

---

Student Work

---

9-2009

# The Effect of an In-Class Behavioral Intervention Plus Differentiated Instruction Program on the Achievement and Behavior Outcomes of Verbally Disruptive 8th-Grade Students With and Without Co-Occurring Reading Delimitations

David R. Lavender

Follow this and additional works at: <https://digitalcommons.unomaha.edu/studentwork>

 Part of the [Educational Administration and Supervision Commons](#)

---

## Recommended Citation

Lavender, David R., "The Effect of an In-Class Behavioral Intervention Plus Differentiated Instruction Program on the Achievement and Behavior Outcomes of Verbally Disruptive 8th-Grade Students With and Without Co-Occurring Reading Delimitations" (2009). *Student Work*. 27.

<https://digitalcommons.unomaha.edu/studentwork/27>

This Dissertation is brought to you for free and open access by DigitalCommons@UNO. It has been accepted for inclusion in Student Work by an authorized administrator of DigitalCommons@UNO. For more information, please contact [unodigitalcommons@unomaha.edu](mailto:unodigitalcommons@unomaha.edu).



The Effect of an In-Class Behavioral Intervention Plus Differentiated Instruction Program  
on the Achievement and Behavior Outcomes of Verbally Disruptive 8th-Grade Students

With and Without Co-Occurring Reading Delimitations

By

David R. Lavender

A Dissertation

Presented to the Faculty of

The Graduate College of the University of Nebraska

In Partial Fulfillment of Requirements

For the Degree of Doctor of Education

In Educational Administration

Omaha, Nebraska

September 2009

Supervisory Committee

Dr. John W. Hill, Chair

Dr. Kay A. Keiser

Dr. Neal F. Grandgenett

Dr. Larry L. Dlugosh

UMI Number: 3378809

Copyright 2009 by  
Lavender, David R.

All rights reserved

#### INFORMATION TO USERS

The quality of this reproduction is dependent upon the quality of the copy submitted. Broken or indistinct print, colored or poor quality illustrations and photographs, print bleed-through, substandard margins, and improper alignment can adversely affect reproduction.

In the unlikely event that the author did not send a complete manuscript and there are missing pages, these will be noted. Also, if unauthorized copyright material had to be removed, a note will indicate the deletion.

UMI<sup>®</sup>

---

UMI Microform 3378809  
Copyright 2009 by ProQuest LLC  
All rights reserved. This microform edition is protected against  
unauthorized copying under Title 17, United States Code.

---

ProQuest LLC  
789 East Eisenhower Parkway  
P.O. Box 1346  
Ann Arbor, MI 48106-1346

**Abstract**

THE EFFECT OF AN IN-CLASS BEHAVIORAL INTERVENTION PLUS  
DIFFERENTIATED INSTRUCTION PROGRAM ON THE ACHIEVEMENT AND  
BEHAVIOR OUTCOMES OF VERBALLY DISRUPTIVE 8TH-GRADE STUDENTS  
WITH AND WITHOUT CO-OCCURRING READING DELIMITATIONS

David R. Lavender

University of Nebraska

Advisor: Dr. John W. Hill

The purpose of the study was to determine the effect of an 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. Statistically significantly improved posttest reading vocabulary and reading total Normal Curve Equivalent scores and between class tardy frequencies supported the use of an in-class behavioral intervention program that allowed students with verbally disruptive behavior and co-occurring below grade level reading test scores to reclaim themselves after verbally disruptive behavioral incidences with scripted administrator assistance and student return to differentiated individualized instructional classroom activities. Posttest reading comprehension scores, Grade Point Average Scores, in-school suspension, and out of school suspension frequencies were also in the direction of improvement for these students. Students with verbally disruptive behavior and grade level reading test scores had a statistically improved posttest reading vocabulary score and statistically improved between class tardy and out of school suspension frequencies. Posttest-posttest between group comparisons indicated

statistically significant reading vocabulary, reading comprehension, reading total, and Grade Point Average differences but no between class tardy, office referral, in-school suspension, or out of school suspension statistically significant differences. Educators 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.

## **Acknowledgements**

I owe debts of true gratitude to many people who have helped me on this incredible journey. I want to thank my family. My wife, Hoa Pham Lavender, and children Claire, Andrew, and Samuel have sacrificed a great deal to provide love and support for my efforts. My father, Dr. Gene Lavender, and my mother Joyce, have been a constant source of inspiration and motivation to me along the way, and many other family members who just wanted to know how things were going--You helped a great deal. I want to thank Dr. John W. Hill, my dissertation supervisor, who never gave up on me, and who made the dissertation journey much more pleasant than I ever imagined it would be. I also want to thank my dissertation committee members Dr. Kay Keiser, Dr. Neal Grandgenett, and Dr. Larry Dlugosh. Other significant University of Nebraska at Omaha faculty members who have given me hope and inspiration were Dr. Gary Hartzel (Retired), Dr. Karen Hayes, Dr. Peter Smith, Dr. Leon Dappen (Deceased), and Dr. Laura Schulte (Retired).

I would like to thank the Omaha Public Schools and Dr. John Mackiel, as well as Vicky Arnold, for pure inspiration and resiliency. To all of these people and countless others too numerous to mention, I say thank you from the bottom of my heart.

## Table Of Contents

Abstract	<i>ii</i>
Acknowledgements	<i>iv</i>
Table of Contents	<i>v</i>
List of Tables	<i>x</i>
Chapter	
<b>1. Introduction</b>	<i>1</i>
Removal for the Class Period	<i>2</i>
In-School Suspension	<i>2</i>
Out of School Suspension	<i>3</i>
Purpose of the Study	<i>4</i>
Research Questions	<i>5</i>
Assumptions	<i>11</i>
Delimitations of the Study	<i>12</i>
Limitations of the Study	<i>12</i>
Definitions of Terms	<i>13</i>
Significance of the Study	<i>19</i>
Contributions to research	<i>19</i>
Contribution to practice	<i>19</i>
Contribution to policy	<i>20</i>
Organization of the study	<i>20</i>
<b>2. Review of Literature</b>	<i>21</i>
School-wide Behavior Programs	<i>21</i>

Commitment of entire staff	21
Clear and broad rules	22
Nurturing school environment	22
Administrative visibility and support	23
Discipline authority remains with teacher	23
Close community and parent ties	24
Social skills instruction	24
Alternative Discipline Interventions	25
School-wide positive behavior supports	25
Targeted behavior interventions	26
Behavior consultants	26
Student reflection	27
Verbal Disruption	27
Harassment	29
Bullying	29
Physical Aggression	30
Escape and Avoidance	30
Differentiated Instruction	31
Readiness for a task	31
Student interest	31
Learner styles	32
Differentiation Overall	32
Tiered instruction	33

Cooperative learning	34
Peer tutoring	34
Student and Teacher Relationships	35
Instructional Strategies	36
Word walls	37
Reciprocal teaching	37
Graphic organizers	37
Combination note taking	38
Conclusion	38
<b>3. Methodology</b>	<b>40</b>
Participants	40
Number of participants	40
Gender of participants	40
Age range of participants	40
Racial and ethnic origin of participants	40
Inclusion criteria of participants	41
Method of participant identification	41
Description of Procedures	41
Research design	41
Implementation of Independent Variables	43
Dependent Measures	44
Research Questions and Data Analysis	44
Data Collection Procedures	54

Performance site	54
Institutional Review Board	55
<b>4. Results</b>	<b>56</b>
Purpose of Study	56
Research Question #1	57
Research Question #2	59
Research Question #3	61
Research Question #4	63
Research Question #5	65
Research Question #6	66
Research Question #7	68
Research Question #8	69
Research Question #9	71
<b>5. Conclusions and Discussion</b>	<b>89</b>
Conclusions	90
Research Question #1	91
Research Question #2	92
Research Question #3	93
Research Question #4	94
Research Question #5	95
Research Question #6	95
Research Question #7	96
Research Question #8	97

Research Question #9	97
Discussion	98
Implications for practice	98
Implications for policy	101
Implications for further research	103
<b>References</b>	<b>105</b>

## List of Tables

### Tables

- Table 1. Demographic Information of 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 74
- Table 2. Demographic Information of 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 75
- Table 3. 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 76
- Table 4. 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 77

- Table 5. 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 78
- Table 6. 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 79
- Table 7. Students Enrolled in an In-Class Behavioral Intervention Plus Differentiated Instruction Program With Verbally Disruptive Behavior And Co-Occurring Below Grade Level Reading Test Scores Compared to Students With Verbally Disruptive Behavior And Grade Level Reading Test Ending 8th-Grade Posttest California Achievement Test Normal Curve Equivalent Scores 80
- Table 8. Pretest and Posttest Grade Point Average Scores 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 Enrolled in an In-Class Behavioral Intervention Plus Differentiated Instruction Program 81

- Table 9. 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 82
- Table 10. 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 83
- Table 11. Students Enrolled in an In-Class Behavioral Intervention Plus Differentiated Instruction Program With Verbally Disruptive Behavior And Co-Occurring Below Grade Level Reading Test Scores Compared to Students With Verbally Disruptive Behavior And Grade Level Reading Test Scores Ending 8th-Grade Posttest Grade Point Average Scores 84
- Table 12. Between Class Tardy, Office Referral, In-School Suspension, and Out of School Suspension Frequency Totals 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 85

- Table 13. Between Class Tardy, Office Referral, In-School Suspension, and Out of School Suspension Frequency Totals 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 86
- Table 14. 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 87
- Table 15. 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 88

Table 16. Students Enrolled in an In-Class Behavioral Intervention Plus Differentiated Instruction Program With Verbally Disruptive Behavior And Co-Occurring Below Grade Level Reading Test Scores Compared to Students With Verbally Disruptive Behavior And Grade Level Reading Test Scores Ending 8th-Grade Posttest Between Class Tardy, Office Referral, In-School Suspension, and Out Of School Suspension

Frequencies 89

## CHAPTER ONE

### 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 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).

**Removal for the class period.** Sending the student out of the class to the hallway or office for the class period does not provide the student with the behavior replacement skills needed for self-control and in-class problem solving (Hill & Coufal, 2005). Furthermore, the strategy of temporary exclusion from class has its limits, often negatively impacting the relationship between the teacher and the student (Nelson & Roberts, 2000). Students who have repeated trips to the office have been found to have lower grade point averages, more stressful home lives, and a more discouraged attitude towards school (Morrison et al., 2001).

**In-school suspension.** In-school suspension provides the next level of exclusionary discipline to which a student may be assigned because of disruptive behavior in the classroom (Blomberg, 2004). Three types of in-school suspension models have been identified (a) punitive, (b) academic, and (c) therapeutic (Short, 1988). The punitive model is a restrictive environment where a student sits alone and completes course assignments. The academic model is characterized by an emphasis on learner skill deficits and strategies for improvement with a trained teacher. The therapeutic model provides students with an opportunity to reflect on disruptive behavior experiences and, through discussion, recognize and gain insight into the cause of their behavior (Morris & Howard, 2003; Short, 1988).

In-school suspension assignments generally range from one to five days out of all classrooms (Jackson, 2006). In terms of missed instructional time, this is potentially disastrous for many at risk students who already do not have the credits they need towards graduation. Despite its wide spread use as a punitive measure, in-school suspension has not been shown to be an effective tool in reducing disruptive behavior

(Jackson, 2006; Stage, 1997) as the issues most responsible for the disruption are likely not addressed (Jackson, 2006). Most students who earn in-school suspension assignments have been there before, and many students who end up suspended out of school will have a history of in-school suspension and office referrals, often due to disruptive behavior (Morrison, et al., 2001).

**Out of school suspension.** Out of school suspension is the most widely used form of punitive discipline applied today in U.S. schools (Arcia, 2006; Dupper & Bosch, 1996; Mansfield & Ferris, 1992). A significant number of out of school suspensions related to disruptive behavior may be directly linked to damaging a student's academic progress and any hope of completing high school (Dupper & Bosch, 1996; Morrison et al., 2001; Rausch & Skiba, 2004). Furthermore, punitive discipline does not deter disruptive behavior (Arcia, 2006) and often compounds attendance problems (Brown, 2007). As with in-school suspension, students who have been suspended are also more likely to be suspended again, are angry, and remain less optimistic about school prospects. These students also have fewer friends that value school and have less concern for others (Brown, 2007; Morrison et al., 2001).

This 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; Wagner, 1991). 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.

### **Purpose of the Study**

The purpose of the study was to determine the effect of an in-class behavioral intervention plus differentiated instruction (ICBI+DI) 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.

### **Research Questions**

The following research questions were used to analyze student participation in the In-Class Behavioral Intervention Plus Differentiated Instruction (ICBI+DI) program measuring norm-referenced reading comprehension, reading vocabulary, and reading total battery outcomes.

**Overarching Pretest-Posttest Achievement Research Question #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 ICBI+DI program?

**Sub-Question 1a.** Was there a significant difference between students' ending 7th-grade norm-referenced test reading comprehension NCE scores compared to students' ending 8th-grade norm-referenced test reading comprehension NCE scores as measured by the CAT after completing the ICBI+DI program?

**Sub-Question 1b.** Was there a significant difference between students' ending 7th-grade norm-referenced test reading vocabulary NCE scores compared to students' ending 8th-grade norm-referenced test reading vocabulary NCE scores as measured by the CAT after completing the ICBI+DI program?

**Sub-Question 1c.** Was there a significant difference between students' ending 7th-grade norm-referenced test reading total battery NCE scores compared to

students' ending 8th-grade norm-referenced test reading total battery NCE scores as measured by the CAT after completing the ICBI+DI program?

**Overarching Pretest-Posttest Achievement Research Question #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 ICBI+DI program?

**Sub-Question 2a.** Was there a significant difference between students' ending 7th-grade norm-referenced test reading comprehension NCE scores compared to students' ending 8th-grade norm-referenced test reading comprehension NCE scores as measured by the CAT after completing the ICBI+DI program?

**Sub-Question 2b.** Was there a significant difference between students' ending 7th-grade norm-referenced test reading vocabulary NCE scores compared to students' ending 8th-grade norm-referenced test reading vocabulary NCE scores as measured by the CAT after completing the ICBI+DI program?

**Sub-Question 2c.** Was there a significant difference between students' ending 7th-grade norm-referenced test reading total battery NCE scores compared to students' ending 8th-grade norm-referenced test reading total battery NCE scores as measured by the CAT after completing the ICBI+DI program?

**Overarching Posttest-Posttest Achievement Research Question #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 ICBI+DI program?

**Sub-Question 3a.** Was there a significant difference 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 posttest end of 8th-grade reading comprehension NCE scores as measured by the CAT after completing the ICBI+DI program?

