

PROMPTING TEACHER AND INSTRUCTIONAL ASSISTANT  
BEHAVIOR SPECIFIC PRAISE

A Thesis Presented to the Faculty  
of  
California State University, Stanislaus

In Partial Fulfillment  
of the Requirements for the Degree  
of Master of Arts in Psychology

By  
Natalie Jane Savage  
May 2014

CERTIFICATION OF APPROVAL

PROMPTING TEACHER AND INSTRUCTIONAL ASSISTANT

BEHAVIOR SPECIFIC PRAISE

By  
Natalie J. Savage

Signed Certification of Approval page is  
on file with the University Library

\_\_\_\_\_  
Dr. William Potter  
Professor of Psychology

\_\_\_\_\_  
Date

\_\_\_\_\_  
Dr. Jane Howard  
Professor of Psychology

\_\_\_\_\_  
Date

\_\_\_\_\_  
Dr. Bruce Hesse  
Professor of Psychology

\_\_\_\_\_  
Date

\_\_\_\_\_  
Dr. Shannon Cernich  
Behavior Analyst for Stanislaus County Office of  
Education

\_\_\_\_\_  
Date

© 2014

Natalie Jane Savage  
ALL RIGHTS RESERVED

## ACKNOWLEDGEMENTS

This journey has encompassed the most interesting, exciting and yet challenging experiences of my life so far. Nearing the end of the Atlantis Exchange Master's program leaves me with mixed emotions; relief and happiness that all the stress is nearly over; sadness that this adventure is almost complete but, most of all, I am left feeling excited about the adventures that now await me.

Being part of this program would not have been possible without the program advisors from around the world; Dr. Carl Hughes of Bangor University, Wales, Dr. Monika Suchowierska of SWPS in Warsaw, Poland and Dr. Bill Potter of CSU Stanislaus in Turlock, California. To you, I owe my thanks for accepting me onto this program and providing me with the opportunity to pursue two of my passions simultaneously, studying and travelling.

I would also like to extend further gratitude to additional members of faculty and university staff that provided me with help, guidance and a friendly ear when it was needed. To Dr. Jane Howard, Dr. Bruce Hesse, Dr Maggie Hoeger, Michael Beverly and Sian Lewis, thank you.

To all the school staff, clinic staff and pupils that I worked with during my practicum and internships, thank you. I would like to especially acknowledge and thank those who took part in my study. This thesis would not have been possible without your participation, it really means a lot to me and I cannot thank you enough. All of you will remain close to my heart.

Special thanks are extended to the supervisors who made my experiences, in these different educational settings, possible. To Stacey Parks thank you for being so kind and understanding. Thank you to Dr. Carrie Dempsey for sharing your knowledge and experiences with me. To Paul Stephany I owe you so much for everything you have done for me and for the guidance, supervision, time, friendship and laughter you have given me, not to mention introducing me to Shannon; you are truly awesome Paul, thank you. And to Dr. Shannon Cernich, I do not think I have enough words to express my gratitude to you for all the experiences, supervision and guidance you have provided me with, not only during my practicum but throughout my thesis process. You are an inspiration to me and I am truly thankful for all of your help.

To my friends I have made all over the world during the past two years, thank you for showing me how wonderful the world is and what a difference we can make in it. A special thank you goes to my 'Atlantis crew' or the 'Atlantians'. You have not only been my friends but my family as we have supported each other throughout this adventure. Thank you to Ashley Lewis, Heather White, Cristhian Duran and Nathaly Manivanh for supporting me, keeping me strong and keeping me sane. Thank you to Richard Porter for not only helping me to collect data for my study but for being an awesome friend, being the relaxed one through the stress and for encouraging me 'to go hard in the paint'.

To Becky Hurst, you have been my absolute rock, no one compares. For the past five years I have been the luckiest girl to have you as my best friend. Thank you so much for being you and for putting up with me. I love you 'sooooo' much.

Last but definitely not least I would like to acknowledge the help, guidance, patience, motivation and encouragement that my family have provided me with. To grandma and granddad, Mum, Dad, Oliver, Martin, Laura, Wendy, Kirsty, Karen, Ray, Graeme, Tessa, Cassie and James thank you. No matter where I am in the world I know I have your support and your love. I know where my home is; it's with you crazy lot. Thank you.

## TABLE OF CONTENTS

	PAGE
Acknowledgements .....	vi
List of Tables .....	ix
List of Figures .....	x
Abstract .....	xi
Introduction .....	1
Praise in the Classroom .....	2
Different Educational Settings .....	4
Behavior Specific Praise and nonBehavior Specific Praise .....	6
Tactile Prompt Device .....	7
How One Staff Member’s Praise Behavior Affect Another Staff Member’s .	8
Methodology .....	11
Participants .....	11
Setting .....	11
Apparatus .....	13
Design .....	14
Procedure .....	15
Results .....	18
Frequency of Statements in C1 .....	20
Frequency of Statements in C2 .....	26
Activities .....	31
Discussion .....	33
Limitations .....	34
Implications for Future Research .....	36
Conclusion .....	40
References.....	55

Appendices

A. Consent Form District .....	70
B. Consent Form Classroom Staff .....	72
C. Consent Form Classroom Staff (edited for IA1) .....	74
D. Debrief Form .....	76
E. Picture of MotivAider .....	77
F. Intervention Information Sheet .....	78
G. Data Collection Sheet .....	79

## LIST OF TABLES

TABLE	PAGE
1. IOA Data for Both Classrooms Across Baseline and Intervention .....	42
2. The Percentage of Feedback that was TPS and the Percentage of TPSs that were BSP for C1 .....	43
3. The Percentage of Feedback that was TPS and the Percentage of TPSs that were BSP for C2 .....	44
4. The Percentage of Sessions with Zero BSP Statements at Baseline and Following Intervention .....	45
5. The Average Number of Statements Per Session during Baseline and Following Intervention .....	46
6. The Ratio of TPS to CS during Baseline and Following Intervention .....	47
7. The Rate of Each Type of Statement Per Minute in C1 .....	48
8. The Rate of Each Type of Statement Per Minute in C2 .....	49
9. The Frequency of No Statements Given for Each Activity for C1 .....	50
10. The Percentage of Sessions Each Activity was Conducted for, as well as the Percentage of Total Statements Given in Those Activities for C1 .....	51
11. The Frequency of No Statements Given for Each Activity for C2 .....	52
12. The Percentage of Sessions Each Activity was Conducted for, as well as the Percentage of Total Statements Given in Those Activities for C2 .....	53

## LIST OF FIGURES

FIGURE	PAGE
1. The Frequency of BSP Delivered by T1 During Baseline and Intervention Sessions .....	23
2. The Frequency of BSP Delivered by IA1 During Baseline and Intervention Sessions .....	23
3. The Frequency of nBSP Delivered by T1 During Baseline and Intervention Sessions .....	24
4. The Frequency of nBSP Delivered by IA1 During Baseline and Intervention Sessions .....	24
5. The Frequency of CS Delivered by T1 During Baseline and Intervention Sessions .....	25
6. The Frequency of CS Delivered by IA1 During Baseline and Intervention Sessions .....	25
7. The Frequency of BSP Delivered by T2 During Baseline and Intervention Sessions .....	28
8. The Frequency of BSP Delivered by IA2 During Baseline and Intervention Sessions .....	28
9. The Frequency of nBSP Delivered by T2 During Baseline and Intervention Sessions .....	29
10. The Frequency of nBSP Delivered by IA2 During Baseline and Intervention Sessions .....	29
11. The Frequency of CS Delivered by T2 During Baseline and Intervention Sessions .....	30
12. The Frequency of CS Delivered by IA2 During Baseline and Intervention Sessions .....	30

## ABSTRACT

Positive reinforcement, in the form of praise, is one of the most powerful tools used in effective programming by classroom staff for all types of educational environments. It is not only important for staff to use praise but to also specify the behavior for which the praise is being given. Increasing behavior specific praise in different educational settings was the aim of this current study. Two settings were observed in which a MotivAider tactile prompting device was worn. This device prompted the teacher and one instructional assistant to provide behavior specific praise once every minute during a 10 minute session. The researcher recorded the frequency of behavior specific praise, non-behavior specific praise and corrective statements delivered to students by each participant. It was discovered that using the MotivAider increased the amount of behavior specific praise delivered by all staff members whilst they were receiving the prompt themselves. It was also demonstrated that some participants reacted to the other participant's increased frequency of praise, in that setting, when they themselves were not receiving the tactile prompt. A third finding was that an increase in the frequency of praise statements did not result in a decrease in the frequency of corrective statements.

## INTRODUCTION

Positive reinforcement is a powerful tool for those who intend to exert control over others behavior. Skinner (1974) stated that positive reinforcement works just as well if not more effectively, and with less resistance, than when punishment is used to control the behavior of others. Praise is one of the most common forms of positive reinforcement. There are over five decades of research supporting effective, classroom-based, behavior management strategies. These include the effectiveness of using praise to improve the classroom environment and to manage student's challenging behavior (Gable, Hester, Rock & Hughes 2009; Hester, Hendrickson & Gable, 2009). Classroom environments, that are not instructionally rich or academically supportive and that use ineffective schedules of reinforcement, often lead to students demonstrating challenging behaviors (e.g., Carr, Taylor & Robinson, 1991; Levy & Vaughn, 2002; Van Acker, Grant, & Henry, 1996). These contexts fail to provide contingencies that promote and maintain appropriate behavior.

Gunter, Denny, Jack, Shores and Nelson (1993) stated that it is more logical to establish a supportive classroom environment that uses preventative tactics, such as praise, to promote appropriate behaviors, rather than using reactive tactics (Thompson, Marchant, Anderson, Prater, Gibb, 2012; Myers, Simonsen, & Sugai, 2011). When using a proactive approach the teacher becomes an 'active agent of prevention' who regulates positive environments that promote and maintain appropriate behavior.

## **Praise in the Classroom**

Praise statements are a form of feedback (Emmer, 1987/1988, p. 32) that portray to students that their behavior is favorable, appropriate and acceptable (Rismiller, 2004). Musti-Rao and Hayden (2011) defined praise as an affirmative statement delivered contingent upon an individual completing an academic or social behavior. Other forms of feedback may inform the student that their behavior is unacceptable or incorrect. This may define terms such as a reprimand, redirect or a corrective statement (Rismiller, 2004).

Praise has been stated and found to be one of the most effective strategies to increase desired behavior and decrease challenging behavior (Chalk & Bizo, 2004; Good & Brophy, 1987; Kellam, et al., 2008; Strain & Joseph, 2004; Sutherland, Wehby & Copeland, 2000; Walker, Ramsey, & Gresham, 2004). The effects of using praise have been reported since the earliest publication in the *Journal of Applied Behavior Analysis* (Madsen, Becker, & Thomas, 1968). This study was said to have demonstrated a functional relationship between the increase of teacher's praise and the decrease in student's disruptive behaviors (Sutherland, Wehby & Copeland 2000).

There are a significant amount of studies demonstrating that high rates of teacher praise decreases inappropriate or off-task behavior and increases appropriate, on-task behavior (Zimmerman & Zimmerman 1962; McAllister, Stachowiak, Baer & Conderman, 1969; Hall, Lund & Jackson 1968; Broden, Bruce, Mitchell, Carter & Hall, 1970; Shores, Cegelka & Nelson, 1973; Ferguson & Houghton, 1992; Sutherland, Wehby & Copeland, 2000); such as, following and engaging in

instructions (Goetz, Holmberg & LeBlanc, 1975; Hall, et al., 1971; Broden, Bruce, Mitchell, Carter & Hall, 1970) and increased academic achievement (Gable & Shores, 1980; Louiselli & Downing, 1980; Blaney 1983; Sutherland & Wehby, 2001; Alber, Heward, & Hippler, 1999; Craft, Alber & Heward, 1998).

The literature demonstrates that contingent teacher praise is a powerful tool and if used frequently and effectively can produce appropriate and successful classroom and academic behaviors (Rismiller, 2004). Findings from studies examining the rate of teacher's praise are, however, incongruent with the findings of research mentioned above. Teachers' use of praise are infrequent and inconsistent (Craft, Alber & Heward, 1988; White, 1975; VanAcker, Grant & Henry, 1996; Shores et al, 1993; Wheby, Symons & Shores, 1995; Brophy, 1981). The lowest rate of teachers' praise statements reported in these studies was 0.2 praise statements per hour (Wheby, Symons & Shores, 1995; Brophy, 1981) and the highest rate resided at between 6 and 12 praise statement per hour (White, 1975). Therefore, when class sizes are large, students often did not receive even one praise statement each per day.

Negative, teacher-student, interactions have been observed to lead to students exhibiting problem behaviors (Gunter & Coutinho, 1997; Shores, Gunter & Jack, 1993). Sugai and Horner (2002) stated that 4:1 was the desired ratio of positive to negative teacher-student interactions, which was agreed upon by Myers, Simonsen, and Sugai, (2011), and extended to include a requirement of 6 praise statements for every 15 minutes. This rate of praise is used as a standard for effective practice (Sutherland, Wehby & Copeland 2000; Myers, Simonsen, & Sugai, 2011). Their

findings and others also depicted that not only the quantity but the quality of teachers' praise statements are determinants of increasing appropriate behavior (Moore-Partin, Robertson, Maggin, Oliver, & Wehby, 2010).

### **Different Educational Settings**

#### **Special Education**

High rates of negative or neutral interactions and high rates of commands have been directly observed between teachers of students at risk of Emotional and Behavioral Disorders (EBD) (Lago-DeLello, 1998; Shores, et al., 1993; Wehby, Symons & Shores, 1995). These students receive more attention for inappropriate behavior than they receive for appropriate behavior (Lago-DeLello, 1998; Shores et al, 1993; Nelson & Roberts, 2004; Russell & Lin, 1977).

