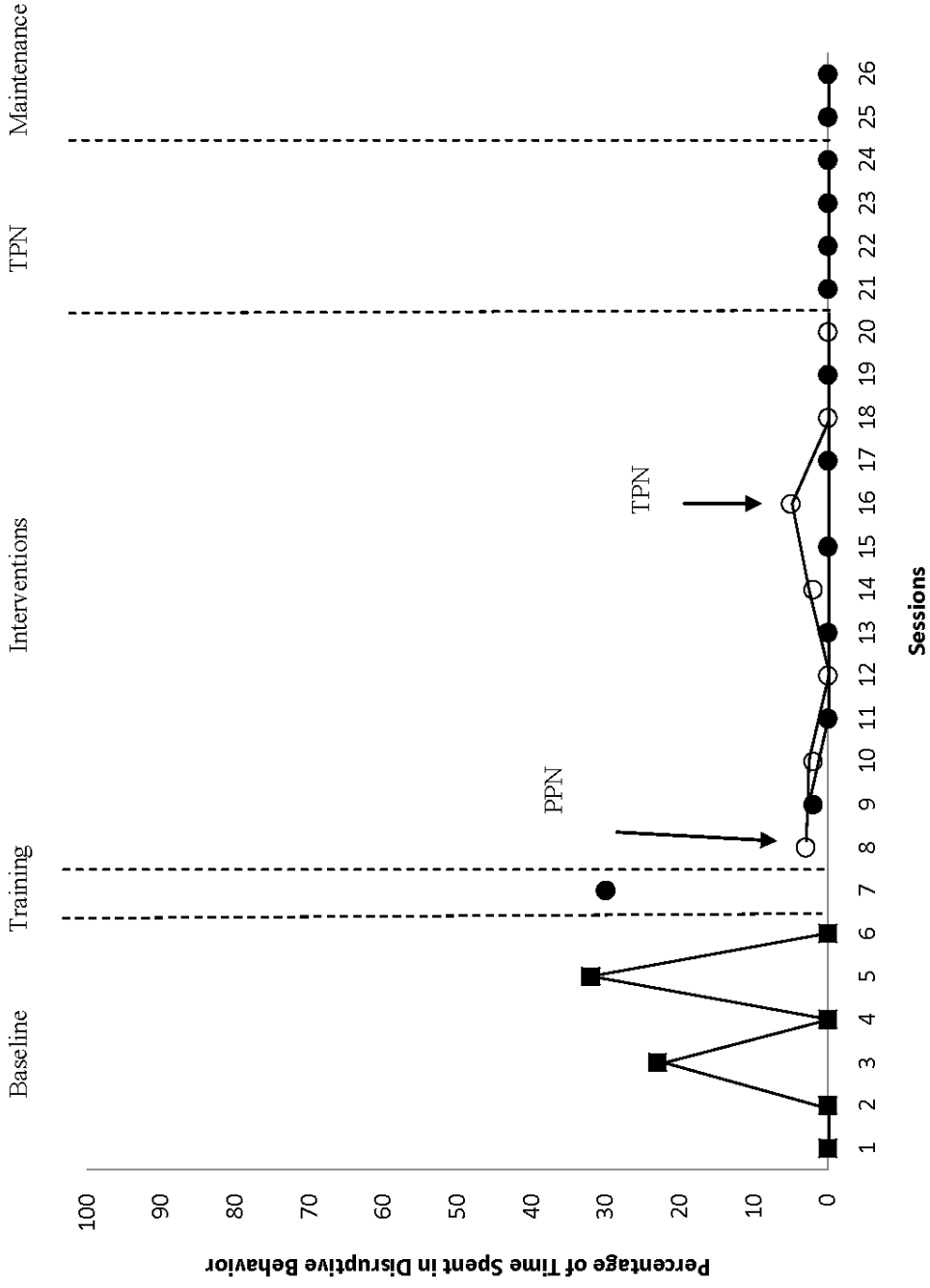


Figure 6. Percentage of Time Spent in Disruption per Social Activity Period for Matt.



TPN 0 and PPN 0; and most effective 0 (see Table 4). He chose to read his praise notes each session. The content of Matt's praise notes were summarized as praise for following directions, completing assignments, and working independently (see Table 6). Matt indicated that he liked peer praise notes better than teacher praise notes by stating, "Peer praise notes are the best". However, there not was clear distinction of the data points to indicate this.

