

ENHANCING THE RELATIONSHIPS BETWEEN STUDENTS WITH EMOTIONAL AND  
BEHAVIORAL DISORDERS AND THEIR TEACHERS

By

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## ABSTRACT

Outcomes of students with emotional and behavioral disorders (EBD) have failed to meet the standards of educators and educational researchers. For several decades, such students have had worse academic and postsecondary outcomes than any other student population. This has led to emphasis on implementation of evidence-based practices to combat the negative outcomes associated with educational diagnoses of EBD (i.e., behavioral outbursts, suspension, and expulsion). Despite this increased attention, little improvement has occurred, leading to the question of whether practices implemented for students with EBD have been addressing the underlying causes of these students' negative outcomes. Student–teacher relationships could be an underlying cause of negative outcomes for students with EBD. Student–teacher relationships have a large impact on the academic and behavioral outcomes of students. When a positive student–teacher relationship is present, student motivation and engagement increase—this in turn leads to better academic performance and an increase in academic self-efficacy (Roorda et al., 2011; Sakiz et al., 2012). Teachers also offer more support to students with whom they perceive they have more positive relationships (Bergin, 2016; Upadya & Eccles, 2014). However, few researchers have studied the impact of positive student–teacher relationships on students with EBD. The point of this study was to determine whether a relationship-based intervention (dialogue journaling) improves student–teacher relationships between students with EBD and their teachers. An exploratory pre-/postintervention design was implemented across two classrooms (two teachers and 10 students). Improvements of student–teacher relationships were minimal. However, stronger positive student–teacher relationships developed when intervention fidelity was higher. The findings lay a foundation for future research on student–teacher relationships and students with EBD.

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## TABLE OF CONTENTS

ABSTRACT.....	iii
ACKNOWLEDGEMENTS.....	iv
TABLE OF CONTENTS.....	vi
LIST OF TABLES.....	xii
LIST OF FIGURES.....	xiii
CHAPTER 1 INTRODUCTION.....	1
Student–Teacher Relationships.....	2
Characteristics of Students With EBD That Lead to Relationship Problems.....	4
Dialogue Journaling.....	7
Characteristics.....	7
Alignment of DJ for Students With EBD.....	8
Statement of the Problem.....	9
Purpose of the Study.....	10
Research Questions.....	11
Significance of the Research.....	11
Delimitations.....	13
Definitions.....	14
DJ.....	14
Externalizing Behaviors.....	14
Individualized Education Plan.....	14
Positive Student–Teacher Relationships.....	15
Relationship Interventions.....	15

Student Trust.....	15
Students With EBD.....	15
Self-Contained Classroom .....	16
Teacher Praise.....	16
Contingent Praise .....	17
Positive Verbal Feedback .....	17
Organization of the Study .....	17
CHAPTER 2 REVIEW OF THE LITERATURE .....	18
Theoretical Framework Guiding Student–Teacher Relationships.....	18
Attachment Theory and Education .....	20
Student–Teacher Relationships.....	22
Positive Student–Teacher Relationships.....	23
Improvement in Academic Engagement/Academic Performance.....	24
Improvement in Behavioral Outcomes .....	27
Effects of Student–Teacher Relationships on Teachers.....	30
Negative Student–Teacher Relationships .....	31
Students at Risk for Negative Student–Teacher Relationships.....	32
Impact of Negative Student–Teacher Relationships.....	35
Student–Teacher Relationships in Middle School.....	36
Students With EBD in Middle School.....	39
DJ .....	42
Impact of DJ on Student–Teacher Relationships.....	43
Impact of DJ on Academic Outcomes .....	44



DJ in Preservice Teacher Training.....	46
Teacher Knowledge and Skills Related to Development of Relationships .....	47
Conclusion .....	50
CHAPTER 3 METHODS.....	52
Research Questions.....	53
Setting .....	54
Participants.....	54
Student Participants .....	55
Teacher Participants.....	55
Instrumentation .....	55
STRS-SF .....	56
STFS .....	58
Intervention Training Assessment .....	58
Journal Entries .....	58
Trust Language Rubrics.....	59
Materials .....	60
Electronic Devices .....	60
Google Docs.....	60
Qualtrics.....	60
Procedures.....	61
Recruitment of Participants.....	61
Collection of Preintervention Data .....	63
Teacher Training.....	63

Student Training.....	64
Implementation of the Intervention .....	66
Administration of Postintervention Scales/Assessments .....	67
Data Collection .....	68
Analysis of Data.....	68
Treatment of the Data .....	69
Research Question 1 .....	69
Research Question 2 .....	70
Research Question 3 .....	70
CHAPTER 4 RESULTS.....	71
Impact of DJ on Student–Teacher Relationships.....	72
Impact of DJ on Frequency of Use of Trust Language.....	76
Teacher Trust Language .....	76
Student Trust Language .....	79
The “TRAD” Mnemonic.....	81
Student “TRAD” Use.....	82
Teacher “TRAD” Use.....	84
Conclusion .....	85
CHAPTER 5 DISCUSSION.....	88
Impact of DJ on Relationship Perception for Teachers and Students.....	89
Change in Relationship Scale Score for Teachers .....	90
Change in Relationship Scale Score for Students.....	91
Relationship Scale Score Conclusion .....	92

Effects of DJ on Trust Language .....	94
Effects of DJ on Student Trust Language .....	94
Effects of DJ on Teacher Trust Language .....	95
Limitations .....	96
Participant Sample .....	96
Intervention Control.....	96
Teacher Fidelity to Intervention.....	97
Remote Implementation of DJ Training .....	98
Journaling Commitment.....	98
Comparison Classroom.....	99
Exit Interviews .....	99
Future Research .....	99
Conclusion .....	100
APPENDIX A TEACHER CONSENT FORMS .....	104
APPENDIX B ASSENT FORM.....	111
APPENDIX C PARENT PERMISSION FORM .....	114
APPENDIX D TEACHER TRAINING FIDELITY CHECKLIST FOR DJ.....	120
APPENDIX E STUDENT DJ FIDELITY CHECKLIST.....	122
APPENDIX F TEACHER PRAISE RUBRIC .....	123
APPENDIX G STUDENT TRUST LANGUAGE RUBRIC.....	125
APPENDIX H TEACHER DJ FIDELITY CHECKLIST .....	126
APPENDIX I STRS-SF .....	127
APPENDIX J STFS .....	129

REFERENCES .....	130
CURRICULUM VITAE.....	148

## LIST OF TABLES

Table 1 Demographics of the Participants.....	56
Table 2 Descriptive Statistics .....	73
Table 3 Whole Sample: Paired Samples Comparison of Means .....	74
Table 4 Classroom A: Paired Samples Comparison of Means.....	74
Table 5 Classroom B: Paired Samples Comparison of Means .....	75
Table 6 Journal Excerpts Illustrating Positive Verbal Feedback.....	78
Table 7 Journal Excerpts Illustrating Contingent Praise .....	80
Table 8 Sharing of Personal Information.....	81
Table 9 “TRAD” Mnemonic Frequency Data .....	82
Table 10 Journal Excerpts Illustrating Application of the “TRAD” Mnemonic .....	83

**LIST OF FIGURES**

Figure 1 Trust Language Frequencies ..... 77

# CHAPTER 1

## INTRODUCTION

A common theme in the field of special education is how to better address the academic and social–emotional needs of students with emotional and behavioral disorders (EBD; J. A. Anderson, 2018; Freeman et al., 2019; Lloyd et al., 2019). Several common practices (e.g., social skills instruction and behavior-based interventions) implemented in kindergarten–12th-grade (K–12) settings have failed to make a significant impact on the academic and postsecondary outcomes of students with EBD (Kauffman & Landrum, 2018). This has resulted in lower rates of academic achievement and higher rates of suspension and expulsion for students with EBD compared with all other student populations, including students with other categories of disability (Wynne et al., 2013).

The lack of effectiveness of existing interventions for this population of students could be attributed to a potential misalignment with their social and emotional needs (Kern, 2015; Popham et al., 2018; Uhle, 2011). Researchers have suggested that social skills training and behavior-based interventions may (a) be inappropriate for addressing the needs of students with EBD in schools (Gresham, 2014); (b) lack foundational requirements for effectiveness, such as consideration of context or environment; or (c) not take into consideration relationships with teachers and peers with respect to engagement in these interventions (Cook et al., 2008; Maag, 2005, 2006). Relationship researchers have found that when a positive student–teacher relationship is present, student motivation and engagement increase (Roorda et al., 2011; Sakiz et al., 2012). This in turn can lead to better academic performance and an increase in academic self-efficacy (Roorda et al., 2011; Sakiz et al., 2012). Researchers have also found that teachers offer more support to students with whom they perceive they have more positive relationships (Bergin,

2016; Upadya & Eccles, 2014). For those reasons, a positive student–teacher relationship would most likely enhance the effectiveness of a behavioral intervention implemented within the classroom.

Relationship researchers have reported positive results for improvement of the social and emotional needs of students with EBD, particularly researchers focusing on improvement of positive student–teacher relationships (D. H. Anderson et al., 2011; de Jong et al., 2018; Murray & Greenberg, 2001; Roorda & Koomen, 2021). The results of past studies indicate that the presence of a positive student–teacher relationships can improve academic achievement, reduce behavioral issues, and increase student engagement (Hastings & Bham, 2003; Murray & Greenberg, 2001; Pianta, 1999; Pianta & Stuhlman, 2004; Sutherland & Oswald, 2005). In addition, teachers have reported feeling more effective and less stressed when these types of relationships are present (Hastings & Bham, 2003; Taxer et al., 2019; Varge, 2017). Giving teachers the skills needed to create a positive student–teacher relationships with their students may enhance the outcomes of both students with EBD and their teachers.

### **Student–Teacher Relationships**

A large body of research indicates that the types of student–teacher relationships found within classrooms have a significant impact on both students and teachers. Researchers have shown when a positive student–teacher relationships are present, teachers report lower levels of stress, higher job satisfaction, and protection from teacher burnout (Spilt et al., 2011; Taxer et al., 2019; Yoon, 2002). This in turn leads to teachers feeling more effective about their abilities both in teaching and in connecting with their students (Hascher & Waber, 2021; Spilt et al., 2011; Toropova et al., 2021). A related point is that students’ academic outcomes improve and disruptive behaviors decrease when positive student–teacher relationships are present.



Pianta (1999) categorized student–teacher relationships into three types (i.e., closeness, conflictual, and dependent) and studied each one with respect to its impact on both teachers and students. Using these three categories to describe student–teacher relationships resulted in the creation of two umbrella descriptions of student–teacher relationships: positive and negative (Pianta, 1999).

A positive student–teacher relationship is present when high levels of closeness exist between a teacher and student. Pianta and Stuhlman (2004) defined closeness as “the extent to which a teacher feels that his or her relationship with a student being assessed is characterized by warmth, affection, and open communication” (p. 6). Researchers have linked this type of relationship to the following outcomes: increased student engagement, reduced behavioral problems, improved academic performance, increased student–teacher interactions, and protection against teacher burnout (Hastings & Bham, 2003; Murray & Greenberg, 2001; Pianta, 1999; Pianta & Stuhlman, 2004; Sutherland & Oswald, 2005). Researchers have also found that this type of student–teacher relationship serves as a protective factor for students at risk of negative academic and social outcomes (D. H. Anderson et al., 2011), because relationships can mitigate potential negative effects by supporting the development of reliance in students (Morrison et al., 2004).