There is a vast amount of research supporting the effectiveness of praise in general education (eg. Broden, Bruce, Mitchell, Carter, Hall, 1970; Ferguson & Houghton, 1992; Hall, Lund & Jackson, 1968; Hall, Panyan, Rabon & Broden, 1968). Sutherland, Wehby and Copeland, (2000), however, were the first to investigate the effects of praise within an EBD population. Praise rates for this population and students with learning handicaps or disabilities have frequently been reported as low (Gable, Hendrickson, Young, Shores, Stowitschek, 1983; Shores, et al., 1993; Wehby, Symons, & Shores, 1995). Nelson and Roberts (2004) reported students with EBD received lower rates of praise and a minimum of six times more reprimands than their normally functioning peers.

## **Alternative Education**

Moore-Partin, et al., (2010) highlighted that a positive proactive approach to promoting appropriate behavior is important in school settings where poverty is high and resources are low, which is often the case in alternative education settings.

Alternative education refers to non-traditional education (National Association of State Boards of Education [NASBE], 1994) and is designed for students at risk of failing education in public school settings (Aron, 2006). It is now commonly used for students who exhibit significant challenging behaviors (Unruh, Bullis, Todis, Waintrup, & Atkins, 2007). These aggressive and disruptive behaviors are often reinforced by the social contingencies involved in teacher attention (Van Acker, Grant & Henry, 1996; McKercher & Thompson, 2004).

Using a positive, rather than punitive, strategy is a more effective behavior management system (Mayer, 1995) that should be used in alternative education (Tobin and Sprague 1999, 2000). The Day Treatment Model is an example of such a strategy (Hick & Munger, 1990). This model, using a ratio of 4:1 positive to negative statements, delivered by educational staff, reduced inappropriate behavior by teaching and reinforcing appropriate behavior. It was observed that there was an increase in academic achievement along with increased positive behaviors at home and a 65% decrease in contact with the judicial system was observed.

Considering alternative education became a widespread movement in the 1960's (Odysseyware, 2010), research is limited for this educational setting (Tobin & Spargue 1999, 2000; Cox 1999; Cox Davidson & Bynum, 1995; Duke & Griedorn

1999; Guerin & Denti 1999; Nicholas & Utesch 1998; Raywid. 1990, 1998). One study by Foley and Pang (2006) highlighted that general and special education teachers in alternative education need to adopt effective behavioral management systems. Jolivette, McDaniel, Sprague, Swain, Bradway and Park-Ennis, (2012) reported that although research is limited, effective classroom management is one of the ‘universal characteristics’ of positive programming within alternative education settings and positively reinforcing systems including praise are needed.

### **Behavior Specific Praise and nonBehavior Specific Praise**

Praise statements should include informative feedback about the successfulness of the behavior demonstrated (Moore-Partin, et al., 2010). To be effective, praise should be directly linked to the desired behavior performed (Brophy 1981; Skinner, 1953; Smith & Rivera, 1993; Walker, 1979). Praise can be categorized as Behavior Specific Praise (BSP) or non-Behavior Specific Praise (nBSP). BSP can be defined as a verbal response, following a student’s behavior that specifies the behavior for which the praise is being delivered. nBSP is verbal praise that does not describe the behavior that the student is being praised for. Sutherland and Wheby, (2001) defined BSP as including academic or social specific praise (e.g. ‘well done, for putting your hand up’; ‘it’s great that you held the door open for others’). Cavanaugh (2013) defined BSP as “verbal acknowledgement of expected appropriate social and academic behavior exhibited by students” (p.113).

Increasing BSP has been shown to have multiple effects on student behavior, for example in increasing on-task behavior, compliance and task engagement

(Fullerton, Conroy & Correa, 2009; Sutherland & Wehby, 2001) and reducing the rates of off-task behavior (Austin & Soeda, 2008), as well as, the rates of disruptive behavior (Reinke, Lewis-Palmer, & Martin, 2007). Musti-Rao and Hayden (2011) highlighted that using BSP builds positive teacher-student interactions and allows for feedback to be given to students about behavior that the teacher wants to improve.

After reviewing the literature, Brophy (1981), determined that BSP was the most effective form of praise and yet only a small percentage of the total amount of praise given is BSP (Sutherland, Wehby & Copeland, 2000). Anderson, Evertson and Brophy, (1979), reported this to be as low as 5%. Teachers have also reported that BSP changed students' attitudes, changed the behavior of the class and created a positive classroom environment (Thompson, Marchant, Anderson, Prater, & Gibb, 2012).

Thompson, Marchant, Anderson, Prater and Gibb, (2012) exclusively measured increasing frequency of teacher's BSP. These researchers used an electronic tactile cueing device to prompt and increase BSP (MotivAider, Behavioral Dynamic, 2013).

### **Tactile Prompt Device**

The use of external cueing devices as prompts has been studied and shown to be effective, in the classroom, since the 1960s (Hall, Lund & Jackson, 1968). Such external cues can act as a personal reminder to deliver contingent BSP to the students engaged in desirable behaviors. It is important for the cueing device to be portable,

unobtrusive and discrete. Musti-Rao and Hayden (2011) listed the MotivAider (Behavioral Dynamics, 2013) as one such device.

The MotivAider, created by Dr. Steve Levinson of Behavioral Dynamics (Leibs, 2013) over 20 years ago (Flaute, Peterson, VanNorman, Riffle, & Eakins, 2005), is a discrete, battery-operated, three ounce device that can be easily attached to an individual's belt or waistband (Flaute, Peterson, VanNorman, Riffle & Eakins, 2005; Leibs, 2013). It delivers vibratory prompts at pre-set time intervals. These prompts are paired, through training, with a behavior that is to be changed or adopted. MotivAiders have been used in personal growth, healthcare, sport, business and, of course, educational settings (Leibs, 2013).

MotivAiders have been used to prompt practitioners to attend to aspects of student's behavior (Frieder, Grunkemeyer & Holloway, as cited in Cooper, Heron, & Heward, 2007) and to increase teacher praise, which resulted in an increase in student on-task behavior and decrease of challenging behavior (Anderson, Lindberg, Young, Marchant & Fisher 2005).

### **How One Staff Member's Praise Behavior**

#### **Affects Another Staff Member's**

As part of an effective teaching strategy as outlined by Heward (2003), a procedure is needed to ensure that there is a transfer from cues and prompts, as stimulus control during instruction, to more naturally occurring stimuli. This could occur for staff member's praise giving behavior. Increasing praise by using prompting devices during intervention could be maintained by being in the presence

of another staff member who consistently gives praise. The stimulus control, therefore, transfers from the device to a more natural occurring, nonintrusive stimuli of others in the environment giving praise (Sutherland, Wehby & Copeland, 2000); and is maintained by an increased positive classroom-environment and interactions (Thomas, Nielson, Kuypers, & Becker, 1968; Musti-Rao & Haydon, 2011). The contingency, when not receiving a prompt from a device, is others in the environment giving more praise and less corrective statements would be the antecedent prompts for the second staff member to engage in similar behavior. Then receiving positive feedback from student or staff interactions and long term target and academic achievements, would be the consequences which maintain the behavior change.

Mowery (2008) did observe an effect of one staff member's response to receiving a tactile prompt (MotivAider) in the presence of another staff member. This study leads to the question of whether one staff member's praise giving can influence that of another. To date, it appears this question has not been investigated in the literature.

Research is lacking on the impact of natural implementers such as teachers and instructional aides rather than researchers or supervisors. Cavanaugh (2013) highlighted the importance of research into the use of praise and the benefits for staff, students, schools and districts.

In the current study, brief exposure and training in using BSP statements was used, along with the MotivAider prompting device, rather than merely providing feedback to teachers at the end of sessions. Allday, Hinkson-Lee, Hudson, Neilsen-

Gatti and Russell (2012) conducted a study in a general education classroom where teachers only had brief exposure and training in an intervention to increase BSP delivery for students with EBD. It was found that this training increased BSP, student task engagement and decreased the use of corrective statements. The current study sought to replicate and extend these results to a different population.

The intervention target of the current study was to increase BSP. This study is similar to Thompson, et al., (2012), with the following differences; nBSP is not excluded and there is a focus on an alternative education setting and an EBD classroom setting. This study aims to take a proactive, rather than a reactive approach, to increase praise giving behavior of classroom staff.

The aim of the current study was to establish whether or not a staff member's frequency of BSP increases in the presence of another staff member who is receiving a tactile prompt (MotivAider) to deliver BSP to a student or group of students. It was hypothesized that training about BSP and receiving tactile prompts (with training for those prompts) would increase the BSP given by classroom staff. A second hypothesis was that increased BSP of one staff member will increase the BSP of the second staff member; that there would be a change from baseline data and there will be an interaction effect. A third hypothesis was that increasing the frequency of BSP statements and total praise statements (TPS) would decrease the frequency of corrective statements (CS).

## METHODOLOGY

### **Participants**

Four individuals participated in this study: A special needs middle school alternative education teacher (T1) and her instructional assistant (IA1) in one classroom setting (C1), and a special needs middle school teacher (T2), for children with an educational classification of emotional disturbances, and his instructional assistant (IA2) in the second setting (C2). Three participants were female, T2 was male. All participants were between thirty and fifty years of age and live in Central California. These individuals were included as they were confronted with frequent challenging behaviors five days a week while working in the two settings. All participants were given an information sheet and consent form (Appendix 1) to complete prior to any data collection and a debrief information sheet (Appendix 2) upon conclusion of this research.

### **Settings**

#### **Setting One**

The first setting was a special education classroom, on an alternative education campus, located in the Central Valley of California. The class consisted of one teacher, one instructional assistant and 15 students aged between 11 and 16 years. All the students were expelled from their general education settings and a small number of students were on probation orders from the juvenile hall. No student data were recorded for the purpose of this research. The classroom consisted of individual

desks for each student, two group tables that seated six individuals and a desk each for the teacher and instructional assistant. A school day was 3 hours and 20 minutes on Mondays and 4 hours for Tuesday through Friday. A number of sessions were run each day this research was conducted. It was aimed for three sessions to be run on a Monday and six sessions on Tuesdays and Thursdays. Including baseline, there were 32 sessions in this setting.

### **Setting One**

The second setting was a special day class for children with an educational classification of emotional disturbances, on a comprehensive middle school campus, located in the Central Valley of California. This class consisted of one teacher, two instructional assistants, a counselor and 8 students aged between 11 and 14 years. No student data were recorded for the purpose of this research. The classroom consisted of individual desks for each student and two group desks towards the back of the room that seated four individuals. A full school day was 6 hours long, 5 days a week. Including baseline there were 31 sessions in this setting.

Sessions in both settings were conducted during whole class instruction when both participants were within proximity to hear each other, not when one or the other or both were out of the room or when they were working with fewer individuals at separate group tables. If one of the participants left the room for less than five minutes, during a data collection session, then that session was paused until the participant returned. If they left the room for longer than five minutes, then data collected for the first five minutes was counted and doubled to represent the 10

minute session. This occurred in three sessions in C1 during baseline (sessions, 1, 4 and 6) and twice during intervention (sessions 10 and 17) and it did not occur in C2. If a participant left the room for longer than 5 minutes within the first 5 minutes then that session was discontinued and the data were discarded. This occurred in three sessions in C2 during baseline and did not occur for any other sessions during this study.

### **Apparatus**

The apparatus for this investigation was a MotivAider (Behavior Dynamics, 2013); a vibratory tactile prompting device. This device was set to one minute intervals and paired with the delivery of BSP. (For a picture of a MotivAider see Appendix 3).

In order to pair the MotivAider's prompt with BSP brief training was conducted following a baseline phase. This training involved using discussion and example sheets, which included examples and non-examples of BSP statements, to portray a clear definition of a BSP statement (Appendix 4). The examples were drawn from statements used in the two settings as noted by the researcher during baseline. Pairing the prompt with delivering BSP was also practiced to help the participants feel more comfortable with the MotivAider prompting their behavior.

The researcher set criteria for participants to deliver 3 original examples of BSP statements during the discussion part of training. An additional 3 original examples were required while wearing the MotivAider and receiving the prompt

during role play. The role play involved one participant playing the role of themselves and the other playing the role of a student.

### **Design**

A single subject baseline-followed-by-alternating treatment design was used. The alternating treatment design consisted of three conditions: A) No Prompt condition (NP) when neither participant received the prompt; B) Tactile Prompt condition (TP) when the participant themselves received the prompt, and C) Other Prompted condition (OP), when a participant was not receiving the prompt themselves, but the other participant in that setting was receiving the prompt. Therefore, when one participant was in the TP condition the other participant in that setting was in the OP condition. The schedule for arranging the presentation for these conditions throughout the day, across different activities and different days was predetermined prior to conducting the research, however due to logistics in the classroom environments this could not always be followed. Baseline data was taken before the independent variables of the training and the use of the MotivAider were initiated. Baseline data were collected under the same conditions as the NP condition where MotivAiders were not worn by either participant.

An event recording data collection system was used to record each instance of BSP, nBSP and corrective statements (CS), (dependent variables) delivered by both participants in each setting. The frequencies of the dependent variables were recorded on a tally-mark data sheet (Appendix 5). The rates of each type of statement delivered per minute were calculated, by dividing the frequency recorded during the

10 minute session by 10 or the 5 minute sessions by 5. The total praise statement (TPS) percentage of feedback was also calculated, as well as the percentage of TPSs that were BSP.

A second observer also recorded data during 52.4% of sessions in order to collect inter-observer agreement (IOA) data across the different conditions and classrooms. IOA data was collected across both classrooms for 55% of all baseline sessions and 51% of all intervention sessions. The IOA data for baseline and intervention for each setting is displayed in Table 1. Overall IOA was 88% with a range of 53-100% agreement.

### **Procedure**

Data collection was conducted during whole class instructional time when students were situated at their individual desks and the teacher and instructional assistant were both in the room. During the 10 minute session the teacher and instructional assistant performed their usual roles (walking around the room, giving instruction or guidance to students when it was needed) and the researcher completed the data sheet.