**Naz.** As shown in Figure 7, Naz's mean baseline percentage of time spent in disruptive behavior in Art was 67% (range, 20% to 100%) over a 4-week period. During the second phase, Naz's TPN mean percentage of time spent in disruptive behavior decreased to 9% (range 0% to 62%) and his PPN mean percentage decreased to 10% (range 0% to 100%). Based on visual inspection, it was determined that both interventions were equally effective at decreasing percentage of time spend in disruptive behaviors. The ODRs Naz received per phase were: baseline 9; TPN and 0; PPN 0 (see Table 4). He chose to read his praise notes each session. The content of Naz's praise notes were summarized as praise for being patient, controlling is temper, and being helpful (see Table 6). Naz indicated that he did not prefer one type of praise note over the other on the social validity form.

**Ruth.** As shown in Figure 8, Ruth's mean baseline percentage of time spent in disruptive behavior in Art was 22% (range 0% to 45%) over a 4-week period. During the second phase, Ruth's TPN mean percentage of time spent in disruptive behavior decreased to 14% (range 0% to 50%) and her PPN mean percentage decreased to 9% (range 0% to 30%). Based on visual inspection, it was determined that PPN was the more effective intervention. During the final PPN phase, Ruth's mean percentage of time

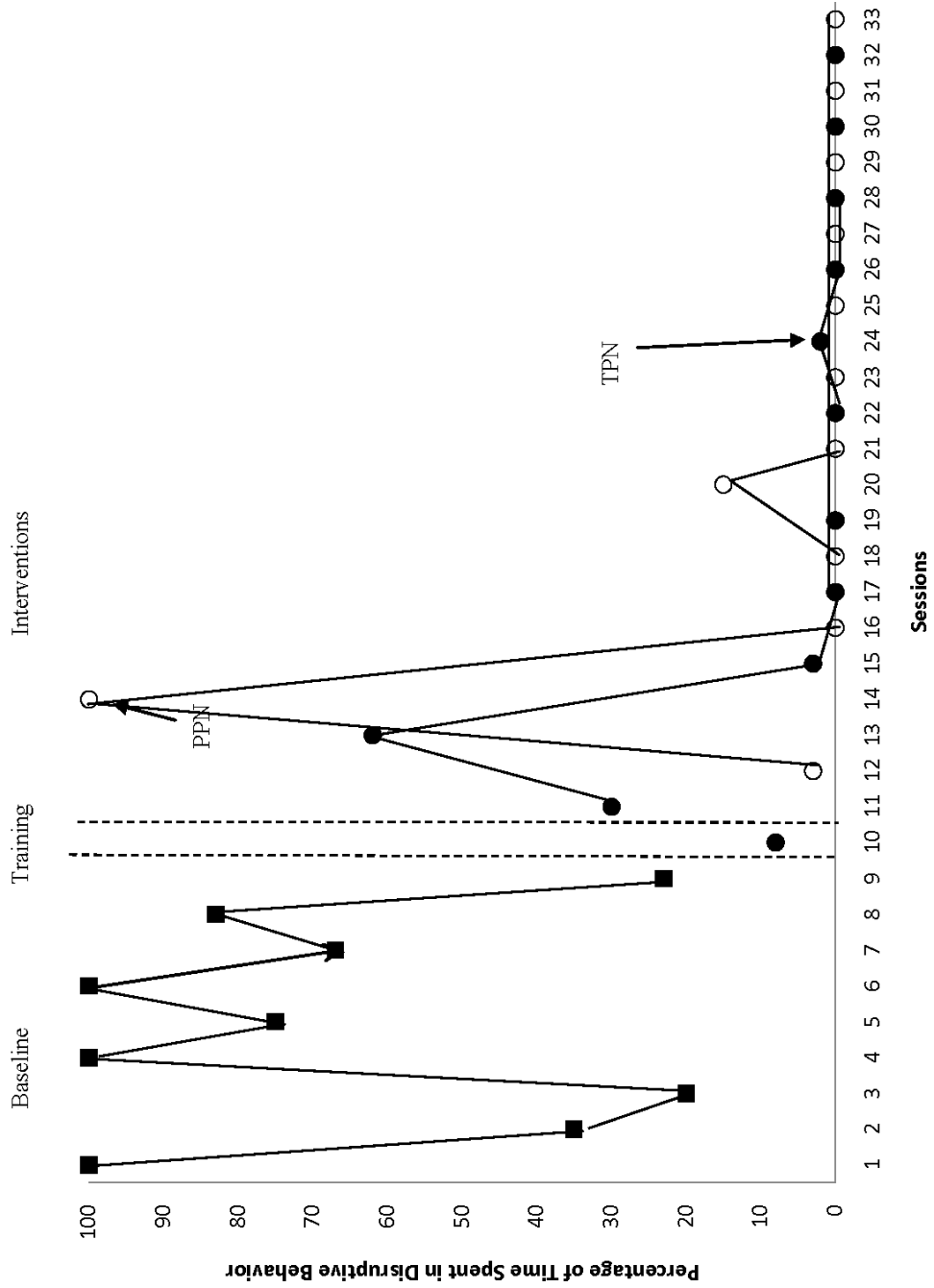


Figure 7. Percentage of Time Spent in Disruption per Social Activity Period for Naz.

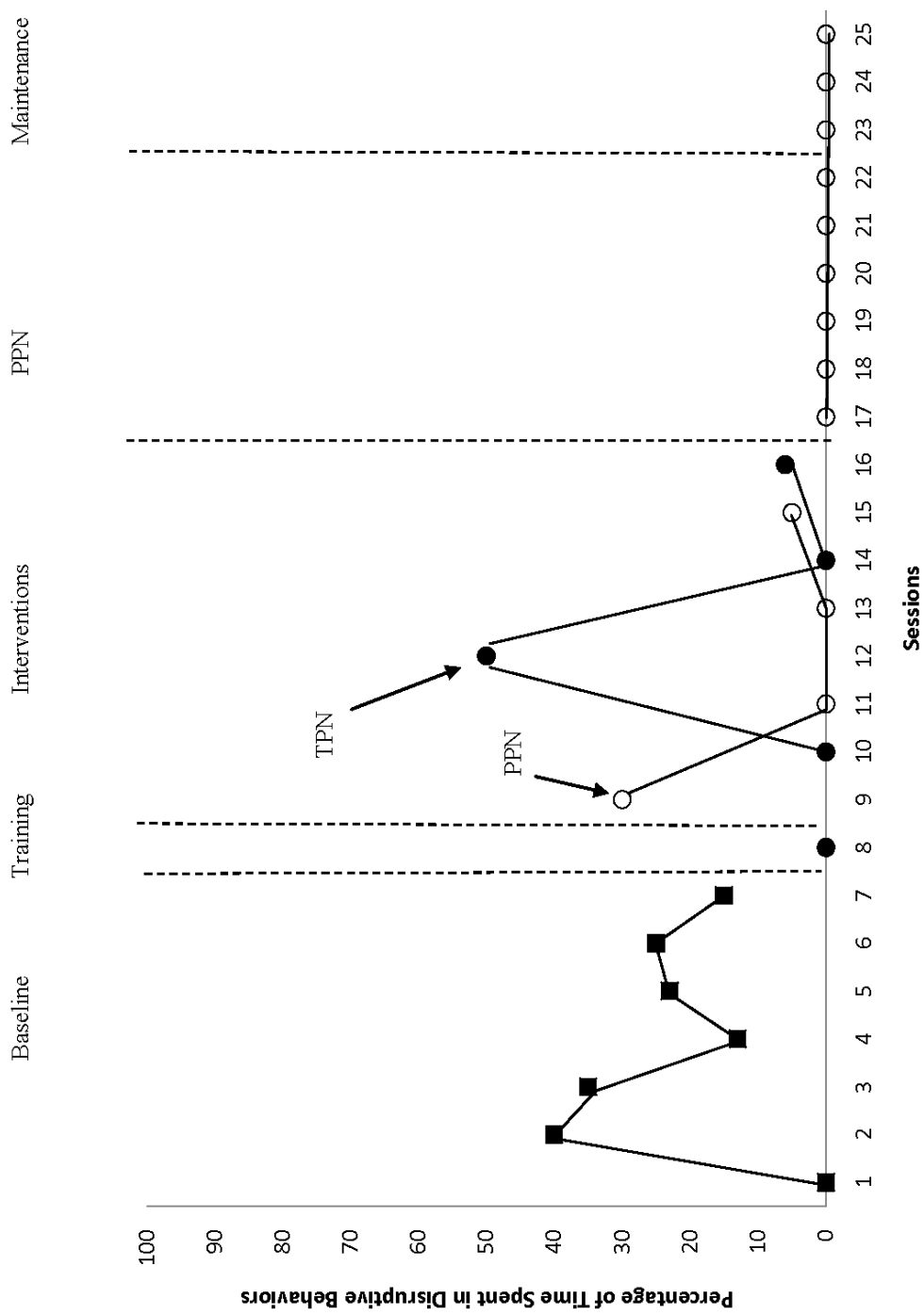


Figure 8. Percentage of Time Spent in Disruption per Social Activity Period for Ruth.

