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# Principal Led In-Class Positive Behavioral Support Intervention


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# PRINCIPAL LED IN-CLASS POSITIVE BEHAVIORAL SUPPORT INTERVENTION<sup>\*</sup>

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## Abstract

Results of this one-year study supported the use of an in-class behavioral intervention program that allowed 8th-grade students to reclaim themselves after verbally disruptive behavioral incidences with direct principal led administrator assistance resulting in student return to differentiated individualized instructional classroom activities. Students involved in a second verbally disruptive incident in the classroom were identified for intervention. Academic and behavioral improvement noted for verbally disruptive students with co-occurring below grade level reading test scores ( $n = 23$ ) and verbally disruptive students with grade level reading scores ( $n = 12$ ) suggests continued use of this intervention. All participants were in attendance in a large metropolitan, racially and economically diverse, Midwestern school district. Programs that reduce the amount of missed class time due to students' verbally disruptive behavior merit consideration by educators for implementation.



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## 1 Introduction

Student disruptive behavior represents one of the greatest barriers to student achievement (Brown, 2007; Dupper & Bosch, 1996; Shanker, 1995). Researchers have documented that as much as one half of classroom

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instructional time is taken up with non-instructional activities (Cotton, 1991) and discipline problems are responsible for a significant portion of this lost instructional time (Cotton, 1991; Dupper & Bosch, 1996; National Education Goals Report, 1995). Disruptive students are often removed from the class (Hill & Coufal, 2005; Obenchain & Taylor, 2005) and referred to the administrator for further discipline (Blomberg, 2004; Dupper & Bosch, 1996; Kritsonis & Cloud, 2006). Thus begins the unfortunate process of excluding children from classrooms just when they need increased time with a teacher the most (Blomberg, 2004). After many office referrals fail to stop the disruptions, repeated violators are often assigned to in-school suspension programs (Kritsonis & Cloud, 2006; Morrison, Anthony, Storino, & Dillon, 2001). When problems persist, students are suspended from school (Arcia, 2006; Dupper & Bosch, 1996). If repeated uses of these measures do not work, the final phase in this vicious downward cycle is long term out of school suspension or reassignment to an alternative school. Once removed from the classroom, students struggle and most often fail academically thus compounding the problem and increasing risk factors which lead to early school leaving. Furthermore, poor attendance is linked to lower test scores and higher failure rates (Roby, 2004). Predictably, a student is much more likely to drop out of school where there is a history of disruptive behavior resulting in either in or out of school suspension (Suh & Suh, 2007).

## 2 Review of Literature

The self-perpetuating cycle of removal and exclusion does nothing to help close the achievement gap as student grade point averages drop when attendance issues increase (Arcia, 2006; Roby, 2004). In fact, the cycle is directly related to drop out rates. Repeatedly, researchers have linked behavioral issues such as suspensions and social skill deficits to drop out rates (Arcia, 2006; Dupper & Bosch, 1996; Gresham, 1981). The decrease in instructional time represented by the removals from class, in school suspensions, or out of school suspensions has been calculated by one researcher at 3,600 instructional hours lost for each percentage point drop in attendance (Roby, 2004). When a student is not in class it is impossible for the teacher to address the student's individual academic needs—the very students who need the most help (Arcia, 2006). Teacher-student relationships, considered essential for promoting achievement and positive student behavior, cannot be fostered when a student is absent because of chronic misbehavior (Brown, 2007; DeRidder, 1990; Green, 1998). Unfortunately, exclusionary measures are also often inconsistently applied and used without regard to the reason behind the behavior (Blomberg, 2004; Skiba, Peterson, & Williams, 1997). Frustrated teachers often just want the disruptive students removed from the classroom so they can teach the lesson to the rest of the class (Kritsonis & Cloud, 2006; Omaha Public Schools, 1999; Sheets 2002). When disruptive behavior occurs and is chronic, teachers blame students and frustrated students blame teachers and administrators (Sheets, 2002).

With little evidence to support the use of exclusionary practices of removal from class, in-school suspension, and out of school suspension, it is paramount that educators find alternatives to these extremely punitive measures for dealing with disruptive behaviors. What is needed is support for teachers to be able to engage learners of all backgrounds in the educational process without losing control of the behaviors in the classroom.

### 2.1 Verbal Disruption

One form of verbally aggressive behavior that has a significant negative impact on student achievement is verbal disruption. In 2003, 35 % of teachers strongly agreed or agreed that student misbehavior interfered with their teaching (NCES, 2008). Infante and Wigley (1986) define verbal aggression as a willingness to attack another's self-concept. Aggressive behavior has been related to impulsive, sensation seeking behaviors. Impulsive, sensation-seeking students are likely to engage in aggressively hostile behaviors in the classroom (Joireman, Strathman, & Anderson, 2003). Zillman (1988) found that the cognitive disruption associated with high levels of excitation decreases the probability of aggression inhibition. So students with sensation seeking behavior become more aggressive as they get more excited by the event (Winstok, 2003), and have a diminished capacity for self-control (Richardson, Hammock, Smith, Gardner, & Signo 1994; Winstok, 2003).