### **Baseline**

Extended baseline data was taken for 12 sessions in C1 and 10 sessions in C2, over 1-2 school days, before the intervention training was implemented and alternative treatment conditions began. Baseline data was taken to establish naturally occurring frequencies and rates of the teacher and instructional assistants' feedback statements to the students and what types of statements they used.

## **Training**

The training sessions followed baseline in each setting. During training participants were given time to familiarize themselves with the MotivAider devices. They were each given one of the devices and instructed to attach it to their clothes where they felt it was comfortable. The researcher set the device to vibrate, at a fixed time of one minute. The participants were also shown how to turn the device to ‘run’ mode and how to turn it off. This enabled them to work the device independently.

This training also entailed pairing the vibratory prompt with BSP. As part of their employment training all participants had previously been trained in BSP, however, the researcher briefly reviewed what was defined as BSP and provided them with sheets outlining examples and non-examples of BSP statements. The researcher then told the participants of the association between the MotivAider and BSP: that upon receiving the vibratory prompt they were to deliver a BSP statement to a student or a group of students. This pairing was practiced through role play during training so that the participants felt comfortable with the prompt and praise association, and so that the researcher knew the devices were working and could be detected by the participants.

## **Alternating Treatments**

There were three conditions conducted across different times of the day, different subject areas and activities. The three conditions were No Prompt (NP), Tactile Prompt (TP) and Other Prompted (OP), as stated above. When the teacher was in the TP condition, the instructional assistant was in the OP condition and vice

versa. Neither participant received the tactile prompt during the NP condition. The total number of alternating treatment sessions were 20 in C1 and 21 in C2.

An important consideration for the settings investigated was that the MotivAider prompt used needed to be minimally intrusive and disruptive to the classroom environment. Both MotivAiders in each setting were set to one minute by the researcher prior to the onset of the first session of each day and given to the participants to attach to their clothing where they felt comfortable (both teachers chose to put the device in their trouser pockets and both instructional assistants chose to wear it on their waistband).

When a participant was in the TP condition the researcher instructed them to set their MotivAider to 'run'. The researcher observed them doing so and started recording data 1 minute after this, for 10 minutes. Once the 10 minute session was completed the researcher instructed the participant to switch their MotivAider to stop running and observed them as they did so. Including baseline, data were collected for a total of 32 sessions in C1 and 31 sessions in C2.

## RESULTS

Most of the data collected in this study is summarized in Tables 1-12 situated at the end of this paper, as well as, Figures 1-12 located throughout this section.

Below, the main findings are highlighted in detail.

The teacher in the first setting gave 11 Behavior Specific Praise (BSP) statements during baseline and 99 during alternating treatments. The instructional assistant in this setting gave 1 BSP during baseline and 34 during alternating treatment. In the second setting the teacher gave 3 BSP during baseline and 88 following training and the instructional assistant gave 2 BSP during baseline and 99 during alternating treatment. The percentage of statements delivered during baseline and intervention, that were praise statements and the percentage of these praise statements that were BSP was calculated for each participant (Table 2 and 3). All participants' percentage of praise statements increased during intervention compared to baseline. The range of the increases was 139%-240%. The percentage of these praise statements being BSP also increased with a larger range, 141%-563%.

The percentage of sessions with at least one BSP statement, given per session, increased for all participants, following baseline and brief training (Table 4). No BSP statements were given during 80% of baseline sessions, whereas only 35% of sessions following training consisted of no BSP statements being delivered. This demonstrates an overall average increase of 45% in the amount of at least one BSP statement being delivered per session, from baseline to treatment sessions across all

participants. Revealing that this intervention was effective in increasing the frequency of BSP statements delivered.

The average number of BSP statements per session increased for all participants following intervention (see Table 5). The frequency of non-Behavior Specific Praise (nBSP) statements also increased for three out of the four participants with the exception being T1. However, T1 had the largest increase in Total Praise Statements (TPS); from an average of 7.25 before intervention to 9.35 during intervention. T1 was also the only participant who demonstrated a decrease in Corrective Statements (CS). For all other participants, when an increase in TPS occurred there was also an increase in CS. Therefore, these results do not support the hypothesis that increasing the frequency of BSP and TPS statements will decrease the frequency of CS, as was found by Allday, Hinkson-Lee, Hudson, Neilsen-Gatti and Russell (2012). However, all participants were observed to deliver a greater ratio of TPS than CS following intervention (Table 6); demonstrating that relative to increases in CS, TPS increased at a higher rate.

The rate of BSP, nBSP and CSs per minute increased during intervention for all participants except for T1's nBSP and CS (Tables 7 and 8). As discussed above, however, T1's rate of TPS delivered per minute does increase from baseline. The highest rate of BSP per minute was observed to be delivered by T1 during intervention (0.485) and the lowest rate was delivered by IA1 during baseline; being at 0.008 BSP statements per minute.

The data in the tables, mentioned above, support the first hypothesis stated in this paper; that there would be an increase in BSP following training and while the participant received a tactile prompt. They do not however, suggest support for the hypothesis that increasing the frequency of BSP would decrease the frequency of CS delivered.

Figures 1-12 visually display the frequency of statements delivered by each participant during baseline and alternating treatment sessions in the two settings. These graphs are described below in relation to supporting or not supporting the hypotheses investigated in this study; the increase of praise, BSP and nBSP, following training and while receiving a tactile prompt (TP), the interaction, carry-over effect of one staff member's behavior on a second staff member and the decrease in the frequency of CS delivered.

### **Frequency of Statements in C1**

#### **Behavior Specific Praise**

Figures 1 and 2 clearly display that the frequency of BSP increased for both participants during the TP conditions of the alternating treatment sessions compared to the low levels at baseline. During the OP condition T1's BSP frequency remained at a low level whereas IA1's frequency of delivering BSP increased to 44% of alternating treatment sessions compared to 8% of baseline sessions. IA1's BSP was higher than baseline for all three conditions during intervention. Both participants were observed to have an increase of BSP statements while receiving no prompts

towards the end of the study. This may demonstrate there was some interaction effect during these two sessions.

### **nonBehavior Specific Praise**

Figures 3 and 4 displays that T1 had a sudden increase in the frequency of nBSP, while in the TP condition, compared to baseline. A decreasing trend was then displayed with frequency remaining at a medium level for the other TP sessions. While IA1 was in the TP her level of nBSP did not change. IA1's nBSP remained at low levels while she is in the OP condition, with one anomaly in session 23. While in the NP condition both participants nBSP remained at similar levels to baseline with T1's data displaying less variability at a slightly lower level. No interaction effect was observed in their nBSP frequency.

### **Corrective Statements**

As shown in Figures 5 and 6 T1's frequency of CS decreased from baseline while in the TP condition, however the trend began to increase towards the end of the study. This increase was also demonstrated in IA1's data pattern during these sessions, while she was in the OP condition, which may indicate some interaction effect of the frequency of CS delivered. Comparatively when IA1 was in the TP condition her frequency of CS delivered, significantly increased. T1's frequency of CS, however, drops while in the OP condition. There was no distinctive change in the data patterns from baseline for either participant while in the NP condition. The interaction effect observed was that while the teacher was receiving the prompt the instructional assistants CS increased in a similar data pattern but when the assistant

was receiving the prompt the teachers CS decreased. Generally the frequency of CS in this setting did not decrease following training and during intervention.

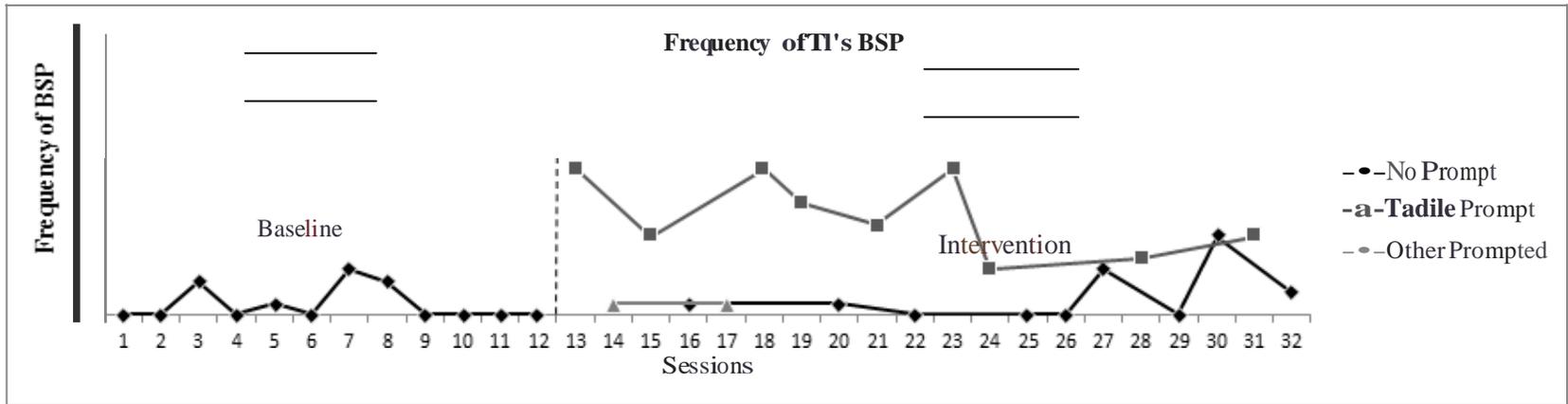


Figure I displays the frequency of BSP delivered by T1 during baseline :md intervention sessions.

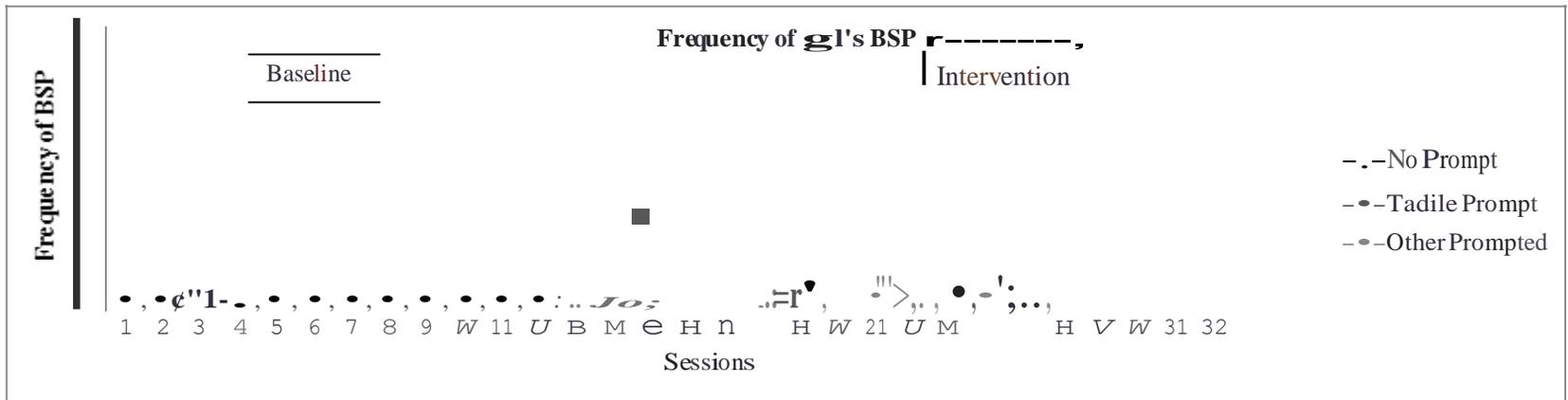


Figure2 displays the frequency of SSP delivered by LAI during baseline :md intervention sessions.

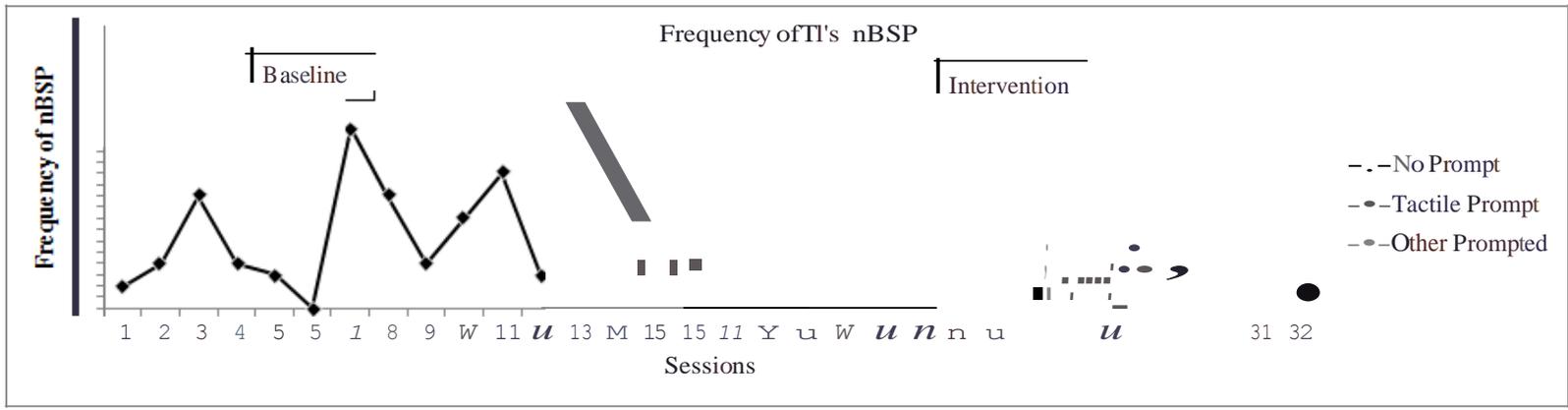


Figure 3 displays the frequency of uBSP delivered by TI during baseline and intervention sessions.