**Sub-Question 3b.** Was there a significant difference between students determined to be verbally disruptive with co-occurring below grade level reading scores tests compared to students determined to be verbally disruptive with grade level reading scores posttest end of 8th-grade reading vocabulary scores as measured by the CAT after completing the ICBI+DI program?

**Sub-Question 3c.** Was there a significant difference between students determined to be verbally disruptive with co-occurring below grade level reading scores tests compared to students determined to be verbally disruptive with grade level reading scores posttest end of 8th-grade reading total battery scores as measured by the CAT after completing the ICBI+DI program?

**Overarching Pretest-Posttest Achievement Research Question #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 as determined by SASI following participation in the ICBI+DI program?

**Sub-Question 4a.** Was there a significant difference between students' ending 7th-grade GPA compared to ending 8th-grade GPA as measured by SASI following participation in the ICBI+DI program?

**Overarching Pretest-Posttest Achievement Research Question #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 as determined from SASI following participation in the ICBI+DI program?

**Sub-Question 5a.** Was there a significant difference between students' ending 7th-grade GPA compared to ending 8th-grade GPA as measured by SASI following participation in the ICBI+DI program?

**Overarching Posttest-Posttest Achievement Research Question #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 as determined by SASI after completion of the ICBI+DI program?

**Sub-Question 6a.** Was there a significant difference between students' ending 8th-grade GPA compared to ending 8th-grade GPA as measured by SASI following participation in the ICBI+DI program?

**Overarching Pretest-Posttest Behavior Research Question #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 using data collected from SASI following participation in a school-year long ICBI+DI program?

**Sub-Question 7a.** Was there a significant difference between students' ending 7th-grade compared to ending 8th-grade between class tardy frequencies as measured by SASI after completing the ICBI+DI program?

**Sub-Question 7b.** Was there a significant difference between students' ending 7th-grade compared to ending 8th-grade office referral frequencies as measured by SASI after completing the ICBI+DI program?

**Sub-Question 7c.** Was there a significant difference between students' ending 7th-grade compared to ending 8th-grade in-school suspension frequencies as measured by SASI after completing the ICBI+DI program?

**Sub-Question 7d.** Was there a significant difference between students' ending 7th-grade compared to ending 8th-grade out of school suspension frequencies as measured by SASI after completing the ICBI+DI program?

**Overarching Pretest-Posttest Behavior Research Question #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 using data collected from SASI following participation in a school-year long ICBI+DI program?

**Sub-Question 8a.** Was there a significant difference between students' ending 7th-grade compared to ending 8th-grade between class tardy frequencies as measured by SASI after completing the ICBI+DI program?

**Sub-Question 8b.** Was there a significant difference between students' ending 7th-grade compared to ending 8th-grade office referral frequencies as measured by SASI after completing the ICBI+DI program?

**Sub-Question 8c.** Was there a significant difference between students' ending 7th-grade compared to ending 8th-grade in-school suspension frequencies as measured by SASI after completing the ICBI+DI program?

**Sub-Question 8d.** Was there a significant difference between students' ending 7th-grade compared to ending 8th-grade out of school suspension frequencies as measured by SASI after completing the ICBI+DI program?

**Overarching Posttest-Posttest Behavior Research Question #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 using data collected from SASI following participation in a school-year long ICBI+DI program?

**Sub-Question 9a.** Was there a significant difference between students determined to be verbally disruptive with co-occurring below grade level reading test scores compared with students determined to be verbally disruptive with grade level reading test scores ending 8th-grade compared to ending 8th-grade between class tardy frequencies as measured by SASI after completing the ICBI+DI program?

**Sub-Question 9b.** Was there a significant difference between students determined to be verbally disruptive with co-occurring below grade level reading test scores compared with students determined to be verbally disruptive with grade level

reading test scores ending 8th-grade compared to ending 8th-grade office referral frequencies as measured by SASI after completing the ICBI+DI program?

**Sub-Question 9c.** Was there a significant difference between students determined to be verbally disruptive with co-occurring below grade level reading test scores compared with students determined to be verbally disruptive with grade level reading test scores ending 8th-grade compared to ending 8th-grade in-school suspension frequencies as measured by SASI after completing the ICBI+DI program?

**Sub-question 9d.** Was there a significant difference between students determined to be verbally disruptive with co-occurring below grade level reading test scores compared with students determined to be verbally disruptive with grade level reading test scores ending 8th-grade compared to ending 8th-grade out of school suspension frequencies as measured by SASI after completing the ICBI+DI program?

### **Assumptions**

The study had several strong features. All 8th-grade teachers in the research school were included in the program. The research school's district supported the ICBI variable through its middle school initiatives. These initiatives promoted strategies that were foundational in the ICBI program. The research district's Safe, Secure, and Disciplined School Initiative (SSDSI) helped to establish a framework for working with non-traditional students in a school-wide effort. This initiative emphasized a school-wide set of common area expectations, and strategies for keeping more challenging students in the classroom. 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. Research school district support personnel also

provided teachers at the research school with four separate half-day in-service sessions and follow-up web-based DI strategies. Teachers worked with school administrators on a weekly basis to review program progress. Quarterly team meetings were held to monitor progress of the program and gather feedback from teachers and administrators.

### **Delimitations of the Study**

This study was delimited to the 8th-grade students of one magnet middle school in an urban school district who were in attendance from the fall of 2006 to the spring of 2008. All 7th-grade students in 2006-2007 were required to take the CAT in the spring of 2007. All 8th-grade students in 2007-2008 were required to take CAT in the spring of 2008. Data on Grade Point Average and behavior was collected routinely throughout both of the school years included in the study. Study findings were limited to the students participating in the ICBI+DIS program.

### **Limitations of the Study**

This exploratory study was confined to 8th-grade students ( $N = 35$ ) participating in a yearlong ICBI+DIS program. Study participants in the first arm ( $n = 23$ ) displayed disruptive behaviors with co-occurring, two years below grade level (6th-grade or lower), reading comprehension, reading vocabulary, and reading total battery NCE scores at pretest. Study participants in the second arm ( $n = 12$ ) displayed disruptive behavior with grade level reading comprehension, reading vocabulary, and reading total battery NCE scores at pretest. The limited sample size and newly developed intervention procedures may limit the utility and generalizability of the study results and findings.

## **Definition of Terms**

**Accommodations.** Accommodations are defined as strategic adjustments made by the IEP holder and other teachers to assignments and grading for students being served by an Individual Education Plan under direction of the IDEA Act.

**Aggressive behavior.** Aggressive behavior is defined as an extreme form of irritating behavior (words or gestures) that disrupts the environment and can inflict emotional and social pain on others.

**Assessment.** Assessment is defined as a process of collecting data for the purposes of making decisions about individuals and groups. In this study, the 8th-grade California Achievement Test (CAT) was utilized as an assessment to determine student proficiency in reading comprehension, vocabulary, and total battery.

**Attendance.** Attendance is defined as the frequency with which a student is present in school. In this study attendance was counted on a per student basis utilizing the SASI database.

**Behavioral data.** Behavioral data is defined as attendance, tardy to class, discipline referral frequency, in-school suspension, and suspension information for each study participant. These five behavioral dependent measures are a direct result of participants' behavior and are uniformly collected and recorded by school personnel and available in the SASI database.

**Between class tardy.** A between class tardy is described as an unexcused incidence of a student not being in the classroom when the bell rings to begin class. In this study, tardies will be counted on a per student basis as students receive referrals for

excessive tardies to class following the research school's tardy policy using the SASI database. Tardies to school at the start of the day are not counted in this measure.

**Bullying.** Bullying is defined as negative verbal or physical actions that have hostile intent, are repeated over time, and involve a power differential between the bully and the victim (Olweus, 1993).

**California Achievement Test, Fifth Edition (CAT/5).** The CAT measures achievement in reading, language, spelling, mathematics, study skills, science, and social studies. The CAT is a traditional standardized, norm referenced assessment series that provides comprehensive evaluation of student achievement.

**Combination note taking.** Combination note taking is defined as a strategy that requires students to make periodic graphic representations of notes as they are taking them. Unlike most graphic organizers, structured or combination notes call on the teacher to create a specific form based on the unique organization of each reading assignment (Smith & Tompkins, 1988).

**Cooperative learning.** Cooperative learning is defined as the instructional strategy by which students are organized into groups to facilitate understanding of a given concept.

**Cut score.** A cut score is defined as the established score, at or above which, a student is expected to perform to demonstrate proficiency.

**Differentiated instruction (DI).** Differentiated instruction is defined as a systematic approach to engage learners of all types in the areas of learner readiness, interest and learner profile by using data supported strategies and tiered instructional techniques (Tomlinson, 2003).

**District middle level initiative.** The district middle level initiative reflects the research school district's commitment to improve achievement scores at the middle level. The initiatives addressed reading and writing issues with research based strategies for engaging students in activities that improve achievement. Such strategies included, but were not limited to, reciprocal teaching, word walls, graphic organizers, and combination note taking.

**Fruyer model.** The Fruyer model is defined as a graphical organizer used for word analysis and vocabulary building. A four square model prompts students to think about and describe the meaning of a word or concept by defining the term, describing its essential characteristics, providing examples of the idea, and offering non-examples of the idea (Fruyer, Frederick, & Klausmeier, 1969).

**Graphic organizers.** Graphic organizers are defined as hands on learning aids designed to engage students in the learning process. These aids are useful for planning and pre-writing compositions, preparing for tests, and for providing a visual image of the content.

**Grade level equivalent (GLE).** Grade level equivalent is defined as the grade level in years and months that NRT scores reflect.

**Grade point average (GPA).** Grade point average is defined as the average on a scale of 4.0 of the grades received by a student throughout a school year based on the SASI database.

**Harassment.** Harassment is defined as unprovoked aggression in which there is an imbalance of power or strength between two children, a perpetrator, and a victim (Newman & Murray, 2005).

**Intervention.** An intervention is defined as the action taken to improve a situation. In this study, in class behavioral interventions (ICBI) and differentiated instructional support (DIS) were interventions utilized to help study participants reduce time out of the classroom due to disruptive behaviors and the resulting consequences.

**In-class behavioral interventions (ICBI).** In-class behavioral interventions are defined as behavioral interventions that occur at or in the classroom. Teachers call for an administrator or other support personnel to come to the classroom for assistance in dealing with disruptive students. The supporting adult follows a short script and returns to the classroom with the student to continue with the lesson.

**In-school suspension (ISS).** In-school suspension is defined as a system of suspension from regular school classes that keeps the student in the building working on assignments under the supervision of an in-school suspension supervisor.

**Intervention script.** The intervention script refers to a script followed by support personnel that is a simple three question reflective process to determine if a student is prepared to return to class. The three questions were 1. Do you know what you were supposed to be doing in class? 2. What were you doing? 3. Are you ready to return to class and participate appropriately?

**Non-proficient.** Non-proficient is defined as when a student cannot produce the designated quality of work to demonstrate mastery of a particular standard for a particular subject matter. In this study students were determined to be non-proficient if they were two levels below grade on the three CAT reading measures.

**Normal curve equivalent (NCE).** Normal curve equivalent is defined as standard scores with a mean equal to 50 and a standard deviation equal to 21.06.

Running from 1 to 99, the numbers on the NCE line indicate how many students out of a hundred had a lower score. NCE scores are often used to compare standardized test performance over a period of years (Salvia & Ysseldyke, 2004).

**Norm-referenced test (NRT).** Norm-referenced tests are defined as tests that measure and compare an individual's performance to the performance of a similar group of students who have taken the same test. The NRT used in this study was the California Achievement Test.

**Office referral.** An office referral is defined as a document written by a staff member that explains the facts about student misbehavior. This legal document signified the need for administrative intervention according to handbook procedures, and required an automatic parent contact by the administrator. Examples of such behavior include disrespect, aggression, profanity, and stealing. All office referrals were stored in the SASI database.

**Peer tutoring.** Peer tutoring is defined as a teaching intervention that puts one student together with another student as a support during a lesson.

**Physical aggression.** Physical aggression is defined as any physically violent action taken against another person.

**Reading comprehension.** Reading comprehension is defined as understanding a text that is read, or the process of constructing meaning from a text.

**Reading vocabulary.** Reading vocabulary is defined as the ability to derive meaning for words found in a text based on prior knowledge, using context clues, or word roots and derivatives.

**Reciprocal teaching.** Reciprocal teaching is defined as an instructional strategy that takes place in the form of a dialogue between teachers and students regarding segments of texts. The dialogue is structured through the use of four strategies summarizing, question generating, clarifying, and predicting.

**Safe and secure disciplined schools initiative (SSDSI).** Safe and secure disciplined school initiative is defined as a district-wide, building directed whole school initiative to address security and safety needs of the schools (Omaha Public Schools, 1999).

**School Administrators Student Information (SASI).** School Administrators Student Information is defined as the information data base of the research school's district.

**Strategy.** A strategy is defined as a tool, plan, or method used for accomplishing a task. In this study, Differentiated Instruction (DI) uses teaching strategies designed to meet the individual educational needs of study participants.

**Suspension.** Suspension is defined as the district supported removal from school of a student for disciplinary reasons. In the research school district, students are expected to make up work missed during the absence.

**Tiered instruction.** Tiered instruction is defined as a teaching strategy that provides levels or tiers of instruction geared to meet the knowledge base of the individual student on a particular assignment. Tiered instruction aligns complexity to the readiness levels and learning needs of students. The teacher plans different kinds and degrees of instructional support and structure, depending upon each student's level. Tiered instruction allows all students to focus on essential concepts and skills yet still be

challenged at the different levels on which they are individually capable of working (Richards & Omdal, 2007; Velardi, 1999).

**Verbal aggression.** Verbal aggression is defined as a willingness to attack another's self-concept or personal safety using words and gestures.

**Verbal disruption.** Verbal disruption is defined as a persistent, intentional, and willful effort to disrupt the learning environment, through interruption, non-compliance, and verbally aggressive behavior to students or staff.

**Word wall.** A word wall is defined as a strategy for vocabulary development. Word walls are systematically organized collections of words displayed in large letters on a wall or other large display place in a classroom.

### **Significance of the Study**

This study has the potential to contribute to research, practice, and policy. It is of significant interest to educators seeking ways to help students--after an in-classroom, verbal disruptive incident--reclaim themselves and return to instruction and learning in class and performing at a high level.

**Contribution to research.** There is virtually no research to date on in class administrative interventions. The results of this study, may inform theoretical and practical literature on the effectiveness of the practices and strategies used in this program.

**Contribution to practice.** Based on the outcomes of this study the school and the district may decide whether to continue the program and also consider expanding the program into other district middle schools.