spent in disruptive behavior was 0% across all data points. Maintenance probes conducted at two day intervals after intervention demonstrated that Ruth spent 0% of the observed time displaying disruptive behaviors. The ODRs Ruth received per phase were: baseline 1; TPN 0 and PPN 0; and most effective 0 (see Table 4). She chose to read his praise notes each session. The content of Ruth's praise notes were summarized as praise for being enthusiastic and creative with class assignments (see Table 6). Ruth indicated that she did not prefer one type of praise note over the other on the social validity form.

### **Social Validity**

The teacher indicated that 100% of the eight students decreased their disruptive behaviors during the use of Teacher Praise Notes and the use of Peer Praise Notes on the social validity surveys. The teacher also indicated that the praise notes were easy to implement in the classroom setting. She noted that one type of praise note was more effective for 1 (13%) of the students (Landon – peer), one type was somewhat more effective for 2 (25%) of the students (Ruth - peer; Brian – peer), and that both were equally effective for 5 (62%) of the students. The teacher noted that she would continue to use praise notes with 100% of the students.

Five (62%) of the students always indicated that they had better classroom behavior during the praise note intervention while three (38%) students indicated that they sometimes had better classroom behavior during the praise note intervention. All students noted that their behavior during the praise note intervention was better. One (13%) student, Matt, indicated that he liked one type of praise note over the other. The other 7 students (87%) did not note a preference. All students indicated that they would like to continue having praise notes in the classroom.

Unit supervisors indicated that all students received less ISS referrals during teacher and peer praise note intervention. They indicated that 5 students (62%) did not comment about praise notes on the unit while 3 (38%) students, Lucas, Matt, and Naz, did make positive comments. Unit supervisors indicated that they did not find one type of praise note to be more effective for 6 students (75%), while they found that one was somewhat more effective than the other for 1 student (12.5%), Ruth, and definitely more effective in another student (12.5%), Naz. Peer praise was indicated as the most effective intervention for Naz as his unit supervisor commented on how he enjoyed giving out praise notes to other students. Supervisors indicated that they would like to see praise notes continued with all students.

### **Discussion**

The purpose of this study was to determine the effects of written teacher and peer praise notes on the duration of disruptive classroom behaviors of students with E/BD in a residential facility during Art class. Results suggest that both TPNs and PPNs decreased the disruptive behaviors of the students with E/BD; however, there was minimal fractionation between the two interventions. Data show that when teacher praise notes were incorporated, the duration of disruptive behaviors for all eight students decreased by an average of 34% and that when peer praise notes were incorporated, the duration of disruptive behaviors for all eight students decreased by an average of 36%. According to visual analysis, Brandon and Ruth responded more quickly to PPN and were moved into that intervention as the most effective intervention. Brian, Matt, and Lucas responded more quickly to TPN and were moved into that intervention as the more effective intervention. For Jack, Landon, and Naz, both interventions appeared to be equally

effective throughout the study, therefore no “most effective” intervention was instated. These results confirm previous studies that demonstrate that both teacher and peer praise are effective in decreasing inappropriate classroom behaviors (Canter & Canter, 1988; Ferguson & Houghton, 1992; Nelson et al., 2008; Skinner, 2002; Sutherland, 2000). Maintenance probes conducted with the five students that moved to a most effective intervention demonstrated a continued 0% average of disruptive behaviors. All eight students reduced their ODRs to 0 during maintenance probes.

Although fractionation was minimal and the student’s did not appear to differentiate between the two types of written praise, all students, including the teacher and unit supervisors expressed that praise notes be continued. Future researchers may want to explore how or whether the two different praise notes can be better discriminated by the students or whether type matters. For example, one could explore how the different prompts for each type of praise note was given by the teacher. In addition, the addition of baseline through-out phase two in the alternating treatment design may strengthen the design given minimal difference between the two interventions. In addition, it may be that the lack of differentiation was due to the antecedent-based nature of the intervention. Both PPN and TPN were provided prior to the 15 minute peer activity session; thus the praise was delayed and not explicitly contingent on a specific positive behavior during the activity session. Future researchers may investigate the effects of TPN and PPN on student disruptive behaviors if praise is provided prior, during, and after the 15 minute peer activity session.