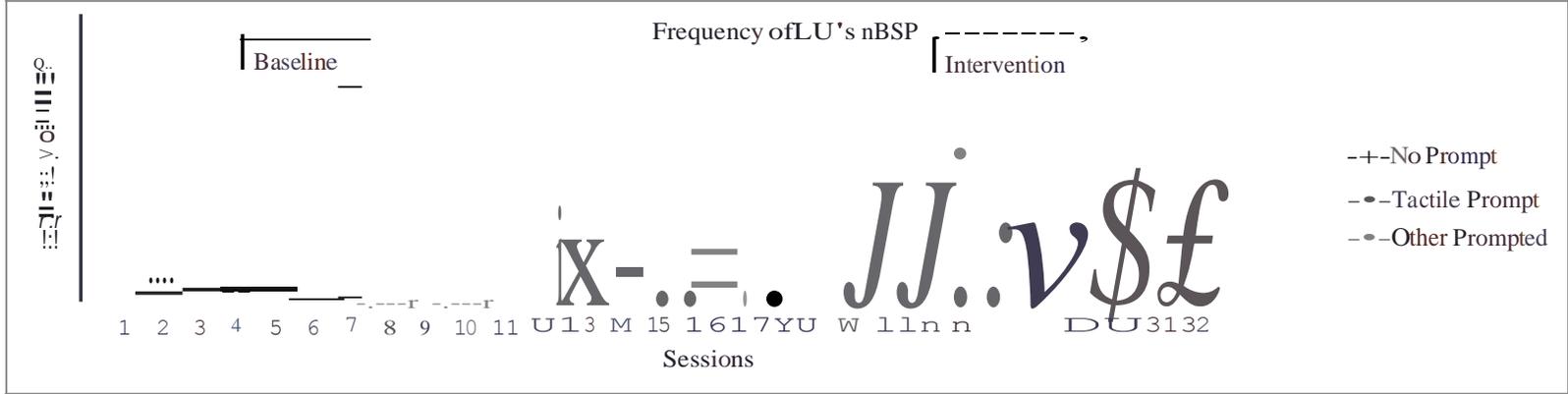


Figure 4 displays the frequency of uBSP delivered by LAI during baseline and intervention sessions.

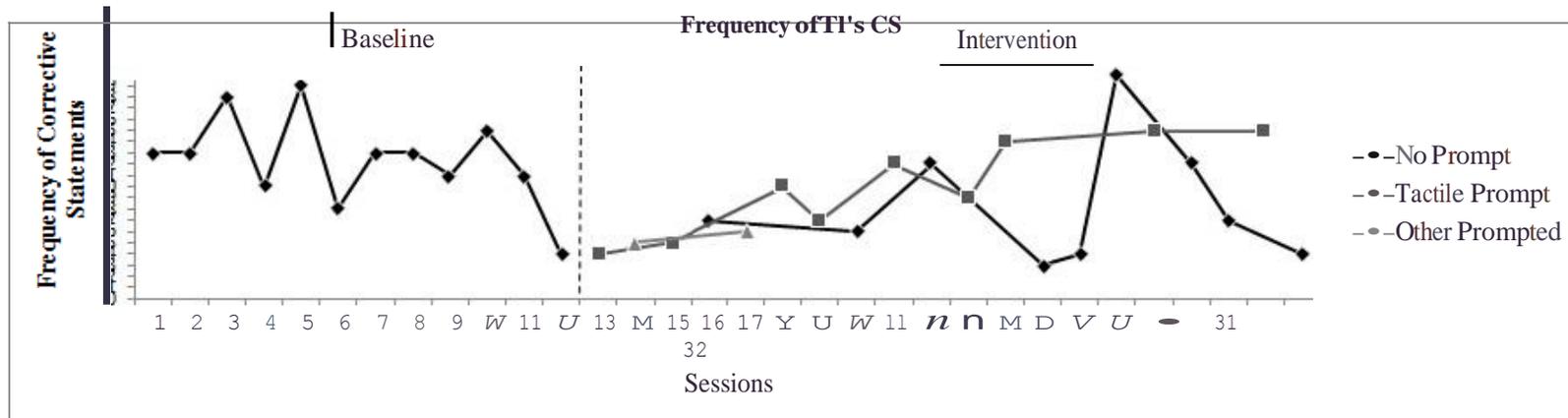


Figure 5 displays the frequency of CS delivered by T1 during baseline and intervention sessions.

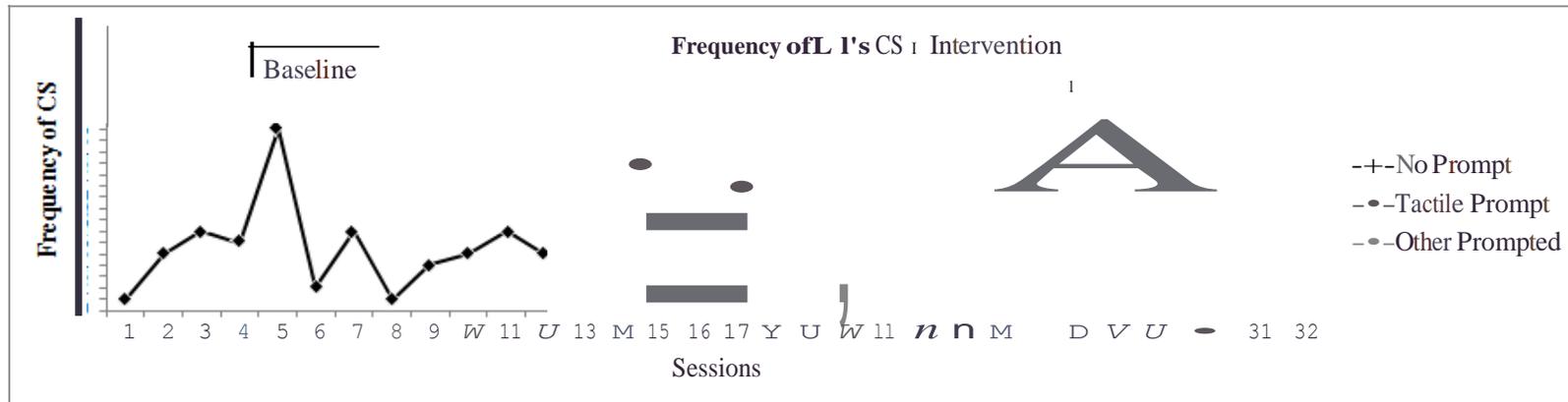


Figure 6 displays the frequency of CS delivered by LAI during baseline and intervention sessions.

## **Frequency of Statements in C2**

### **Behavior Specific Praise**

Figures 7 and 8 display that while T2 and IA2 were in the TP condition their frequency of BSP had an increasing trend at a significantly higher level than compared to baseline. IA2, however, had a more stable trend and less variability than that displayed in T2's data. During the sessions when IA2 was in the OP condition her frequency of BSP followed the same data pattern, trend and variability, of T2's but at a lower level, showing some interaction effect. However, while in the OP condition T2's data pattern does not change from baseline, which does not show an interaction effect. While in the NP condition both participants displayed an increase in the frequency of BSP delivered but their data patterns do not reveal any interaction effect.

### **nonBehavior Specific Praise**

Figures 9 and 10 display that T2's frequency of nBSP had a significant increase compared to his baseline levels, while receiving the TP. His frequency then settled at a medium level with some variability for the other sessions in this condition. IA2's data pattern during the TP condition, also, indicates an increase in level compared to baseline. There seems to be little change in the data patterns of both participants in this setting while they are in the OP conditions, demonstrating no interaction effect in their frequency of delivering nBSP. Both T2 and IA2's data display similar levels, variability and trends as were displayed during baseline, while receiving NP.

### **Corrective Statements**

Figures 11 and 12 indicate that throughout the alternating treatment conditions T2's frequency of CSs remained at a similar but slightly increased level to that demonstrated during baseline, whether he was in the TP, OP or NP condition. While IA2 was in the TP condition her frequency of CS initially increased in level compared to baseline data. After the second session in the TP condition, however, her trend started to decrease. There was no significant change in IA2's data pattern compared to baseline while she was in the OP condition. IA2's data increased in variability and level during the NP condition sessions of the alternating treatment compared to baseline. Generally, there was no interaction effect observed for the frequency of CS delivered and the frequency of CS increased compared to baseline for both participants in this setting.

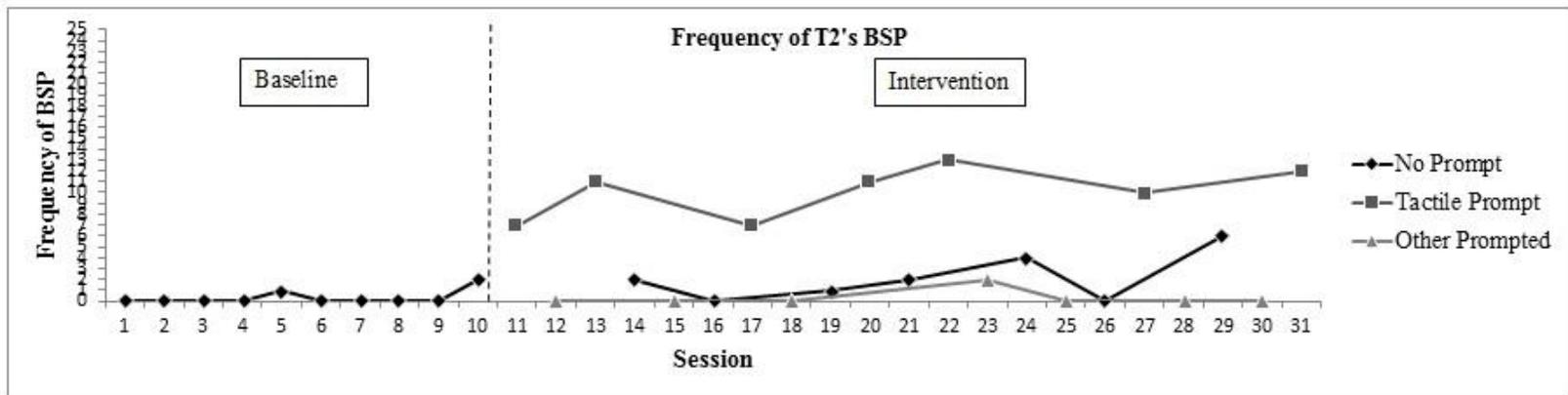


Figure 7 displays the frequency of BSP delivered by T2 during baseline and intervention sessions.

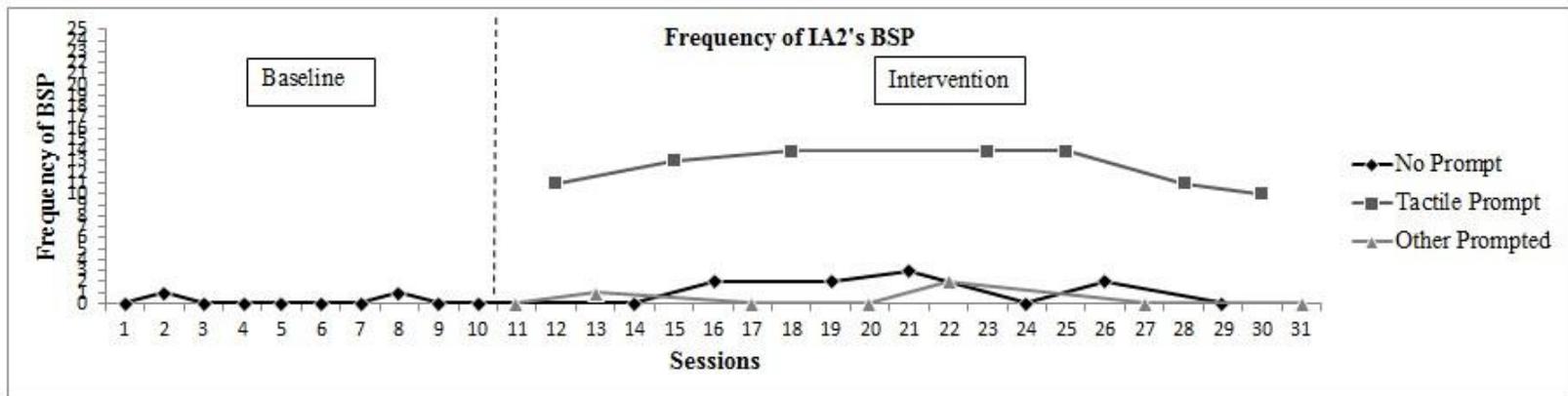


Figure 8 displays the frequency of BSP delivered by IA2 during baseline and intervention sessions.

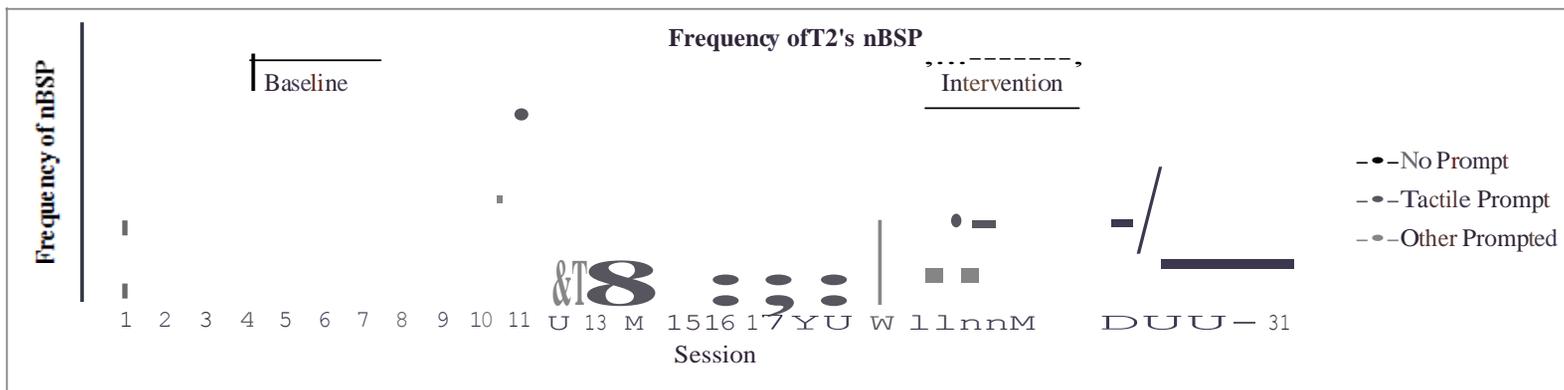


Figure 9 displays the frequency of uBSP delivered by T2 during baseline and intervention sessions.