**Contribution to policy.** Local level policy will be impacted by this study. If results show that keeping students in class and modifying instruction to meet individual learner needs can positively impact academic and behavior goals by reducing students lost in-classroom time, a discussion should be generated to consider the expansion of the program to other district middle schools.

### **Organization of the Study**

The literature review relevant to this study is presented in Chapter 2. This chapter reviews professional literature on school wide discipline plans, alternative discipline approaches, and differentiated instructional strategies. Chapter 3 describes the research design, methodology, and procedures used to gather and analyze the data of the study. Chapter 4 will report the research results, and Chapter 5 will provide conclusions and a discussion of the research findings.

## CHAPTER TWO

### Review of Literature

#### 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 (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).

**Commitment of entire staff.** Securing the commitment of the entire staff in the process of developing and maintaining positive behaviors is crucial because when all parties have a hand in developing discipline procedures ownership is increased (Mitra, 2007; Rutter, Maughan, Mortimer, Ouston, & Smith 1979), consensus is more easily attained (Omaha Public Schools, 1999), and consistent implementation of procedures is more likely (Crandel & Loucks, 1983; Mitra, 2007). The school-wide change process should not be viewed as a top-down method (Omaha Public Schools, 1999; Tomlinson, 1995), but rather a collaborative process involving all who are affected by the change including students (Mitra, 2007; Omaha Public Schools, 1999). Sugai, Horner, & Greshan (2002) found that clear implementation procedures helped to ensure total staff buy-in.

**Clear and broad rules.** The more attention paid by the school to establish clear and broad rules governing behavior, the lower the chances that students will misbehave and be disruptive (Marzano, Marzano, & Pickering, 2003). To control the general behavior of the student body, clear rules for common areas should be posted, taught and reviewed with all students (Nelson, Martella, & Galand, 1998). Non-classroom areas where disruptive behaviors occur include the cafeteria, hallways, and playgrounds (Sprague et al., 1999). One of the common mistakes of many ineffective school-wide behavior plans is failing to set consistent standards and expectations for school conduct not only in the classroom but throughout the building hallways, grounds, and other non-instructional areas (Rembolt & Zimmon, 1996). When school-wide behavior plans are effective, positive behavior in one area supports and fosters positive behavior throughout all areas off the school--and most importantly in the classroom (Marzano et al., 2003).

**Nurturing school environment.** Warm school cultures nurture the individual student's needs as teachers and administrators develop relationships with students, parents, and families (Green, 1998). These relationships allow teachers to better assess a student's needs academically and behaviorally, and help to ensure greater cooperation (Green, 1998; Marzano, 2003). Building these positive cultures in schools can have an impact on behavioral issues (Cotton, 1991). Inner-city schools that struggle often fail to meet the needs of minority students. These students feel alienated by the lack of a caring relationship-based environment (Cotton, 1991). As the environment of a school or classroom is perceived to be more nurturing by the students and teachers, student suspensions are fewer, and student attendance and proficiency test scores improve (Green, 1998).

**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.

**Discipline authority remains with the teacher.** School-wide behavior programs work most efficiently when the majority of the discipline authority remains with the teacher (Cotton, 1991). The administrator handles the serious infractions, but the classroom teacher handles most minor offenses within the class. The fewer times the student misses class, the more instructional minutes he or she is exposed to (Roby, 2004). Traditional behavior management models are failing to meet the needs of the disruptive student because they are reactive and punitive (Colvin & Kameenui, 1993). Too often, these models under serve the general classroom teacher because of a lack of teacher training, and the idea that by punishing disruptive students with punitive or reactive discipline methods the students will learn the right way to behave (Colvin & Kameenui, 1993). 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).

**Close community and parent ties.** Close community ties contribute to the development of a positive culture in a school (Cotton, 1991; Omaha Public Schools, 1999). Successful schools have strong partnerships within the community and high parent involvement (Cotton, 1991; Zigarelli, 1996). Personal relationships are the key element in both parental involvement (Jackson & Remillard, 2007), and close community ties (Hand, 2007). Schools must be careful not to assume that parents are not willing to get involved. Jackson and Remillard (2007) found that low-income African-American parents, often thought to be uninvolved, were actively involved with their student's mathematics education, and that teacher perceptions played a large role in preventing more involvement (Jackson & Remillard, 2007). Schools, however, face serious obstacles to community partnerships and parent involvement programs such as partner or parent proximity, limited time and money, and transportation (Hand, 2007). Without question, parental and community involvement can increase student achievement and promote a more positive school environment (Cotton, 1991).

**Social skills instruction.** Social skills instruction is another important aspect of a school-wide behavior plan. School-wide social skills training can reduce overall levels of student misbehavior, and prevent escalating behaviors from individual students (Lewis,

Colvin, & Sugai, 2000). Typically, students receive remediation for academic issues, but punishment for behavior issues. A more effective means to teach appropriate behaviors has been advocated by many researchers (Colvin & Kameenui, 1993; Lewis et al., 2000, Sugai et al., 2002). Hill and Coufal (2005) define social skills as those behaviors necessary to function in social tasks. It is thought that social skills programs promote social competence through conflict resolution, problem solving, friendship building, and reflection (Luiselli, Putnam, Handler, & Feinberg, 2005). School-wide behavior programs based on behavior replacement paradigms, such as social skills instruction, have been shown to significantly reduce behavior issues and improve behavior and academic performance (Hill & Coufal, 2005; Luiselli et al., 2005).

### **Alternative Discipline Interventions**

School-wide positive behavior supports, targeted interventions, behavior consultants, and classroom based interventions, all showing promise in the effort to keep students in classrooms, are replacing the exclusionary practices of in-school and out of school suspension (Arcia, 2006; Dupper & Bosch, 1996).

**School-wide positive behavioral supports.** School-wide positive behavior supports have become more prevalent in response to the renewal of the Individuals with Disabilities Education Act in 2004 (Cook, 2007). Using behavior intervention plans and functional behavior assessments for students with behavioral and intellectual disabilities, teachers were required to provide accommodations and structure based on individual student needs (Cook, 2007). Based on the effectiveness of these interventions, school-wide positive behavior supports have now become accepted as an effective way to lower incidences of classroom disruption building-wide (Luiselli, 2005; McKinney, Cambell-

Whately, & Kea, 2003). A key component of the school-wide positive behavior supports model requires student input. Students are consulted about preference on incentives for behavior (McKinney et al., 2003). School-wide positive behavior supports are proactive efforts to prevent problem behavior for all stakeholders including students (Sugai, Horner, & Gresham, 2002).

**Targeted behavior interventions.** School-wide positive discipline plans can be used to address different levels of disruptive behavior, and studies have shown that targeting disruptive behavior at the antecedent level results in increased academic performance (Lentz, 1988; Walker et al., 1996). Universal interventions are designed to target and affect all students in the same manner (Gresham, 2004). Selected interventions are designed to target the behavior of about 5-10% of the student body who do not respond to the universal interventions (Sugai et al., 2002). These students often respond more readily to simple, individualized behavior interventions (Walker, 2004). The most difficult 5% of the student population may need targeted behavior interventions. These students are responsible for 40-50% of behavioral disruptions in schools and do not respond well to selected or universal interventions (Gresham, 2004). These targeted interventions often use a functional behavior assessment designed to identify root causes of behavior and provide replacement behavior social skills instruction (Gresham, 2004).

**Behavior consultants.** Behavioral consultants are third party professional support personnel who work with teachers, administrators, and disruptive students to develop and implement plans for changing behaviors (Wilkinson, 2003). Successful pre-referral intervention models using behavioral consultants for non special-education students are preventive in nature because they eliminate unnecessary office referrals and

strengthen a teacher's ability to work with diverse students (Fuchs, Fuchs, Bahr, Fernstrom, & Stecker, 1990). Consultants use intervention scripts to help guide the student and teachers through reflective activities to achieve desired results (Fuchs et al., 1990). Another program using behavior coaches in middle schools was able to significantly reduce suspensions for at-risk students (Munoz & Bacci, 2002). These coaches work directly with disruptive students, teachers, and administrators to redirect behavior and teach social skills (Munoz & Bacci, 2002).

**Student reflection.** Researchers have found that students who reflect on their behaviors during disruptive incidents are less likely to repeat those behaviors (Ardoin & Martens, 2004; Kim & Sugai, 1995). Ardoin and Martens (2004) also found that student self-evaluation increased classroom activity engagement. Despite an increased emphasis on reflective thinking in the educational community, there is very little evidence of widespread practice of the skill in public schools (Oxman & Barell, 1983). A program aimed at reducing disruptive behavior and physically aggressive interventions in high school used a script that required disruptive students to reflect on the appropriate behavior, and had dramatic results. Suspensions, physical interventions, and removals from class all declined (Hass, Passaro, & Smith, 1999). Given time and instruction on the development of the skill and the opportunity to practice reflective thinking, researchers believe that achievement and behavior will be improved (Cotton, 1991; Hass et al., 1999).

### **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).

Verbal aggression is one of many different forms of aggression identified by researchers. Xie et al. (2003) identified social and relational as more subtle forms of aggression. Social aggression can negatively impact the victim's social status, and direct relational aggression can impact specific student relationships (Xie, Farmer, & Cairns, 2003). Relational aggression is more apparent in female behaviors, and includes direct and indirect acts (Crick, Ostrov & Werner, 2006). Braun, Kirchner, Hartman, Overton, and Caldwell (1998) identified verbal, paraverbal, nonverbal, and physical aggression in a study including 39 practicing teachers. Paraverbal aggression differs from verbal aggression in that it is not important what was said, but how it was said. Nonverbal aggression differs from verbal aggression in that it is the proximity and gestures that send the threat, not the words (Braun et al., 1998).

Verbal aggression can be manifested on increasingly hostile levels of threat, attack, insult, or intimidation. Greenberg (1976) identified ten levels of verbal

aggression. The first three are silence, intermittent distraction, and continuous distraction. The more intense levels are criticism, stereotypic derogation, stereotypic derogation with cursing, severe derogation, severe derogation with cursing, stream of profanity, and threat of physical violence (Greenberg, 1976). If not dealt with appropriately, verbal aggression can escalate into more serious forms of aggression such as harassment, bullying, and physical aggression (Crick et al., 2006; Pepler et al., 2006).

### **Harassment**

Harassment is defined as unprovoked aggression in which there is an imbalance of power or strength between two children, a perpetrator, and a victim (Newman & Murray, 2005). Harassment in the classroom creates a hostile learning environment for the victims and other classmates, and even the teacher in some instances. In 2005, 6 % of students across the country ages 12-18 were afraid of being attacked at school, and 11 % had hate words used against them (National Center for Education Statistics, 2008). In 2003, 18 % of the public schools reported that student acts of disrespect toward teachers happened on a daily basis (NCES, 2008).

### **Bullying**

Bullying occurs when the seriousness and regularity of harassment incidents increase. Olweus (1993) defined bullying as negative verbal and physical actions that have hostile intent, are repeated over time, and involve a power differential between the bully and the victim. In 2003, 28 % of students 12-18 reported being bullied (NCES, 2008). This type of verbal and physical aggression practiced daily on playgrounds and in classrooms has been shown to be related to sexual harassment, dating aggression, workplace harassment, marital aggression, and elder abuse (Pepler et al., 2006).

### **Physical Aggression**

Researchers have examined the relationship between verbal and physical aggression. Anderson and Bushman (2002) describe a multi-stage process that deals with personal and situational variables impacting cognitive processes and emotional decision-making. Physical aggression may be related to the nature of the perceived threat or injustice felt by the perpetrator, or the desire for power or control (Geiger & Fischer, 2006). Constant harassment both verbal and physical can lead to strong physical reactions by the victim (Geiger & Fischer, 2006). Crick et al. (2006) found that relational aggression in third grade boys and girls predicted fourth grade physical aggression and that the strongest predictor for future adjustment issues was the combination of relational and physical aggression.

### **Escape and Avoidance**

Escape and avoidance behaviors are responses to aversive stimuli, and disruptive behavior serves as a means to escape aversive stimuli (Gunter, 1993). When a student's readiness is not at the level of the assigned task it can produce an aversive stimulus (Gunter, Denney, Jack, Shores, & Nelson, 1993). Some students employ an escape or avoidance behavior to prevent others from recognizing their weaknesses, to express frustration, or to deal with anger related to learning tasks (Eisenberg, 1999). Students who do not have appropriate social skills may use other behaviors such as class disruption or noncompliance to escape or avoid aversive stimuli (Gunter, 1993). Social skills may be taught and are thought to reduce escape and avoidance reactions to aversive stimuli as students replace negative emotional reactions with learned prosocial responses (Hill & Coufal, 2005; Zaichkowsky & Zaichkowsky, 1984).

## **Differentiated Instruction**

Differentiated instruction may have an impact on student behavior because lessons and strategies 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).

**Readiness for a task.** Readiness for a task relates to Vygotsky's (1978) zone of proximal development. The zone of proximal development is a point in learning mastery where a child cannot succeed alone, but can succeed with help. This help, called scaffolding (Richards & Omdal, 2007; Tomlinson, 2003), allows the student to achieve the next zone or make repeated efforts to attain the zone. Differentiation for a student's readiness for a task requires the teacher to proactively teach to the individual's zone of proximal development, and support the child in reaching the next level (Tomlinson, 2003). A lack of readiness for a task can result in disruptive behavior (Gunter, 1993), poor grades (Tomlinson, 1997), and poor attendance (Whitker, 1996). One study of third grade students indicated that matching tasks to levels of readiness and student interest promoted more positive behaviors, less off-task behaviors, and significant academic improvement (Adami-Bunyard, Gummow, & Milazzo-Licklider, 1998). In this age of more inclusive classrooms, it becomes paramount that teachers constantly be assessing individual readiness of students before assigning tasks (Tomlinson, 1997).

**Student interest.** Also part of differentiation, considering the interests of students, seems to be related to motivational gain, and improved learning outcomes (Tomlinson, 2003). Engagement on task time improves as student interest is maintained

and academic performance improves as engagement increases (Grady, 2006). Allowing students to choose their reading material (Blum, Lipsett, & Yocom, 2002), select topics for projects, and help in the development and scoring of formative and summative rubrics promotes student interest and engagement (Tomlinson, 2003).

**Learner styles.** Student academic achievement is improved when learner styles are taken into account during the planning of lessons (Tomlinson, 1997). Learner styles are influenced by factors such as environment, emotions, interactions, and physical needs (Hong, Greene, & Higgins, 2006; Tomlinson, 2003). Gardner (1983), in his theory of multiple intelligences, identified eight different types of intelligences influencing differentiation research on learning styles (Hong et al., 2006; Velardi, 1999). Cultural values and beliefs can also impact individual learning styles, and teachers generally do not help students from non-dominant cultures build necessary skills to succeed in school (Delpit, 1995). However, effective teachers are sensitive to individual learning differences (Rosenfeld & Rosenfeld, 2004).