Relationships between students and teachers can also be hostile. Pianta (1999) referred to this type of relationship as a “negative student–teacher relationship.” A negative student–teacher relationship is present when levels of conflict and dependency are high. A teacher typifying conflict (a) struggles to work and communicate with a student, (b) feels the student is angry and unpredictable, (c) feels they are ineffective, and (d) experiences emotional drain from interacting with the student (Pianta, 1999). Dependency manifests as students often reacting inappropriately

when separated from their teachers and asking for help when they do not need it (Pianta, 1999). High levels of conflict and dependency create unhealthy working environments for both students and teachers (Gagnon et al., 2018). Researchers have linked negative student–teacher relationships to a multitude of negative outcomes, including negative interactions between teachers and students, increases in behavioral outbursts, poorer social outcomes, reduced academic performance, and teacher burnout (Hastings & Bham, 2003; Murray & Greenberg, 2001; Pianta & Stuhlman, 2004; Sutherland & Oswald, 2005).

Reported outcomes of students who have negative student–teacher relationships are similar to the outcomes associated with students with EBD and their teachers (Kauffman & Landrum, 2018). For example, many teachers of students with EBD report feeling emotionally drained, ineffective, hostile, and adversarial when working with these students (Abidin & Robinson, 2002; J. L. Cochran et al., 2011). Although research on the types of relationships experienced by students with EBD and their teachers is in its infancy, connections across research indicate that students with EBD and their teachers may also suffer the undesirable effects of negative student–teacher relationships (McGrath & Van Bergen, 2015; Murray & Zvoch, 2011; Van Bergen et al., 2020).

### **Characteristics of Students With EBD That Lead to Relationship Problems**

Students with EBD exhibit a variety of behaviors that negatively affect their relationships with both peers and adults (Gresham et al., 1999; Kauffman, 2001; Kauffman & Landrum, 2018). These behaviors fall into the categories of internalizing and externalizing behaviors and may include aggression, self-injurious behaviors, withdrawal, immaturity, and learning difficulties (Kauffman, 2001). These negative behaviors may unfortunately result in placement of students with EBD in more restrictive environments, including self-contained classrooms in

public school settings or alternative educational settings (e.g., residential schools, juvenile centers, day treatment schools, and alternative schools; Freeman et al., 2019; Murray & Allen, 2010; Wynne et al., 2013). In fact, 82% of students with EBD have placements in these restrictive environments, the highest rate of such placement among any special education disability group (Mathur & Jolivette, 2012).

Students who exhibit externalizing behaviors receive disproportionate placement in these segregated settings in large part because they have difficulty with self-regulation and emotional control (Kauffman & Landrum, 2018; Mathur & Jolivette, 2012; Popham et al., 2018). When students with EBD become frustrated, they typically display their frustration with disruptive physical and verbal exchanges directed toward their peers and school staff. This behavior results in higher rates of suspension and expulsion (National Longitudinal Transition Study 2, 2003; Wagner et al., 2005), which in turn may negatively impact available instructional time and academic performance.

Outbursts associated with externalizing behaviors can create tension and hostility; this increases the likelihood of negative interactions between students with EBD and their teachers (Baker et al., 2008; Roorda & Koomen, 2021). Teachers exposed to outbursts are therefore more likely to take steps to avoid students with EBD because they believe further negative interactions are probable (Birch & Ladd, 1997; Doumen et al., 2008; Hafen et al., 2015; Stormont et al., 2016). Negative interactions and avoidance have regrettably been common among students with EBD and their teachers. Students have consequently missed out on instructional time, felt ignored, and fallen further behind academically (Gunter et al., 1993; Kauffman & Landrum, 2018; Stormont et al., 2016; Sutherland et al., 2016). This in turn has made it more likely for students to continue to engage in disruptive behavior within the school setting.

Students and teachers who have negative student teacher relationships are likely to engage in the same behavior patterns as students with EBD and their teachers—that is, negative interactions between students and teachers, which lead to worse academic performance and behavioral referrals. In particular, researchers have shown that when a teacher and student have a negative relationship, the teacher often takes steps to avoid or limit interactions with that student to lower the chances of conflict within the classroom (Hamre & Pianta, 2011). This in turn negatively impacts the student’s academic performance and increases their likelihood of engaging in externalizing behaviors. Externalizing behaviors increase the likelihood of school suspension, which can further impact instructional time (Kauffman & Landrum, 2018).

Students with internalizing behaviors also tend to have worse relationships with their teachers than students without behavioral issues. The main reason for this tendency is the nature of other behaviors associated with internalizing behaviors (e.g., withdrawal). Students who display internalizing behaviors tend to avoid situations they find uncomfortable and withdraw into themselves, making it difficult for school staff members and teachers to reach them, which in turn makes it difficult for student–teacher relationships to develop (Kauffman & Landrum, 2018).

Schools across the United States have been implementing a variety of interventions to address the challenges associated with externalizing and internalizing behaviors. The most common interventions for this population have been social skills training, behavior-based interventions (e.g., functional behavior assessments and token economy systems), and self-management interventions (e.g., self-monitoring, self-evaluation, etc.). The primary focus of all these interventions is a perceived lack of skill on the part of a student displaying such behaviors; these interventions do not tend to focus on contextual factors that may create positive

interactions between a student and their school environment (e.g., relationships; Gresham, 2014; Kauffman & Landrum, 2018). The impact of these behavior-based interventions on the outcomes of students with EBD has been mixed and, overall, has not led to significant improvement of the outcomes of students with EBD (Gresham, 2014; Kauffman & Landrum, 2018; National Longitudinal Transition Study 2, 2003; Scott & Alter, 2017). Those contributing to the academic literature on EBD have attributed some of these undesirable outcomes to poor teacher intervention program training and lack of fidelity to program interventions meant to improve student performance (Brownell et al., 2019; Dobbins et al., 2010; Oliver & Reschly, 2017; Scott & Alter, 2017). A related point is that researchers have not examined negative student–teacher relationships, which may also contribute to these students’ struggles in school (Murray & Greenberg, 2001; Pianta & Stuhlman, 2004).

## **Dialogue Journaling**

### **Characteristics**

The overall goal of relationship interventions is to reduce the level of conflict and dependency in a relationship and subsequently increase the level of closeness in the relationship; this can lead to the formation of a positive student–teacher relationship (Pianta, 1999). Dialogue journaling (DJ) is a relationship-based intervention that improves student–teacher relationships. DJ promotes positive outcomes among both general education students and students with disabilities (Driscoll & Pianta, 2010; Peyton & Station, 1993; Pianta & Hamre, 2001; Regan, 2003; Regan et al., 2005; Williford et al., 2017; Young & Crow, 1992). Implementation of the intervention is via prompts in a notebook. For example, the teacher writes an open-ended question, such as “What is your favorite sport and why?” The student then has time to respond to the prompt. At the end of the student’s response, the teacher responds to the same question,

describing their favorite sport. The student continues the dialogue by asking the teacher a question, such as “What made you want to become a teacher?” This back-and-forth approach allows an individualized and authentic conversation to develop between the two parties. DJ researchers have studied implementation of the intervention in a variety of student populations, including general education students, students with gifts and talents, emergent bilingual and English learner students, and students with learning disabilities (LD; Albertini, 1990; Bromley, 1996; MacArthur, 1998; Sullivan, 1998).

Other researchers (Regan, 2003; Regan et al., 2005) have shown that DJ can strengthen student–teacher relationships. D. H. Anderson et al. (2011) found that DJ improved positive student–teacher interactions, which form a cornerstone of a positive student–teacher relationship (Pianta, 1999). DJ has not received such extensive exploration as a relationship intervention for teachers and students with EBD. The researchers conducting one of the few studies testing the effects of DJ on students with EBD found that it increases writing fluency, and the participating students with EBD reported that it was a useful way to talk about issues and helped them increase their level of self-awareness (D. H. Anderson et al., 2011; Duong et al., 2019; Regan et al., 2005). However, no current research was found related to the impact of DJ on relationships between students with EBD and their teachers.

### **Alignment of DJ for Students With EBD**

DJ is an attractive intervention because of its bidirectional engagement nature (Peyton & Station, 1993; Regan, 2003; Regan et al., 2005; Young & Crow, 1992). Instead of only the student in a student–teacher pair sharing information about themselves, the teacher also must engage in the discourse. This process reveals commonalities and insights shared by the teacher and student, which over time can help to build a more positive relationship between them (Eski,

2013; Fulwiler, 1987; Konishi & Park, 2017). The process of writing also allows processing of emotions and ideas at a deep level (Beach & Beauchemin, 2020); this can benefit students with EBD. Given that one of the biggest challenges for students with EBD is difficulty processing and expressing their feelings (Kauffman & Landrum, 2018), activities such as DJ that promote personal insight are useful for these students. Journaling also provides the added benefit of giving students extra opportunities to practice their writing skills and informs teachers where students may need extra support.

### **Statement of the Problem**

There has been a discrepancy between the academic, behavioral, and postsecondary outcomes for students with EBD and those of both students without disabilities and students with other types of disabilities (Office of Special Education Programs, 2003, 2007; SRI International, 2006; Stillwell et al., 2011; Wagner et al., 2006). This trend in outcomes has unfortunately not improved over the years, despite increased attention to finding evidence-based ways to address these discrepancies. One potential reason for this continuing trend is that existing interventions for students with EBD either lack research exploring their effectiveness or were not designed with specific consideration for students with EBD (Gresham, 2014; Lane et al., 2009). Evidence-based interventions and techniques that support the outcomes of students with EBD have also apparently not received faithful implementation (Gresham, 2014; Horner et al., 2005; Ingram et al., 2005; Kern, 2015; Lane et al., 2009).

However, it is also possible that these commonly implemented interventions do not address the needs of students with EBD in ways that improve their academic and social-emotional success. Negative student-teacher relationships could be an underlying reason for the lack of improvement in academic and postsecondary outcomes among students with EBD

(McGrath & Van Bergen, 2015; Murray & Zvoch, 2011; Van Bergen et al., 2020). The findings of existing research indicate that a student and teacher in an unhealthy relationship (i.e., with high conflict) find it hard to work in an effective and collaborative manner to improve both academic and social–emotional success (i.e., the relationship is a negative student–teacher relationship). For example, as mentioned above, when a teacher finds a student difficult, the teacher is more likely to avoid contact with that student (Gunter et al., 1994; Kauffman & Landrum, 2018), and the student is more likely to both have behavioral outbursts and be less engaged. Under those conditions, it would seem difficult for any academic or behavioral intervention to be effective.

For that reason, this study involved exploration of the effects of DJ (a relationship–based intervention) on the relationships between students with EBD and their teachers. The findings of existing research suggest that these types of interventions with other student populations have had positive results, leading to improved perceptions of relationships and reductions in the frequency of externalizing behavioral problems (Hastings & Bham, 2003; Murray & Greenberg, 2001; Pianta & Stuhlman, 2004; Sutherland & Oswald, 2005). This study was important to conduct to determine whether relationship-based interventions may be a viable avenue for future research and interventions for students with EBD. This study involved investigation of whether DJ could produce the same positive outcomes for students with EBD found in other populations (i.e., students with LD, students in the general education population, and English language learners).