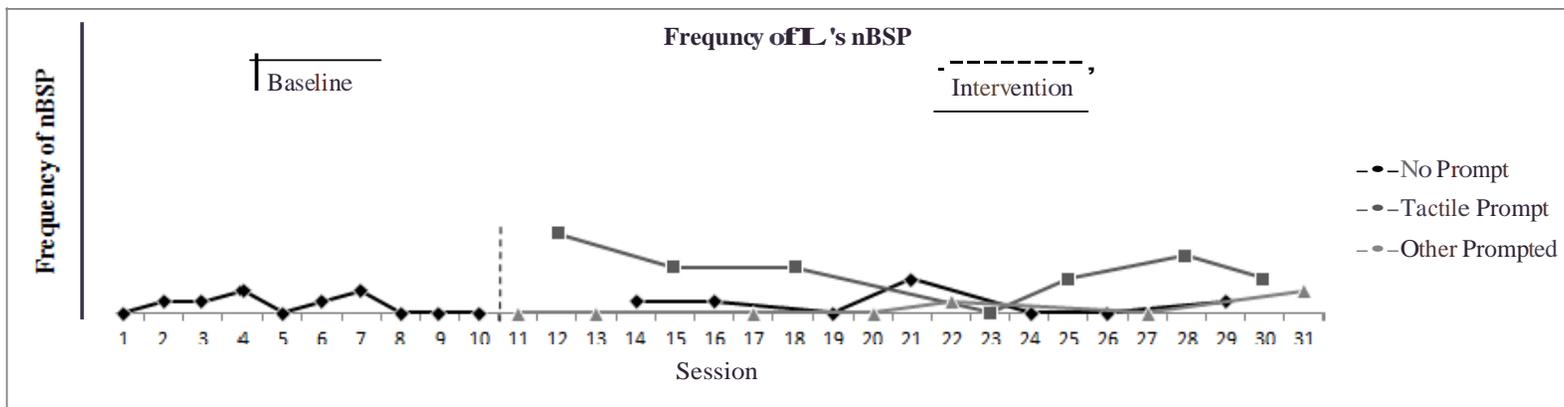


Figure 10 displays the frequency of uBSP delivered by IA2 during baseline and intervention sessions.

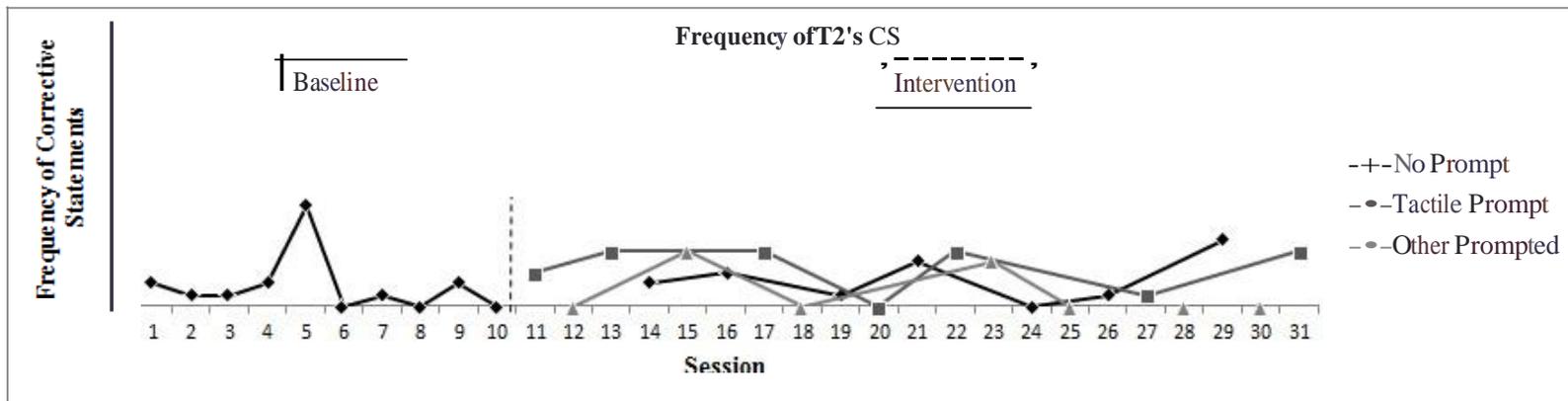


Figure II displays the frequency of CS delivered by T2 during baseline and intervention sessions.

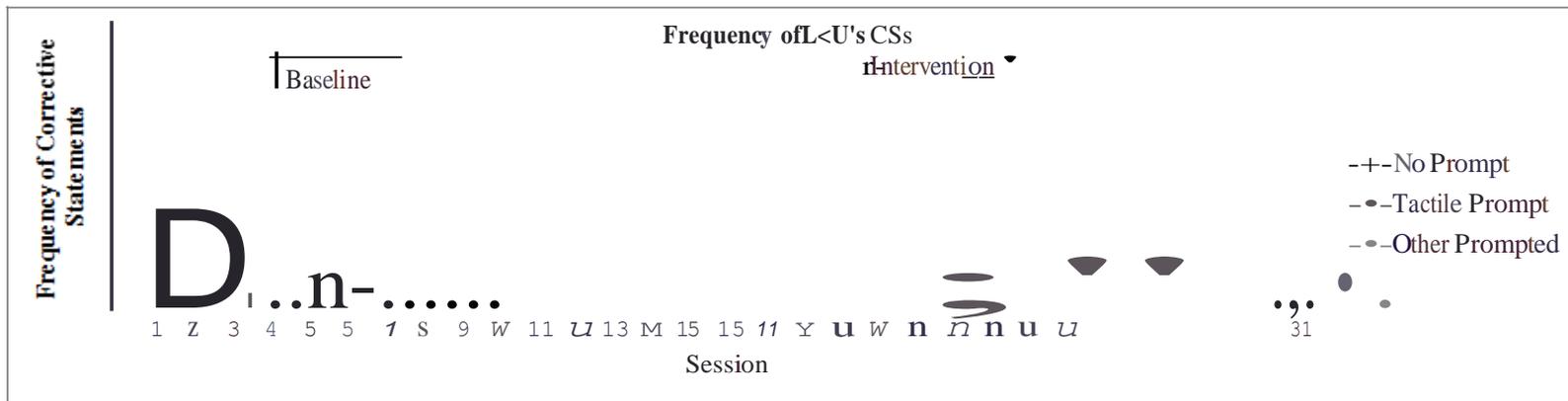


Figure 12 displays the frequency of CS delivered by IA2 during baseline and intervention sessions.

## **Activities**

The educational activities that were conducted, during each session data was collected, were analyzed, some observations are highlighted below.

For C1 there were 32 sessions in total; 18 of these sessions involved interactive or semi-interactive activities (all or part of the session involved the teacher presenting to the students and allowing students to respond), 6 involved independent activities and 8 involved watching a video. Of the 32 sessions 5 involved a Daily Oral Language (DOL) activity (correcting grammatical errors in a sentence on the board), 18 of the sessions were science activities, 7 were mathematic activities and 2 sessions consisted of watching a non-academic (NA) video.

The activity that had the highest frequency of no praise statements given was 'science video' (Table 9). This activity was conducted for 18.7% of sessions, the second highest percentage (Table 10). This was the activity for 25.9% of all sessions where no praise statements were delivered during baseline and 40.7% for intervention sessions. During intervention this was the only activity in which T1 gave no BSP. When there was a 'mathematic interactive' activity there was at least one praise statement given in each session, including baseline sessions. There was only one session when no corrective statements were given, across both participants and all sessions; this was during a NA video activity. At least one corrective statement was recorded for all other sessions.

There were 31 sessions in C2; 19 of these involved independent activities, 9 involved interactive activities and 3 were semi-interactive activities. Out of these

sessions 19 involved an English Language Arts (ELA) activity (involving children sometimes discussing then looking up definitions of words in dictionaries), 7 were during history activities, 5 during science and 1 was a combination of ELA and free-time (when students completed work they could chose to go on the computer or play board games).

In C2 'ELA independent' was the activity with the highest number of no praise statements delivered by either participant during baseline and intervention (Table 11). This activity, however, was also conducted for the highest percentage of sessions (Table 12) with 45.2% so it may be expected to have the highest percentage of no praise statements delivered. Although the most 'sessions with no praise statements' were during this activity. The highest percentage of 'sessions with no corrective statements' were during these sessions also, generally, this activity yielded the lowest level of responses from the staff in C2.

## DISCUSSION

This study asked three questions; if using a tactile prompting device would increase the frequency of Behavior Specific Praise (BSP); if increasing BSP would decrease Corrective Statements (CS) and if one person in a setting praised more would their coworker do the same when not directly prompted. Overall it was found that the MotivAider prompt with training did increase the frequency of BSP and Total Praise Statements (TPS)'s but that the overall frequencies of CS did not decrease. This finding supports the research demonstrating the effectiveness of the MotivAider device as a tactile prompt for delivering praise, and when accompanied by even brief training, it can be used as a prompt for BSP. However, it was unclear whether or not an increase in a person's BSP, whilst wearing the device would increase a second person's BSP while they were present but not wearing the device. In general there was no significant transfer of stimulus control, from the MotivAider device to the presence of another person delivering high rates of BSP. A large amount of data was collected during this investigation demonstrating practical implications even though modelling tactile prompted praise did not work.

The rates of praise statements delivered by all participants were higher, even at baseline, than the rates outlined by Brophy (1981) and Wheby, Symons and Shores (1995) of 0.2 praise statements per hour. Also, only IA2 was observed to deliver praise statements at a lower rate (0.098 per minute or 5.4 praise statements per hour) see Table 6, than outlined by White (1975) of between 6 and 12 praise statements per

hour. The standard for effective practice is to deliver 6 praise statements every 15 minutes (Myers, Simonsen, & Sugai, 2011), as described earlier. All the participants in this study, but one, demonstrated a rate higher than this during intervention sessions.

All of the TPS and BSP percentage increases were larger than the 5% outlined by Anderson, Evertson and Brohpy (1979) and the size of the increase was larger than the 50% Thompson and colleagues (2012) outlined to portray an effective intervention. This study, however, is not without its limitation's, some of which are discussed below.

### **Limitations**

Generally, T1 and IA1 emitted low levels of responding to student behavior, when they sat behind their desks or when a video was played. In this setting a video was the activity for a third of baseline sessions and approximately a third of intervention sessions. This activity could have confounded results due to the lack of opportunities for students to respond, that are expected from more interactive activities. This lack of opportunity for student response could have limited the amount of responses emitted by the teacher and instructional assistant in this setting. This study was conducted, however, in real life settings of the classroom where not all activities are constructed for high levels of staff-student interaction.

Another limitation observed in C1 was that IA1 withdrew from the TP condition as she felt uncomfortable wearing the MotivAider device. The MotivAider is an artificial prompting device and although discrete it still felt overly intrusive for

this participant. IA1, however, did not wish to withdraw from the study entirely and signed a new consent form (Appendix 1c) stating that her response data could be recorded and reported but that she would not be required to participate in the TP condition that involved her wearing the device.

Observation sessions being only 10 minutes, was perhaps another limitation to the current study. Response to the prompt decreasing over an extended period of 20 minutes, as demonstrated by T1 during sessions 11 and 12 of the intervention sessions, could portray that the shorter session lengths affected the results, causing them to be greater than would be expected in longer sessions. Also, the shorter sessions may not have accounted for such a diminishing effect of the prompt.

Approaching staff or attempting to attract their attention in order to instruct them to turn the MotivAider on and off was, occasionally, disruptive to the flow of the lesson in C1 and was also a characteristic of the experiment that limited how many sessions could be conducted. Students in both classes were also intrigued by the device and thought that it was an audio recording device. The researcher and staff reassured the students that this was not the case and that the device was merely a prompt for the staff similar to a pager. Although students were aware that the classroom staff were assisting the researcher in a project, they did not know the details. Although the MotivAider could be worn discretely so not to be visible to those in the surroundings it may not be as discrete as some researchers (Flaute, et al., 2005) have stated.

It was also observed that when the students were working independently and T2 was not wearing the device he sat at his desk but when he was wearing the MotivAider he walked around the room engaging with students with high rates of BSP. This may indicate that the researcher's presence impacted the participant's behavior. Alternatively, it could demonstrate that the MotivAider was a highly effective prompt for this teacher to engage with students in addition to increasing his frequency of delivering BSP. This teacher said he found it difficult to emit BSP while the children were involved in 'free time' activities. Even so, he gave BSP at the rate of 1.2 per minute during this session.

### **Implications for Future Research**

To prevent the presence of the researcher confounding participant behavior, future research could be designed to include covert observations to measure, as Cavanaugh (2013) suggested, the true impact of a natural implementer; the other staff member. Another option could be to use a team of researchers to collect the data to prevent the limitation of social contingencies surrounding one researcher or a supervisor. However, in the present study the rates were not always high in the presence of the researcher.

To overcome some of the other issues mentioned above in future research, all sessions could be made longer as to decrease the occasions of disruption and to investigate the extent of the diminishing responsiveness to the prompting device. Also, a less invasive and artificial stimulus could be used to prompt classroom staff's BSP or students could be made aware of the details of the investigation. This,

however, may pose a bigger confound than the students asking questions. The aim of this investigation was to change classroom staff's behavior not that of the students.