Review of praise notes content suggested that teachers gave more behavior specific praise (“I like the way that you sat quietly while working on your assignment,” “I

like the way that you waited your turn patiently.”) while students gave more general behavioral praise (“You did a good job today,” “I liked your picture”). After each session when the students received their praise note, they were asked what they thought about the praise note received. The students did not comment positively or negatively for either type of praise note; however, the teacher reported that students appeared excited to receive and write praise notes and appeared agitated if they thought they were not going to receive a praise note. Of note, the teacher stated that the students often asked if they could write more praise notes than the number required and if they could write peer praise notes on teacher praise note intervention days. Matt stated, “I love getting praise notes. Peer praise notes are the best!” Naz asked the teacher on multiple occasions if he could write praise notes to peers although it was a TPN intervention day. Future researchers should examine the day to day comments made to the teacher and peers by the target students regarding giving and receiving of praise notes.

One important component of this study was the comparison of teacher and peer praise. Many studies have shown the effectiveness of both (Canter & Canter, 1988; Ferguson & Houghton, 1992; Sutherland, 2000; Skinner, 2002; Nelson et al., 2008); however, comparing the two is an area not widely investigated in alternative education settings. This study did not provide conclusive evidence that one type of praise note was more effective than the other. Data concluded that the classes of students responded in different manners to each intervention at different speeds. Further studies may look at student characteristics more thoroughly to see if there are student variables that affect responses to teacher or peer praise. It was evident that both interventions were effective to some degree for all students involved in the study.

Maintenance data were another critical component in this study. There are few praise studies that include maintenance data (Nelson et al., 2009). This study collected maintenance data on all students that moved into phase three of intervention. All students showed 0% of time spent in disruptive behaviors during the maintenance probes conducted after completion of the study along with no ODRs. This provides evidence that praise notes had a lasting impact on student behavior. Future researchers should extend maintenance probes to observe for long-term behavioral change.

A final component of this study was the collection of social validity data. There are very few studies that collect social validity data in the area of praise. Social validity data indicated that students stated that their behavior had improved with the use of teacher and peer praise notes. They indicated that they would like to continue praise notes in the classroom. Surveys also indicated that the teacher and unit supervisors expressed that student behaviors improved with the introduction of praise notes and that they would like to have praise notes continued in the future. The majority of students, teacher, and unit supervisors did not indicate that one intervention was more effective than the other. Future researchers should investigate the social validity aspects of the environment in which they are investigating, such as the ease of implementation within the classroom and the communication between school and unit.

Although it was evident that both TPN and PPN were effective in decreasing disruptive behaviors, there was no clear evidence that one was more effective than the other. Variables such as discrimination of type of praise notes by students, behavior specific praise note content, and the delay between behaviors and praise delivery are implications that need further research.



### **Limitations and Future Directions**

Several limitations related to implementing praise notes in a residential school occurred during this study so the conclusions need to be viewed cautiously. First, the frequency of the dosage of the intervention changed throughout the study due to the addition of several elementary-aged students to the population. Students began the study in two groups that rotated through their Art class every other day. Two weeks into intervention (session #4), the students were divided into three groups as the class size limit was exceeded per the facility policies. The addition of a third Art class caused each group to be exposed to intervention sessions once or twice per week only. The schedule changed again due to the number of students at the beginning of the summer session (approximately session #15), increasing the exposure of the intervention to two to three times per week. However, each group had the same number of intervention opportunities throughout the study. The temporal dosage of the intervention also was compromised as some students were occasionally absent from the classroom due to therapy sessions, home visits, and in-school suspension. When these absences occurred, the student would receive the intervention per the class schedule which meant that some students had the same intervention across multiple sessions. Landon is an example of this. He spent many sessions in in-school suspension and therefore did not receive the same number of intervention sessions as the other students. The frequency of his ODRs also caused him to be exposed to the same intervention in a row: he received two TPN sessions back to back and then two PPN sessions back to back. He did receive the same number of sessions for each intervention. Future researchers will want to more richly describe the

contextual factors related to scheduling and student absences specific to residential facilities.