## 2.2 School-Wide Behavior Programs

Effective school-wide behavior plans are at the heart of any orderly and well-behaved effective school. Orderly and well-behaved effective schools provide environments where considerable effort has been made to build and maintain healthy, safe, and supportive cultures where disruptive behaviors are less likely to occur with reduced frequency, intensity, and duration (Sprague, Sugai, Horner, & Walker, 1999). The important characteristics of successful school-wide behavior programs include a commitment by all staff members to develop and maintain positive student behaviors, clear and broad-based rules, warm school culture, visible and supportive administration, delegation of discipline authority to the teachers, and close ties to the community (Cotton, 1991).

## 2.3 Administrative Visibility and Support

Administrative visibility and support play a significant part in creating a school climate with perceived safety and harmony in a school (Green, 1998). Zigarelli (1996) reviewed data from the National Educational Longitudinal Study and found that effective schools research suggests that good principals have strong leadership skills and actively participate in the classroom to create better schools. One quality of strong leadership that demonstrates support for teachers and students is being visible and active in classrooms and during supervision (Cotton, 1991; Lewis, Colvin, & Sugai, 2000). Administrators can also help to incorporate student voice in the school-wide learning community (Mitra, 2007) increasing student acceptance of rules and procedures. Cotton (1991) found that effective school administrative leadership was a key component of high achieving and well behaved schools. In these schools the administrator supports the teacher's authority to handle the majority of classroom disruptions while working as a team member when serious disruptive behaviors occur. Additionally, administrative support and regular feedback are necessary for school-wide discipline programs to enhance classroom intervention (Colvin & Kimeenui, 1993; Lewis et al., 2000). Classroom intervention enhances the academic purposes of the class and allows for control of excessive behaviors (Lentz, 1988). The concept of using classroom-based interventions began in the area of special education, and classroom based cognitive interventions for disruption have been shown to reduce aggressive behaviors (Daunic, Smith, Brank, & Penfield, 2006).

## 2.4 Differentiated Instruction

Differentiated instruction is thought to have a positive impact on student behavior because lessons and strategies are employed that take into account learner variance in readiness, interest, and learning style (Tomlinson, 2001). Differentiation requires modification of curriculum, teaching methods, resources, learning activities, and student products as an integral part of the lesson planning process (Tomlinson, 1997). Tomlinson (2003) suggested five criteria for true differentiation. Effective differentiation is proactive in nature, uses small teaching-learning groups in the classroom, varies the materials used by individuals and groups in the classroom, varies the pace of instruction and participation, is knowledge centered, and is learner centered. Grouping by learning styles in the classroom has been shown to have a more positive impact on achievement than traditional or analytical based instruction (Sternberg, Torff, & Gregorenko, 1998).

## 3 Methodology

The purpose of the study was to determine the effect of a principal led in-class behavioral intervention plus differentiated instruction program on the achievement and behavior outcomes of 8th-grade students with verbally disruptive behavior and co-occurring below grade level reading test scores compared to 8th-grade students with verbally disruptive behavior and grade level reading test scores.

### 3.1 Participant Demographics and Selection

Of the total number of selected subjects identified with verbally disruptive behavior and co-occurring below grade level reading scores ( $n = 23$ ) the gender ratio was 14 boys (61%) and 9 girls (39%). Of the total

number of selected subjects identified with verbally disruptive behavior and grade level reading scores ( $n = 12$ ) the gender ratio was 4 boys (33%) and 8 girls (66%). The age range for all study participants was 13 years to 14 years and all participants were in the 8th-grade. The ethnic and racial origin of students with verbally disruptive behavior and co-occurring below grade level reading scores was 8 Caucasian (35%), 6 Hispanic (26%), and 9 African American (39%) students and the ethnic and racial origin of students with verbally disruptive behavior and grade level reading scores was 5 Caucasian (42%) and 7 African American (58%) students. Students who had two or more serious verbal disruptive classroom incidences leading to their removal from class were included in the study.

### 3.2 Description of Procedures

**Research design.** The pretest-posttest two-group comparative efficacy study design is displayed in the following notation.

Group 1  $X_1 O_1 Y_1 O_2$   
Group 2  $X_1 O_1 Y_2 O_2$

**Group 1 = study participants #1.** Naturally formed group of students with verbally disruptive behavior and co-occurring below grade level (6th-grade or lower) reading test scores ( $n = 23$ ).

**Group 2 = study participants #2.** Naturally formed group of students with verbally disruptive behavior and grade level (8th-grade or higher) reading scores ( $n = 12$ ).

**$X_1 =$  study constant.** All participants received principal led in-class behavioral interventions plus differentiated instruction.