The ultimate goal of all research based in the education system is to have a positive impact on student learning. However, as student data was not recorded in this investigation the impact that the increased BSP, demonstrated by all participants, had on the student's behavior both socially and academically was not measured. The field could benefit from future research extending the findings of the current study to include how the changes in the staff behavior affect the behavior of their students. As mentioned in the introduction to this paper there are vast amounts of research saying that high rates of praise lead to more appropriate student behaviors.

The highest rates of staff responding in C1 were observed during interactive tasks; tasks that involved the teacher presenting something on the board, asking questions to the students with anticipation of a response or when students were reading aloud from a textbook, with T1 positioned at the front of the room and IA1 circling the room, answering students individual questions. This type of activity provided ample opportunities for staff-student interactions. During some of these tasks IA1 was observed to deliver high rates of CS when T1 was interacting with the students; giving instructions and asking questions, while IA1 spent her time 'picking up the slack'; attempting to redirect students on to the task. IA1's resistance to giving praise may be explained by claims of the counter-productivity of delivering praise (Rismiller 2004). It could also be due to contingencies specific to this setting. Due to the student population having already been expelled or on probation it may be viewed

by the staff that the students need strict rules and punishment rather than reinforcement. Future research may include staff questionnaires or interviews to discover their reasons for their resistance to giving praise and to establish the contingencies in place.

In C2 the lower rates of the staff's responses were observed while the students were engaged in independent tasks, for example, using the dictionary to look up and write the definitions of words during ELA or completing packets. Half the sessions in both baseline and intervention involved such tasks. So, similar to C1, the higher levels of responding and rates of BSP were recorded during interactive activities. The rates of responding also may have been low during such independent activities in C2 as it was observed that while the students worked, the staff members were distracted from attending to the students by other tasks.

It could be suggested that the reason for this increase in praise, despite the apparent lack of a significant interaction effect, was due to other social contingencies in the educational environment as outlined previously in this paper. More general positive social interaction between staff members and between staff and pupils, for example, was observed.

A positive response to the intervention was observed in both settings but more so in C2. There were some occurrences when T2 and IA2 would confer, aloud with the students present, what a 'great job' the students were doing of 'being quiet', 'staying on task' or 'completing their work', for example. This demonstrated that

there was some interaction effect; when one was receiving the tactile prompt both participants were encouraged to increase their rates of BSP.

Some students demonstrated behaviors that could be interpreted as frustration with staff members when they repeatedly praised them. This was most commonly observed when there were only 2 or 3 students present during a session. Some students were observed to 'shh' or 'shoo' staff. However, when staff members praised other children in the classroom the same students were observed to ask 'what about me?' demonstrating that they were seeking the praise and that this was positively reinforcing to them. The increase in praise also resulted in positive social interactions in that the students responded to BSP statement by saying 'thank you' and continuing with their work. A reason for the 'shh' or 'shoo' comments delivered by the student could have been that the staff member's statements were interfering with their concentration. The most opportune time to deliver BSP without breaking student concentration may be a future research topic and consideration for teacher training.

This positive reaction to the intervention was also observed in the staff members who commented that they were 'having a good time' and that it was a 'fun game to come up with BSP statements'. This study could be extended in future research by withdrawing the tactile prompt and observing if the positive social interactions, between staff and students and between staff members are part of the contingencies for maintaining high levels of BSP and TPS. And if not future research could investigate what other contingencies may contribute to the maintenance of

praise statement increases, for example, reaching targets or seeing impact on their students' academic achievements.

### **Conclusion**

This study extended previous research by including nBSP. It supports the research findings for EBD populations and extended the research to include an alternative education setting and population. Interventions such as the one used in this study are important for this population to change the behavior and attitudes of teachers and assistant staff in these settings. Those in alternative education, for example, may not set high expectations for their students, viewing them as failures as they have already failed to remain in general education. Staff behavior may then reflect such views by not giving much regard to providing praise for student achievement.

This study, also, supported the research demonstrating the effectiveness of using tactile prompts to increase BSP. It is, however, only a preliminary investigation into the interaction effect of how one staff member's increased BSP in a classroom can impact another staff member's.

Using positive strategies can be more effective than strategies that are punitive. In a proactive approach using preventative tactics, such as delivering contingent BSP to promote appropriate behavior, the teacher becomes an active agent of prevention. This was observed to occur in both settings in this study resulting in increasingly positive classroom environments.

It is important that investigations continue into how the natural contingencies of staff members working together can be used in a proactive approach of promoting and prompting increased rates of praise. Contingent teacher praise is a powerful tool, which can be essential to increase appropriate classroom behavior and academic success and diminish disruptive behavior and academic failure. It is particularly important to increase BSP. As stated in the introduction to this paper, BSP is part of effective classroom management, which is characteristic of positive programming for settings such as those that have been investigated here.

**Table 1**

	C1 BL	C1 I	C2 BL	C2 I	Overall
Overall IOA (%)	87	85	92	86	88
Range (%)	53-100	56-100	67-100	67-100	53-100

Table 1 displays IOA data for both classrooms across baseline and intervention.

**Table 2**

	T1					IA1				
	Total Statements	TPS	BSP	% TPS	% BSP	Total Statements	TPS	BSP	% TPS	% BSP
BL	235	87	11	37	13	78	12	1	15	8
I	364	187	99	57	52	212	76	34	36	45
Difference				154%	400%				240%	563%

Table 2 displays the percentage of feedback that was TPSs and percentage of TPSs that were BSPs for C1

**Table 3**

	T2					IA2				
	Total Statements	TPS	BSP	% TPS	% BSP	Total Statements	TPS	BSP	% TPS	% BSP
BL	39	21	3	54	14	20	9	2	45	22
I	201	151	88	75	58	187	134	99	72	74
Difference				139%	141%				160%	336%

Table 3 displays the percentage of feedback that was TPSs and percentage of TPSs that were BSPs for C2.

**Table 4**

Participant	Before Intervention	Following Training	Difference of	Direction of change
T1	67%	20%	47%	Decrease
IA1	92%	50%	42%	Decrease
T2	80%	38%	42%	Decrease
IA2	80%	33%	47%	Decrease
Total	79.75%	35.25%	44.5%	Decrease

Table 4 displays the percentage of sessions with zero BSP statements at baseline and following intervention.

**Table 5**

Participant	Type of statement	Before Intervention	Following Training	Difference of	Direction of change
T1	BSP	0.917	4.85	3.933	Increase
	nBSP	6.333	4.5	1.833	Decrease
	<b>TPS</b>	<b>7.25</b>	<b>9.35</b>	<b>5.766</b>	<b>Increase</b>
	<b>CS</b>	<b>12.33</b>	<b>8.85</b>	<b>3.48</b>	<b>Decrease</b>
IA1	BSP	0.083	1.7	1.617	Increase
	nBSP	0.917	2.1	1.183	Increase
	<b>TPS</b>	<b>1</b>	<b>3.8</b>	<b>2.8</b>	<b>Increase</b>
	<b>CS</b>	<b>5.5</b>	<b>6.8</b>	<b>1.3</b>	<b>Increase</b>
T2	BSP	0.3	4.19	3.89	Increase
	nBSP	1.8	3	1.2	Increase
	<b>TPS</b>	<b>2.1</b>	<b>7.19</b>	<b>5.09</b>	<b>Increase</b>
	<b>CS</b>	<b>1.8</b>	<b>2.381</b>	<b>0.581</b>	<b>Increase</b>
IA2	BSP	0.2	4.714	4.514	Increase
	nBSP	0.7	1.667	0.967	Increase
	<b>TPS</b>	<b>0.9</b>	<b>6.381</b>	<b>5.481</b>	<b>Increase</b>
	<b>CS</b>	<b>1.1</b>	<b>2.524</b>	<b>1.424</b>	<b>Increase</b>

Table 5 displays the average number of statements per session during baseline and following intervention.

**Table 6**

Participant	Before Intervention	Following Training	Difference of
T1	1:1.7	1:0.95 - (20:19)	961:580
IA1	1:5.5 - (2:11)	1:1.79 - (19:34) (100:179)	28:13
T2	1:0.86 - (7:6) (50:43)	1:0.33 - (3:1)	(1:0.11)
IA2	1:1.22 - (50:61)	1:0.4 - (5:2)	(1:0.26)

Table 6 displays the ratio of TPS to CS during baseline and following intervention

**Table 7**

	T1				IA1			
	BSP	nBSP	TPS	CS	BSP	nBSP	TPS	CS
BL	0.092	0.633	0.725	1.233	0.008	0.092	0.1	0.55
I	0.485	0.45	0.935	0.885	0.17	0.21	0.38	0.68
Difference	0.393	0.183	0.21	0.348	0.162	0.118	0.28	0.13
Direction	Increased	Decreased	Increased	Decreased	Increased	Increased	Increased	Increased

Table 7 displays the rate of each type of statement per minute in C1.

**Table 8**

	T2				IA2			
	BSP	nBSP	TPS	CS	BSP	nBSP	TPS	CS
BL	0.03	0.18	0.21	0.18	0.02	0.07	0.098	0.11
I	0.418	0.3	0.718	0.238	0.472	0.167	0.638	0.253
Difference	0.388	0.12	0.508	0.058	0.452	0.097	0.548	0.142
Direction	Increased							

Table 8 displays the rate of each type of statement per minute in C2.

**Table 9**

Activity	Amount of session	T1						IA1						Totals for TPS		Totals for CS	
		BSP		nBSP		CS		BSP		nBSP		CS					
		BL	I	BL	I	BL	I	BL	I	BL	I	BL	I	BL	I	BL	I
DOL Interactive	<b>5</b>	1	0	0	0	0	0	2	0	1	0	0	0	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>
NA Video	<b>2</b>	1	0	0	0	0	0	1	1	0	0	0	1	<b>2</b>	<b>1</b>	<b>0</b>	<b>1</b>
Math Independent	<b>5</b>	3	0	0	0	0	0	3	1	1	0	0	0	<b>7</b>	<b>8</b>	<b>0</b>	<b>0</b>
Math Interactive	<b>2</b>	0	0	0	0	0	0	0	0	0	0	0	0	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Science Semi-interactive	<b>1</b>	0	0	0	0	0	0	1	0	1	0	0	0	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>
Science Video	<b>6</b>	2	3	1	2	0	0	2	3	2	3	0	0	<b>7</b>	<b>11</b>	<b>0</b>	<b>0</b>
Science Interactive	<b>10</b>	0	0	0	0	0	0	1	5	1	2	0	0	<b>2</b>	<b>7</b>	<b>0</b>	<b>0</b>
Science Independent	<b>1</b>	1	0	0	0	0	0	1	0	1	0	0	0	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Total</b>	<b>32</b>	8	3	1	2	0	0	11	10	7	5	0	1	27	27	0	1

Table 9 displays the frequency of no statements given for each activity for C1.

**Table 10**

Activity	% of sessions	% of TPS BL	% of TPS I	% of CS BL	% of CS I
DOL Interactive	15.6	14.8	0	0	0
NA Video	6.2	7.4	3.7	0	100
Math Independent	15.6	25.9	29.6	0	0
Math Interactive	6.2	0	0	0	0
Science Semi-interactive	3.1	7.4	0	0	0
Science Video	18.7	25.9	40.7	0	0
Science Interactive	31.3	7.4	25.9	0	0
Science Independent	3.1	11.1	0	0	0

Table 10 displays the percentage of sessions each activity was conducted for, as well as, the percentage of total statements given in those activities for C1.

**Table 11**

Activity	Amount of sessions	T2						IA2						Totals for TPS		Totals for CS	
		BSP		nBSP		CS		BSP		nBSP		CS					
		BL	I	BL	I	BL	I										
ELA Independent	<b>14</b>	5	5	3	7	2	5	3	1	2	4	3	4	<b>13</b>	<b>17</b>	<b>5</b>	<b>9</b>
ELA Semi-interactive	<b>2</b>	0	0	0	0	0	0	1	0	1	0	0	0	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>
ELA Interactive	<b>2</b>	0	0	0	0	0	0	0	2	0	1	0	1	<b>0</b>	<b>3</b>	<b>0</b>	<b>1</b>
History Independent	<b>3</b>	2	0	2	1	0	0	2	0	1	1	2	0	<b>7</b>	<b>2</b>	<b>2</b>	<b>0</b>
History Interactive	<b>4</b>	0	2	0	0	0	0	0	2	0	1	0	1	<b>0</b>	<b>5</b>	<b>0</b>	<b>1</b>
Science Independent	<b>2</b>	1	1	0	1	1	1	1	0	0	0	1	0	<b>2</b>	<b>2</b>	<b>2</b>	<b>1</b>
Science Interactive	<b>3</b>	0	0	0	0	0	1	1	2	1	2	1	0	<b>2</b>	<b>4</b>	<b>1</b>	<b>1</b>
ELA/Free time Semi-interactive	<b>1</b>	0	0	0	0	0	0	0	1	0	0	0	0	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>
<b>Total</b>	<b>31</b>	<b>8</b>	<b>8</b>	<b>5</b>	<b>9</b>	<b>3</b>	<b>7</b>	<b>8</b>	<b>8</b>	<b>5</b>	<b>9</b>	<b>7</b>	<b>6</b>	<b>26</b>	<b>31</b>	<b>10</b>	<b>13</b>

Table 11 displays the frequency of no statements given for each activity for C2.

**Table 12**

Activity	% of sessions	% of TPS BL	% of TPS I	% of CS BL	% of CS I
ELA Independent	45.2	50	54.8	50	69.2
ELA Semi-interactive	6.5	7.7	0	0	0
ELA Interactive	6.5	0	9.7	0	7.7
History Independent	9.7	26.9	6.5	20	0
History Interactive	12.9	0	16.1	0	7.7
Science Independent	6.5	7.7	6.5	20	7.7
Science Interactive	9.7	7.7	12.9	10	7.7
ELA/Free time Semi-interactive	3.2	0	3.2	0	0

Table 12 displays the percentage of sessions each activity was conducted for, as well as, the percentage of total statements given in those activities for C2.