### **Purpose of the Study**

The purpose of this exploratory pre-/postintervention study was to implement DJ with middle school students with EBD to determine whether it improved students’ and teachers’



perspectives of their relationships. Specifically, the study involved investigation of whether students and teachers reported their relationships as positive or negative and whether there were increases within journal entries of two target behaviors associated with positive student–teacher relationships (i.e., teacher praise and student trust). Researchers have shown that DJ improves student–teacher relationships (Driscoll et al., 2011; McIntosh et al., 2000) through the creation of open dialogue between teachers and students (D. H. Anderson et al., 2011; Regan et al., 2005; Rodliyah, 2016). The next section lists the research questions that guided the study.

### **Research Questions**

Three research questions guided the study:

1. Does the implementation of DJ result in an improved score on the Student Teacher Relationship Scale–Short Form (STRS-SF) and Student Trust in Faculty Scale (STFS) after intervention?
2. How does the implementation of DJ affect the amount of teacher praise language (i.e., contingent teacher praise and positive verbal feedback) found in participating teachers’ DJ entries over the course of the study?
3. How does the implementation of DJ affect the amount of trust language (e.g., asking for advice or guidance and sharing worries and frustrations with a teacher) found in students’ DJ entries over the course of the study?

### **Significance of the Research**

Students with EBD have historically done poorly both academically and socially (Kauffman & Landrum, 2018; Office of Special Education Programs, 2003, 2007). This, in turn, has contributed to their high rates of academic failure, incarceration, and poor employment outcomes (SRI International, 2006; Stillwell et al., 2011; Wagner et al., 2006). However, this

study helped address one of the proposed root causes of poor academic and postsecondary outcomes among this population: lack of positive relationships between students with EBD and their teachers (D. H. Anderson et al., 2011; McGrath & Van Bergen, 2015; Sutherland & Oswald, 2005). When a negative student–teacher relationship is present, negative outcomes tend to follow (e.g., negative interactions between teacher and student, increased behavioral problems, poorer social outcomes, and reduced academic performance; Pianta, 1999). Those negative outcomes unfortunately have been commonly associated with students with EBD. Existing interventions for students with EBD have failed to address these issues globally. The hope motivating this study was that the intervention implemented in the study (i.e., DJ) could address these negative outcomes by creating positive student–teacher relationships among students with EBD and their teachers. The hope was that DJ would increase teacher–student interactions so that positive relationships could develop.

EBD intervention researchers have heavily focused on social skills and behavior-based interventions for mitigation of the negative outcomes associated with this population. However, researchers have not shown these interventions to ultimately be effective (Gresham, 2014; Horner et al., 2005; Ingram et al., 2005; Kern, 2015; Lane et al., 2009). Findings of existing research indicate that a variety of reasons may lie behind this limited effectiveness, including a mismatch between the interventions and student needs (e.g., a focus on skill deficiencies that may not exist, an assumption that students lack motivation to implement skills, and a failure to address the underlying causes of behavioral problems). One additional reason for a lack of intervention success could be the presence of negative relationships between students and teachers in the classroom environment (Murray & Greenberg, 2001; Pianta & Stuhlman, 2004; Sutherland & Oswald, 2005), although relationships have been not received adequate study in

the field of EBD. Therefore, the goal of this study was to explore the impact of a relationship intervention (i.e., DJ) on students' and teachers' perceptions of their relationships and implementation of teacher praise and trust language within an EBD classroom (Regan et al., 2005).

Providing teachers with resources (i.e., relationship interventions) with which to repair damaged relationships with students has profound effects on those teachers and their students. Finding ways to ensure that students with EBD feel safe and secure in their classroom environments allows researchers to further explore variables that may address other academic outcomes and the potential correlation between relationships and other outcome measures.

### **Delimitations**

Conducting the study remotely posed some challenges regarding implementation. However, because of the global pandemic, remote implementation was the only option available to the study within the school district under investigation. The biggest challenge of doing the study remotely was training teachers over Zoom about DJ and the procedures for the study. However, the institutional review board would at the time approve only this type of training. This form of training was deemed suitable for the study and allowed implementation of the study.

I knew before I implemented the study that conducting the study within a self-contained classroom would limit the generalizability of the results. However, I decided that DJ could have a large impact on students with EBD, and most students with EBD were educated in a self-contained setting heavily emphasizing emotional training. DJ could add to the development of emotional training for students with EBD. This was important to me, given the limited effectiveness of existing interventions implemented for this population.

I knew before I implemented the study that recruitment for the study would be difficult. Students with EBD have been one of the hardest disability groups to recruit in large numbers. This has typically been because of their negative relationships with school and elevated rates of absence. Being in a global pandemic made it even more difficult to recruit participants. However, I thought that the study could still yield some important data on student–teacher relationships for students with EBD and their teachers, regardless of the size of the sample.

### **Definitions**

#### **DJ**

DJ is an interactive method of journaling in which two people engage in a back-and-forth conversation by asking and answering open-ended questions of one another (Regan, 2003; Regan et al., 2005).

#### **Externalizing Behaviors**

Externalizing behaviors are behaviors that are displayed externally to others or to the environment (Kauffman & Landrum, 2018). These types of behaviors in students cause students to have trouble in their daily lives. Typical behaviors associated with these mental disorders are fighting, stealing, swearing, running away from home, impulsive behaviors, and refusal to follow rules (Kauffman & Landrum, 2018).

#### **Individualized Education Plan**

An individualized education plan is a document required by the federal government that describes provision of specific services to students who need special education. These services can include academic, physical, and behavioral supports within the public school setting (U.S. Department of Education, 2020). The creation of a student’s individualized education plan is the job of a multidisciplinary team familiar with the student (U.S. Department of Education, 2020).

## **Positive Student–Teacher Relationships**

Positive student–teacher relationships include open communication, an elevated number of interactions, encouraging statements, and students conveying worries or frustrations to teachers (Pianta, 1999; Pianta & Shinn, 2004).

## **Relationship Interventions**

Relationship interventions are designed to repair relationships deemed unhealthy or damaged by the parties to the relationships (Pianta, 1999; Pianta & Shinn, 2004). This study relied on Pianta’s (1999) operational definition. Pianta’s relationship interventions rest on the philosophy that individuals must limit conflict and dependency in a relationship to improve and increase closeness. Two individuals following this blueprint can thus form a healthy relationship between them ( Pianta, 1999; Pianta & Shinn, 2004)

## **Student Trust**

Student trust is a student’s willingness to ask for advice or guidance of, and share worries and frustrations with, a teacher (Holy & Tschannen-Moran, 1999; Mishra, 1996; Mitchel et al., 2016). When a student feels that they can trust a teacher or an adult, they are more likely to seek advice from, and share worries with, that teacher or adult. When trust is present in a student’s relationship, the student has more confidence and is willing to take risks, such as asking for help, venting frustrations, or asking for the other party’s point of view (Holy & Tschannen-Moran, 1999; Mishra, 1996; Mitchel et al., 2016). Trust is one of the core components of healthy interpersonal relationships (Lewicki & Bunker, 1996; Mitchel et al., 2016).

## **Students With EBD**

The Individuals With Disabilities Education Act (2004) defined EBD in the following way:

A condition exhibiting one or more of the following characteristics over a long period of time and to a marked degree that adversely affects a child’s educational performance:

- (A) An inability to learn that cannot be explained by intellectual, sensory, or health factors.
- (B) An inability to build or maintain satisfactory interpersonal relationships with peers and teachers.
- (C) Inappropriate types of behaviors or feelings under normal circumstances.
- (D) A general pervasive mood of unhappiness or depression.
- (E) A tendency to develop psychological symptoms or fears associated with personal or school problems. (§ 300.8 (c) (4))

As defined by act, “emotional disturbance includes schizophrenia” but “does not apply to children who are socially maladjusted, unless it is determined that they have an emotional disturbance under paragraph (c)(4)(i) of this section” (Individuals With Disabilities Education Act, 2004, § 300.8 (c) (4)).

### **Self-Contained Classroom**

A self-contained classroom is a special education classroom with teachers responsible for teaching students with a specific disability all their academic subject areas. Self-contained classrooms occur in K–12 education settings.

### **Teacher Praise**

Teacher praise has two definitions: (a) contingent teacher praise and (b) positive verbal feedback. Both types of teacher praise improve behavior and academic performance and are signs of a positive student–teacher relationships (Brophy, 1981; Sutherland et al., 2016). In this

study, the frequencies of contingent praise and positive verbal feedback in DJ entries were measured to determine whether they increased throughout the study.

### ***Contingent Praise***

Contingent praise occurs when a teacher provides praise to a student when the student has done something the teacher hoped they would do (Simonsen et al., 2008). For example, a teacher might say, “You did a great job coming up with a question to ask me and you gave a really in-depth response to my question.” In this example, the teacher praises the student for engaging in a behavior (i.e., asking a question) required of them during journaling.

### ***Positive Verbal Feedback***

Positive verbal feedback occurs when a teacher gives a student praise for doing something in a positive manner. For example, a teacher might say, “Thank you for being such a good writing partner.”

## **Organization of the Study**

This dissertation consists of five chapters. The purpose of Chapter 1 was to provide an overview of the problem and background of the study. Chapter 2 examines relevant literature related to attachment theory, relationships, outcomes of students with EBD, common interventions for students with EBD, student–teacher relationships, and DJ. Chapter 3 presents the methods and data analysis used in the study to answer the three research questions. Chapter 4 presents the analyses of the data collected for this study and describes the acceptance or rejection of hypotheses. Chapter 5 discusses the implications of the findings, the limitations faced by the study, and directions for future research.

## CHAPTER 2

### REVIEW OF THE LITERATURE

As discussed in Chapter 1, students with EBD have faced poor academic and postsecondary outcomes despite increased emphasis on implementing evidence-based practices to improve those outcomes (i.e., social skills interventions, functional behavior assessments, and positive behavioral supports).

One possible explanation for these outcomes lies in student–teacher relationships (Murray & Zvoch, 2011; Pianta, 1999, 2001). Relationship researchers have found that the type of relationship a student has with their teacher greatly impacts the social and academic outcomes of the student (Farmer et al., 2011). For example, positive student–teacher relationships lead to positive outcomes; whereas negative student–teacher relationships increase the chances of behavioral issues and reduced academic performance (Pianta, 1999, 2001). Students with EBD sadly tend to have more negative student–teacher relationships than positive student–teacher relationships. The purpose of this study was to build on existing relationship research to determine whether a relationship intervention (i.e., DJ) could form a model for the creation of positive student–teacher relationships between students with EBD and their teachers. The underlying hypothesis of the study is that negative student–teacher relationships are key contributors to students with EBD having worse school outcomes than their peers despite increased focus on implementing evidence-based practices to improve those outcomes.