### **Differentiation Overall**

As stated above, 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, & Grigorenko, 1998). Teacher expertise in dealing with academically diverse classrooms reflects continual assessment of readiness levels and development of lessons that invite students to enter the learning process at their own levels (Hong et al., 2006), making knowledge relevant and interesting to students, varying amounts of instruction and practice based on learner needs, implementation of a wide range of instructional strategies that are matched to the lesson and the student, and an expectation and acceptance of student differences (Hong et al., 2006; Tomlinson, 1997).

Student choice is related to student readiness, interest, and learning styles and represents a fundamental principal of differentiated instruction (Tomlinson, 1997). Allowing students to have a voice in their assignment choices, presentation method, project development, and reading selections have all been proven to increase student engagement, time on task, academic achievement and classroom behavior (Blum, Lipsett, & Yocom, 2002; Mitchim, 2005).

**Tiered instruction.** Tiered instruction or ability grouping is designed to meet the needs of individual students based on their prior knowledge of the content or readiness for the task (Richards & Omdal, 2007; Tomlinson, 1997). Typically, tiered lessons are kept to a limited number of levels such as low, medium, and high levels of readiness (Richards & Omdal, 2007). Skill or ability grouping takes place within a class and is designed to provide a common instructional level for each group based on individual student readiness and to help the students achieve the next skill level (Nordlund, 2003). Richards and Omdal (2007) provide suggestions for the basis of a successful tiered instruction curriculum including providing in-service support for teachers, utilizing knowledgeable staff during curriculum and lesson design (Tomlinson, 1997), and

developing a culture where all levels of students have been trained both to succeed at their level, and strive for skill advancement.

**Cooperative learning.** Cooperative learning is a means of utilizing peers and peer groups as to promote engagement and to provide support for struggling students. Cooperative groups have been shown to provide peer pressure which is a powerful tool to ensure work is completed, to improve accuracy on work, and to increase attendance and participation in class (Holliday, 2002; Wolford & Heward, 2001). Students who work within peer groups have been shown to be more academically engaged and work for longer periods of time (Pringle & Dickinson, 2000; Wolford & Heward, 2001). Cooperative learning has been shown to improve both reading comprehension and language arts writing achievement (Sharp & Ashby, 2002) as well as math writing achievement (Johanning, 2000). Coposey and Heider (2003) found a strong correlation between cooperative teaching and learning methods and growth in the areas of vocabulary development and reading comprehension. Principals and teachers believe that cooperative learning activities are effective at teaching basic skills, and are important for promoting peer respect in diverse student populations (Tomlinson, 1997).

**Peer tutoring.** Peer tutoring is another cooperative learning strategy which pairs students of different levels of readiness together as a means of scaffolding the learning of the less ready student. Peer tutoring shares many of the advantages of cooperative group activities. Students who are taught how to seek out assistance from peers during cooperative learning activities have been shown to be more likely to seek assistance again. These students have also shown growth in the accuracy and completeness of assignments (Wolford & Heward, 2001). Students have been shown to be effective

tutors. Students in a program of reciprocal peer tutoring demonstrated strong academic growth, and students perceived the program as positive and worthwhile. Peer tutoring increases student time on task, productivity, and enjoyment of learning experience (Mastopieri et al., 2001; Sutherland & Snyder, 2007). Teachers and principals surveyed in a national study recognized that gifted students seem to gain educationally from tutoring other students (Tomlinson, 1997). With our ever changing and diverse student populations, teachers are confronted with new barriers to learning. Peer tutoring has been proven to be an effective method for working with English Language Learners (ELL). Native English speakers when paired with ELL students, become both teacher and learner (Allison & Rehm, 2007).

Peer tutoring can also have a positive impact on behaviors. In a study that looked at the effects of reciprocal peer tutoring on reading fluency and classroom disruption, researchers found that disruptive behaviors decreased, and fluency and participation or engagement increased. On the days the subjects' peer tutors were not available, disruptive behaviors increased (Sutherland & Snyder, 2007).

### **Student and Teacher Relationships**

Student and teacher relationships play a significant role in promoting academic growth. As teachers develop more involved working relationships with students, it becomes easier to determine readiness of task, student interest, and appropriate instructional strategies to meet their individual needs (Tomlinson, 2003). Students who disrupt often have a long history of abuse or neglect, and studies confirm that a majority of students sent to the office for disruptive behavior are most often victims of abuse (Jackson et al., 1999). Teachers who establish a classroom environment that is

welcoming and relationship based provide students with greater opportunities to produce pro-social behaviors that are incompatible with negative attention seeking behaviors that often lead to escalated verbal and behavioral disruptive episodes (Hill & Coufal, 2005).

Positive student and teacher relationships have a significant impact on classroom behavior. School-wide plans should include student relationship building, as these relationships provide the basis for nurturing schools (Green, 1998; Sugai et al., 2002). Students who develop caring relationships with adults will be more interested in attending school, will be more likely to actively participate in class, have better test scores and fewer suspensions (Green, 1998; Tomlinson, 2003). The quality of student and teacher relationships can have a positive impact on disruptive behavior (Omaha Public Schools, 1999). Students also place great stock in the value of teacher student relations, saying that many of the discipline problems they experience would not have occurred if better teacher and student relationships had existed (Marzano, 2003).

Teachers who develop positive relations with students share relationship-building characteristics of consideration, buoyancy, and patience (Marzano, 2003). These teachers take a personal interest in students by being aware of and commenting on important events in students' lives, talking informally outside of class, greeting students at stores or outside events, and meeting all students at the door and referring to them by name (Marzano, 2003).

### **Instructional Strategies**

Finally, the following specific instructional strategies including word walls, reciprocal teaching, graphic organizers, and combination note taking were all used to

support student success in the research school during implementation of the school-wide ICBI+DI intervention.

**Word walls.** A word wall is a strategy to reinforce the core vocabulary of a specific subject. Teachers select terms, new words, and words that frequently reoccur and print the words on cards. These cards are arranged on a highly visible wall or bulletin board as the students encounter them. Repetition is the key to the word wall's success. Students use the wall to review before new lessons, and teachers point out the words as they appear in the lesson. For word walls to be effective, teachers must plan activities that invite students to explore the relationships between letters and sounds. Word walls must be used as springboards to spelling and writing (Cicalese, 2003).

**Reciprocal teaching.** Reciprocal teaching is a reading comprehension strategy that promotes the basic cognitive concepts of prediction, summarization, questioning, and clarification (Palinscar & Brown, 1984; Rosenshine & Meister, 1994). Students should receive direct instruction in the four cognitive strategies from a teacher before actually engaging in the activity. Explicit, teacher-led instruction on the cognitive strategies can take up to four days initially, but is reinforced regularly thereafter (Rosenshine & Meister, 1994)

**Graphic organizers.** The term graphic organizer is often used when the activity involves drawing, diagrams, or other visual representations of the content being covered (Marzano et al., 2003). Instructors introduce the organizer to the students in a discussion that encourages students to think through the various components of the organizer and their relationship to each other. Teachers sometimes have students create or fill in parts of the organizer during class activities (Maddox, Johnson, & Willis, 1997). The Frayer

Model is a graphic organizer used for word analysis and vocabulary building. This four-square model prompts students to think about and describe the meaning of a word or concept by defining the term, describing its essential characteristics, providing examples of the idea, and offering non-examples of the idea. This strategy stresses understanding words within the larger context of a reading selection by requiring students, first, to analyze the items (definition and characteristics) and, second, to synthesize/apply this information by thinking of examples and non-examples (Frayer et al., 1969).

**Combination note taking.** While taking good notes is an important tool for improving student achievement, word for word or verbatim note taking is considered the least effective method by researchers (Marzano, 2003). Combination note taking, which includes a graphic organizer in the process, is a method that engages a variety of learning styles.

## **Conclusion**

As 21st century educators prepare to meet the challenges presented by 21st century youth, intentional, targeted, school-wide efforts will need to be employed. Many of the students who become detached from the educational process are lost because of punitive discipline policies that remove students from classrooms placing them on the all too certain path of suspensions, low GPAs, poor attendance, and dropping-out of school. If educators apply engaging instructional techniques such as differentiation and creative, caring and effective school-wide behavior plans such as in-class behavioral interventions for targeted behaviors, great progress can be made toward reducing the number of children trapped in a vicious cycle of removal from the classroom for disruption, loss of

instructional time with the teacher, lack of skill development, and a discipline pattern of increased escape responding and course failure leading to early school leaving.

## CHAPTER THREE

### Methodology

#### Participants

**Number of participants.** The maximum accrual for this study was ( $N = 35$ ) including a naturally formed group of verbally disruptive students with co-occurring below grade level reading scores ( $n = 23$ ) who had California Achievement test, reading total battery grade equivalent scores measured two or more years below grade level and a naturally formed group of students with verbally disruptive students with grade level reading scores ( $n = 12$ ) who had California Achievement test, reading total battery grade equivalent scores measured at or above grade level.

**Gender of participants.** 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 gender of the study participants is congruent with the research school districts gender demographics for 8th-grade students.

**Age range of participants.** The age range for all study participants was from 13 years to 14 years. All participants were in the 8th-grade. The age range of the study participants is congruent with the research school districts age range demographics for 8th-grade students.

**Racial and ethnic origin of participants.** Of the total number of selected subjects identified with verbally disruptive behavior and co-occurring below grade level

reading scores ( $n = 23$ ) the ethnic and racial origin of the participants was 8 Caucasian (35%), 6 Hispanic (26%), and 9 African American (39%) students. Of the total number of selected subjects identified with verbally disruptive behavior and grade level reading scores ( $n = 12$ ) the ethnic and racial origin of the participants was 5 Caucasian (42%) and 7 African American (58%) students. The racial and ethnic origin of the study participants is congruent with the research school districts racial and ethnic demographics for 8th-grade students.

**Inclusion criteria of participants.** Eighth-grade students who attended the research school for the entire 7th-grade and 8th-grade school years and completed all study assessments were eligible.

**Method of participant identification.** Students with verbally disruptive behavior and below grade level reading scores participating in the ICBI+DI program had reading scores at least two levels below grade on two CAT reading scores. Additionally, they and the participants in the grade level group had at least two classroom disruptions that required in-class behavioral interventions. No individual identifiers were attached to the achievement or behavior data of the 35 participating students in the two naturally formed groups.

### **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<sub>1</sub> = study constant.** All participants received in-class behavioral interventions plus differentiated instruction (ICBI+DI).

**Y<sub>1</sub> = study independent variable, verbally disruptive students, condition #1.** Verbally disruptive students with co-occurring below grade level reading scores.

**Y<sub>2</sub> = study independent variable, verbally disruptive students, condition #2.** Verbally disruptive students with grade level reading scores.

**O<sub>1</sub> = 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<sub>2</sub> = 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.

### **Implementation of the Independent Variables**

The independent variables for this study were the two student groups representing students with verbally disruptive behavior and co-occurring below grade level reading test scores, and students with verbally disruptive behaviors and grade level reading test scores. The students in the first group, with verbally disruptive behavior and below grade level reading test scores had at least two ICBI+DI interventions and had reading test scores two or more levels below grade on two of the three reading scores as measured by CAT. The second group, those students with verbally disruptive behaviors and grade level reading scores had at least two ICBI+DI interventions and were at or above grade level on at least two of the three reading scores as measured by CAT. These groups comprised the two research arms of the study. Both groups of students were selected from the same student population that received the ICBI+DI intervention.

The purpose of the study was to determine the effect of an 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.

## **Dependent Measures**

The study's two dependent variables were (1) achievement and (2) behavior. The first of these, achievement, was analyzed using the following dependent measures (a) Norm-Referenced Test scores, these scores will be derived from the California Achievement Test (CAT), and included basic battery NCE scores for reading and (b) grade point average as determined by the district information management system SASI. Behavior data were collected retrospectively from participating students 7th and 8th-grade school years. Data for (a) between class tardy, (b) office referral, (c) in-school suspension, and (d) out of school suspension were obtained from SASI.

## **Research Questions and Data Analysis**

The following research question was used to analyze student participation in the ICBI+DI program measuring norm-referenced reading comprehension, reading vocabulary, and reading total battery outcomes.

**Overarching Pretest-Posttest Achievement Research Question #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 ICBI+DI program?

**Sub-Question 1a.** Was there a significant difference between students' ending 7th-grade norm-referenced test reading comprehension NCE scores compared to students' ending 8th-grade norm-referenced test reading comprehension NCE scores as measured by the CAT after completing the ICBI+DI program?

**Sub-Question 1b.** Was there a significant difference between students' ending 7th-grade norm-referenced test reading vocabulary NCE scores compared to students' ending 8th-grade norm-referenced test reading vocabulary NCE scores as measured by the CAT after completing the ICBI+DI program?

**Sub-Question 1c.** Was there a significant difference between students' ending 7th-grade norm-referenced test reading total battery NCE scores compared to students' ending 8th-grade norm-referenced test reading total battery NCE scores as measured by the CAT after completing the ICBI+DI program?

**Analysis.** Research Sub-Questions #1a, 1b, and 1c were analyzed using dependent *t* tests to examine the significance of the difference between students' ending 7th-grade norm-referenced test reading comprehension scores compared to ending 8th-grade norm-referenced test reading comprehension score after completing the ICBI+DI program, students' ending 7th-grade norm-referenced test reading vocabulary scores compared to ending 8th-grade norm-referenced test reading vocabulary score after completing the ICBI+DI program, and students' ending 7th-grade norm-referenced test reading total battery scores compared to ending 8th-grade norm-referenced test reading total battery scores after completing the ICBI+DI program. Because multiple statistical tests were conducted, a one-tailed .01 alpha level was employed to help control for Type 1 errors. Means and standard deviations were displayed on tables.

**Overarching Pretest-Posttest Achievement Research Question #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 ICBI+DI program?

**Sub-Question 2a.** Was there a significant difference between students' ending 7th-grade norm-referenced test reading comprehension NCE scores compared to students' ending 8th-grade norm-referenced test reading comprehension NCE scores as measured by the CAT after completing the ICBI+DI program?

**Sub-Question 2b.** Was there a significant difference between students' ending 7th-grade norm-referenced test reading vocabulary NCE scores compared to students' ending 8th-grade norm-referenced test reading vocabulary NCE scores as measured by the CAT after completing the ICBI+DI program?