A second limitation was the time constraints that the written interventions put on the class schedule. Originally, the allotted time for students to write their praise notes was five minutes. It became clear early in the intervention phase that most of the students required more time to write praise notes during PPN sessions. All students required more writing assistance than previously planned. The teacher spent an average time of fifteen minutes helping students write their praise notes. The teacher began the praise note process 15 minutes earlier than originally planned to ensure that the 20 minute peer activity time remained constant. In addition, pre-printed teacher praise notes with praise statements pertaining to the STARS program were often incorporated given that every student, including non-target students, received a TPN. Students also required assistance reading their praise notes which took more time than originally planned. Future researchers should assess students' reading and writing levels and plan for time accordingly so that the writing time and observation time remain constant without interfering with the ongoing routine schedule. Future researchers may assess the effectiveness of pre-printed versus hand written praise notes, and the combination of the two on student behavior as well as teacher social validity of the interventions.

A third limitation was the class-wide intervention aspect of praise notes. The class-wide aspect made decision rules for changing phases difficult when all students within a class did not respond in the same manner to the same intervention. Therefore, modifications to the original phase change rules were made. Future researchers will need

to plan ahead for this occurrence by establishing a group criterion for phase changes as well as individual criteria.

A fourth limitation was a session with 50% fidelity for most of the students during baseline. During the first and third fidelity check of a baseline, the teacher did not announce that peer activity time was about to begin. Due to this omission, a 50% rating was noted for fidelity as there were only 2 requirements during baseline (announcing peer activity time and that peer activity time lasted at least 15 minutes).

When this occurred, the teacher was sent an email reminder before Art class of the steps of baseline. Future researchers will want to provide ‘booster’ sessions when fidelity is below 80% and decide whether or not to use that data point in the visual analysis. Also, it may be important for future researchers to more overtly prompt the implementer as to which condition is to be conducted that session along with a visual script to follow to keep fidelity at acceptable levels.

Also, several previous studies focused on using praise notes to increase the social engagement of withdrawn students (Ervin, Miller, & Friman, 1996; Jones, Young, & Friman, 2000; Moroz & Jones, 2007; Nelson et al., 2009). Future studies may choose to examine the social interactions such as the frequency of positive interactions between peers during peer activity time and the duration of student time engaged in positive peer interactions between target students as well as their disruptive behaviors.

Lastly, it is important to note that the generalizability of these data to typical school-aged students should be interpreted with caution. Residential schools often provide a myriad of behavioral supports than are typically provided in traditional school settings. This particular residential setting had been incorporating a school-wide positive

behavioral support system for several years, provided multiple type of individual and group therapies to students, was an extremely structured environment, and had served many of its students for over one year. Future researchers may richly describe the contextual factors of the setting to determine generalizability to other populations.

By implementing teacher and peer praise notes, all eight students decreased the percentage of time spent in disruptive behavior. However, minimal fractionation occurred between the two interventions. Further studies should be conducted in which scheduling conflicts can be minimized. Also, reading and writing levels should be assessed more thoroughly before the intervention begins.

The implementation of praise notes was cost efficient and did not require an abundance of planning or time to implement. Providing daily praise was manageable by teachers and students and received positive feedback from both groups as well as unit supervisors. Being a class-wide intervention, praise notes provided positive feedback to all students in the class, not only the target students. Praise notes can also be implemented in many varieties of settings such as traditional and alternative settings. There are many areas of future directions tied to praise notes and their benefits to students with E/BD.

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APPENDIXES

Appendix A

Praise Note





## Appendix B (cont'd)

**Praise Note Data Collection Form**

Date: \_\_\_\_\_

Session #: \_\_\_\_\_

Data Collector: \_\_\_\_\_

IOA: YES NO

Intervention: Baseline PPN TPN

Disruption: inappropriate social behaviors such as physical aggression, verbal threats to peers and adults, sexually inappropriate language, profanity, teasing, physical boundaries, out of seat, making inappropriate noises

Student	Start Time	End Time	Duration
BB NW LL			
BB NW LL			
BB NW LL			
BB NW LL			
BB NW LL			
BB NW LL			
BB NW LL			
BB NW LL			
BB NW LL			
BB NW LL			
BB NW LL			
BB NW LL			
BB NW LL			
BB NW LL			
BB NW LL			