#### **Theoretical Framework Guiding Student–Teacher Relationships**

Existing student–teacher relationship research is grounded in attachment theory (McGrath & Van Bergen, 2015). Attachment theory highlights the importance of adult relationships in the healthy development of children (Ainsworth et al., 1978). Bowlby and



Robertson (1952) developed attachment theory when observing the adverse effects children experienced when separated from their mothers. Bowlby (1969) defined attachment as the “lasting psychological connectedness between human beings” (p. 194). Bowlby (1969) went on to state that attachment can be explained through an evolutionary lens because parents provided both safety and security to their children. Attachment theory highlights the importance of primary caregiver–child relationships. Infant attachment relationships provide the foundation of affect regulation and personality development (Bowlby, 1984). Bowlby (1973) found that the healthy development of attachment behavior can lead to healthy attachment throughout life, because these bonds begin with a child’s caregiver and remain throughout the life cycle.

The type of attachment that a child forms with their parents or caregivers in early childhood influences the internal models of relationships used throughout the child’s life. These models, in turn, impact how the child (e.g., as a student) interprets and interacts with other parental figures (e.g., teachers; Buyse et al., 2011; Rydell et al., 2005; Sabol & Pianta, 2012; Zajac & Kobak, 2006). For example, O’Connor et al. (2012) conducted a correlational research study of the relationship between maternal attachment types and the quality of student–teacher relationships. In their sample of 1,140 students and mothers, they found insecure/other attachment types were linked to both behavioral problems and maladjustment in late childhood. They also found that students who were securely attached to their mothers had lower levels of behavioral problems and increased levels of closeness in their student–teacher relationships. Verschuere et al. (2012) reported results complementary to those of O’Connor et al. Using a correlational design, they examined the relationship between attachment type and student self-concept. The study’s participants were 113 students (54 boys and 59 girls) and 32 teachers. The researchers explored how mother attachment type influenced student–teacher relationships, self-

concept, and peer acceptance. O'Connor et al. (2012) found a positive correlation between secure attachment and positive student–teacher relationships. They also found higher levels of secure attachment were linked to more positive self-concept and higher rates of peer acceptance. Collins et al. (2017) explored the relationships connecting socioeconomic status, gender (male in their study), and grade level with student–teacher relationships and behavioral outcomes. The sample for the study consisted of 262 low-income male students and their mothers. Collins et al. found that variations in externalizing behaviors were associated with early attachment (i.e., type of attachment, mother's education level, and maternal depression). More positive early attachment was linked to more positive student–teacher relationships, which reduced behavioral problems.

The findings in the attachment literature led to the creation of student–teacher relationship research. In particular, the four attachment types (i.e., avoidant, resistant, secure, and near secure) within attachment theory yielded the two teacher relationship constructs (i.e., positive and negative student–teacher relationships) used within literature focused on student–teacher relationships (Pianta, 1999). For example, avoidant attachment and resistant attachment mirror student–teacher relationships that are high in conflict or dependency, whereas secure and near-secure attachment mirror positive student–teacher relationships (Pianta, 1999, 2001).

### **Attachment Theory and Education**

Attachment type has a large impact on school life and academic performance. Researchers investigating attachment theory and education have found that attachment type influences student–teacher relationships, behavioral outcomes, student self-concept, school adjustment, and emotional regulation (Arbeau et al., 2010; Collins et al., 2017; García-Rodríguez et al., 2023; Lifshin et al., 2020; O'Connor et al., 2012; Verschueren et al., 2012). Students with a history of insecure attachments have worse relationships with their teachers and classmates

compared to their fellow peers (Collins et al., 2017; García-Rodríguez et al., 2023; O'Connor et al., 2012; Verschueren et al., 2012). In particular, students with insecure attachment are less likely to have meaningful relationships with others and more likely to display aggressive behaviors (García-Rodríguez et al., 2023; O'Connor et al., 2012). García-Rodríguez et al. (2023) conducted a systematic literature review of 24 studies examining student–teacher relationships and their link to attachment and other developmental theories. In their review, they found that child attachment has an impact on how children form relationships in school. In particular, students with insecure attachment, compared with students with secure attachment, had lower levels of self-concept and were more likely to engage in externalizing behaviors. This is significant because externalizing behaviors constitute one of the leading causes of academic failure (Kauffman & Landrum, 2018). Lifshin et al. (2020) conducted a correlational study of the relationship connecting teacher attachment type/orientation and student attachment type with quality of student–teacher relationships. The study included 539 first-grade students (289 girls and 250 boys) and 58 teachers. The researchers examined the interactions of teacher attachment type/orientation (i.e., experiences in close relationship scale) and student attachment (i.e., security scale) with teacher responsiveness, school coherence, and avoidance and loneliness. Results of the study indicated that, compared with other students, students with avoidant attachment reported lower levels of responsive caregiving and had a harder time with school adjustment. Teacher attachment-related avoidance also negatively impacted school adjustment (i.e., academic demands and school social life) for first-grade students. Mikulincer and Shaver (2019) conducted a review of past research exploring the relationship between attachment insecurities and emotional regulation. In their review, they examined 49 studies and found some interesting commonalities across past research. One commonality was the way different

attachment types influenced the stress response of students. People with insecure attachment (i.e., avoidant/anxious attachment) were more likely than other people to respond to stress by using cognitive distancing and emotional disengagement. Students with secure attachment were, conversely, more likely than other students to engage in high-level problem solving.

Overall, findings in existing academic literature indicate that the attachment type a student enters school with impacts their academic and social–emotional adjustment to school (Arbeau et al., 2010; Lifshin et al., 2020; Verschueren et al., 2012). For example, students with insecure attachment, relative to students with secure attachment, are less likely to have meaningful relationships with others and more likely to engage in aggressive behaviors and perform worse academically (Arbeau et al., 2010; Lifshin et al., 2020).

### **Student–Teacher Relationships**

In alignment with attachment theory, researchers in the field of student–teacher relationships have identified three types of relationships—characterized by conflict, dependency, and closeness—that students have with their teachers based on the four types of attachment (Pianta, 2001). In a student–teacher relationship with conflict, the teacher struggles with the student, perceives the student as angry or unpredictable, and feels emotionally drained and ineffective in their practice (Pianta, 1999). In a student–teacher relationship defined by dependency, the student exhibits clingy behavior and an overreliance on the teacher for support and validation (Pianta, 2001). In a student–teacher relationship defined by closeness, warm and open communication occurs between the teacher and student, and the teacher gives the student substantial help and support (Pianta, 1999, 2001). Student–teacher relationships high in closeness are by definition positive student–teacher relationships, and student–teacher relationships high in either conflict or dependency (or both) are by definition negative student–teacher relationships

(Pianta, 1999, 2001). Both types of relationships have major impacts on students' and teachers' outcomes (Farmer et al., 2011; Murray & Zvoch, 2011).

Research regarding student–teacher relationships has gained a lot of attention. An important reason for this attention is the impact these relationships can have on the success of both students and teachers (Pianta, 1999; Pianta & Stuhlman, 2004). For example, positive student–teacher relationships are linked to academic success, reduction of behavioral problems, improved social outcomes, increased social engagement, and protection against teacher burnout (Driscoll & Pianta, 2010; Driscoll et al., 2011; Hastings & Bham, 2003; Murray & Greenberg, 2001; Newberry, 2010; Pianta, 1999; Pianta & Stuhlman, 2004; Sutherland & Oswald, 2005). Negative student–teacher relationships are linked to a multitude of negative outcomes, such as increases in behavioral outbursts, poorer social outcomes, reduced academic performance, and teacher burnout (Hastings & Bham, 2003; Murray & Greenberg, 2001; Pianta & Stuhlman, 2004; Sutherland & Oswald, 2005). Because of the impact of these types of relationships, researchers have been studying methods for improving and maintaining healthy relationships between teachers and students.

### **Positive Student–Teacher Relationships**

Defining characteristics of positive student–teacher relationships are open communication, numerous interactions, frequent use of encouraging statements, and students reporting they feel comfortable conveying worry or frustrations to their teachers (Pianta, 1999; Pianta & Shinn, 2004). A positive student–teacher relationship is present when closeness between teacher and student is high. Positive student–teacher relationships are linked to several positive outcomes, including increased student engagement, reduction of behavioral problems, improved academic performance, increased student–teacher interactions, and protection against

teacher burnout (Hastings & Bham, 2003; Murray & Greenberg, 2001; Pianta, 1999; Pianta & Stuhlman, 2004; Sutherland & Oswald, 2005). Researchers have also found that positive student–teacher relationships serve as a protective factor for students who are at risk of negative academic and social outcomes (i.e., students of low socioeconomic status, students who display externalizing behavioral problems, students from minoritized backgrounds, and students with disabilities; D. H. Anderson et al., 2011), because relationships can help to mitigate potential negative effects by supporting the development of reliance in students (Morrison et al., 2004).

### **Improvement in Academic Engagement/Academic Performance**

Overall improvement in academic performance across age groups and student populations is one of the most beneficial outcomes of positive student–teacher relationships (Roorda et al., 2011). Findings of research conducted from the 1990s to the 2020s have consistently indicated that positive student–teacher relationships enhance academic performance (Prewett et al., 2019). For example, Roorda et al. (2011) conducted a meta-analysis exploring the connections among student–teacher relationships, school engagement, and academic achievement. In their review, they examined 92 articles relating to 129,423 students and 2,825 teachers. The meta-analysis revealed that positivity of student–teacher relationships was positively correlated with levels of engagement and academic achievement ( $r = .39, p < .01$ ). Student–teacher relationships were also more impactful for older students than younger students. And positive student–teacher relationships helped students with school adjustment. Pianta and Stuhlman (2004) found in their correlational study that students with more positive student–teacher relationships tended to exhibit better academic achievement than students with less positive student–teacher relationships. Social competencies were also higher among students that had more positive student–teacher relationships.

The findings of other research indicate a correlation between positivity of student–teacher relationships and reported motivation and engagement in academic tasks (Gregory & Ripski, 2008; Newberry, 2010; Roorda et al., 2011). Martin and Collie (2019) explored the effects of student–teacher relationships and school engagement across five subject areas. They specifically examined how negative interactions, positive interactions, and subject areas (i.e., English, mathematics, science, history, and geography) influenced school engagement (i.e., academic participation, enjoyment, and aspiration). With a sample of 2,079 high school students, the main conclusion of the study was that students with higher rates of positive interactions were more likely to have positive student–teacher relationships than were students who had higher rates of negative interactions. For example, the more a student thought they had a good relationship with their teacher, the more effort they put toward school. Longobardi et al. (2021) found similar results in their multiple regression analysis regarding the connection of student–teacher relationships with prosocial behaviors, student attitudes toward school, and academic competencies. Among their sample of 459 primary students (4–9 years of age) and 47 teachers they found the following:

1. Positive student–teacher relationships were positively associated with prosocial behaviors, improved academic competencies, and better attitudes toward school.
2. A student’s attitude toward school has a large impact on their prosocial behaviors and student–teacher relationships.

Overall, this study indicated that positive student–teacher relationships improved not only academic performance among students but also overall school enjoyment for students (through an increase in prosocial behaviors).

Prewett et al. (2019) conducted research that provided further support to the notion of positive student–teacher relationships improving academic engagement and performance. They examined the relationship between type of student–teacher relationship and mathematics performance among fifth- and sixth-grade students. The researchers used a five-step hierarchical multiple linear regression model, and some interesting findings emerged. One finding was that students who reported closer relationships with their teachers performed better in mathematics than students who had negative relationships with their teachers. They also found that the type of teacher engagement employed had a significant impact on students’ perceptions of their relationships: Teachers who engaged in more prosocial behaviors (i.e., shared supplies, gave encouragement, and kept a light-hearted mood in the classroom) had more positive ratings of student–teacher relationships from their students. This was an important finding because this study is one of the few to have specifically targeted teacher-specific behavior that impacts student–teacher relationships.