**Sub-Question 2c.** Was there a significant difference between students' ending 7th-grade norm-referenced test reading total battery NCE scores compared to students' ending 8th-grade norm-referenced test reading total battery NCE scores as measured by the CAT after completing the ICBI+DI program?

**Analysis.** Research Sub-Questions #2a, 2b, and 2c were analyzed using dependent *t* tests to examine the significance of the difference between students' ending 7th-grade norm-referenced test reading comprehension scores compared to ending 8th-grade norm-referenced test reading comprehension score after completing the ICBI+DI program, students' ending 7th-grade norm-referenced test reading vocabulary scores compared to ending 8th-grade norm-referenced test reading vocabulary score after completing the ICBI+DI program, and students ending 7th-grade norm-referenced test reading total battery scores compared to ending 8th-grade norm-referenced test reading total battery score after completing the ICBI+DI program. Because multiple statistical

tests were conducted, a one-tailed .01 alpha level was employed to help control for Type 1 errors. Means and standard deviations were displayed on tables.

**Overarching Posttest-Posttest Achievement Research Question #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 ICBI+DI program?

**Sub-Question 3a.** Was there a significant difference 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 posttest end of 8th-grade reading comprehension NCE scores as measured by the CAT after completing the ICBI+DI program?

**Sub-Question 3b.** Was there a significant difference between students determined to be verbally disruptive with co-occurring below grade level reading scores tests compared to students determined to be verbally disruptive with grade level reading scores posttest end of 8th-grade reading vocabulary scores as measured by the CAT after completing the ICBI+DI program?

**Sub-Question 3c.** Was there a significant difference between students determined to be verbally disruptive with co-occurring below grade level reading scores tests compared to students determined to be verbally disruptive with grade level reading scores posttest end of 8th-grade reading total battery scores as measured by the CAT after completing the ICBI+DI program?

**Analysis.** Research Sub-Questions #3a, 3b, and 3c were analyzed using independent  $t$  tests and Analysis of Covariance to examine the significance of the difference 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 comprehension, reading vocabulary, and reading total battery test scores. Because multiple statistical tests were conducted, a one-tailed .01 alpha level was employed to help control for Type 1 errors. Means and standard deviations were displayed on tables.

**Overarching Pretest-Posttest Achievement Research Question #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 as determined by SASI following participation in the ICBI+DI program?

**Sub-Question 4a.** Was there a significant difference between students' ending 7th-grade GPA compared to ending 8th-grade GPA as measured by SASI following participation in the ICBI+DI program?

**Analysis.** Sub-Question #4a was analyzed using a dependent  $t$  test to examine the significance of the difference between students' ending 7th-grade GPA and students' ending 8th-grade GPA as measured by the SASI following participation in the ICBI+DI program. Because multiple statistical tests were conducted, a one-tailed .01 alpha level was employed to help control for Type 1 errors. Means and standard deviations were displayed on tables.

**Overarching Pretest-Posttest Achievement Research Question #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 as determined from SASI following participation in the ICBI+DI program?

**Sub-Question 5a.** Was there a significant difference between students' ending 7th-grade GPA compared to ending 8th-grade GPA as measured by SASI following participation in the ICBI+DI program?

**Analysis.** Sub-Question #5a was analyzed using a dependent *t* test to examine the significance of the difference between students' ending 7th-grade GPA and students' ending 8th-grade GPA as measured by SASI following participation in the ICBI+DI program. Because multiple statistical tests were conducted, a one-tailed .01 alpha level was employed to help control for Type 1 errors. Means and standard deviations were displayed on tables.

**Overarching Posttest-Posttest Achievement Research Question #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 as determined by SASI after completion of the ICBI+DI program?

**Sub-Question 6a.** Was there a significant difference between students' ending 8th-grade GPA compared to ending 8th-grade GPA as measured by SASI following participation in the ICBI+DI program?

**Analysis.** Research Sub-Question #6a was analyzed using an independent *t* test and Analysis of Covariance to examine the significance of the difference 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 ending 8th-grade GPA. Because multiple statistical tests were conducted, a one-tailed .01 alpha level was employed to help control for Type 1 errors. Means and standard deviations were displayed on tables.

**Overarching Pretest-Posttest Behavior Research Question #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 using data collected from SASI following participation in a school-year long ICBI+DI program?

**Sub-Question 7a.** Was there a significant difference between students' ending 7th-grade compared to ending 8th-grade between class tardy frequencies as measured by SASI after completing the ICBI+DI program?

**Sub-Question 7b.** Was there a significant difference between students' ending 7th-grade compared to ending 8th-grade office referral frequencies as measured by SASI after completing the ICBI+DI program?

**Sub-Question 7c.** Was there a significant difference between students' ending 7th-grade compared to ending 8th-grade in-school suspension frequencies as measured by SASI after completing the ICBI+DI program?

**Sub-Question 7d.** Was there a significant difference between students' ending 7th-grade compared to ending 8th-grade out of school suspension frequencies as measured by SASI after completing the ICBI+DI program?

**Analysis.** Research Sub-Questions #7a, 7b, 7c, and 7d were analyzed using dependent *t* tests to examine the significance of the difference between students

determined to be verbally disruptive with co-occurring below grade level reading scores ending 7th-grade between class tardy frequencies compared to ending 8th-grade between class tardy frequencies after completing the ICBI+DI program, students' ending 7th-grade office referral frequencies compared to ending 8th-grade office referral frequencies after completing the ICBI+DI program, students' ending 7th-grade in-school suspension frequencies compared to ending 8th-grade in-school suspension frequencies after completing the ICBI+DI program, students' ending 7th-grade out of school suspension frequencies compared to ending 8th-grade out of school suspension frequencies after completing the ICBI+DI program. Because multiple statistical tests were conducted a one-tailed .01 alpha level was employed to help control for Type 1 errors. Means and standard deviations were displayed on tables.

**Overarching Pretest-Posttest Behavior Research Question #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 using data collected from SASI following participation in a school-year long ICBI+DI program?

**Sub-Question 8a.** Was there a significant difference between students' ending 7th-grade compared to ending 8th-grade between class tardy frequencies as measured by SASI after completing the ICBI+DI program?

**Sub-Question 8b.** Was there a significant difference between students' ending 7th-grade compared to ending 8th-grade office referral frequencies as measured by SASI after completing the ICBI+DI program?

**Sub-Question 8c.** Was there a significant difference between students' ending 7th-grade compared to ending 8th-grade in-school suspension frequencies as measured by SASI after completing the ICBI+DI program?

**Sub-Question 8d.** Is there a significant difference between students' ending 7th-grade compared to ending 8th-grade out of school suspension frequencies as measured by SASI after completing the ICBI+DI program?

**Analysis.** Research Sub-Questions #8a, 8b, 8c, and 8d were analyzed using dependent *t* tests to examine the significance of the difference between students determined to be verbally disruptive with grade level reading scores ending 7th-grade tardy frequencies compared to ending 8th-grade between class tardy frequencies after completing the ICBI+DI program, students' ending 7th-grade office referral frequencies compared to ending 8th-grade office referral frequencies after completing the ICBI+DI program, students' ending 7th-grade in-school suspension frequencies compared to ending 8th-grade in-school suspension frequencies after completing the ICBI+DI program, students' ending 7th-grade out of school suspension frequencies compared to ending 8th-grade out of school suspension frequencies after completing the ICBI+DI program. Because multiple statistical tests were conducted, a one-tailed .01 alpha level was employed to help control for Type 1 errors. Means and standard deviations were displayed on tables.

**Overarching Posttest-Posttest Behavior Research Question #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 using data collected from SASI following participation in a school-year long ICBI+DI program?

**Sub-Question 9a.** Was there a significant difference between students determined to be verbally disruptive with co-occurring below grade level reading test scores compared with students determined to be verbally disruptive with grade level reading test scores ending 8th-grade compared to ending 8th-grade between class tardy frequencies as measured by SASI after completing the ICBI+DI program?

**Sub-Question 9b.** Was there a significant difference between students determined to be verbally disruptive with co-occurring below grade level reading test scores compared with students determined to be verbally disruptive with grade level reading test scores ending 8th-grade compared to ending 8th-grade office referral frequencies as measured by SASI after completing the ICBI+DI program?

**Sub-Question 9c.** Was there a significant difference between students determined to be verbally disruptive with co-occurring below grade level reading test scores compared with students determined to be verbally disruptive with grade level reading test scores ending 8th-grade compared to ending 8th-grade in-school suspension frequencies as measured by SASI after completing the ICBI+DI program?

**Sub-question 9d.** Was there a significant difference between students determined to be verbally disruptive with co-occurring below grade level reading test scores compared with students determined to be verbally disruptive with grade level reading test scores ending 8th-grade compared to ending 8th-grade out of school suspension frequencies as measured by SASI after completing the ICBI+DI program?

**Analysis.** Research Sub-Question #9a, 9b, 9c, and 9d were analyzed using independent  $t$  tests to examine the significance of the difference between students determined to be verbally disruptive with co-occurring below grade level reading test scores compared with students determined to be verbally disruptive with grade level reading test scores ending 8th-grade between class tardy, office referral, in-school suspension, and out of school suspension frequencies. Because multiple statistical tests were conducted, a one-tailed .01 alpha level was employed to help control for Type 1 errors. Means and standard deviations were displayed on tables.

### **Data Collection Procedures**

All study achievement and behavioral data were retrospective, archival, and routinely collected school information. Permission from the appropriate school research personnel was obtained. Naturally formed groups of 23 students in one arm and 12 in the other were obtained to include achievement and behavioral data. Non-coded numbers were used to display individual de-identified achievement and behavioral data. Aggregated group data, descriptive statistics, and parametric statistical analysis were utilized and reported with means and standard deviations on tables.

**Performance site.** The research was conducted in the public school setting through normal educational practices. The study procedures did not interfere with the normal educational practices of the public school and did not involve coercion or discomfort of any kind. Data were stored on spreadsheets and computer flash drives for statistical analysis in the office of the primary researcher and the dissertation chair. Data and computer files were kept in locked file cabinets. No individual identifiers were attached to the data.

**Institutional Review Board (IRB) for the protection of Human Subjects**

**Approval Category.** The exemption categories for this study were provided under 45CFR.101(b) categories 1 and 4. The research was conducted using routinely collected archival data. A letter of support from the district was provided for IRB review.

## CHAPTER FOUR

### Results

#### **Purpose of the Study**

The purpose of the study was to determine the effect of an 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.

The study's two dependent variables were (1) achievement, and (2) behavior. The first of these, achievement, was analyzed using the following dependent measures (a) Norm-Referenced Test scores, these scores will be derived from the California Achievement Test (CAT), and included basic battery NCE scores for reading and (b) grade point average as determined by the district information management system SASI. Behavior data were collected retrospectively from participating students 7th and 8th-grade school years. This (a) between class tardy, (b) office referral, (c) in-school suspension, and (d) out of school suspension data was obtained from SASI. All study achievement data related to each of the dependent variables were retrospective, archival, and routinely collected school information. Permission from the appropriate school research personnel was obtained before data were collected and analyzed.

Table 1 displays demographic information of 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. Table 2 displays demographic information of 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. 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 are found in Table 3. 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 may be found in Table 4. Table 5 displays 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.

### **Research Question #1**

The first pretest-posttest hypothesis was tested using the dependent  $t$  test. The first hypothesis comparing 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 results were displayed in Table 5. As seen in Table 5, 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),  $d = .38$ .

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 posttest mean achievement NCE test score for Reading Comprehension, although not found to be statistically significantly different. Comparing students' NRT NCE reading scores with derived achievement scores 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 scores 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 scores 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.

### **Research Question #2**

The second pretest-posttest hypothesis was tested using the dependent *t* test. The second hypothesis comparing 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 results were displayed in Table 6. As seen in Table 6, 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),  $d = .44$ .

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 posttest mean achievement NCE test score for Reading Vocabulary, although not found to be statistically significantly different. 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.

### **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 gain between the two groups. A comparison of students enrolled in an in-class behavioral intervention plus differentiated instruction program with verbally disruptive behavior and co-occurring below grade level reading test scores compared to students with verbally disruptive behavior and grade level reading test ending 8th-grade posttest California Achievement Test Normal Curve

Equivalent score results were displayed in Table 7. As seen in Table 7 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. As indicated in Table 7, 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),  $d = 1.90$ . As indicated in Table 7 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),  $d = 2.23$ . As found in Table 7 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 gain 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.

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.

#### **Research Question #4**

Table 8 displays pretest and posttest grade point average scores 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 enrolled in an in-class behavioral intervention plus differentiated instruction program.

The fourth pretest-posttest hypothesis was tested using the dependent  $t$  test. The fourth hypothesis comparing 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 results were displayed in Table 9. As seen in Table 9 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),  $d = .07$ .

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.

### **Research Question #5**

The fifth pretest-posttest hypothesis was tested using the dependent  $t$  test. The fifth hypothesis comparing 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 results were displayed in Table 10. As seen in Table 10 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),  $d = .25$ .

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.

### **Research Question #6**

The sixth posttest-posttest hypothesis was tested using the independent  $t$  test for overall group posttest difference and ANCOVA to determine rate of gain between the two groups adjusted for 8th-grade pretreatment differences. A comparison of students enrolled in an in-class behavioral intervention plus differentiated instruction program with verbally disruptive behavior and co-occurring below grade level reading test scores compared to students with verbally disruptive behavior and grade level reading test ending 8th-grade posttest cumulative Grade Point Average score results were displayed in Table 11. As seen in Table 11 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. As indicated in Table 11 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 Analysis of Covariance comparisons of students 8th-grade cumulative Grade Point Average rate of gain was the same for both groups where  $F(1, 33) = .076, p = .784$ . Confidence interval for difference = 95%.

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.

Table 12 displays between class tardy, office referral, in-school suspension, and out of school suspension frequency totals 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. Table 13 displays between class tardy, office referral, in-school suspension, and out of school suspension frequency totals 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. 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 are found in Table 14.

### Research Question #7

The seventh pretest-posttest hypothesis was tested using the dependent  $t$  test. The seventh hypothesis comparing 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 results were displayed in Table 14. As seen in Table 14 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),  $d = .02$ .

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.

### **Research Question #8**

The eighth pretest-posttest hypothesis was tested using the dependent *t* test. The eighth hypothesis comparing 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 results were displayed in Table 15. As seen in Table

15, 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),  $d = .15$ .

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.