## Appendix B (cont'd)

Student: \_\_\_\_\_

**Inter-Observer Agreement**

Date: \_\_\_\_\_ Baseline/TPN/PPN Session# \_\_\_\_\_

IOA for Disruptions = Smaller # / Larger # x 100 = \_\_\_\_\_

IOA for Duration = Smaller # / Larger # x 100 = \_\_\_\_\_

Date: \_\_\_\_\_ Baseline/TPN/PPN Session# \_\_\_\_\_

IOA for Disruptions = Smaller # / Larger # x 100 = \_\_\_\_\_

IOA for Duration = Smaller # / Larger # x 100 = \_\_\_\_\_

Date: \_\_\_\_\_ Baseline/TPN/PPN Session# \_\_\_\_\_

IOA for Disruptions = Smaller # / Larger # x 100 = \_\_\_\_\_

IOA for Duration = Smaller # / Larger # x 100 = \_\_\_\_\_

Date: \_\_\_\_\_ Baseline/TPN/PPN Session# \_\_\_\_\_

IOA for Disruptions = Smaller # / Larger # x 100 = \_\_\_\_\_

IOA for Duration = Smaller # / Larger # x 100 = \_\_\_\_\_

Date: \_\_\_\_\_ Baseline/TPN/PPN Session# \_\_\_\_\_

IOA for Disruptions = Smaller # / Larger # x 100 = \_\_\_\_\_

IOA for Duration = Smaller # / Larger # x 100 = \_\_\_\_\_

## Appendix C

**Fidelity Checklist****Students Present:****Observer:****Session Date:**

	Baseline	PPN	TPN
1. The teacher announced that peer activity time was about to begin.	Y N	Y N	Y N
2. The teacher modeled examples of appropriate and inappropriate praise notes. (First day of intervention only)		Y N	Y N
3. Students were given 5 minutes to write praise notes OR teacher writes 2 praise notes.		Y N	Y N
4. The teacher or behavior specialist reviewed praise notes for content.		Y N	Y N
5. Praise notes were given to students to read.		Y N	Y N
6. Students read praise notes. (Circle initials of students below if they did not read notes.)		Y N	Y N
7. Peer activity time lasted 15 minutes.	Y N	Y N	Y N
<b>TOTAL</b>	/2	/6	/6
<b>Percentage</b>	%	%	%

IOA = Total # of observed steps / Total # of expected steps x 100 = \_\_\_\_\_

## Appendix D

**Social Validity Surveys****Teacher Survey**

Please answer each item by indicating the correct response.

**T = True**

**S= Somewhat True**

**N= Not True**

1. Students' disruptive behaviors decreased during the use of Teacher Praise Notes. \_\_\_\_\_ (based on ISS referrals)
2. Students' disruptive behaviors decreased during the use of Peer Praise Notes. \_\_\_\_\_(based on ISS referrals)
3. Praise Notes were easy to implement in the classroom setting.  
\_\_\_\_\_
4. I found one type of praise note to be more effective at decreasing disruptive classroom behaviors.  
\_\_\_\_\_ (based on ISS referrals)
5. I will continue to use praise notes in my classroom.  
\_\_\_\_\_

If you answered True to #4 as True, please add additional comments as to which type of praise note was more effective. Explain.

Comments:

### Student Survey

Please answer each item by indicating the correct response.

**T = True**

**S= Somewhat True**

**N= Not True**

1. I had better classroom behavior when my teacher wrote me praise notes.  
\_\_\_\_\_
2. I had better classroom behavior when my peers wrote me praise notes  
\_\_\_\_\_
3. Getting praise notes made me feel better about my behavior.  
\_\_\_\_\_
4. I liked one type of praise note better than the other one.  
\_\_\_\_\_
5. I would like to keep using praise notes in my classroom.  
\_\_\_\_\_

If you answered True to #4 as True, please write which one you liked best and why.

Comments:



### Supervisor Survey

Please answer each item by indicating the correct response.

**T = True**

**S= Somewhat True**

**N= Not True**

1. My student received less ISS referrals during the use of Teacher Praise Notes. \_\_\_\_  
\_\_\_\_\_
2. My student received less ISS referrals during the use of Peer Praise Notes.  
\_\_\_\_\_
3. My student had positive comments about praise notes on the unit.  
\_\_\_\_\_
4. I found one type of praise note to be more effective at decreasing ISS referrals.  
\_\_\_\_\_
5. I hope that praise notes will continue to be used in the classroom.  
\_\_\_\_\_

If you answered True to #4 as True, please add additional comments as to which type of praise note was more effective. Explain.