Overall, findings of existing research indicate that positive student–teacher relationships have a positive impact on academic performance. However, there is a paucity of literature on the effects of these types of relationships on students with disabilities and their teachers. The extensive review of existing literature revealed only a handful of studies specifically exploring the impact student–teacher relationships have on students with disabilities. Most researchers have instead studied general education students and students identified as at risk of being referred to special education for EBD but not officially in special education (i.e., students with high levels of externalizing behavior). Murray and Greenberg (2001) were among the few who explored the impact of student–teacher relationships on students with disabilities. They studied (a) how student–teacher relationships differ between students with disabilities and those without



and (b) how student–teacher relationships affect school bonds for students with and without disabilities. Their study sample consisted of 289 elementary-aged students in general education and special education. Overall, they found that students in special education reported more dysfunction with their teachers than did students without disabilities. They also found that students with EBD had the highest scores for the Dissatisfaction With Teachers factor out of all disability groups (i.e., LD, other health impairment, and mild intellectual disability) and students without disabilities. The findings of this study are both interesting and alarming. It is interesting that a large discrepancy in positive student–teacher relationships exists between students with and disabilities and those without. This highlights the importance of this line of research for students in special education and students with EBD.

### **Improvement in Behavioral Outcomes**

Outside of academic improvement, researchers have consistently found behavioral improvements among students who report positive student–teacher relationships. In particular, researchers have found reductions in externalizing behaviors among students of all age groups and educational placements (D. H. Anderson et al., 2011; Murray & Zvoch, 2011; Silver et al., 2005). For example, Murray and Zvoch (2011) conducted a correlational study of the relationship between high-risk early adolescents with and without behavioral problems and their teachers. They specifically examined the connections among student–teacher relationships, school adjustment, and behavioral problems among African American students from low-income backgrounds. The study involved 193 students from Grades 5–8 and 19 teachers. One of the main conclusions of the study was that students with externalizing behavioral issues were at the highest risk of having poor student–teacher relationships. On average, the teachers of students with externalizing behavioral issues reported higher levels of conflict in their relationships.

However, it is important to note that none of these students were in special education or had EBD diagnoses. The importance of this study derives from the way it highlights the link between externalizing behaviors and student–teacher relationships.

Silver et al. (2005) found results complementary to those of Murray and Zvoch (2011). Silver et al. explored the effects of early-childhood and family risk factors on the quality of student–teacher relationships and how these factors influence externalizing behaviors from kindergarten through third grade. In their longitudinal single-case study of 283 students (142 girls and 141 boys), they found that conflict in student–teacher relationships starting in kindergarten increased the chances of development and persistence through third grade of externalizing behaviors. However, they found that the presence of a positive student–teacher relationship significantly reduced development of externalizing behaviors in the classroom. Decker et al. (2007) found similar results in their exploratory study focused on the association between student–teacher relationships and outcomes (e.g., social, behavioral, engagement, and academic outcomes) for African American students with behavioral problems. Their study included a sample of 44 students from kindergarten through sixth grade and 25 teachers (two men and 23 women). The researchers found that when a positive student–teacher relationship was present, the frequency of behavioral problems started to decline. de Jong et al. (2018) conducted a cross-lagged longitudinal modeling study to examine the relationship between student–teacher relationships and behavioral adjustment among students belonging to ethnic minority groups in middle school. The sample consisted of 226 students in sixth grade with a variety of ethnic backgrounds. Results of the study indicated that externalizing behaviors at the beginning of the school year were associated with more negative student–teacher relationships at the end of the school year. Students with externalizing behaviors did not always view their

relationships with their teachers as negative. However, their teachers typically rated the relationships as negative. This in turn increased the likelihood of negative student–teacher interactions. Quin’s (2017) systematic review revealed findings similar to those of previous research. Quin specifically explored the connection between student–teacher relationships and engagement among secondary students. The review included 46 studies published between 1990 and 2014. Each had a sample of more than 55 school-aged youth in Grades 7–12, relied on quantitative data, had undergone peer review, and involved testing of an association between student–teacher relationships and engagement. One of the main conclusions of the systematic review was that positive student–teacher relationships were linked to lower incidences of disruptive behaviors, suspension, and school dropout. Longobardi et al. (2021) found similar results in their multiple regression analysis of 459 students (aged 4–9 years) and 47 teachers (45 women and two men). The researchers explored the links connecting student–teacher relationships with prosocial behaviors, student attitudes toward school, and academic competencies. The results of the study indicated that positive student–teacher relationships were positively associated with prosocial behaviors, academic competencies, and positive attitudes toward school.

The findings in these studies are significant because externalizing behaviors constitute one of the leading causes of academic failure and teacher stress or burnout (Kauffman & Landrum, 2018). Researchers have found that students with externalizing behaviors who receive no intervention have the highest likelihood of developing and maintaining negative student–teacher relationships (de Jong et al., 2018; Quin, 2017; Roorda & Koomen, 2021; Spilt et al., 2012). However, little research has occurred regarding the impacts of positive student–teacher relationships on internalizing behaviors. An important reason for this lack of research could be

the difficulty of detecting and measuring internalizing behaviors. Such behaviors are also much less disruptive in the classroom setting than externalizing behaviors are (Kauffman & Landrum, 2018).

### **Effects of Student–Teacher Relationships on Teachers**

The impact of student–teacher relationships on teachers is profound. The most frequently reported reason teachers give for leaving the teaching profession is negative student behavior (Geving, 2007; Spilt et al., 2011). When teachers feel they have no control of their classrooms and are constantly in conflict with their students, they are at a higher risk of burnout, which can lead to attrition (Hastings & Bham, 2003; McCaughtry et al., 2015). For example, Geving (2007) conducted a correlational study of student behavior associated with teacher stress. A total of 186 teachers and 77 supervising teachers completed the Stressful Student Behavior Questionnaire, a teacher behavior questionnaire, and a teacher stress questionnaire. The results of the study revealed strong correlations connecting lack of effort among students and externalizing behaviors with high levels of teacher stress. However, when teachers report that they have strong or good relationships with their students, they report lower levels of stress and higher levels of job satisfaction, which protects against teacher burnout (Decker et al., 2007); Duong et al., 2019; Huang, 2019). Researchers have also found that teachers find enjoyment and motivation through their relationships with their students. For example, Hargreaves (2000) conducted a qualitative study by interviewing 60 teachers. Throughout those interviews a consistent theme emerged of teachers in both primary and secondary placements stating that student relationships were the most important source of motivation and job satisfaction. Researchers have found that prosocial skills among teachers seem to improve when student–teacher relationships are positive. For example, Prewett et al. (2019) examined the connection between student–teacher relationships

and mathematics performance in a five-step hierarchical multiple linear regression model. One of their major findings was that when positive student–teacher relationships were present, teachers were more likely to engage in prosocial behaviors (i.e., sharing supplies, giving encouragement, and keeping a light-hearted mood in the classroom). As a byproduct, students reported teachers in a better light when they engaged in more prosocial behaviors.

Overall, findings of existing research indicate that when positive student–teacher relationships are present, teachers report lower levels of stress and higher levels of job satisfaction (Decker et al., 2007; Huang, 2019). As a result, teachers’ prosocial behaviors (i.e., sharing supplies, giving encouragement, and keeping a light-hearted mood in the classroom) tend to increase, which improves student motivation and academic engagement (Prewett et al., 2019).

### **Negative Student–Teacher Relationships**

Negative student–teacher relationships are student–teacher relationships that have high levels of conflict and dependency (Pianta, 1999; Pianta & Stuhlman, 2004). Teachers typify conflict by (a) struggling to work and communicate with students, (b) feeling students are angry and unpredictable, (c) feeling they (the teachers) are ineffective, and (d) experiencing emotional drain from interacting with students (Pianta, 1999). Dependency corresponds to students reacting inappropriately when separated from their teachers and asking for help when they do not need it (Pianta, 1999). Negative student–teacher relationships are linked to a multitude of negative outcomes, such as increases in behavioral outbursts, poorer social outcomes, lower academic performance, and teacher burnout (Hastings & Bham, 2003; Murray & Greenberg, 2001; Pianta & Stuhlman, 2004; Sutherland & Oswald, 2005). High levels of conflict and dependency also create unhealthy working environments for both students and teachers (Gagnon et al., 2018). Negative student–teacher relationships have unfortunately not been uncommon within schools,

especially between students displaying externalizing behaviors and their teachers (McGrath & Van Bergen, 2015; Murray & Zvoch, 2011; Silver et al., 2005; Spilt et al., 2012; Van Bergen et al., 2020).

### **Students at Risk for Negative Student–Teacher Relationships**

Specific students are at a higher risk of developing negative student–teacher relationships. Specifically, male students of color, students from backgrounds of lower socioeconomic status, students with disabilities, and students in secondary grades (i.e., middle and high school) have an elevated risk of developing negative student–teacher relationships (Buyse et al., 2011; Emmen et al., 2013; Hughes et al., 2001; Rudasill et al., 2010; Wyrick & Rudasill, 2009). For example, McGrath and Van Bergen (2015) conducted a systematic literature review examining the risk factors associated with students developing negative student–teacher relationships. They reviewed 104 studies of negative student–teacher relationships and their outcomes. In their review, they found that older students are less likely to have positive student–teacher relationships than younger students (i.e., older students are less academically engaged and perceive their teachers to be less supportive). They also found that students with lower socioeconomic status were more likely than students with higher socioeconomic status to have negative student–teacher relationships (i.e., have greater difficulty with academics, engage in riskier behavior, and be more likely to be stereotyped as aggressive). Murray and Zvoch (2011) found results complementary to those of McGrath and Van Bergen in their correlational study. Murray and Zvoch examined the connections among student–teacher relationships, school adjustment, and behavioral difficulties among African American students of low socioeconomic status. The study included 193 African American students from Grades 5–8 and 19 teachers with an average of 15 years of teaching experience. Female students tended to have higher scores for

closeness with their teachers than male students had. Teachers also reported more conflict with their male students than with their female students. Externalizing behaviors were the strongest predictor of negative student–teacher relationships.