### **Research Question #9**

The ninth posttest-posttest hypothesis was tested using the independent *t* test. A comparison of students enrolled in an in-class behavioral intervention plus differentiated instruction program with verbally disruptive behavior and co-occurring below grade level reading test scores compared to students with verbally disruptive behavior and grade level reading test scores ending 8th-grade posttest between class tardy, office referral, in-school suspension, and out of school suspension score frequencies were displayed in Table 16. As seen in Table 16 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. As indicated in Table 16, 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),  $d = .05$ . As indicated in Table 16 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),  $d = .67$ . As indicated in Table 16, 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),  $d = .21$ . As indicated in Table 16, 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),  $d = .66$ .

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.

Table 1

*Demographic Information of 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*

Student Number	Gender	Ethnicity	Free or Reduced Price Lunch Program	Special Education
1.	Female	Caucasian	Yes	No
2.	Female	Black	Yes	No
3.	Male	Caucasian	No	No
4.	Female	Hispanic	Yes	No
5.	Female	Black	Yes	No
6.	Male	Black	Yes	No
7.	Male	Caucasian	Yes	No
8.	Male	Black	Yes	No
9.	Male	Caucasian	Yes	No
10.	Male	Black	Yes	No
11.	Male	Hispanic	Yes	No
12.	Male	Hispanic	Yes	No
13.	Male	Hispanic	Yes	No
14.	Female	Black	Yes	No
15.	Male	Caucasian	Yes	No
16.	Female	Black	Yes	No
17.	Female	Black	No	No
18.	Male	Caucasian	Yes	No
19.	Female	Black	Yes	No
20.	Female	Hispanic	Yes	No
21.	Male	Caucasian	Yes	No
22.	Male	Caucasian	Yes	No
23.	Male	Hispanic	Yes	No

*Note.* All students were in attendance in the research school 7th-grade through 8th-grade.

Table 2

*Demographic Information of 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*

Student Number	Gender	Ethnicity	Free or Reduced Price Lunch Program	Special Education
1.	Female	Black	Yes	No
2.	Female	Black	Yes	No
3.	Female	Caucasian	Yes	No
4.	Female	Caucasian	Yes	No
5.	Female	Black	Yes	No
6.	Male	Caucasian	No	No
7.	Male	Caucasian	No	No
8.	Male	Black	Yes	No
9.	Female	Black	Yes	No
10.	Female	Black	Yes	No
11.	Male	Caucasian	No	No
12.	Female	Black	Yes	No

*Note.* All students were in attendance in the research school 7th-grade through 8th-grade.

Table 3

*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*

	Reading Comprehension		Reading Vocabulary		Reading Total	
	Pretest	Posttest	Pretest	Posttest	Pretest	Posttest
1.	1	10	15	4	4	6
2.	22	32	28	33	25	32
3.	27	33	15	25	21	30
4.	34	34	33	35	33	35
5.	40	39	40	33	40	36
6.	25	24	11	23	18	24
7.	37	39	30	35	33	38
8.	32	32	42	45	37	38
9.	1	10	6	23	1	17
10.	20	24	40	39	29	31
11.	25	25	15	23	20	24
12.	27	20	15	17	21	18
13.	22	42	40	62	30	52
14.	47	51	1	4	16	21
15.	17	16	6	20	10	17
16.	47	46	22	35	35	40
17.	20	15	30	28	25	21
18.	37	33	35	39	37	36
19.	37	45	33	47	35	46
20.	1	27	19	20	6	24
21.	46	29	33	37	39	33
22.	32	38	19	1	25	14
23.	44	33	22	45	33	39

*Note.* Student numbers correspond with Table 1.

Table 4

*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*

	Reading Comprehension		Reading Vocabulary		Reading Total	
	Pretest	Posttest	Pretest	Posttest	Pretest	Posttest
1.	60	62	44	51	53	57
2.	60	52	56	45	58	46
3.	86	86	82	73	86	81
4.	56	62	42	54	50	59
5.	55	42	49	57	52	49
6.	71	70	76	80	74	76
7.	78	56	67	67	73	52
8.	62	42	49	50	56	46
9.	55	56	51	50	53	53
10.	58	40	54	50	56	45
11.	69	43	86	80	78	62
12.	56	42	44	57	51	49

*Note.* Student numbers correspond with Table 2.

Table 5

*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*

Source	Pretest Scores		Posttest Scores		<i>d</i>	<i>t</i> <sup>a</sup>	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
RC	27.87	(13.96)	30.30	(11.22)	.19	1.26	.11 <sup>†</sup>
RV	23.91	(12.20)	29.26	(14.76)	.39	2.61	.01**
RT	24.91	(11.54)	29.22	(11.14)	.38	2.67	.01**

*Note.* RC = Reading Comprehension; RV = Reading Vocabulary; RT = Reading Total.

<sup>a</sup>Positive *t* result is in the direction of higher posttest mean achievement Reading Comprehension, Reading Vocabulary, and Reading Total NCE test scores.

<sup>†</sup>*ns.* \*\**p* = .01.

Table 6

*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*

Source	Pretest Scores		Posttest Scores		<i>d</i>	<i>t</i> <sup>a</sup>	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
RC	63.83 (10.07)		54.42 (14.04)		.78	-3.01	.01**
RV	58.33 (15.50)		59.50 (12.34)		.08	0.51	.31 <sup>†</sup>
RT	61.67 (12.47)		56.25 (11.73)		.44	-2.14	.03*

*Note.* RC = Reading Comprehension; RV = Reading Vocabulary; RT = Reading Total.

<sup>a</sup>Negative *t* result is in the direction of lower posttest mean achievement Reading Comprehension and Reading Total NCE test scores. Positive *t* result is in the direction of a higher posttest mean achievement Reading Vocabulary NCE test score.

<sup>†</sup>*ns.* \**p* < .05. \*\**p* = .01.

Table 7

*Students Enrolled in an In-Class Behavioral Intervention Plus Differentiated Instruction Program With Verbally Disruptive Behavior And Co-Occurring Below Grade Level Reading Test Scores Compared to Students With Verbally Disruptive Behavior And Grade Level Reading Test Ending 8th-Grade Posttest California Achievement Test Normal Curve Equivalent Scores*

Source	Posttest-Posttest Comparison						
	Students With Verbally Disruptive Behavior and Below Grade Level Reading		Students With Verbally Disruptive Behavior and Grade Level Reading		<i>d</i>	<i>t</i>	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
RC	30.30 (11.22)		54.42 (14.04)		1.90	5.54	.001***
RV	29.26 (14.76)		59.50 (12.34)		2.23	6.07	.001***
RT	29.22 (11.14)		56.25 (11.73)		2.36	6.69	.001***

*Note.* RC = Reading Comprehension; RV = Reading Vocabulary; RT = Reading Total.

<sup>a</sup>It should be noted that after adjusting for 8th-grade pretreatment differences Analysis of Covariance comparisons of students 8th-grade California Achievement Test normal curve equivalent score rate of gain was the same for both groups where RC  $F(1, 33) = .002, p = .964$ ; RV  $F(1, 33) = .211, p = .649$ ; RT  $F(1, 33) = .007, p = .933$ . Confidence interval for difference = 95% with adjustment for multiple comparisons.

\*\*\* $p < .001$ .

Table 8

*Pretest and Posttest Grade Point Average Scores 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 Enrolled in an In-Class Behavioral Intervention Plus Differentiated Instruction Program*

	Students with Disruptive Behavior and Co-Occurring Below Grade Level Reading Test Scores		Students with Disruptive Behavior and Grade Level Reading Test Scores	
	Pretest	Posttest	Pretest	Posttest
1.	2.62	2.80	2.20	1.74
2.	1.37	1.09	3.59	3.03
3.	2.84	1.96	2.93	3.17
4.	2.33	2.53	2.51	2.13
5.	3.25	2.98	2.55	2.96
6.	1.20	1.50	2.61	3.16
7.	1.40	1.09	3.42	2.90
8.	2.30	2.20	1.56	2.00
9.	1.40	1.43	3.57	3.00
10.	1.20	1.27	3.02	2.21
11.	2.63	2.75	2.57	2.75
12.	0.85	0.66	1.85	1.45
13.	2.17	2.67		
14.	1.34	2.26		
15.	0.91	1.77		
16.	2.28	1.97		
17.	1.42	1.68		
18.	2.48	2.90		
19.	2.27	3.10		
20.	2.18	1.75		
21.	1.25	2.00		
22.	1.25	1.07		
23.	2.27	2.07		

Table 9

*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*

Source	Pretest Scores		Posttest Scores		<i>d</i>	<i>t</i> <sup>a</sup>	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
GPA	1.88	(0.68)	1.98	(0.70)	.07	1.03	.16 <sup>†</sup>

*Note.* GPA = Grade Point Average scores.

<sup>a</sup>Positive *t* result is in the direction of a higher posttest mean Grade Point Average score.

<sup>†</sup>*ns.*

Table 10

*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*

Source	Pretest Scores		Posttest Scores		<i>d</i>	<i>t</i> <sup>a</sup>	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
GPA	2.70	(0.65)	2.54	(0.60)	.25	-1.13	.14 <sup>†</sup>

*Note.* GPA = Grade Point Average scores.

<sup>a</sup>Negative *t* result is in the direction of a lower posttest mean Grade Point Average score.

<sup>†</sup>*ns.*

Table 11

*Students Enrolled in an In-Class Behavioral Intervention Plus Differentiated Instruction Program With Verbally Disruptive Behavior And Co-Occurring Below Grade Level Reading Test Scores Compared to Students With Verbally Disruptive Behavior And Grade Level Reading Test Scores Ending 8th-Grade Posttest Grade Point Average Scores*

Source	Students With Verbally Disruptive Behavior and Below Grade Level Reading		Students With Verbally Disruptive Behavior and Grade Level Reading		<i>d</i>	<i>t</i>	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
GPA	1.98 (0.70)		2.54 (0.60)		.86	-2.38	.01**

*Note.* GPA = Grade Point Average scores.

<sup>a</sup>It should be noted that after adjusting for 8th-grade pretreatment differences Analysis of Covariance comparisons of students 8th-grade GPA rate of gain was the same for both groups where  $F(1, 33) = .076, p = .784$ . Confidence interval for difference = 95%.

\*\* $p < .01$ .

Table 12

*Between Class Tardy, Office Referral, In-School Suspension, and Out of School Suspension Frequency Totals 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*

	Class Tardies		Office Referrals		<u>School Suspensions</u>			
					In/School		Out/School	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
1.	1	0	8	9	0	3	0	0
2.	1	0	5	21	0	1	0	0
3.	1	0	6	9	1	2	0	0
4.	0	0	1	4	0	0	0	0
5.	3	0	15	12	2	2	0	1
6.	3	0	33	27	3	5	2	1
7.	0	0	9	20	1	1	0	2
8.	1	0	10	10	1	0	0	0
9.	2	3	16	35	4	3	4	3
10.	5	3	23	26	3	5	0	1
11.	1	0	6	8	0	2	0	0
12.	1	0	24	19	5	3	3	1
13.	1	0	19	11	3	2	2	0
14.	3	1	15	10	3	1	1	1
15.	2	0	27	15	3	1	6	0
16.	1	0	12	22	2	2	1	0
17.	2	0	24	22	5	4	1	2
18.	2	0	13	8	2	0	2	0
19.	1	0	4	3	0	0	0	0
20.	1	1	4	22	0	2	0	2
21.	2	0	33	28	5	4	3	4
22.	6	2	50	35	5	4	5	2
23.	10	1	32	20	3	3	1	0

*Note.* Student numbers correspond with Table 1.

Table 13

*Between Class Tardy, Office Referral, In-School Suspension, and Out of School Suspension Frequency Totals 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*

	Class Tardies		Office Referrals		<u>School Suspensions</u>			
	Pre	Post	Pre	Post	In/School		Out/School	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
1.	0	0	19	20	0	2	0	1
2.	2	0	7	16	1	3	0	1
3.	1	0	6	15	0	2	0	0
4.	0	0	11	12	4	3	0	0
5.	1	0	16	11	4	2	0	0
6.	1	0	16	7	5	1	2	0
7.	0	0	12	13	3	2	1	1
8.	0	0	11	5	1	0	0	0
9.	1	4	12	11	0	4	1	1
10.	1	0	4	16	0	0	0	0
11.	0	0	5	5	1	0	0	0
12.	1	1	12	18	1	3	1	0

*Note.* Student numbers correspond with Table 2.

Table 14

*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*

Source	Pretest Scores		Posttest Scores		<i>d</i>	<i>t</i> <sup>a</sup>	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
BCT	2.17	(2.23)	0.48	(0.95)	1.37	-4.19	.0002***
OR	16.91	(12.22)	17.22	(9.24)	.02	0.16	.44 <sup>†</sup>
ISS	2.22	(1.81)	2.17	(1.56)	.02	-0.14	.45 <sup>†</sup>
OSS	1.35	(1.77)	0.87	(1.14)	.02	-1.31	.33 <sup>†</sup>

*Note.* BCT = Between Class Tardy; OR = Office Referral; ISS = In-School Suspension; OSS = Out Of School Suspension.

<sup>a</sup>Negative *t* result is in the direction of improvement.

<sup>†</sup>*ns.* \*\*\**p* < .001.

Table 15

*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*

Source	Pretest Scores		Posttest Scores		<i>d</i>	<i>t</i> <sup>a</sup>	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
BCT	0.67	(0.65)	0.42	(1.16)	.27	-0.71	.25 <sup>†</sup>
OR	10.92	(4.70)	12.42	(4.91)	.31	0.80	.22 <sup>†</sup>
ISS	1.67	(1.83)	1.83	(1.34)	.10	0.26	.40 <sup>†</sup>
OSS	0.42	(0.67)	0.33	(0.49)	.15	-0.36	.36 <sup>†</sup>

*Note.* BCT = Between Class Tardy; OR = Office Referral; ISS = In-School Suspension; OSS = Out Of School Suspension.

<sup>a</sup>Negative *t* result is in the direction of improvement.

<sup>†</sup>*ns.*

Table 16

*Students Enrolled in an In-Class Behavioral Intervention Plus Differentiated Instruction Program With Verbally Disruptive Behavior And Co-Occurring Below Grade Level Reading Test Scores Compared to Students With Verbally Disruptive Behavior And Grade Level Reading Test Scores Ending 8th-Grade Posttest Between Class Tardy, Office Referral, In-School Suspension, and Out Of School Suspension Frequencies*

Source	Posttest-Posttest Comparison						
	Students With Verbally Disruptive Behavior and Below Grade Level Reading		Students With Verbally Disruptive Behavior and Grade Level Reading		<i>d</i>	<i>t</i>	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
BCT	0.48	(0.95)	0.42	(1.16)	.05	0.17	.43 <sup>†</sup>
OR	17.22	(9.24)	12.42	(4.91)	.67	1.67	.05 <sup>a</sup>
ISS	2.17	(1.56)	1.83	(1.34)	.21	.64	.26 <sup>†</sup>
OSS	0.87	(0.14)	0.33	(0.49)	.66	1.55	.07 <sup>†</sup>

*Note.* BCT = Between Class Tardy; OR = Office Referral; ISS = In-School Suspension; OSS = Out Of School Suspension.