## REFERENCES

## REFERENCES

- Alber, S. R., Heward, W. L., & Hippler, B. J. (1999). Teaching middle school students with learning disabilities to recruit positive teacher attention. *Exceptional Children, Vol 64*, 253-270.
- Allday, R. A., Hinkson-Lee, K., Hudson, T., Neilsen-Gatti, S., A, K., & Russel, C. S. (2012). Training general educators to increase Behavior specific praise:effects on students with emotional and behavior disorders. *Behavioral Disorders, Vol 37 (2)*, 87-98.
- Anderson, D., Lindberg, J., Toung, K. R., Marchant, M., & Fisher, A. (2005). The Effects of increasing teacher praise on student behavior maintained by attention. *Brigham Young University, Provo, UT*.
- Anderson, L., Evertson, C., & Brophy, J. (1979). An experimental study of effective teaching in first grade reading groups. *Elementary School Journal, Vol 79*, 193-223.
- Aron, Y. (2006). *An overview of altenative education*. Washignton: Urban Institute.
- Austin, J. L., & Soeda, J. M. (2008). Fixed-time teacher attention to decrease off-task behaviors of typically developing third graders. *Journal of Applied Behavior Analysis, Vol 41*, 279-283.
- Blaney, R. L. (1983). Effects of teacher structuring and reacting on student achievement . *Elementary School Journal, Vol 83*, 568-577.

- Broden, M., Bruce, C., Mitchell, M. A., Carter, V., & Hall, R. V. (1970). Effects of teacher attention on attending behavior of two boys at adjacent desks. *Journal of Applied Behavior Analysis, Vol 3*, 199-203.
- Brophy, J. (1981). Teacher Praise: A Functional Analysis. *Review of Educational Research, Vol 51*, 5-32.
- Carr, E. G., Taylor, J. C., & Robinson, S. (1991). The effects of severe problem behavior in children on the teacher behavior of adults. *Journal of Applied Behavior Analysis, Vol 24*, 523-535.
- Cavanaugh, B. (2013). Performance feedback and teachers' use of praise and opportunity to respond: A review of the literature. *Education & Treatment of Children, Vol 36 (1)*, 111-137.
- Chalk, K., & Bizo, L. (2004). Specific praise improves on-task behavior and numeracy enjoyment: A Study of year 4 pupils engaged in numeracy hour. *Educational Psychology in Practice, Vol 20*, 335-352.
- Cooper, J. O., Heron, T. E., & Heward, W. L. (2007). *Applied Behavior Analysis (2nd Ed.)*. New Jersey: Pearson Merrill Prentice Hall.
- Cox, S. M. (1999). An assessment of an alternative education program for at-risk delinquent youth. *Journal of Research in Crime and Delinquency, Vol 36 (3)*, 323.

- Cox, S. M., Davidson, W. S., & Bynum, T. S. (1995). A meta-analysis assessment of delinquency-related outcomes of alternative education programs. *Crime and Delinquency, Vol 41 (2)*, 219-234.
- Craft, E. G., Alber, S. R., & Heward, W. L. (1998). Teaching elementary students with developmental disabilities to recruit teacher attention in a general education classroom: Effects of teacher praise and academic productivity. *Journal of Applied Behavior Analysis, Vol 31*, 399-415.
- Davis, S. M. (1994). How the Gateway Program helps troubled teens. *Educational Leadership, Vol 52 (1)*, 17-19.
- Duke, D. L., & Griesdom, J. (1999). Consideration in the design of alternative schools. *The Clearing House, Vol 73 (2)*, 89.
- Dunlap, G., Lovannone, R., Wilson, K. J., Kincaid, D. K., & Strain, P. (2010). Prevent-teacher-reinforce: A standardized model of school-based behavioral intervention. *Journal of Positive Behavior Interventions, Vol 12*, 9-22.
- Dynamics, B. (2013). *MotivAider: the Easy Way to Change Habits*. Retrieved from Habit Change: <http://habitchange.com/>
- Education, N. A. (1994). *Schools without fear: The report of the NASBE study group on violence and its impact on schools and learning*. Alexandria: Author.
- Emmer, E. T. (1987/1988). Praise and the instructional process. *Journal of Classroom Interaction, Vol 23*, 32-39.

- Emmer, E. T., & Stough, L. M. (2001). Classroom management: A critical part of educational psychology, with implications for teacher education. *Educational Psychologist, Vol 36*, 103-112.
- Ferguson, E., & Houghton, S. (1992). The effects of contingent teacher praise, as specified by Canter's assertive discipline programme, on children's on-task behavior. *Educational Studies, Vol 18*, 83-93.
- Flaute, A. J., Peterson, S. M., VanNorman, R. K., Riffle, T., & Eakins, A. (2005). Motivate me! 20 Tips for Using a MotivAider to Improve your Classroom. *TEACHING Exceptional Children Plus, Vol 2 (2)*.
- Foley, R. M., & Pang, L. (2006). Alternative Education Program: Program and Student Characteristic. *The High School Journal, Vol 89 (3)*, 10-21.
- Fullerton, E. K., Conroy, M. A., & Correa, V. I. (2009). Early childhood teachers' use of specific praise statements with young children at risk for behavioral disorders. *Behavioral Disorders, Vol 34*, 118-135.
- Gable, R. A., & Shores, R. E. (1980). Comparison of procedures for promoting reading proficiency of two children with behavioral and learning disorders. *Behavioral Disorders, Vol 5*, 102-107.
- Gable, R. A., Hendrickson, J. M., Young, C. C., Shores, R. E., & Stowischek, J. J. (1983). A comparison of teacher approval and disapproval statements across

categories of exceptionality. *Journal of Special Education Technology, Vol 6*, 15-22.

Gable, R. A., Hester, P. H., Rock, M. L., & Hughes, K. G. (2009). Back to basics: Role, praise, ignoring, and reprimands. *Intervention in School and Clinic, Vol 44*, 195-205.

Goetz, E. M., Holmberg, M. C., & LeBlanc, J. M. (1975). Differential reinforcement of other behavior and noncontingent reinforcement as control procedures during the modification of a preschooler's compliance. *Journal of Applied Behavior Analysis, Vol 8*, 77-82.

Good, T., & Brophy, J. (1987). *Looking in classrooms (4th ed.)*. New York: Harper and Row.

GooglePlay. (2012). *Keep in Mind: Free*. Retrieved from Google Play:

<https://play.google.com/store/apps/details?id=br.com.footons.game.keepinmindfree>

Guerin, G., & Denti, L. (1999). Alternative education support for youth at-risk. *The Cleaning House, Vol 73 (2)*, 76.

Gunter, P. L., & Coutinho, M. J. (1997). Negative reinforcement in classrooms: What we're beginning to learn. *Teacher Education and Special Education, Vol 20*, 249-264.

- Gunter, P. L., Denny, R. K., Jack, S. L., Shores, R. E., & Nelson, C. M. (1993). Aversive stimuli in academic interactions between students with serious emotional disturbance and their teachers. *Behavioral Disorders, Vol 18*, 265-274.
- Hall, R. V., Fox, R., Willard, D., Goldsmith, L., Emerson, M., Owen, M., . . . Porcia, E. (1971). The teacher as observer and experimenter in the modification of disputing and talking-out behaviors. *Journal of Applied Behavior Analysis, Vol 4*, 141-149.
- Hall, R. V., Lund, D., & Jackson, D. (1968). Effects of teacher attention on study behavior. *Journal of Applied Behavior Analysis, Vol 1*, 1-12.
- Hall, R. V., Panyan, M., Rabon, D., & Broden, M. (1968). Instructing beginning teachers in reinforcement procedures which improve classroom control. *Journal of Applied Behavior Analysis, Vol 1*, 315-322.
- Hester, P. P., Hendrickson, J. M., & Gable, R. A. (2009). Forty years later - The value of praise, ignoring, and rules for preschoolers at risk for behavior disorders. *Education and Treatment of Children, Vol 32*, 513-535.
- Heward, W. L. (2003). *Exceptional children: An introduction to special education (Seventh Edition)*. New Jersey: Perntice/Merrill Hall.

- Hick, T., & Munger, R. (1990). A school day treatment program using an adaption of the teaching family model (TFM). *Education and Treatment of Children, Vol 13 (1)*, 63-83.
- Jolivette, K., McDaniel, S. C., Sprague, R., Swain-Bradway, J., & Parks-Ennis, R. (2012). Embedding the Positive Behavioral Intervention and supports Framework into the complex array of practices within alternative education settings: A decision-making process. *Assessment for Effective Intervention, Vol 38 (1)*, 15-29.
- Kellam, S., Brown, C., Poduska, J., Ialongo, N., Wang, W., Toyinbo, P., & H, P. (2008). Effects of a universal classroom behavior management program in first and second grades on young adult behavioral, psychiatric, and social outcomes. *Drug and Alcohol Dependence, Vol 95*, 5-28.
- Kohn, A. (1993). *Punished by rewards: The trouble with gold stars, incentive plans, A's praise, and other bribes*. Boston: Houghton Mifflin.
- Lago-DeLello, E. (1998). Classroom dynamics and the development of serious emotional disturbance. *Exceptional Children, Vol 64*, 479-492.
- Leibs, A. (2013). *Change Behavior With MotivAider*. Retrieved from About Assistive Technology: <http://assistivetechonology.about.com/od/ATCAT3/fr/Change-Behavior-With-Motivaider.htm>

- Levy, S., & Vaughn, S. (2002). An observational study of teachers' reading instruction of students with emotional and behavioral disorders. *Behavioral Disorders, Vol 27*, 215-235.
- Luiselli, J. K., & Downing, J. N. (1980). Improving a student's arithmetic performance using feedback and reinforcement procedures. *Education and Treatment of Children, Vol 3*, 45-49.
- Madsen, C. H., Becker, W. C., & Thomas, D. R. (1968). Rules, praise and ignoring: Elements of elementary classroom control. *Journal of Applied Behavior Analysis, Vol 1*, 343-353.
- Mayer, G. (1995). Preventing antisocial behavior in the schools. *Journal of Applied Behavior Analysis, Vol 28*, 467-478.
- Mayer, G. R., Sulzer-Azaroff, B., & Wallace, M. (2012). *Behavior Analysis for Lasting Change*. New York: Sloan Publishing.
- McAllister, L. W., Stachowiak, J. G., Baer, D. M., & Conderman, L. (1969). The application of operant conditioning techniques in a secondary school classroom. *Journal of Applied Behavior Analysis, Vol 2*, 277-285.
- McKerchar, P. M., & Thompson, R. H. (2004). A descriptive analysis of potential reinforcement contingencies in the preschool classroom. *Journal of Applied Behavior Analysis, Vol 37*, 431-444.

- Moore-Partin, T., Robertson, R. E., Maggin, D. M., Oliver, R. M., & Wehby, J. H. (2010). Using teacher praise and opportunity to respond to promote appropriate student behavior. *Preventing School Failure, Vol 54 (3)*, 172-178.
- Mowery, J. M. (2008). *Effects of supervisor's presence on staff response to tactile prompts and self monitoring in a group home setting*. Retrieved from <http://scholarcommons.usf.edu/etd/416>
- Musti-Rao, S., & Haydon, T. (2011). Strategies to increase behavior-specific teacher praise in an inclusive environment. *Intervention in School and Clinic, Vol 47 (2)*, 91-97.
- Myers, D. M., Simonsen, B., & Sugai, G. (2011). Increasing teachers' use of praise with response-to-intervention approach. *Education and Treatment of Children, Vol 34 (1)*, 36-59.
- Nelson, J. R., & Roberts, M. L. (2000). Ongoing reciprocal teacher-student interactions involving disruptive behaviors in general education classrooms. *Journal of Emotional and Behavioral Disorders, Vol 8*, 27-37.
- Nelson, J. R., Benner, G. J., Lane, K., & Smith, B. W. (2004). An investigation of the academic achievement of K-12 students with emotional and behavioral disorders in public school settings. *Exceptional Children, Vol 71*, 59-73.

- Nicholas, J. D., & Utesch, W. E. (1998). An alternative learning program: Effects on student motivation and self-esteem. *The Journal of Educational Research, Vol 9 (5), 272-279.*
- Odysseyware. (2010, February 23). *Alternative Education: A Brief History.*  
Retrieved from Odyssey Ware:  
<http://glndocs.s3.amazonaws.com/odw/Alternative-Education-A-Brief-History.pdf>
- Raywid, M. A. (1990). Alternative education: The definition problem. *Changing Schools, Vol 18, 4-5.*
- Raywid, M. A. (1998). Small schools: A reform that works. *Educational Leadership, Vol 55 (4), 34-39.*
- Reinke, W. M., Lewis-Palmer, T., & Martin, E. (2007). The effects of visual performance feedback on teacher use of behavior-specific praise. *Behavior Modification, Vol 31, 247-263.*
- Richards, S. B., Taylor, R. L., Ramasamy, R., & Richards, R. Y. (1999). *Single Subject Research: Applications in Educational and Clinical Settings .*  
Belmont: Wadsworth Group/ Thomas Learning.
- Rismiller, L. L. (2004). Effects of praise training and increasing opportunities to respond on teachers' praise statements and reprimands during classroom instruction. *Dissertation: The Ohio State University.*

Russell, A., & Lin, L. G. (1977). Teacher attention and classroom behavior. *The Exceptional Child, Vol 24*, 148-155.

Shores, R. E., Cegelka, P. T., & Nelson, C. M. (1973). Competency-based special education teacher training. *Exceptional Children, Vol 40*, 192-197.

Shores, R. E., Gunter, P. L., & Jack, S. L. (1993). Classroom management strategies: Are they setting events for coercion? *Behavioral Disorders, Vol 18*, 92-102.