**$Y_1 =$  study independent variable, verbally disruptive students, condition #1.** Verbally disruptive students with co-occurring below grade level reading scores.

**$Y_2 =$  study independent variable, verbally disruptive students, condition #2.** Verbally disruptive students with grade level reading scores.

**$O_1 =$  study pretest dependent measures.** (1) Achievement as measured by the research school districts 7th-grade (a) Norm-Referenced California Achievement Test (CAT) (i) reading comprehension normal curve equivalent (NCE) score, (ii) reading vocabulary (NCE) score, and (iii) reading total battery (NCE) score (b) Ending 7th-grade grade point average (GPA). (2) Seventh-grade behavior as measured by the research school districts ending of the 7th-grade year reported (a) between class tardy, (b) office referral, (c) in-school suspension, and (d) out of school suspension district information as reported to the SASI database.

**$O_2 =$  study posttest dependent measures.** (1) Achievement as measured by the research school districts end of school year (a) Norm-Referenced California Achievement Test (CAT) (i) reading comprehension normal curve equivalent (NCE) score, (ii) reading vocabulary (NCE) score, and (iii) reading total battery (NCE) score (b) Ending 8th-grade grade point average (GPA). (2) 8th-grade behavior as measured by the research school districts ending of the 8th-grade year reported (a) between class tardy, (b) office referral, (c) in-school suspension, and (d) out of school suspension district information as reported to the SASI database.

### 3.3 Research Questions

The following nine research questions were asked and answered as part of this study.

1. Did students determined to have verbally disruptive behavior and co-occurring below grade level reading test scores lose, maintain, or improve their beginning 8th-grade compared to ending 8th-grade (a) reading comprehension, (b) reading vocabulary, and (c) reading total NCE scores following participation in a year-long principal led in-class behavioral intervention plus differentiated instruction program?

2. Did students determined to have verbally disruptive behavior and grade level reading test scores lose, maintain, or improve their beginning 8th-grade compared to ending 8th-grade (a) reading comprehension, (b) reading vocabulary, and (c) reading total NCE scores following participation in a year-long principal led in-class behavioral intervention plus differentiated instruction program?

3. Did students determined to be verbally disruptive with co-occurring below grade level reading scores compared to students determined to be verbally disruptive with grade level reading scores have congruent or different ending 8th-grade (a) reading comprehension, (b) reading vocabulary, and (c) reading total NCE scores following participation in a year-long principal led in-class behavioral intervention plus differentiated instruction program?

4. Did students determined to be verbally disruptive with co-occurring below grade level reading test scores lose, maintain, or improve their ending 7th-grade compared to ending 8th-grade GPA following participation in the principal led in-class behavioral intervention plus differentiated instruction program?

5. Did students determined to be verbally disruptive with grade level reading test scores lose, maintain, or improve their ending 7th-grade compared to ending 8th-grade GPA following participation in the principal led in-class behavioral intervention plus differentiated instruction program?

6. Did students determined to be verbally disruptive with co-occurring below grade level reading test scores compared to students determined to be verbally disruptive with grade level reading test scores have congruent or different ending 8th-grade GPAs following participation in the principal led in-class behavioral intervention plus differentiated instruction program?

7. Did students determined to be verbally disruptive with co-occurring below grade level reading test scores lose, maintain, or improve their ending 7th-grade compared to ending 8th-grade (a) between class tardy, (b) office referral, (c) in-school suspension, and (d) out of school suspension totals following participation in the principal led in-class behavioral intervention plus differentiated instruction program?

8. Did students determined to be verbally disruptive with grade level reading test scores lose, maintain, or improve their ending 7th-grade compared to ending 8th-grade (a) between class tardy, (b) office referral, (c) in-school suspension, and (d) out of school suspension totals following participation in the principal led in-class behavioral intervention plus differentiated instruction program?

9. Did students determined to be verbally disruptive with co-occurring below grade level reading test scores compared to students determined to be verbally disruptive with grade level reading test scores have congruent or different ending 8th-grade (a) between class tardy, (b) office referral, (c) in-school suspension, and (d) out of school suspension totals following participation in the principal led in-class behavioral intervention plus differentiated instruction program?

### 3.4 Assumptions and Limitations

The study had several strong features. All 8th-grade teachers in the research school were included in the program, training was provided to all middle level teachers to ensure that the strategies necessary for individualizing and differentiating assignments based on student need were uniformly administered, and teachers worked with school administrators on a weekly basis to review program progress. The study was limited by the small sample size and newly developed intervention procedures that may limit the utility and generalizability of the study results and findings.