Students with disabilities associated with externalizing behaviors are the most likely to develop negative student–teacher relationships (Hamre & Pianta, 2001; Henricsson & Rydell, 2004; Ladd et al., 1999; Murray & Zvoch, 2011; Rudasill et al., 2010). Researchers have largely attributed this phenomenon to the strain externalizing behaviors have on teacher stress and academic performance (Engels et al., 2016; Gagnon et al., 2018). For example, Pakarinen et al. (2018) conducted a longitudinal correlational study of the association between student problem behaviors and student–teacher relationships. The study included 440 students in Grades 4 and 6 and 140 teachers across 70 school sites. Higher scores for externalizing behaviors were positively correlated with higher levels of conflict on the STRS. If a teacher reported conflict with a student in their student–teacher relationship in Grade 4, the teacher would rate conflict as high with that student in Grade 6. Roorda and Koomen (2021) found results similar to those of Pakarinen et al. in their correlational study. Roorda and Koomen looked at how relationship quality (i.e., closeness and conflict) impacts behavioral problems (i.e., externalizing and internalizing behaviors) among secondary students over time. The study included 1,219 students in secondary school. Externalizing behaviors were associated with lower levels of closeness in student–teacher relationships. Externalizing behaviors also had a greater negative impact on student teacher–relationships in secondary grades than in primary grades. The researchers concluded that externalizing behaviors constituted a strong predictor of negative student–teacher relationships.

de Jong et al. (2018) found evidence supporting Roorda and Koomen's (2021) claim that externalizing behaviors constitute the strongest predictor of negative student–teacher relationships. de Jong et al. conducted a cross-lagged longitudinal modeling study of the connection between student–teacher relationships and behavioral adjustment of middle school students belonging to ethnic minority groups. The participants in the study included 226 students belonging to ethnic minority groups in sixth grade and 12 middle school teachers. Externalizing behaviors at the beginning of the school year were associated with more negative student–teacher relationships at the end of the school year. Students with externalizing behaviors did not always view their relationships with their teachers as negative. However, their teachers typically rated their relationships as negative. Zee et al. (2020) found that specific disability types can affect the quality of relationships between students and teachers. Zee et al. explored the effects autism spectrum disorder, attention-deficit/hyperactivity disorder, and LD had on student–teacher relationships. Across 24 elementary schools and 1,507 students, the researchers found that students with autism spectrum disorder or attention-deficit/hyperactivity disorder had more negative student–teacher relationships than other students did. The researchers attributed this discrepancy to the behavioral difficulties associated with those disabilities.

As discussed above, students who are male, have a disability, have low socioeconomic status, identify as non-White, and display externalizing behaviors are the students most likely to develop negative relationships with their teachers (Buyse et al., 2011; Emmen et al., 2013; Hughes et al., 2001; Rudasill et al., 2010; Wyrick & Rudasill, 2009). Most students with EBD meet criteria that put them at increased risk of developing negative student–teacher relationships. As indicated by findings reported in existing literature, that risk increases as students get older (McGrath & Van Bergen, 2015; Spilt et al., 2012).



## **Impact of Negative Student–Teacher Relationships**

Negative student–teacher relationships impact not only the social lives of students but also their academic performance (Engels et al., 2016; Gagnon et al., 2018; Pakarinen et al., 2018; Roorda et al., 2011). In particular, negative student–teacher relationships impact academic achievement and engagement across multiple age groups (Berchiatti et al., 2022; Hughes & Cao, 2018; Martin & Collie, 2019). For example, Roorda et al. (2011) conducted a meta-analysis exploring the connections among student–teacher relationships, school engagement, and achievement. The review included 92 articles published from 1990 to 2011 (covering 129,423 students and 2,825 teachers). The researchers found a negative association between negative student–teacher relationships and academic engagement and achievement. Students with negative student–teacher relationships were linked with reports of poorer school adjustment and behavioral outcomes than students with positive student–teacher relationships were linked with. Spilt et al. (2012) conducted a correlational longitudinal study of how relationship patterns (i.e., conflict and warmth) in elementary school predicted achievement in middle school. The study included 657 students in first grade with below-average literacy skills. The analysis indicated that lower levels of warmth were linked with lower academic gains. Increased levels of conflict were also correlated with lower levels of academic growth. Martin and Collie (2019) found results complementary to those of Roorda et al. and Spilt et al. (2012). Martin and Collie used a survey design to explore the ratio of negative and positive student–teacher relationships in academic areas (i.e., English, mathematics, science, history, and geography) in relation to school engagement (i.e., academic participation, enjoyment, and aspirations) among high school students. A total of 2,079 high school students from 18 high schools participated. The survey indicated that a higher ratio of negative to positive student–teacher relationships was linked with

lower levels of school engagement and academic achievement. However, the survey also indicated that when students with negative student–teacher relationships began to develop more positive student–teacher relationships, their academic engagement and achievement improved.

### **Student–Teacher Relationships in Middle School**

Most of the research on student–teacher relationships has involved students in lower academic grades (i.e., preschool and elementary school). The evidence from that research indicates overwhelmingly that student–teacher relationships have a strong impact on academic outcomes, mental health outcomes (e.g., depression and externalizing disorders), and behavioral outcomes for students (Hamre & Pianta, 2001, 2005; Jerome et al., 2009; Olivier & Archambault, 2017). Fewer researchers have studied the impacts of student–teacher relationships on students in secondary grades (Prewett et al., 2019).

Findings of existing research indicate that student–teacher relationships tend to become harder to develop once students reach middle and high school (Jerome et al., 2009). Researchers have also found that, relative to students in elementary school, relationship quality, engagement, and achievement in middle school students tend to decline (Hughes & Cao, 2018). For example, Hughes and Cao (2018) conducted a piecewise longitudinal trajectory analysis of the relationship between teacher-perceived levels of warmth and conflict and students’ transitions to middle school. The study included 550 academically at-risk students. The researchers found a swift decline in teacher-perceived levels of warmth in the transition to elementary school to middle school. Academic engagement was also lower, and behavioral problems increased. Akos et al. (2015) found results similar to those of Hughes and Cao regarding academic performance among middle school students. Akos et al. conducted a longitudinal study of (a) the effect of the transition from elementary to middle school on growth trajectory (based on math and reading test

scores) and (b) the impact of sociodemographic factors (e.g., special education status, gender, socioeconomic status, and race) on the effect of the transition to middle school. The study included 3,295 students from 14 middle schools across the United States. Reading and math scores dropped in the transition to middle school. The researchers also found that students with certain sociodemographic characteristics (those in special education, who were male, who had low socioeconomic status, or who belonged to minority groups) had significantly worse academic outcomes in the transition to middle school than their peers without those characteristics. Scales et al. (2020) strengthened these findings. In their correlation study, Scales et al. examined the impact of student–teacher relationships on academic motivation, school belonging/school climate, and socioeconomic status in middle school students. The study included 534 students from Grades 6–8 in a large metropolitan suburb. Students of low socioeconomic status tended to have lower academic motivation, grade point averages, and levels of school belongingness than their peers had. Students with low socioeconomic status also had more negative relationships with their teachers and had worse academic performance through middle school.

Another factor linked to the decline in student–teacher relationships in middle school is time spent with individual teachers (Roorda et al., 2011; Scales et al., 2020; Wehlage et al., 1989). Students in secondary school typically have multiple teachers within a school day, making it difficult for secondary students to develop close and meaningful relationships with their teachers (Jerome et al., 2009; Lynch & Cicchetti, 1997). However, researchers have found that student–teacher relationships are important during the transition from elementary to middle school (Akos et al., 2015; Arnett, 1999; Roser et al., 2002; Wang, 2009). For example, Crouch et al. (2014) conducted a correlational study examining adjustment to middle school for students

with and without disabilities. A sample consisting of 133 students with and without disabilities from 23 public schools and 11 school staff members participated in the study. Student–teacher relationships were vital in the transition to middle school for students both with and without disabilities. For example, if students rated their relationships with their teachers and other school staff as negative, their school belonging was lower, which made the transition to middle school more difficult. Having a positive student–teacher relationship acts as a protective factor during this transitional period by helping students develop positive psychological adjustment, which can limit the chances students will develop negative patterns of behavior and mood disruptions (Arnett, 1999; Crouch et al., 2014; Wang, 2009).

Some researchers have also explored the fact that student–teacher relationships have a greater impact on behavioral engagement for students in secondary school than students in elementary school (Roorda et al., 2011). For example, researchers have found that school engagement and achievement improve drastically in middle school students when they perceive they are getting positive social support from their teachers (Raufelder et al., 2016; Roorda et al., 2011; Wentzel et al., 2010, 2012). Wentzel et al. (2010) conducted a study exploring the effects of social support on academic performance and social motivation in middle school students. When teachers had clear expectations for social and academic outcomes (e.g., by providing help, advice, and instruction; creating a safe classroom environment; and providing emotional support), students were more academically and socially motivated. The researchers concluded that middle school students perform better academically when teachers provide emotional support and create safe learning environments. Raufelder et al. (2016) found similar results in their correlational study of the effects of student–teacher relationships and academic self-regulation among middle school students (1,088 students from Grades 7–8). Students exhibited

more academic regulation and motivation when they reported liking their teachers. Also, a student liking one teacher could increase the student's academic motivation even if the student did not like their other teachers. This conclusion was the most important one derived from Raufelder et al.'s findings. Researchers have found effect sizes in middle school of the associations between student–teacher relationships and school engagement and between student–teacher relationships and achievement of up to .40 (i.e., large) and .20 (i.e., medium), respectively (Roorda et al., 2011). These findings indicate that there is a medium–large negative or positive correlation between student–teacher relationships and school engagement.

### **Students With EBD in Middle School**

As discussed above, middle school is a time during which general education students tend to exhibit a decline in academic engagement and achievement relative to students in elementary school (Hughes & Cao, 2018). Students with EBD are at an even higher risk of such declines when entering middle school and are more likely to be placed in self-contained classrooms, be held back, or drop out of school (Wagner & Cameto, 2004; Wagner et al., 2005). A reason for this phenomenon is the difficulty students with EBD have developing and maintaining interpersonal relationships with peers and teachers (Zolkoski, 2019). The behavioral challenges (i.e., externalizing and internalizing behaviors) these students display within the school setting make it difficult for them to form and develop positive student–teacher relationships (Kauffman & Landrum, 2018; Regan, 2003; Regan et al., 2005).

As a result of these behaviors, students with EBD are more likely to face suspension or expulsion from school than their peers are (Skiba, 2002; Skiba et al., 2010). For example, 47% of students with EBD have been suspended or expelled between elementary and middle school (SRI International, 2006; Wagner et al., 2006). In high school, this percentage jumps to 73% (SRI

International, 2006; Wagner et al., 2006). An outcome of suspension or expulsion is missed instructional time, which increases a student's chances of dropping out of school (Wynne et al., 2013).

Most research for this population has occurred in the primary grades (Lane et al., 2009; Mulcahy et al., 2014, 2016). This restriction is due to the focus of researchers on early intervention, because early intervention for students with EBD increases their chances of not developing more serious behavioral and emotional problems that subsequently increase their risks of academic failure and poor postsecondary outcomes (Mihalas et al., 2009). For that reason, most intervention research regarding students with EBD has occurred in preschool through elementary school (Kauffman & Landrum, 2018; Lane et al., 2009; Mulcahy et al., 2014, 2016). However, some interesting trends have emerged among students with EBD in middle school.

Students with EBD tend to struggle academically and behaviorally in school (Kauffman & Landrum, 2018). For that reason, these students tend to fall further behind academically and get into more conflict within school the older they get (Kauffman & Landrum, 2018). For example, Kauffman and Landrum (2018) found students with EBD to be 1.5 grade levels behind their peers by the end of elementary school. Other researchers have found that students with EBD placed within self-contained settings make marginal progress in academics, social skills, and behavioral skills, compared with their peers, regardless of the income status of their schools (Lane et al., 2009). Students with EBD in secondary school are at higher risk of these poor outcomes than students at other grade levels because of their increased likelihood of assignment to more restrictive school placements (Mathur & Jolivette, 2012). For example, students with EBD are more likely to be placed in self-contained classrooms than are other students with

disabilities (Sarup & Jolivett, 2012). Students with EBD are also more likely to be placed in alternative school settings (i.e., day treatment schools, residential schools, hospital schools, juvenile justice facility schools, or self-contained classrooms); this is especially true of male adolescent students exhibiting externalizing behaviors (Sarup & Jolivett, 2012). Other researchers have found that students with EBD fall below the 25th percentile in reading, writing, and math in middle school (Lane et al., 2009).