Shores, R. E., Jacks, S. L., Gunter, P. L., Ellis, D. N., DeBriere, T. J., & Wehby, J. H. (1993). Classroom interactions of children with behavior disorders. *Journal of Emotional and Behavioral Disorders, Vol 1*, 27-39.

Skinner, B. F. (1953). *Science and human behavior*. New York: MacMillan.

Skinner, B. F. (1974). *About Behaviorism*. New York: Vintage Books.

Smith, D. D., & Rivera, D. P. (1993). *Effective discipline (2nd ed.)*. Austin: PRO-ED.

Strain, P., & Joseph, G. (2004). A not so good job with "good job": A response to Kohn, 2001. *Journal of Positive Behavior Interventions, Vol 6*, 55-59.

Sugai, G., & Horner, R. H. (2002). The evolution of discipline practices: Schoolwide positive behavior supports. *Child and Family Behavior Therapy, Vol 24 (1&2)*, 23-50.

- Sutherland, K. S., & Wehby, J. H. (2001). The effect of self-evaluation on teaching behavior in classrooms for students with emotional and behavioral disorders. *The Journal of Special Education, Vol 35*, 161-171.
- Sutherland, K. S., Wehby, J. H., & Copeland, S. R. (2000). Effects of varying rates of behavior specific praise on the on-task behavior of students with emotional and behavioral disorders. *The Journal of Emotional of Behavioral Disorders, Vol 8*, 2-8.
- Tawney, J., & Gast, D. (1984). *Single Subject research in special education*. Columbus: Charles E. Merrill.
- Thomas, D. A., Nielsen, L. J., Kuypers, D. S., & Becker, W. C. (1968). Social reinforcement and remedial instruction in the elimination of a classroom behavior problem. *Journal of Special Education, Vol 2*, 291-302.
- Thompson, M. T., Marchant, M., Anderson, D., Prater, M. A., & Gibb, G. (2012). Effects of Tiered Training on General Educators' Use of specific praise. *Education and Treatment of Children, Vol 35 (4)*, 521-546.
- Tobin, T., & Sprague, J. (1999). Alternative Education Programs for At-Risk Youth: Issues, best practice, and recommendations. *Oregon School Study Council, Eugene*.

- Tobin, T., & Sprague, J. (2000). Alternative Education Strategies: Reducing Violence in School and the Community. *Journal of Emotional and Behavioral Disorders, Vol 8 (3)*, 177-186.
- Unruh, D., Bullis, M., Todis, B., Waintrup, M., & Atkins, T. (2007). Programs and practices for special education students in alternative education settings. *Research to Practice Brief: Improving Secondary Education and Transition Services Through Research, Vol 6*, 1-6.
- Van Acker, R., Grant, S. H., & Henry, D. (1996). Teacher and student behavior as a function of risk for aggression. *Education and Treatment of Children, Vol 19*, 316-334.
- Walker, H. M. (1979). *The acting-out child: Coping with classroom disruption*. Boston: Allyn & Bacon.
- Walker, H., Ramsey, E., & Gresham, F. (2004). *Antisocial behavior in schools: Evidence-based practices*. Belmont: Wadsworth.
- WatchMinder. (2013). *WatchMinder: Vibrating watch and reminder system*. Retrieved from WatchMinder: [www.watchminder.com](http://www.watchminder.com)
- Wehby, J. H., Symons, F. J., & Shores, R. E. (1995). A descriptive analysis of aggressive behavior in classrooms for children with emotional and behavioral disorders. *Behavioral Disorders, Vol 20*, 87-105.

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

Zimmerman, E. H., & Zimmerman, T. (1962). The alteration of behavior in a special classroom situation. *Journal of the Experimental Analysis of Behavior, 5*, 59-60.

## APPENDICIES

## APPENDIX A

## CONSENT FORM – DISTRICT

1. This research study will examine the effect of using the MotivAider to prompt behavior Specific Praise to be delivered by the staff, in the designated classrooms. If you agree to this research being conducted in the designated district classrooms the staff in these classrooms will be asked to wear the MotivAider on the days that the research will be carried out. The time on the device will be set by the researcher and the staff will be instructed to turn the device on and off as required.
2. You are free to discontinue your classroom's participation at any time without penalty
3. Possible benefits for participating in this research include increasing positive interactions and environment in the classroom, as well as the staff experiencing the usefulness of the MotivAider as a cueing devices.
4. You will be given additional information about the study after the classroom staff participation is complete.
5. If you agree to participate in the study, the staff in the classrooms will each receive the vibratory prompt for a maximum of 10 sessions over 2-3 weeks. Each session is 10 minutes long with the staff member receiving one prompt per minute.
6. All data from this study will be kept from inappropriate disclosure and will be accessible only to the researchers and their faculty advisor.
7. The present research is designed to reduce the possibility of any negative experiences as a result of participation. Risks to participants are kept to a minimum. However, if your participation in this study causes you any concerns, anxiety, or distress, please contact The Center for Human Services at (209) 526-1476 or [jsmith@centerforhumanservices.org](mailto:jsmith@centerforhumanservices.org) to make an appointment to discuss your concerns
8. This research study is being conducted by Natalie Savage. Observations will also be taken by a research assistant (INSERT NAME) and by the Behavior Analyst already assigned to your class by the district. The faculty supervisor is Dr. Bill Potter, Chair of the Department of Psychology and Child Development, California State University, Stanislaus. If you have any questions or concerns about you participation in this study you may contact the researcher via the information here:

Natalie Savage: 209 648 9512, [nsavage@csustan.edu](mailto:nsavage@csustan.edu)

Bill Potter: 209 345 6111, [wpotter@csustan.edu](mailto:wpotter@csustan.edu)

9. You may obtain information about the outcome of the study at the end of the academic year by contacting Natalie Savage or Dr. Potter.
10. If you have any questions about your rights as a research participant, you may contact the Campus Compliance Officer of California State University Stanislaus at IRBadmin@csustan.edu.
11. You will be provided with a blank, unsigned copy of this consent form at the beginning of the study.
12. By signing below, you attest that you are 18 years old or older
13. By signing below, you are indicating that you have freely consented to participate in this research study.

PARTICIPANT'S SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

## APPENDIX B

## CONSENT FORM – CLASSROOM STAFF

1. This research study will examine the effect of using the MotivAider to prompt behavior Specific praise in the classroom. If you agree to participate you will be asked to wear the MotivAider on the days the research will be carried out. The time on the device will be set by the researcher and you will be asked when to switch the device on and off.
2. You are free to discontinue your participation in the study at any time without penalty.
3. Possible benefits for participating in this research include increasing positive interactions and environment in you classroom, as well as experiencing the usefulness of the MotivAider as a cueing devices.
4. You will be given additional information about the study after your participation is complete.
5. If you agree to participate in the study, you will receive the vibratory prompt for a maximum of 10 sessions over 2-3 weeks. Each session is 10 minutes long and you will receive one prompt per minute
6. All data from this study will be kept from inappropriate disclosure and will be accessible only to the researchers and their faculty advisor
7. The present research is designed to reduce the possibility of any negative experiences as a result of participation. Risks to participants are kept to a minimum. However, if your participation in this study causes you any concerns, anxiety, or distress, please contact the The Center for Human Services at (209) 526-1476 or [jsmith@centerforhumanservices.org](mailto:jsmith@centerforhumanservices.org) to make an appointment to discuss your concerns.
8. This research study is being conducted by Natalie Savage. Observations will also be taken by a research assistant (INSERT NAME) and by the Behavior Analyst already assigned to your class by the district. The faculty supervisor is Dr. Bill Potter, Chair of the Department of Psychology and Child Development, California State University, Stanislaus. If you have any questions or concerns about you participation in this study you may contact the researcher via the information here:  
  
Natalie Savage: 209 648 9512, [nsavage@csustan.edu](mailto:nsavage@csustan.edu)  
Bill Potter: 209 345 6111, [wpotter@csustan.edu](mailto:wpotter@csustan.edu)
9. You may obtain information about the outcome of the study at the end of the academic year by contacting Natalie Savage or Dr. Potter.

10. If you have any questions about your rights as a research participant, you may contact the Campus Compliance Officer of California State University Stanislaus at IRBadmin@csustan.edu.
11. You will be provided with a blank, unsigned copy of this consent form at the beginning of the study.
12. By signing below, you attest that you are 18 years old or older
13. By signing below, you are indicating that you have freely consented to participate in this research study.

PARTICIPANT'S SIGNATURE:\_\_\_

DATE: \_\_\_\_\_

## APPENDIX C

## CONSENT FORM – CLASSROOM STAFF (EDITED)

1. This research study will examine the effect of using the MotivAider to prompt behavior Specific praise in the classroom.
2. You are free to discontinue your participation in the study at any time without penalty.
3. Possible benefits for participating in this research include; increasing positive interactions and environment in your classroom, as well as experiencing the usefulness of the MotivAider as a cueing devices.
4. You will be given additional information about the study after your participation is complete.
5. If you agree to participate in the study, data will be collected on classroom interactions
6. All data from this study will be kept from inappropriate disclosure and will be accessible only to the researchers and their faculty advisor.
7. The present research is designed to reduce the possibility of any negative experiences as a result of participation. Risks to participants are kept to a minimum. However, if your participation in this study causes you any concerns, anxiety, or distress, please contact you supervisor who will direct you to the counseling service designated for the district. Or contact Stanislaus County Behavioral Health 1-888-376-6246
8. This research study is being conducted by Natalie Savage, a Master’s candidate of CSU Stanislaus. Observations may also be taken by a research assistant and by the Behavior Analyst already assigned to your class by the district. The faculty supervisor is Dr. Bill Potter, Chair of the Department of Psychology and Child Development, California State University, Stanislaus. If you have any questions or concerns about you participation in this study you may contact the researcher via the information here:

Natalie Savage: 209 648 9512, [nsavage@csustan.edu](mailto:nsavage@csustan.edu)

Bill Potter: 209 667 3386, [wpotter@csustan.edu](mailto:wpotter@csustan.edu)

9. You may obtain information about the outcome of the study at the end of the academic year by contacting Natalie Savage or Dr. Potter.
10. If you have any questions about your rights as a research participant, you may contact the Campus Compliance Officer of California State University Stanislaus at [IRBadmin@csustan.edu](mailto:IRBadmin@csustan.edu).
11. You will be provided with a blank, unsigned copy of this consent form at the beginning of the study.
12. By signing below, you attest that you are 18 years old or older.

13. By signing below, you are indicating that you have freely consented to participate in this research study.

PARTICIPANT'S SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

## APPENDIX D

## DEBRIEF INFORMATION

Thank you for participating in this study! I was interested in understanding the relationship of using the MotivAider to prompt as increase in Behavior Specific Praise (BSP and if increasing BSP would decrease the amount of corrective statements delivered. By BSP I mean praise a verbal response directed at the student that specifies the behavior that they are being praised for. nBSP was also recorded in order to see if total praise frequency increased. By nBSP I mean a verbal response directed at the student that does not describe the behavior that they are being praise for. By corrective statements I mean verbal responses directed at the student when the student conducts in undesirable behavior. Prior research suggests that delivering praise is part of an effective teaching strategy and that using praise is more effective than using punishment or corrective statements. In addition, research suggests that BSP is the most effective form of praise. Research has shown that the MotivAider is an effective device to prompt praise giving. I expect to find similar results in this study. In addition, I want to investigate whether there is a relationship between prompting one staff member's BSP and the frequency of the other staff member's BSP. It is predicted that the MotivAider will increase praise giving, in particular BSP, that increasing praise will decrease the amount of corrective statements delivered and that prompting one staff member's BSP will have an impact on the second staff member's BSP. In other words by using a prompt to increase one staff members BSP both staff member's BSP will increase.

All the information we collected in this study will be kept safe from inappropriate disclosure, and there will be no way of identifying your responses in the data archive. I am not interested in individual responses; rather, I will be totaling the number of BSB, nBSP and corrective statements each session.

If you have any questions about the study or would like to learn about the results of the study, you may contact me, Natalie Savage or my research supervisor Dr. Bill Potter via the details below:

Natalie Savage: 209 648 9512, [nsavage@csustan.edu](mailto:nsavage@csustan.edu)

Bill Potter: 209 345 6111, [wpotter@csustan.edu](mailto:wpotter@csustan.edu)

If you have questions about your rights as a research participant, you may contact the Campus Compliance Officer of CSU Stanislaus at [IRBadmin@csustan.edu](mailto:IRBadmin@csustan.edu). If participation in the study caused you any concern, anxiety, or distress, you may contact The Center for Human Services at (209) 526-1476 or [jsmith@centerforhumanservices.org](mailto:jsmith@centerforhumanservices.org) to make an appointment to discuss your concerns.

APPENDIX E

MOTIVAIDER (BEHAVIORAL DYNAMICS 2010)

**MotivAider (Behavioral Dynamics 2010)**



## APPENDIX F INTERVENTION

## INFORMATION SHEET

**Behavior Specific Praise (BSP)**

A BSP statement is a verbal response directed at a student or group of students that specifies the behavior that they are being praised for.

A nBSP is a verbal response directed at the student or group of students that does **not** describe the behavior they are being praised for.

<b>Examples</b>	<b>Non-Examples</b>
‘You are doing great at sitting quietly, guys’. ‘Thank you for remaining in your seat’ ‘I like that you put your hand up to answer the question’ ‘Good job getting all your work done’ ‘That answer was great’ ‘You’re being very respectful, that’s awesome’	‘You did great/awesome’ ‘You guys did awesome today’ ‘Nice job’ ‘Good job’ ‘Okey’

**Directions for using the MotivAider**

1. The researcher will set the MotivAider prior to conducting the first session of that day
2. Attach the MotivAider to you waistband using the gripping mechanism on the back
3. When instructed by the researcher slide the button into ‘run’ mode
4. Upon receiving the vibratory prompt deliver a behavior specific praise statement to a student or group of students.
5. When instructed slide the button to ‘set’ mode