## 4 Results

### 4.1 Research Question #1

The first pretest-posttest hypothesis was tested using the dependent  $t$  test. For students determined to have verbally disruptive behavior and co-occurring below grade level reading test scores null hypotheses were rejected for two of the measured achievement subtests Reading Vocabulary and Reading Total. The null hypothesis was not rejected for the measured achievement subtest Reading Comprehension. The pretest Reading Comprehension score ( $M = 27.87$ ,  $SD = 13.96$ ) compared to the posttest Reading Comprehension score ( $M = 30.30$ ,  $SD = 11.22$ ) was not statistically significantly different,  $t(22) = 1.26$ ,  $p = .11$  (one-tailed),  $d = .19$ . The pretest Reading Vocabulary score ( $M = 23.91$ ,  $SD = 12.20$ ) compared to the posttest Reading Vocabulary score ( $M = 29.26$ ,  $SD = 14.76$ ) was statistically significantly different,  $t(22) = 2.61$ ,  $p < .01$  (one-tailed),  $d = .39$ . The pretest Reading Total score ( $M = 24.91$ ,  $SD = 11.54$ ) compared to the posttest

Reading Total score ( $M = 29.22$ ,  $SD = 11.14$ ) was statistically significantly different,  $t(22) = 2.67$ ,  $p = .01$  (one-tailed),  $d = .38$ .

#### 4.2 Research Question #2

The second pretest-posttest hypothesis was tested using the dependent  $t$  test. For students determined to have verbally disruptive behavior and grade level reading test scores null hypotheses were rejected for two of the measured achievement subtests Reading Comprehension and Reading Total. The null hypothesis was not rejected for the measured achievement subtest Reading Vocabulary. The pretest Reading Comprehension score ( $M = 63.83$ ,  $SD = 10.07$ ) compared to the posttest Reading Comprehension score ( $M = 54.42$ ,  $SD = 14.04$ ) was not statistically significantly different,  $t(11) = -3.01$ ,  $p = .01$  (one-tailed),  $d = .78$ . The pretest Reading Vocabulary score ( $M = 58.33$ ,  $SD = 15.50$ ) compared to the posttest Reading Vocabulary score ( $M = 59.50$ ,  $SD = 12.34$ ) was not statistically significantly different,  $t(11) = 0.51$ ,  $p < .31$  (one-tailed),  $d = .08$ . The pretest Reading Total score ( $M = 61.67$ ,  $SD = 12.47$ ) compared to the posttest Reading Total score ( $M = 56.25$ ,  $SD = 11.73$ ) was statistically significantly different,  $t(11) = -2.14$ ,  $p = .03$  (one-tailed),  $d = .44$ .

#### 4.3 Research Question #3

The third posttest-posttest hypothesis was tested using the independent  $t$  test for overall group posttest difference and Analysis of Covariance (ANCOVA) adjusted for 8th-grade pretreatment differences to determine rate of achievement test score change between students determined to be verbally disruptive with co-occurring below grade level reading scores compared to students determined to be verbally disruptive with grade level reading scores. The predetermined .01 alpha level set for rejecting the null hypothesis was obtained for all of the three measured achievement subtests (a) Reading Comprehension = .0001, (b) Reading Vocabulary = .0001, and (c) Reading Total = .0001. The posttest students with verbally disruptive behavior and co-occurring below grade level reading test scores Reading Comprehension NCE score ( $M = 30.30$ ,  $SD = 11.22$ ) compared to the posttest students with verbally disruptive behavior and grade level reading test scores Reading Comprehension NCE score ( $M = 54.42$ ,  $SD = 14.04$ ) was statistically significantly different,  $t(33) = 5.54$ ,  $p = .0001$  (one-tailed),  $d = 1.90$ . The posttest students with verbally disruptive behavior and co-occurring below grade level reading test scores Reading Vocabulary NCE score ( $M = 29.26$ ,  $SD = 14.76$ ) compared to the posttest students with verbally disruptive behavior and grade level reading test scores Reading Vocabulary NCE score ( $M = 59.50$ ,  $SD = 12.34$ ) was statistically significantly different,  $t(33) = 6.07$ ,  $p = .0001$  (one-tailed),  $d = 2.23$ . The posttest students with verbally disruptive behavior and co-occurring below grade level reading test scores Total Reading NCE score ( $M = 29.22$ ,  $SD = 11.14$ ) compared to the posttest students with verbally disruptive behavior and grade level reading test scores Reading Total NCE score ( $M = 56.25$ ,  $SD = 11.73$ ) was statistically significantly different,  $t(33) = 6.69$ ,  $p = .0001$  (one-tailed),  $d = 2.36$ . It should be noted that after adjusting for 8th-grade pretreatment differences ANCOVA comparisons of students 8th-grade California Achievement Test normal curve equivalent score rate of achievement test score change was the same for both groups where Reading Comprehension  $F(1, 33) = .002$ ,  $p = .964$ ; Reading Vocabulary  $F(1, 33) = .211$ ,  $p = .649$ ; and Reading Total  $F(1, 33) = .007$ ,  $p = .933$ . Confidence interval for difference = 95% with adjustment for multiple comparisons.