Comments:

## Appendix E

**Functional Assessment Checklist for Teachers and Staff (FACTS-Part A)**

Student/ Grade: \_\_\_\_\_ Date: \_\_\_\_\_

Interviewer: \_\_\_\_\_ Respondent(s): \_\_\_\_\_

**Student Profile:** Please identify at least three strengths or contributions the student brings to school.

\_\_\_\_\_

**Problem Behavior(s): Identify problem behaviors**

Tardy  Fight/physical Aggression  Disruptive  Theft  
 Unresponsive  Inappropriate Language  Insubordination  Vandalism  
 Withdrawn  Verbal Harassment  Work not done  Other \_\_\_\_\_  
 Verbally Inappropriate  Self-injury

Describe problem behavior: \_\_\_\_\_

**Identifying Routines: Where, When and With Whom Problem Behaviors are Most Likely.**

Schedule

(Times)

Activity Likelihood of Problem Behavior Specific Problem Behavior

Low High

1 2 3 4 5 6

1 2 3 4 5 6

1 2 3 4 5 6

1 2 3 4 5 6

1 2 3 4 5 6

1 2 3 4 5 6

1 2 3 4 5 6

1 2 3 4 5 6

1 2 3 4 5 6

1 2 3 4 5 6

1 2 3 4 5 6

**Select 1-3 Routines for further assessment: Select routines based on (a) similarity of activities (conditions) with ratings of 4, 5 or 6 and (b) similarity of problem behavior(s). Complete the**

**FACTS-Part B for each routine identified.**

March, Horner, Lewis-Palmer, Brown, Crone, Todd &amp; Carr (2000) 4/24/00

## Appendix E (cont'd)

**Functional Assessment Checklist for Teachers & Staff (FACTS-Part B)**

Student/ Grade: \_\_\_\_\_ Date: \_\_\_\_\_

Interviewer: \_\_\_\_\_ Respondent(s): \_\_\_\_\_

**Routine/Activities/Context:** Which routine(only one) from the FACTS-Part A is assessed?**Routine/Activities/Context Problem Behavior(s)****Provide more detail about the problem behavior(s):**

What does the problem behavior(s) look like?

How often does the problem behavior(s) occur?

How long does the problem behavior(s) last when it does occur?

What is the intensity/level of danger of the problem behavior(s)?

**What are the events that predict when the problem behavior(s) will occur? (Predictors)****Related Issues (setting events) Environmental Features**

\_\_\_ illness Other: \_\_\_\_\_

\_\_\_ drug use \_\_\_\_\_

\_\_\_ negative social \_\_\_\_\_

\_\_\_ conflict at home \_\_\_\_\_

\_\_\_ academic failure \_\_\_\_\_

\_\_\_ reprimand/correction \_\_\_ structured activity

\_\_\_ physical demands \_\_\_ unstructured time

\_\_\_ socially isolated \_\_\_ tasks too boring

\_\_\_ with peers \_\_\_ activity too long

\_\_\_ Other \_\_\_ tasks too difficult

\_\_\_\_\_

**What consequences appear most likely to maintain the problem behavior(s)?****Things that are Obtained Things Avoided or Escaped From**

\_\_\_ adult attention Other: \_\_\_\_\_

\_\_\_ peer attention \_\_\_\_\_

\_\_\_ preferred activity \_\_\_\_\_

\_\_\_ money/things \_\_\_\_\_

\_\_\_ hard tasks Other: \_\_\_\_\_

\_\_\_ reprimands \_\_\_\_\_

\_\_\_ peer negatives \_\_\_\_\_

\_\_\_ physical effort \_\_\_\_\_

\_\_\_ adult attention \_\_\_\_\_

**SUMMARY OF BEHAVIOR****Identify the summary that will be used to build a plan of behavior support.****Setting Events & Predictors Problem Behavior(s) Maintaining Consequence(s)****How confident are you that the Summary of Behavior is accurate?**

Not very confident Very Confident

1 2 3 4 5 6

**What current efforts have been used to control the problem behavior?****Strategies for preventing problem behavior Strategies for responding to problem behavior**

\_\_\_ schedule change Other: \_\_\_\_\_

\_\_\_ seating change \_\_\_\_\_

\_\_\_ curriculum change \_\_\_\_\_

\_\_\_ reprimand Other: \_\_\_\_\_

\_\_\_ office referral \_\_\_\_\_

\_\_\_ detention \_\_\_\_\_

March, Horner, Lewis-Palmer, Brown , Crone, Todd, & Carr (2000) 4/24/00