<sup>a</sup>Did not meet the .01 alpha level required for study significance.

<sup>†</sup>*ns.*

## CHAPTER FIVE

### Conclusions and Discussion

The purpose of the study was to determine the effect of an 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.

The study's two dependent variables were (1) achievement, and (2) behavior. The first of these, achievement, was analyzed using the following dependent measures (a) Norm-Referenced Test scores, these scores will be derived from the California Achievement Test (CAT), and included basic battery NCE scores for reading and (b) grade point average as determined by the district information management system SASI. Behavior data were collected retrospectively from participating students 7th and 8th-grade school years. This (a) between class tardy, (b) office referral, (c) in-school suspension, and (d) out of school suspension data was obtained from SASI. All study achievement data related to each of the dependent variables were retrospective, archival, and routinely collected school information. Permission from the appropriate school research personnel was obtained before data were collected and analyzed.

### Conclusions

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

**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 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.

### **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.

### **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.

#### **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.

**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.

**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.

### **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.

**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.

**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.

### **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.** Researchers are clear in their support for school-wide efforts to make classrooms safer, and more conducive to learning (Sugai et al., 2002). School-wide efforts to change instructional culture can have a positive impact on student achievement (DuFour, DuFour, Eaker, & Karhanek 2004; Sugai et al., 2002). DuFour's work with professional learning communities provides a map for transforming poor performing schools into high achieving schools. Collaboration amongst team members on agreed upon goals is the trademark of the process. Continued staff development plays an important role (DuFour et al.,

2004). To make differentiation and engagement an embedded feature, schools should make a sincere commitment to provide all teachers with ongoing training on learning styles and tiered instructional techniques, as well as giving whole school instruction on cooperative learning strategies such as peer tutoring and group work guidelines (DuFour et al., 2004; Sugai et al., 2002; Tomlinson, 2003).

A building-wide effort to increase engagement, paired with building-wide efforts to create a safe and secure environment, has the potential to positively impact achievement. These types of innovative practices are much more likely to happen at the building-wide level than at the classroom level (Hausman & Brown, 2002), so it is vital that regular and ongoing professional development opportunities are provided for staff members (Tomlinson, 1995). As they are developing differentiated lessons and more engaging instructional techniques, staff members need to be able to talk with other teachers, co-teachers, subject area teachers, and curriculum support personnel to get feedback and input (Tomlinson, 1995).

Classroom and school-wide plans that provide for more student input (Foster, Gaa, Nowicki, & Ross, 1997), give students options to demonstrate mastery of concepts, take into account learning styles and interests (Tomlinson, 2003), incorporate student reflection (Luiselli et al., 2005), and expect all students to be engaged will succeed behaviorally and academically at higher levels (Foster et al., 1997).

This study underscores the need for a new emphasis on differentiation that should focus on all levels of performance. The students who improved the least in this study were the best readers. The study results might have been more positive if these better reading verbally disruptive students were more engaged upon return to their learning activities (Foster et al., 1997). Often differentiation efforts are focus on the students who are not mastering concepts,

and those that are more proficient are expected to move on without skill reinforcement. Academically proficient students should receive innovative and challenging programs of study based on student interest and choice (Tomlinson, 2003), just as individuals with disabilities deserve innovative and engaging individual education plans. These programs, and the educational programs of all of the children in-between, should prepare students for the challenges of the 21st century (Kritsonis & Cloud, 2006). These programs should be rigorous and should push students to higher level thinking activities and experiences. Continued teacher training in the areas of advanced discussion groups for reading such as Socratic seminars and other higher level thinking exercises can help the teacher structure lessons to engage the child who might otherwise be bored by traditional lecture and discussion techniques.

Teachers need time and support to develop the seamless flow that differentiation requires (Tomlinson, 2003). Activities that allow for pre-reading of texts for students who are struggling readers, address multiple learning styles, and allow for multiple options for demonstration of mastery require practice and timing. Teachers need the professional development support to give them the courage to take what they see as educational risks. District and building support of these teachers will allow more progressive lesson planning to flourish (Tomlinson, 1995). Kervin (2009) described a technology based literacy approach where students created, scripted, produced, and analyzed a thirty minute commercial video that serves as an excellent example of a creative instructional response to twenty-first century educational challenges. Twenty-first century students are far more connected to technology than their predecessors (Kritsonis & Cloud, 2006). Teachers and administrators need to address the challenges these technologically connected learners bring to the classroom. An instructional structure with the flexibility and responsiveness of differentiation gives educators a chance to meet these learners' diverse needs.

This study also 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, 2003).

Employing behavior coaches who were administrators, teachers, counselors, and school safety personnel, worked to support students with verbally disruptive behavior primarily because students resonated the calm reassuring behavioral supports and options presented to them by those on-site adults in the school they respected (Munoz & Bacci, 2002).

The reflective questioning used in the behavioral intervention script reaffirms findings from prior studies of the power of including the student in analyzing and reflecting on the solution to the problem (McKinney, Campbell-Whatley, & Kea, 2005). Since research shows that students who reflect on their actions are less likely to repeat them (Ardoin & Martens, 2004; Kim & Sugai, 1995), reflection is a skill educators should seek to nurture in students.

**Implications for policy.** Large urban school districts must be able to respond positively to all students who present behavioral challenges. These challenges require a new approach to discipline and behavior management. Suspension rates, failure rates, and drop-out rates are prevalent in large urban school districts and punitive disciplinary policies used to maintain control and order often serve to exacerbate student inappropriate behavior and responses to stress (Arcia, 2006). In-school suspension, while temporarily removing the student from the

classroom, does not provide the student with pro-social behavior replacement skills (Hill & Coufal, 2005). Unfortunately, in-school suspension, out of school suspension, and reassignment remain the most utilized methods of behavior management in schools (Arcia, 2006; Brown, 1998). Based on the results of this study, aversive behavioral interventions such as in-school and out of school suspensions could be faded as pro-social interventions are utilized more frequently.

Alternative methods of student behavior management, including positive behavior supports and social skills training, rooted in relationship development and self-discipline must be utilized to keep the students who need in class time the most in class, engaged, and with a caring educator (Hill & Coufal, 2005). The program utilized in this study which brings the support personnel to the classroom, provides some reflective thinking opportunities, matches the task to readiness of the student, and prevents further disciplinary consequences can provide one possible alternative. Furthermore, variations of the program could be developed to fit the needs and resources of elementary, middle, or high schools with any demographic makeup.

Any effort to bring about true change in a school or district philosophy faces great resistance, and changing from punitive and exclusionary discipline practices for verbally disruptive behavior is no different. District and building administrators must provide a supportive environment for change (Sugai et al., 2003). Professional development on de-escalation techniques, use of programs that keep students in class with support for the teacher, differentiation practice, and plan time can all help to ease the transition. Teachers must also be able to ask themselves if the behavior that is presenting itself in class is related to what the student was asked to do. Teachers should wonder if discipline incidents could be avoided by engaging instruction based on student interest, readiness level, and learning styles.

School districts should also try to support differentiated instructional development for teachers of gifted and talented students. Students enrolled in a gifted program should be challenged in ways that promote experiential and relational learning (Johnson, 2008), and many teachers will need to be given the tools to promote and structure these experiences (Johnson, 2008). Technology training for teachers to help bridge the digital divide will need to be provided. Courses geared to the technologically connected student will need to be researched and developed. Time and pay for curriculum development is an essential area of support districts can provide for teachers.

School officials need to promote site-based and staff developed student discipline plans (Sugai et al., 2003). Each school needs to have some ability to shape a student management plan around the buildings own needs. A school-wide plan that includes staff, student, and parent input has a much greater chance of success (Sugai et al., 2003). Moreover, school leaders should work together with universities to provide feedback for the preparation of new teachers, and to provide quality field experiences for pre-service educators. Special emphasis in these pre-service programs should be placed on pro-social behavior replacement classroom management and differentiation paradigms.

**Implications for further research.** The results of this study point to the need for further research in several key areas. A great deal more can be learned with additional research into in-class behavioral interventions. Despite documented use as an intervention in special education, very little research exists concerning in-class intervention in regular classrooms. A comprehensive teacher survey to explore the viewed effectiveness of the intervention program and the teachers' relative comfort level with the process could yield important information. If teachers feel supported and students make academic and behavioral gains, it would make a

strong case for similar programs. If teachers do not feel comfortable with the program, efforts to refine the process and provide program clarity might be necessary.

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. More specific information on the most successful differentiation strategies needs to be pinpointed through additional study. Efforts can be made to document levels of engagement and the strategies that are most successful in promoting high levels of student engagement. Research into the instructional strategies that will engage students of all ability levels is of vital importance. This student and parent population has been at times underserved, as No Child Left Behind pressure puts the failing student in the spotlight. Finally, educators, teachers, and administrators, 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.

## References

- Adami-Bunyard, E., Gummow, M., & Milazzo-Licklider, N. (1998). *Improving primary student motivation and achievement in mathematics*. Technical report for Master's Action Research Project. Saint Xavier University, Chicago, IL.
- Allison, B. N., & Rehm, M. L. (2007). Effective teaching strategies for middle school learners in multicultural, multilingual classrooms. *Middle School Journal*, 39(2), 12-18.
- Anderson, A., & Bushman, C. (2002). Human aggression. *Annual Review: Psychology*, 53, 27-51.
- Arcia, E. (2006). Achievement and enrollment status of suspended students: Outcomes in a large, multicultural school district. *Education and Urban Society*, 38(3), 359-369.
- Ardoin, S. P., & Martens, B. K. (2004). Training children to make accurate self-evaluations: Effects on behavior and the quality of self-ratings. *Journal of Behavioral Education*, 13(1), 1-23.
- Blomberg, N. (2004, Spring). Effective discipline for misbehavior: In school vs. out of school suspension. *Concept, an Interdisciplinary Journal of Graduate Studies*. Retrieved September 21, 2007, from [www.publications.villanova.edu/Concept/2004/Effective\\_Discipline.htm](http://www.publications.villanova.edu/Concept/2004/Effective_Discipline.htm)
- Blum, H. T., Lipsett, L. R. & Yocom, D. J. (2002). Literature circles: A tool for self-determination in one middle school inclusive classroom. *Remedial & Special Education*, 72(4), 138-146.

- Braun, N. A., Kirchner, M. S., Hartman, M. S., Overton, K. J., & Caldwell, T. E. (1998). Establishing a descriptive database for teachers with aggressive students. *Journal of Behavioral Education, 8*(4), 457-479.
- Brown, T. M. (2007). Lost and turned out: Academic, social, and emotional experiences of students excluded from school. *Urban Education, 42*(5), 432-455.
- Cicalese, C. (2003). *Children's perspectives on interactive writing versus independent writing in primary grades*. Technical report for Master of Arts Research Project, Kean University, April 2003.
- Colvin, G., & Kameenui, E. (1993). Reconceptualizing behavior management and school-wide discipline and general education. *Education & Treatment of Children, 16*(4), 361.
- Cook, C. (2007). Establishing and evaluating the substantive adequacy of positive behavior support plans. *Journal of Behavioral Education, 16*(3), 191-206.
- Copsey, T., & Heider, B. (2003). *Improving reading comprehension through cooperative learning*. Technical paper for Master of Arts Action Research Project, Saint Xavier University, 2003.
- Cotton, K. (1991). School-wide and classroom discipline. *School Improvement Research Series*. Portland, OR: Northwest Regional Educational Laboratory.
- Crandel, D., & Loucks, S. (1983). *People, policies, and practices: Examining the chain of school improvement, Vol. I-X*. Andover, MA: The Network, Inc.
- Crick, N. R., Ostrov, J. M., & Werner, N. E. (2006). A longitudinal study of relational aggression, physical aggression, and children's social-psychological adjustment. *Journal of Abnormal Child Psychology, 34*(2), 131-142.

- Daunic, A. P., Smith, S. W., Brank, E. M., & Penfield, R. D. (2006). Classroom-based cognitive-behavioral intervention to prevent aggression: Efficacy and social validity. *Journal of School Psychology, 44*(2), 123-139.
- Delpit, L. (1995). *Other people's children: Cultural conflict in the classroom*. New York: The New Press.
- DeRidder, L. (1990). The impact of school suspensions and expulsions on dropping out. *Educational Horizons, 68*(3), 153-157.
- Dufour, R., Dufour, R., Eaker, R., & Karhanek, G. (2004). *Whatever it takes: How professional learning communities respond when kids don't learn*. Bloomington, IN.
- Dupper, D. R., & Bosch, L. A. (1996). Reasons for school suspensions: An examination of data from one school district and recommendations for reducing suspensions. *Journal for a Just and Caring Education, 2*(2), 140-150.
- Eisenberg, N. (1999). Prediction of elementary school children's socially appropriate and problem behavior from anger reactions at age 4-6 years. *Journal of Applied Developmental Psychology, 20*(1), 119-142.
- Foster, W., Gaa, N., Nowicki, J., & Ross, V. (1997). Improving academic success by increasing student engagement in the learning task. Masters Action Research Project, St. Xavier University.
- Freyer, D., Frederick, W. C., and Klausmeier, H. J. (1969). *A schema for testing the level of cognitive mastery*. Madison, WI: Wisconsin Center for Education Research.

- Fuchs, D., Fuchs, L. S., Bahr, M. W., Fernstrom, P., & Stecker, P. M. (1990). Pre-referral intervention: A prescriptive approach. *Exceptional Children, 56*(6), 493-513.
- Gardner, H. (1983). *Multiple intelligences: The theory in practice*. New York: Basic Books.
- Geiger, b. & Fischer, M. (2006). Will words ever harm me? Escalation from verbal to physical abuse in sixth-grade classrooms. *Journal of Interpersonal Violence, 21*, 337-355.
- Grady, P. (2006). Increasing academic, behavioral, and psychological engagement among at risk junior high students. *Forum, Fall 2006*, 1-26.
- Green, R. L. (1998). Nurturing characteristics in schools related to discipline, attendance, and eighth grade proficiency test scores. *American Secondary Education, 26*(4), 7-14.
- Greenberg, B. S. (1976). The effects of language intensity modification on perceived verbal aggressiveness. *Communication Monographs, 13*, 130-139.
- Gresham, F. M. (1981). Assessment of children's social skills. *Journal of School Psychology, 19*(2), 120-133.
- Gresham, F. M. (2004). Current status and future directions of school-based behavioral interventions. *School Psychology Review, 33*(3), 326-343.
- Gunter, P. L., Denney, 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, 15*, 265-274.