#### 4.4 Research Question #4

The fourth pretest-posttest hypothesis was tested using the dependent  $t$  test. For students determined to be verbally disruptive with co-occurring below grade level reading test scores the null hypothesis was not rejected for the measured pretest-posttest Grade Point Average comparison. The pretest Grade Point Average score ( $M = 1.88$ ,  $SD = 0.68$ ) compared to the posttest Grade Point Average score ( $M = 1.98$ ,  $SD = 0.70$ ) was not statistically significantly different,  $t(22) = 1.03$ ,  $p = .16$  (one-tailed),  $d = .07$ .

#### 4.5 Research Question #5

The fifth pretest-posttest hypothesis was tested using the dependent  $t$  test. For students determined to be verbally disruptive with grade level reading test scores the null hypothesis was not rejected for the measured pretest-posttest Grade Point Average comparison. The pretest Grade Point Average score ( $M = 2.70$ ,  $SD = 0.65$ ) compared to the posttest Grade Point Average score ( $M = 2.54$ ,  $SD = 0.60$ ) was not statistically significantly different,  $t(11) = -1.13$ ,  $p = .14$  (one-tailed),  $d = .25$ .

#### 4.6 Research Question #6

The sixth posttest-posttest hypothesis was tested using the independent  $t$  test for overall group posttest difference and Analysis of Covariance (ANCOVA) adjusted for 8th-grade pretreatment differences to determine rate of cumulative Grade Point Average score change between 8th students determined to be verbally disruptive with co-occurring below grade level reading scores compared to students determined to be verbally disruptive with grade level reading scores. The predetermined .01 alpha level set for rejecting the null hypothesis was obtained for the measured cumulative Grade Point Average scores comparison at the .01 level of confidence. The posttest students with verbally disruptive behavior and co-occurring below grade level reading test scores cumulative Grade Point Average score ( $M = 1.98$ ,  $SD = 0.70$ ) compared to the posttest students with verbally disruptive behavior and grade level reading test scores cumulative Grade Point Average score ( $M = 2.54$ ,  $SD = 0.60$ ) was statistically significantly different,  $t(33) = -2.38$ ,  $p < .01$  (one-tailed),  $d = .86$ . It should be noted that after adjusting for 8th-grade pretreatment differences ANCOVA comparisons of students 8th-grade cumulative Grade Point Average score rate of change was the same for both groups where  $F(1, 33) = .076$ ,  $p = .784$ . Confidence interval for difference = 95%.

#### 4.7 Research Question #7

The seventh pretest-posttest hypothesis was tested using the dependent  $t$  test. The null hypothesis was rejected for one of the measured behavior subtests between class tardy results. The null hypothesis was not rejected for the measured behavioral results office referral, in-school suspension, and out of school suspension. The pretest between class tardy score ( $M = 2.17$ ,  $SD = 2.23$ ) compared to the posttest between class tardy score ( $M = 0.48$ ,  $SD = 0.95$ ) was statistically significantly different,  $t(22) = -4.19$ ,  $p = .0002$  (one-tailed),  $d = 1.37$ . The pretest office referral score ( $M = 16.91$ ,  $SD = 12.22$ ) compared to the posttest office referral score ( $M = 17.22$ ,  $SD = 9.24$ ) was not statistically significantly different,  $t(22) = 0.16$ ,  $p = .44$  (one-tailed),  $d = .02$ . The pretest in-school suspension score ( $M = 2.22$ ,  $SD = 1.81$ ) compared to the posttest in-school suspension score ( $M = 2.17$ ,  $SD = 1.56$ ) was not statistically significantly different,  $t(22) = -0.14$ ,  $p = .45$  (one-tailed),  $d = .02$ . The pretest out of school suspension score ( $M = 1.35$ ,  $SD = 1.77$ ) compared to the posttest out of school suspension score ( $M = 0.87$ ,  $SD = 1.14$ ) was not statistically significantly different,  $t(22) = -1.31$ ,  $p = .33$  (one-tailed),  $d = .02$ .

#### 4.8 Research Question #8

The eighth pretest-posttest hypothesis was tested using the dependent  $t$  test. The null hypotheses were not rejected for any of the four behavior subtests between class tardy, office referral, in-school suspension, and out of school suspension score frequencies. The pretest between class tardy score ( $M = 0.67$ ,  $SD = 0.65$ ) compared to the posttest between class tardy score ( $M = 0.42$ ,  $SD = 1.16$ ) was not statistically significantly different,  $t(11) = -0.71$ ,  $p = .25$  (one-tailed),  $d = .27$ . The pretest office referral score ( $M = 10.92$ ,  $SD = 4.70$ ) compared to the posttest office referral score ( $M = 12.42$ ,  $SD = 4.91$ ) was not statistically significantly different,  $t(11) = 0.80$ ,  $p = .22$  (one-tailed),  $d = .31$ . The pretest in-school suspension score ( $M = 1.67$ ,  $SD = 1.83$ ) compared to the posttest in-school suspension score ( $M = 1.83$ ,  $SD = 1.34$ ) was not statistically significantly different,  $t(11) = 0.26$ ,  $p = .40$  (one-tailed),  $d = .10$ . The pretest out of school suspension score ( $M = 0.42$ ,  $SD = 0.67$ ) compared to the posttest out of school suspension score ( $M = 0.33$ ,  $SD = 0.49$ ) was not statistically significantly different,  $t(11) = -0.36$ ,  $p = .36$  (one-tailed),  $d = .15$ .