Researchers have attributed this poor academic performance of students with EBD in middle school to a variety of causes. One is this populations' proclivity to engage in disruptive behaviors (i.e., externalizing/internalizing behaviors; Kauffman & Landrum, 2018; Theriot et al., 2010). When students exhibit these types of behaviors, they are much more likely to be removed from their classrooms or suspended, which limits the amount of instructional time they receive (Kauffman & Landrum, 2018; Theriot et al., 2010). As a result, these students tend to fall further behind academically, which negatively affects their level of academic engagement (Didion et al., 2020). This phenomenon is important to note, because researchers have found that engagement is one of the core factors leading to student learning and academic achievement (Kortering & Christenson, 2009; Mulcahy et al., 2014). Researchers have also cited the low expectations teachers and school staff put on students with EBD as constituting another factor contributing to the lackluster performance of these students academically and socially (Mulcahy et al., 2014). In particular, researchers have found that teachers of students with EBD tend to put more emphasis on behavioral competencies than on academic competencies (Wehby et al., 1998, 2003).

As discussed in previous sections, relationship researchers have reported promising improvements in addressing the social and emotional needs of students with EBD, particularly those focusing on improvement of positive student-teacher relationships (Leverett et al., 2022;

Murray & Zvoch, 2011; Roorda et al., 2011). Researchers have shown that when a positive student–teacher relationship is present, academic achievement tends to improve, behavioral issues tend to decrease, and student engagement tends to increase (Hastings & Bham, 2003; Murray & Greenberg, 2001; Pianta, 1999; Pianta & Stuhlman, 2004; Sutherland & Oswald, 2005). In addition, teachers report feeling more effective and less stressed when these types of relationships are present (D. H. Anderson et al., 2011; Pianta & Stuhlman, 2004). Giving teachers the skills needed to create positive student–teacher relationships with their students may enhance the outcomes of both students with EBD and their teachers.

### **DJ**

DJ is a relationship-building intervention that improves student–teacher relationships across age groups and in students both with and without disabilities. DJ is an interactive form of written communication rooted in Vygotsky’s social development theory; this intervention occurs when two people communicate in writing on a regular basis to express feelings, emotions, and thoughts to one another with the aim of gaining deeper understanding of one other and one another’s perspectives (Eski, 2013; Fulwiler, 1987; Gambrell, 1985; Konishi & Park, 2017; Linares, 2018; Stillman et al., 2014). This form of journaling is an effective tool for teachers in the K–12 setting to use for academic development and social–emotional learning (SEL; D. H. Anderson et al., 2011; Chan & Aubrey, 2021; Denne-Bolton, 2013; Konishi & Park, 2017; McGough, 2013; Regan, 2003; Regan et al., 2005; Stillman et al., 2014; Young & Crow, 1992). The focus of these journals in a school setting is authentic communication rather than a student’s writing mechanics or a student’s understanding of an academic topic. For example, Young and Crow (1992) conducted a literature review detailing the best practices for teachers to follow when implementing DJ within the classroom. They concluded that teachers should not try to



correct writing mechanics in student journals but should try to expand on students' interests. These journals provide students with the freedom to write in any manner they choose, discuss any topic, and explore what they find interesting (Stillman et al., 2014). DJ can lead to both academic growth and enhanced student–teacher relationships for students with and without disabilities (D. H. Anderson et al., 2011; Eski, 2013; Fulwiler, 1987; Gambrell, 1985; Konishi & Park, 2017; Linares, 2018; Regan, 2003; Regan et al., 2005; Stillman et al., 2014).

### **Impact of DJ on Student–Teacher Relationships**

DJ is an effective intervention for improving the quality of student–teacher relationships among teachers and among students with and without disabilities. For example, Regan (2003) conducted a case study of the impacts of DJ on the promotion of relationship growth among students with EBD and their teachers. The study included eight middle school students with EBD and one teacher. DJ provided participating students with an outlet through which to express how they were feeling and encouraged/motivated students to engage in writing. Regan also found that DJ provided teachers with extra opportunities to teach students social skills. Overall, Regan concluded that DJ improved the student–teacher relationships of the eight participating students and their teacher.

D. H. Anderson et al. (2011) found results similar to those of Regan (2003) in their case study. D. H. Anderson et al. specifically looked at the effects of DJ on improving student–teacher relationships among students with behavioral issues. The two students who participated in the case study were middle school students at risk of being identified as students with EBD. The researchers explored how DJ impacted praise or positive feedback and student behavior. The students did increase their positive responses, and negative behaviors did decline. Overall, the

findings of the study indicated that DJ could be a useful intervention with which to improve outcomes for students with behavioral issues and to enhance student–teacher relationships.

In a more recent study, Konishi and Park (2017) conducted a literature review regarding the benefits of DJ for fostering and improving SEL. DJ proved an effective tool for improving student–teacher relationships through the development of mutual trust between students and teachers as they share information. Journaling also gave students with internal behaviors a voice with which to ask questions or express concerns in a nonconfrontational way. Chan and Aubrey (2021) examined the effects of DJ on teachers and English as a second language students for improving teacher–student rapport. The study sample consisted of 25 English as a second language students in the ninth grade. DJ increased rapport between teachers and students. DJ was also an effective way for teachers to gain trust—especially teachers in teaching practicum courses, who have only limited time in which to develop student trust.

Overall, existing research indicates that DJ is an effective intervention for improving student–teacher relationships. Researchers have attributed this improvement in relationship quality to the development of mutual trust and increased time for one-on-one discussions between students and their teachers. This effect becomes increasingly impactful as students enter middle school and high school, where one-on-one attention between teachers and students tends to become less frequent (Chan & Aubrey, 2021; Denne-Bolton, 2013; Konishi & Park, 2017).

### **Impact of DJ on Academic Outcomes**

DJ enhances academic growth in writing mechanics, literacy skills, and conceptual understanding of academic content among a variety of student populations (e.g., students with specific LD, students with EBD, students in general education, and English language learners) and across a variety of age groups (i.e., kindergarten through higher education; Holmes &

Moulton, 1997; Murad & Rihad, 1998; Peyton & Seyoum, 1989). For example, Regan et al. (2005) conducted a multiple baseline study of the impact of DJ on writing fluency, writing quality, and student engagement among students with EBD. The study included five students in sixth grade with EBD diagnoses. Student attention to the task increased over the course of the study, and writing fluency also increased over the course of the study. The participating students cited DJ as a resource that helped them express their feelings and ideas to their teacher. Konishi and Park (2017) reported findings similar to those of Regan et al. Konishi and Park, in their literature review, identified DJ as a useful method for scaffolding. In particular, teachers could assess a student's academic situation and scaffold instruction to meet the student's needs. The researchers also found that DJ provided a way for teachers to model correct writing mechanics or social skills.

Stillman et al. (2014) also found evidence of DJ being an effective intervention with which to improve academic performance. The researchers specifically examined the effects of DJ on literacy development and teacher learning using a qualitative design. The study sample consisted of English language learners in elementary school and their teachers. DJ improved both student-teacher relationships and student academic performance. The researchers reported that DJ provided students and teachers with the ability to find out about one another's lives, which helped teachers create more inclusive and responsive classrooms and curricula. Teachers could also assess student writing ability through journaling passages. The researchers concluded that journaling provided teachers better insight into their students, which drove instructional decisions. DJ also improved the writing ability of the English language learners in this sample. Denne-Bolton (2013) found results similar to those of Stillman et al. Denne-Bolton investigated the effects of DJ on improving writing skills among English language learners in ninth grade.

Denne-Bolton found that DJ provided these students with the ability to practice their writing skills. Motivation to write, fluency in writing, and confidence in writing also increased after DJ. DJ also provided participating students with the ability to work through ideas or concepts in their writing. And DJ provided teachers with the ability to talk to and connect with students individually, regardless of class size. This is especially important in middle and high school where class sizes are bigger and the focus is on academics. McGough (2013) conducted a case study with first-grade students and their parents regarding DJ and building student–teacher relationships. One of the major conclusions of the study was that DJ provided teachers with the ability to assess students’ writing ability (e.g., spelling, writing skills, grammar, and handwriting). This in turn allowed teachers to design specific interventions to improve each student’s writing skills. DJ also provided teachers with a way to bridge the gap between what students learned in the classroom and the real world (i.e., their lives outside school).

Overall, existing research related to DJ and academics indicates that this written intervention can be an effective tool for scaffolding instruction, modeling appropriate behavior or writing mechanics, improving writing mechanics, connecting academic content with the real world, helping students understand and work through concepts and ideas, and helping to create more responsive classroom environments (Denne-Bolton, 2013; Holmes & Moulton, 1997; Konishi & Park, 2017; McGough, 2013; Murad & Rihad, 1998; Peyton & Seyoum, 1989; Regan et al., 2005; Stillman et al., 2014).

### **DJ in Preservice Teacher Training**

DJ is not only an effective intervention for relationship building and academic development but also improves teacher performance (Carter & Kurtts, 2019; Garmon, 2001; Lee, 2004). In particular, DJ helps to develop teachers’ critical reflection skills and decision making.

For example, Carter and Kurtts (2019) conducted an action research project on the impact of DJ on the critical reflection and decision-making of preservice teachers. The study sample consisted of preservice special education teachers who engaged in DJ with their teaching mentor. DJ aided development of the reflective skills of participating teachers when they faced difficult classroom decisions (i.e., those relating to behavior management, concern over social–emotional well-being, and instructional challenges). DJ also aided improvement of self-confidence among participating teachers and helped with development of coping strategies. Findings complementary to those of Carter and Kurtts emerged from Lee’s (2004) qualitative study of the impact of DJ on 18 preservice teachers of English language learners. Participating teachers reported that DJ helped them develop better self-reflection skills and critical thinking skills. Garmon (2001) examined the perceptions of intervention effectiveness among 22 preservice teachers. Overall, the participating teachers thought that DJ was positive and enhanced their teaching by helping them retain course materials, enhancing self-reflection/self-understanding, providing opportunities for expression of ideas, providing feedback on ideas and questions, and improving student–teacher relationships. However, participating teachers also reported that they thought DJ required too great a time commitment and that it was unnecessary to journal more than once a week. Overall, existing research regarding DJ and teaching practices is positive. DJ enhances teachers’ instructional and social–emotional skills (Carter & Kurtts, 2019; Garmon, 2001; Lee, 2004), making DJ a powerful intervention for both teachers and students.