- Hand, C. (2007). It's who you know, and what you know: The process of creating partnerships between schools and communities. *The School Community Journal*, 63-84.
- Hass, M. R., Passaro, P. D., & Smith, A. N. (1999). Reducing aversive interactions with troubled students. *Reclaiming Children and Youth*, 8(2), 94-97.
- Hausman, C., & Brown, P. (2002). Curricular and instructional development in magnet schools: Market driven or institutionally entrenched. *Journal of Curriculum and Supervision*, 17(3), 256-76.
- Hill, J. W., & Coufal, K. L. (2005). Emotional/behavioral disorders: A retrospective examination of social skills, linguistics, and student outcomes. *Communication Disorders Quarterly*, 27(1), 33-46.
- Holliday, D. C. (2002). *Using cooperative learning to improve the academic achievement of inner-city middle school students*. Technical paper presented at American Educational Research Association National Conference, New Orleans, LA.
- Hong, E., Greene, M. T., & Higgins, K. (2006). Instructional practices of teachers in general education classrooms and gifted resource rooms: Development and validation of the instructional practice questionnaire. *Gifted Child Quarterly*, 50(2), 91-103.
- Infante, D. A., & Wigley, III, C. J. (1986). Verbal aggression: An interpersonal model measure. *Communication Monographs*, 53, 61-69.

- Jackson, A. K. (2006). The effects of reduced duration in-school suspension on the classroom behavior of elementary school students. Doctoral dissertation, Florida State University, 2007. *University Dissertation Abstracts International*, 68(2).
- Jackson, K. & Remillard, J. T. (2007). Rethinking parent involvement: African-American mothers construct their roles in the mathematics education of their children. *The School Community Journal*, 51-73.
- Johanning, D. I. (2000). An analysis of writing and postwriting group collaboration in middle school pre-algebra. *School Science and Mathematics*, 100(3), 151- 160.
- Johnson, L. S. (2008). Relationship of instructional methods to student engagement in two public high schools. *American Secondary Education*, 36(2), 69-87, Spring 2008.
- Joireman, J., Strathman, A., & Anderson, J. (2003). The aggression paradox: Understanding links among aggression sensation seeking and the consideration of future consequences. *Journal of Personality and Social Psychology*, 84(6), 1287-1302.
- Kervin, L. (2009). 'GetReel': Engaging year 6 students in planning, scripting, actualizing, and evaluating media text. *Literacy* 43(1). April 2009.
- Kim, N. Y., & Sugai, G. (1995). The effects of self-evaluation, self-observation, and self-observation plus self-recording on the occurrence of disruptive behaviors in classroom: Extension study. *The Oregon Conference Monograph*, 7, 221-237.
- Kritsonis, W. A. & Cloud, M. (2006). National agenda: Alternative discipline consequences to enhance student achievement. Technical report for Prairie View A.M. Online submission. December 2006.

- Lentz, F. E. (1988). On-task behavior, academic performance, and classroom disruptions: Untangling the target selection problem in classroom interventions. *School Psychology Review, 17*(2), 243-257.
- Lewis, T. J., Colvin, G., & Sugai, G. (2000). The effects of pre-correction and active supervision on the recess behavior of elementary students. *Education and Treatment of Children, 23*(2), 109-121.
- Luiselli, J. K., Putnam, R. F., Handler, M. W., & Feinberg, A. B. (2005). Whole-school positive behavior support: Effects on student discipline problems and academic performance. *Educational Psychology, 25*(2), 183-189.
- Maddux, C. D., Johnson, D. L., & Willis, J. W. (1997). *Educational computing: Learning with tomorrow's technologies*. Boston: Allyn & Bacon.
- Mansfield, W., & Ferris, E. (1992). *Office for civil rights survey redesign: A feasibility survey. Contractor report* (Statistical analysis report NCES 92-130). Washington DC; National Center for Education Statistics.
- Marzano, R. J., Marzano, J. S., & Pickering, D. J. (2003). *Classroom management that works: Research-based strategies for every teacher*. Alexandria VA: Association for Supervision and Curriculum Development.
- Mastopieri, M. A., Scruggs, T., Mohler, L., Beranek, M., Spencer, V., Boon, R. T. et al. (2001). Can middle school students with serious reading difficulties help each other and learn anything? *Learning Disabilities Research & Practice, 16*(1), 18-27.

- McKinney, S. E., Campbell-Whately, G. D., & Kea, C. D. (2003). Managing student behavior in urban classrooms: The role of ABC assessments. *The Clearing House*, 79(1), 16-20.
- Mitchim, K. J. (2005). Be proactive: Including students with challenging behavior in your classroom. *Intervention in School and Clinic*, 40(3), 188-191.
- Mitra, D. L. (2007). The role of administrators in enabling youth-adult partnerships in schools. *NASSP Bulletin*, 91(3), 237-256.
- Morris, R. C. & Howard, A. C. (2003). Designing an effective in-school suspension program. *The Clearing House*, 76(3), 156-159.
- Morrison, G. M., Anthony, S., Storino, M., & Dillon, C. (2001). An examination of the disciplinary histories and the individual and educational characteristics of students who participate in an in-school suspension program. *Education and Treatment of Children*, 24(3), 276-293.
- Munoz, M. A., & Bacci, E. (2002). *Serving at-risk urban middle school students: The behavioral coaches program*. Jefferson County Public Schools, Louisville, KY.
- National Center for Education Statistics. (2008). Student perception of their school's social and learning environment. *The Condition of Education 2005*, 94, 72-73.
- National Education Goals Report. (1995). *Building a nation of learners*. United States Government Printing Office.

- Nelson, J. R., Martella, R., & Galand, B. (1998). The effects of teaching school expectations and establishing consistent consequences on formal office disciplinary actions. *Journal of Emotional and Behavioral Disorders, 6*, 153-161.
- Nelson, J. R. & Roberts, M. L. (2000). On-going reciprocal teacher-student interactions involving disruptive behaviors in general education classrooms. *Journal of Emotional & Behavioral Disorders, 8*, 27-45.
- Newman, R. S., & Murray, B. J. (2005). How students and teachers view the seriousness of peer harassment: When is it appropriate to seek help? *Journal of Educational Psychology, 97*(3), 347-365.
- Nordlund, M. (2003). *Differentiated instruction: Meeting the educational needs of all students in your classroom*. Lanham, MD: Scarecrow Press.
- Obenchain, K. M., & Taylor, S. S. (2005). Behavior management: Making it work in middle and secondary schools. *The Clearing House, 79*(1), 7-11.
- Olweus, D. (1993). *Bullying at school: What we know and what we can do*. Cambridge, MA: Blackwell Publishers.
- Omaha Public Schools. (1999). Safe, Secure and Disciplined Schools Initiative, Department of Student Community Services, Fall 1999.
- Oxman, W. G., & Barell, J. (1983). *Reflective thinking in schools: A survey of teacher perceptions*. Technical paper presented at the annual conference of the American Educational Research Association Montreal, Canada, April, 1983.
- Palinscar, A. & Brown, A. (1984). Reciprocal teaching of comprehension-fostering and comprehension monitoring activities. *Cognition and Instruction, 1*(2), 117-175.

Pepler, D. J., Craig, W. M., Connolly, J. A., Yuile, A. McMaster, L. & Jiang, D. (2006).

A developmental perspective on bullying. *Aggressive Behavior*, 32, 376-384.

Pringle, R. L., & Dickinson, V. L. (2000). *Classroom learning activities that generate the most participation in middle school*. Technical report U.S. Department of Education.

Rausch, M. K., & Skiba, R. (2004). Unplanned outcomes: Suspensions and expulsions in Indiana. *Education Policy Briefs, Indiana Youth Services*, 2(2), 1-8.

Rembolt, C., & Zimman, R. N. (1996). *Respect and protect: A practical step-by-step violence prevention and intervention program for schools and communities*. Minneapolis, MN: Johnson Institute-QVC.

Richardson, D. R., Hammock, G. S., Smith, S. M., Gardner, W., & Signo, M. (1994). Empathy as a cognitive inhibitor of interpersonal aggression. *Aggressive Behavior*, 20, 275-289.

Richards, M. R. E. & Omdal, S. N. (2007). Effects of tiered instruction on academic performance in a secondary science course. *Journal of Advanced Academics*, 18(3), 424-453.

Roby, D. E. (2004). Research on school attendance and student achievement: A study of Ohio schools. *Educational Research Quarterly*, 28(1), 3-14.

Rosenfeld, M., & Rosenfeld, S. (2004). Developing teacher sensitivity to individual learning differences. *Educational Psychology*, 24(4), 465-486.

Rosenshine, B., & Meister, C. (1994). Reciprocal teaching: A review of the research. *Review of Educational Research*, 64, 479-530.

- Rutter, M., Maughan, B., Mortimer, P., Ousten, J., & Smith, A. (1979). *Fifteen thousand hours: Secondary schools and their effect on children*. Cambridge, MA: Harvard University Press.
- Salvia, J. & Ysseldyke, J. E. (2004). *Assessment* (9th Ed.) Boston: Houghton Mifflin Company.
- Shanker, A. (1995). Classrooms held hostage: The disruption of the many by the few. *American Educator*, 19(1), 8-13 and 47-48.
- Sharp, P., & Ashby, D. (2002). *Improving student comprehension skills through instructional strategies*. Technical report for Master of Arts Action Research Project, Saint Xavier University and SkyLight Professional Development Field-Based Masters program 2002, 2-55.
- Sheets, R. H. (2002). "You're just a kid that's there"-Chicano perception of disciplinary events. *Journal of Latinos and Education*, 1(2), 105-122.
- Short, P. M. (1988). Planning and developing in-school suspension programs. *Monographs in Education*, C.T. Holmes, ed, 9. Athens, GA; College of Education.
- Skiba, R. J., Peterson, R. L., & Williams, T. (1997). Office referrals and suspension: Disciplinary intervention in middle school. *Education and Treatment of Children*, 20, 295-315.
- Smith, P., & Tompkins, G. (1988). Structured note-taking: A new strategy for content area teachers. *Journal of Reading*, 32, 46-53.

- Sprague, J. R., Sugai, G., Horner, R., & Walker, H. M. (1999). Using office discipline referral data to evaluate school-wide discipline and violence prevention interventions. *OSSC Bulletin, 95*, 3-17.
- Stage, S. A. (1997). A preliminary investigation of the relationship between in-school suspension and the disruptive classroom behavior of students with behavioral disorders. *Behavioral Disorders, 23*(1), 57-76.
- Sternberg, R. J., Torff, B., & Gregorenko, E. L. (1998). Teaching triarchically improves school achievement. *Journal of Educational Psychology, 90*(3), 374-384.
- Sugai, G., Horner, R. H., & Gresham, F. M. (2002). Behaviorally effective school environments. In M. Shinn, H. Walker, & G. Stoner (Eds.), *Interventions for academic and behavior problems II*, 315-350. Bethesda, MD: National Association of School Psychologists.
- Suh, S., & Suh, J. (2007). Risk factors and levels of risk for high school dropouts. *Professional School Counseling, 10*(3), 297-306.
- Sutherland, K. S., & Snyder, A. (2007). Effects of reciprocal peer tutoring and self graphing on reading fluency and classroom behavior of middle school students with emotional or behavioral disorders. *Journal of Emotional and Behavioral Disorders, 15*(2), 103-118.
- Tomlinson, C. (1995). Deciding to differentiate instruction in the middle school: One school's journey. *The Gifted Child Quarterly, 39*(2), 77-87.

- Tomlinson, C. (1997). Becoming architects of communities of learning: Addressing academic diversity in contemporary classrooms. *Exceptional Children: Journal of the International Council for Exceptional Children*, 63(2), 269-282.
- Tomlinson, C. (2001). *How to differentiate instruction in mixed-ability classrooms* (2<sup>nd</sup> ed.). Alexandria, VA: Association for Supervision and Curriculum Development.
- Tomlinson, C. (2003). Differentiating instruction in response to student readiness, interest, and learning profile in academically diverse classrooms: A review of literature. *Journal for the Education of the Gifted*, 27(2), 119-145.
- Velardi, N. (1999). *Differentiation: A method of meeting learner needs*. Omaha, NE: Personal Energy Transformation, Inc.
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes* (M. Cole, V. John-Steiner, S. Scribner, & E. Souberman, Eds. & Trans.). Cambridge, MA: Harvard University Press. (Original work published in 1934).
- Wagner, M. (1991). Dropouts with disabilities: What do we know? What can we do? A report from the National Longitudinal Transition Study of Special Education Students. *SRI International*, September 1991, 1-83.
- Walker, H. M. (2004). Commentary: Use of evidence-based interventions in schools: Where we've been, where we are, and where we need to go. *School Psychology Review*, 33, 398-407

- Walker, H. M., Horner, R. H., Sugai, G., Bullis, M., Sprague, J. R., & Bricker, D. et al. (1996). Integrated approaches to preventing antisocial behavior patterns among school age children and youth. *Journal of Emotional and Behavioral Disorders*, 4(4), 194-209.
- Whitker, S. (1996). *Correlation between attendance and school readiness of kindergarten students*. Research Report U.S. Department of Education.
- Wilkinson, L. A. (2003). Using behavioral consultation to reduce challenging behavior in the classroom. *Preventing School Failures*, 47(3), 100-105.
- Winstock, Z. (2003). The structure and content of verbal and physical aggression among Israeli youth. *Journal of Interpersonal Violence*, 18, 975-998.
- Wolford, P. L., & Heward, W. L. (2001). Teaching middle school students with learning disabilities to recruit peer assistance during cooperative learning group activities. *Learning Disabilities Research and Practice*, 16(3), 161-173.
- Xie, H., Farmer, T. W., & Cairns, B. D. (2003). Different forms of aggression among inner-city African-American children: Gender, configurations, and school social networks. *Journal of School Psychology*, 41, 355-373.
- Zaichkowsky, L. B., & Zaichkowsky, L. D. (1984). The effects of a school-based relaxation training program on fourth grade children. *Journal of Clinical Child Psychology*, 13(1), 81-85.
- Zigarelli, M. A. (1996). An empirical test of conclusions from effective schools research. *The Journal of Educational Research*, 90, 103-110.
- Zillman, D. (1988). Cognition-excitation interdependencies in aggressive behavior. *Aggressive Behavior*, 14, 51- 64.