#### 4.9 Research Question #9

The ninth posttest-posttest hypothesis was tested using the independent  $t$  test. The predetermined .01 alpha level set for rejecting the null hypothesis was not obtained for any of the four measured behavior subtests (a) between class tardy, (b) office referral, (c) in-school suspension, and (d) out of school suspension score frequencies. The posttest students with verbally disruptive behavior and co-occurring below grade level reading test scores between class tardy score frequencies ( $M = 0.48$ ,  $SD = 0.95$ ) compared to the posttest students with verbally disruptive behavior and grade level reading test scores between class tardy score frequencies ( $M = 0.42$ ,  $SD = 1.16$ ) was not statistically significantly different,  $t(33) = 0.17$ ,  $p = .43$  (one-tailed),  $d = .05$ . The posttest students with verbally disruptive behavior and co-occurring below grade level reading test scores office referral score frequencies ( $M = 17.22$ ,  $SD = 9.24$ ) compared to the posttest students with verbally disruptive behavior and grade level reading test scores office referral score frequencies ( $M = 12.42$ ,  $SD = 4.91$ ) was not statistically significantly different,  $t(33) = 1.67$ ,  $p = .05$  (one-tailed; did not meet the predetermined .01 level of confidence threshold given for rejecting the null hypothesis),  $d = .67$ . The posttest students with verbally disruptive behavior and co-occurring below grade level reading test scores in-school suspension score frequencies ( $M = 2.17$ ,  $SD = 1.56$ ) compared to the posttest students with verbally disruptive behavior and grade level reading test scores between in-school suspension score frequencies ( $M = 1.83$ ,  $SD = 1.34$ ) was not statistically significantly different,  $t(33) = 0.64$ ,  $p = .26$  (one-tailed),  $d = .21$ . The posttest students with verbally disruptive behavior and co-occurring below grade level reading test scores out of school suspension score frequencies ( $M = 0.87$ ,  $SD = 0.14$ ) compared to the posttest students with verbally disruptive behavior and grade level reading test scores between out of school suspension score frequencies ( $M = 0.33$ ,  $SD = 0.49$ ) was not statistically significantly different,  $t(33) = 1.55$ ,  $p = .07$  (one-tailed),  $d = .66$ .

## 5 Conclusions

The following conclusions may be drawn from the study for each of the nine research questions.

### 5.1 Research Question #1

Overall, pretest-posttest results indicated beginning 8th-grade pretest compared to ending 8th-grade posttest California Achievement Test Normal Curve Equivalent scores for individual 8th-grade students with verbally disruptive behavior and co-occurring below grade level reading test scores enrolled in an in-class behavioral intervention plus differentiated instruction program were statistically significantly different in the direction of higher posttest mean achievement NCE test scores for Reading Vocabulary and Reading Total and in the direction of a higher although not be statistically significantly different posttest mean achievement NCE test score for Reading Comprehension. Comparing students' NRT NCE reading scores with derived achievement scores (Salvia, & Ysseldyke, 2004) puts their performance in perspective. An NRT NCE posttest Reading Comprehension mean score of 30.30 is congruent with a Standard Score of 85, a Percentile Rank of 16, a Stanine Score of 3 (the highest stanine of the below average range), and an achievement qualitative description of Below Average. Comparing students' NRT NCE Reading Vocabulary score with derived achievement scores puts their performance in perspective. An NRT NCE posttest Reading Vocabulary mean score of 29.26 is congruent with a Standard Score of 85, a Percentile Rank of 16, a Stanine Score of 3 (the highest stanine of the below average range), and an achievement qualitative description of Below Average. Comparing students' NRT NCE Reading Total score with derived achievement scores puts their performance in perspective. An NRT NCE posttest Reading Total mean score of 29.22 is congruent with a Standard Score of 85, a Percentile Rank of 16, a Stanine Score of 3 (the lowest stanine of the average range), and an achievement qualitative description of Average.

Finally, the higher Reading Comprehension (+2.43), the higher Reading Vocabulary (+5.35), and the higher Reading Total (+4.31) pretest compared to posttest mean Normal Curve Equivalent test scores observed in the three reading achievement areas represents a pattern of improvement that may reflect the impact of participation in the in-class behavioral intervention plus differentiated instruction program. The

data suggest that once a student presents with low reading achievement test scores and observed disruptive behavior, participation in the available intervention program is warranted.

### 5.2 Research Question #2

Overall, pretest-posttest results indicated beginning 8th-grade pretest compared to ending 8th-grade posttest California Achievement Test Normal Curve Equivalent scores for individual 8th-grade students with verbally disruptive behavior and grade level reading test scores enrolled in an in-class behavioral intervention plus differentiated instruction program were statistically significantly different in the direction of lower posttest mean achievement NCE test scores for Reading Comprehension and Reading Total and in the direction of a higher although not statistically significantly different posttest mean achievement NCE test score for Reading Vocabulary. Comparing students' NRT NCE reading scores with derived achievement scores puts their performance in perspective. An NRT NCE posttest Reading Comprehension mean score of 54.42 is congruent with a Standard Score of 103, a Percentile Rank of 58, a Stanine Score of 6 (the highest stanine of the average range), and an achievement qualitative description of Average. Comparing students' NRT NCE Reading Vocabulary score with derived achievement scores puts their performance in perspective. An NRT NCE posttest Reading Vocabulary mean score of 59.50 is congruent with a Standard Score of 106, a Percentile Rank of 66, a Stanine Score of 6 (the highest stanine of the average range), and an achievement qualitative description of Average. Comparing students' NRT NCE Reading Total score with derived achievement scores puts their performance in perspective. An NRT NCE posttest Reading Total mean score of 56.25 is congruent with a Standard Score of 104, a Percentile Rank of 61, a Stanine Score of 6 (the highest stanine of the average range), and an achievement qualitative description of Average.

Finally, the lower Reading Comprehension (-9.41), the higher Reading Vocabulary (+1.17), and the lower Reading Total (-5.42) pretest compared to posttest mean Normal Curve Equivalent test scores observed in the three reading achievement areas represents a pattern of decline that may reflect the need for greater differentiation of instruction for students who are academically well within the average range but require behavioral intervention and participation in the in-class behavioral intervention plus differentiated instruction program.

### 5.3 Research Question #3

Overall, results indicated that 8th-grade students with verbally disruptive behavior and grade level reading test scores at posttest had statistically significantly higher (a) Reading Comprehension, (b) Reading Vocabulary, and (c) Reading Total mean achievement NCE scores compared to 8th-grade students with verbally disruptive behavior and co-occurring below grade level reading test scores at posttest. Despite the statistically significant pretest-posttest score improvement observed for students with verbally disruptive behavior and co-occurring below grade level reading test scores and the corresponding statistically significant pretest-posttest score decline observed for students with verbally disruptive behavior and grade level reading test scores the latter group of students, with verbally disruptive behavior and grade level reading test scores, posttest reading skill differences remained stable across time with equivalent ANCOVA rate of skill improvement observed for all achievement subtests. Also compelling is that the 8th-grade students at posttest with verbally disruptive behavior and grade level reading test scores continue to be verbally disruptive even though they, for the most part, had reading skills sufficient for successful classroom participation and independent class assignment completion.

### 5.4 Research Question #4

Overall, pretest-posttest results indicated beginning 8th-grade pretest compared to ending 8th-grade posttest Grade Point Average scores for individual 8th-grade students with verbally disruptive behavior and co-occurring below grade level reading test scores enrolled in an in-class behavioral intervention plus differentiated instruction program were not statistically significantly different in the direction of improved Grade Point Average scores. Students' mean pretest Grade Point Average score translates to a letter grade of "D"

with a qualitative letter grade description of below average and their mean posttest Grade Point Average score translates to a letter grade of “C” with a qualitative letter grade description of average.

Finally, the higher Grade Point Average score (+0.10) represents a not statistically significant improvement in overall classroom performance. The data suggest that once a student presents with low reading achievement test scores and observed verbally disruptive behavior, participation in the available intervention program is warranted.

### 5.5 Research Question #5

Overall, pretest-posttest results indicated beginning 8th-grade pretest compared to ending 8th-grade posttest Grade Point Average scores for individual 8th-grade students with verbally disruptive behavior and grade level reading test scores enrolled in an in-class behavioral intervention plus differentiated instruction program were not statistically significantly different in the direction of declining Grade Point Average scores. Students’ mean pretest Grade Point Average score translates to a letter grade of “C+” with a qualitative letter grade description of average and their mean posttest Grade Point Average score translates to a letter grade of “C+” with a qualitative letter grade description of average.

Finally, the lower Grade Point Average score (-0.16) represents a not statistically significant decline in overall classroom performance consistent with declines in the observed norm referenced achievement test scores. The data suggest that once a student presents with observed verbally disruptive behavior, participation in the available intervention program is warranted although improving the stimulus value of the differentiated reading instruction must be considered.

### 5.6 Research Question #6

Overall, results indicated that 8th-grade students with verbally disruptive behavior and grade level reading test scores at posttest had statistically significantly higher cumulative Grade Point Average scores compared to 8th-grade students with verbally disruptive behavior and co-occurring below grade level reading test scores at posttest. However, ANCOVA rate of cumulative Grade Point Average change observed was the same for both groups. Moreover, it is important to note that, at posttest, both groups of students’ cumulative Grade Point Average scores would result in an overall passing status and promotion to the 9th-grade.

### 5.7 Research Question #7

Overall, pretest-posttest results indicated beginning 8th-grade pretest compared to ending 8th-grade posttest between class tardy, office referral, in-school suspension, and out of school suspension data for individual 8th-grade students with verbally disruptive behavior and co-occurring below grade level reading test scores enrolled in an in-class behavioral intervention plus differentiated instruction program was statistically significantly different in the direction of lower posttest mean improvement between class tardy scores and not statistically significantly different in the direction of lower posttest mean improvement for in-school suspension and out of school suspension frequencies. Office referral posttest scores were not statistically significantly different in the direction of higher posttest mean referral frequencies.

Finally, the lower between class tardy (-1.69), the lower in-school suspension (-0.05), and the lower out of school suspension (-0.48) pretest compared to posttest mean score frequencies in three of the four measured behavioral areas represents a pattern of improvement that may reflect the impact of participation in the in-class behavioral intervention plus differentiated instruction program. As with the pattern of improvement noted for achievement, the behavioral data suggest that once a student presents with low reading achievement test scores and observed verbally disruptive behavior, participation in the available intervention program is warranted.

### 5.8 Research Question #8

Overall, pretest-posttest results indicated beginning 8th-grade pretest compared to ending 8th-grade posttest between class tardy, office referral, in-school suspension, and out of school suspension data for individual 8th-grade students with verbally disruptive behavior and grade level reading test scores enrolled in an in-class behavioral intervention plus differentiated instruction program were not statistically significantly different in the direction of lower posttest mean behavior improvement for between class tardy score frequencies, and lower posttest mean behavior improvement for out of school suspension score frequencies and not statistically significantly different in the direction of higher posttest mean behavior decline for office referral and higher posttest mean behavior decline for in-school suspension score frequencies.

Finally, the lower between class tardy (-0.25) and the lower out of school suspension (-0.09) pretest compared to posttest mean score frequencies balanced with the higher office referral (+1.50) and the higher in-school suspension (+0.16) pretest compared to posttest mean score frequencies reflects a mixed impact of participation in the in-class behavioral intervention plus differentiated instruction program. However, even with mixed results, once a student presents with observed verbally disruptive behavior, participation in the available intervention program is warranted.

### 5.9 Research Question #9

Overall, results indicated behavioral equipoise at posttest for 8th-grade students with verbally disruptive behavior and co-occurring below grade level reading test scores and 8th-grade students with verbally disruptive behavior and grade level reading test scores (a) between class tardy, (b) office referral, (c) in-school suspension, and (d) out of school suspension score frequencies comparisons. The data further indicate that participation in the in-class behavioral intervention plus differentiated instruction program served to equalize the verbally disruptive behavior of both groups of students allowing for their continued participation in regular classroom learning activities and promotion to high school.

## 6 Discussion

The results of this study supported the use of an in-class behavioral intervention program that allowed students to reclaim themselves after verbally disruptive behavioral incidences with scripted administrator assistance and student return to differentiated individualized instructional classroom activities. Because statistically significant academic and behavioral improvement was noted for verbally disruptive students with co-occurring below grade level reading test scores, the results suggest continued use of this intervention. Faced with the self-perpetuating cycle of verbally disruptive behavior, suspension, failure, and dropping out educators should sustain programs that result in improved student achievement and behavior (Suh & Suh, 2007). Furthermore, programs that reduce the amount of missed class time due to students' verbally disruptive behavior merit consideration by educators for implementation (Brown, 2007).

**Implications for practice.** This study demonstrates the potential positive support administrators can provide in the classroom. Often, struggling teachers are reluctant to ask for help with disruptive students, and this program allows them to call for an administrator to come to the room and help reclaim the disruptive student. The additional support can allow for a shorter time away from instruction for the student and the teacher. The use of positive discipline can lead to a stronger student/teacher classroom learning relationship (Green, 1998). Researchers have demonstrated that administrators need to be visible (Green, 1998; Zigarelli, 1996), and going to the classroom sends a clear message of support and interest in the success of all children (Marzano et al., 2003).

**Implications for further research.** Continued research into the length of time a student spends out of class before recovery could help to establish more effective reflective questioning techniques, and would help to establish an up to the minute record of the success of the program from the return to class aspect. Strategies that promote a smoother and more immediate return to the main classroom flow can be documented and used for individualized intervention plans.

Finally, administrators and teachers should sustain programs that directly help students reclaim themselves after verbally disruptive escape responding incidences in support of their timely return to differentiated classroom activities. Overall, the results of this study suggest continued use of this intervention.

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