### **Teacher Knowledge and Skills Related to Development of Relationships**

Few researchers have specifically attempted to determine how teachers are taught in their preservice training to develop and maintain relationships with students (Cook et al., 2018; Duong et al., 2019; Helker & Ray, 2009). Instead, preservice training has tended to focus on pedagogy

and strategies for behavioral management (Nargo & Deetterncourt, 2017; Walker et al., 2022). For example, State et al. (2011) conducted a syllabus/course audit of 26 colleges and universities to determine how much time teachers spent on student social, emotional, and behavioral training in their preservice training programs. Overall, teachers received little to no social, emotional, and behavioral training. The time spent on such training in each college or university ranged from none to 22 hr. The lack of social, emotional, and behavioral training was consistent with teachers' self-reported assessments of time spent on social, emotional, and behavioral training in their preservice training (State et al., 2011). However, teachers have reported elsewhere that they know student–teacher relationships are important but lack knowledge of the steps needed to build and secure those relationships (Hargreaves, 2000; Legette et al., 2022; Simonsen et al., 2008). Researchers have been investigating how to implement professional development training for teachers to improve student–teacher relationships (Cook et al., 2018). For example, Duong et al. (2019) examined the effects on teachers of a relationship intervention (establish–maintain–restore) designed to improve student–teacher relationships and taught during professional development training. The study sample consisted of 20 teachers and 190 students. The intervention was effective for improving student–teacher relationships. Caires et al. (2023) conducted a study complementary to that of Duong et al. (2019). Caires et al.'s qualitative evaluation study involved investigation of the effects of an emotional education program on preservice teachers. The researchers specifically wanted to determine whether the program would help future teachers develop the skills necessary to form relationships with students. The study included 87 preservice teachers, and the results indicated improvements of self-awareness, social awareness, relationship building skills, and responsible decision making. Helker and Ray (2009) conducted a quasi-experimental study exploring the effects of a relationship-based

training program on relationship quality and behavioral problems among preschool teachers and their students. Twelve teachers and 32 preschool students participated in the study. The researchers concluded that, after the intervention, teachers' student-relationship skills improved, and students' behavioral problems decreased. It is important to note that these studies occurred in response to the lack of research related to relationship-building skills for preservice teachers.

The research in the academic literature most closely related to relationship-building skills for teachers in their preservice training is that related to SEL. SEL consists of a set of skills that involve the development of teachers' self-awareness, self-management, social awareness, relationship skills, and responsible decision making (Legette et al., 2022). SEL improves student-teacher relationships (Baroody et al., 2014; Helker & Ray, 2009; Legette et al., 2022). For example, Jennings and Greenberg (2009) conducted a literature review examining the traits teachers need to become socially and emotionally competent teachers. They concentrated the review on the effects of student-teacher relationships, classroom management, and SEL program implementation on student outcomes and classroom climate. High levels of SEL implementation were linked with teacher success in the classroom. In particular, teachers with high levels of SEL implementation had lower levels of stress, better relationships with students, and more effective classroom management skills and academic performance than teachers with low levels of SEL implementation. However, the researchers made the important comment that few researchers have investigated preservice training for teachers regarding the development of SEL skills. As with relationship research, teachers view SEL as an important asset for success in the classroom. For example, McCarthy (2021) conducted a descriptive-evaluative study of how SEL training for preservice teachers impacts classroom environments. The study sample consisted of 27 preservice teachers enrolled in a methods course. Over 50% of participating teachers reported

becoming better at navigating their emotions and improving relationships with their students after SEL training. Teachers also reported that more SEL training should take place in preservice training. Caires et al. (2023) found results similar to those of McCarthy. In their qualitative evaluation study, Caires et al. looked at the impact of an emotional education program on development of SEL competencies and social connectedness among preservice teachers. The study sample consisted of 87 preservice teachers, and after the intervention teachers reported higher levels of self-awareness, social awareness, relationship building skills, and responsible decision making. Like McCarthy, Caires et al. conducted their study because of the lack of teacher training in SEL. Both SEL research and relationship-based research for teachers improve academic outcomes for students, protect against teacher burnout, and improve student–teacher relationships (Baroody et al., 2014; Helker & Ray, 2009; Legette et al., 2022). However, research regarding preservice training has been lacking; most researchers investigating SEL and relationship-based interventions have studied teacher professional development instead of preservice training (Duong et al., 2019; McCarthy, 2021).

### **Conclusion**

Existing academic literature supports the notion that DJ has beneficial outcomes for both students and teachers (Eski, 2013; Fulwiler, 1987; Gambrell, 1985; Konishi & Park, 2017; Linares, 2018; Stillman et al., 2014). In particular, DJ is a critical intervention for improving both student–teacher relationships and academic outcomes (D. H. Anderson et al., 2011; Chan & Aubrey, 2021; Denne-Bolton, 2013; Konishi & Park, 2017; McGough, 2013; Regan, 2003; Regan et al., 2005; Stillman et al., 2014; Young & Crow, 1992). However, there is a gap in existing current research related to DJ and improvement of student–teacher relationships among students with EBD. For example, Murray and Greenberg (2001) found a large discrepancy in



positive student–teacher relationships between students with disabilities and without. This finding highlights the importance of this line of research for students in special education and students with EBD.

The studies of Regan (2003) and Regan et al. (2005) were two of the few studies identified that involved examination of the effects of DJ on students with EBD. These studies specifically involved looking at how DJ improved writing mechanics and student–teacher relationships. In both studies, DJ improved writing mechanics and student–teacher relationships. However, Regan et al. used a single-subject design, and Regan conducted a case study; these studies had small samples, making it difficult to generalize their findings. These two studies provide foundational evidence that DJ could be an effective intervention for students with EBD to help them build and sustain positive student–teacher relationships. The aim of this study was to build on past research regarding DJ and add support to the hypothesis that DJ can improve the relationship outcomes of students with EBD.

## CHAPTER 3

### METHODS

Students with EBD have some of the poorest academic and postsecondary outcomes, including elevated rates of dropping out of school (Office of Special Education Programs, 2003, 2007), being suspended or expelled (SRI International, 2006; Stillwell et al., 2011; Wagner et al., 2006), poor employment outcomes (National Longitudinal Transition Study 2, 2005), incarceration (Office of Special Education Programs, 2007), and poor relationships with peers and teachers (Kauffman & Landrum, 2018). Findings reported in existing literature indicate that when a teacher and student have a relationship with high conflict, negative outcomes tend to follow (e.g., negative interactions between teacher and student, negative behavioral outcomes, poorer social outcomes, and lower academic performance). Pianta (1999) indicated that a teacher and student typify classroom conflict when the teacher has a difficult time working with the student, thinks the student is always angry or unpredictable, and feels useless or ineffective when working with the student. This type of relationship has unfortunately been common between students with EBD and their teachers (Kauffman & Landrum, 2018). The negative outcomes of high conflict relationships could be contributing to poor outcomes among these students.

Findings reported in existing literature conversely indicate that positive student–teacher relationships can lead to improvements in student outcomes, including increased student engagement, reduced behavioral problems, improved academic performance, increased student–teacher interactions, and prevention of teacher burnout (Murray & Greenberg, 2001; Pianta & Stuhlman, 2004; Sutherland & Oswald, 2005). It is therefore essential that teachers of students with EBD learn to implement techniques and strategies that allow them to build stronger student–teacher relationships in the classroom environment. Although researchers have written

about building student–teacher relationships in general education (e.g., Leverett et al., 2022; Prewett et al., 2019), few have addressed evidence-based strategies for relationship development among students with EBD and their teachers.

DJ is an intervention effective for improving student–teacher relationships (D. H. Anderson et al., 2011; Regan et al., 2005). DJ fosters positive relationships and reduces conflict within relationships (Konishi & Park, 2017; McGough, 2013; Stillman et al., 2014), although limited research exists on this intervention for students with EBD. DJ works by having teachers and students engage in ongoing open-ended conversations by writing in journals. This intervention allows students to ask their teachers questions, which in turn can help to foster relationship growth. This study expanded the literature on the effectiveness of DJ for improving relationship building between students with EBD and their teachers. DJ affects relationship building by providing each party with an opportunity to explore the other party’s background, likes, and dislikes. This study involved investigation of whether DJ improved student–teacher relationships and led to more positive outcomes for students with EBD.

### **Research Questions**

Three research questions guided the study:

1. Does the implementation of DJ result in an improved score on the STRS-SF and STFS after intervention?
2. How does the implementation of DJ affect the amount of teacher praise language (i.e., contingent teacher praise and positive verbal feedback) found in participating teachers’ DJ entries over the course of the study?

3. How does the implementation of DJ affect the amount of trust language (e.g., asking for advice or guidance and sharing worries and frustrations with a teacher) found in students' DJ entries over the course of the study?

The hypothesis of the study was that DJ would result in a statistically significant increase in perceived levels of positive student–teacher relationships, as measured by the two relationship scales (i.e., the STRS-SF and STFS). I also hypothesized that teacher praise language and student trust language would increase in the journal entries across implementation of the intervention.

### **Setting**

The study took place in a large urban school district in the southwestern United States. The school district served one of the most diverse student populations in the country: 78% of students enrolled in this district identified as being from culturally or linguistically diverse groups. At the time of the study, the participating district encompassed 364 public schools and served 328,328 students (Nevada Report Card, n.d.).

The study took place on two middle school campuses that had self-contained programs designed for students with EBD. In the school district studied, these self-contained programs educated students enrolled chronologically in Grades 6–8. The overall focus of these classrooms was improvement of social and emotional skills in conjunction with academics. As a result, those involved heavily used behavior management systems and social skills training programs. Each of the classrooms consisted of three rows of desks, workstations, computer tables, and a cooldown area for students.

### **Participants**

The participants in this study included both students with EBD and teachers from a large urban school district in the southwestern United States. The participating teachers were self-

contained teachers of students with EBD. The student participants consisted of middle school students with EBD educated in self-contained classrooms on a public school campus. The student participants varied in grade (i.e., Grades 6–8). Table 1 presents participant demographics.

### **Student Participants**

A student was eligible to participate in the study if they (a) had an EBD diagnosis and (b) were placed in a self-contained classroom for students with EBD. The participating classroom teachers confirmed the EBD diagnosis. To mitigate any potential concerns related to participating students' reading and writing proficiency, the intervention implemented in this study was implemented on a computer, allowing students to access speech-to-text and text-to-speech capabilities. Across the two participating classrooms, a total of 10 students were identified.

### **Teacher Participants**

Two special education teachers participated in the study. Each participating teacher had to (a) be teaching in a self-contained classroom and (b) be the lead teacher in that classroom. Years of experience and license status were not included as participation criteria for teachers. The research team taught participating teachers the methods for implementation of the intervention before execution of the study procedures.

### **Instrumentation**

The quantitative measures for the study were two validated scales (i.e., the STRS-SF and STFS). The quantitative measures were administered before and after the intervention. Frequencies of student trust language and teacher praise language were also collected to determine whether the frequencies of these types of statements increased over the course of the study.

**Table 1***Demographics of the Participants*

Participant	Gender	Ethnicity	Age in years	Grade
Teachers				
Teacher A	Female	African American	—	
Teacher B	Female	Latin <sup>a</sup>	27	
Students				
Student A	Male	African American		7
Student B	Male	African American		8
Student C	Male	—		7
Student D	Male	—		6
Student E	Female	White		7
Student F	Female	African American		7
Student G	Male	African American		7
Student H	Male	White		7
Student I	Male	—		6
Student J	Male	Latin		7

*Note.* The age of one of the teachers is unknown. The ethnicities of some of the students were not reported.

**STRS-SF**

The STRS-SF (Pianta, 2001) is a validated instrument that measures a teacher’s perception of their relationship with a student. This self-report measure is a shortened version of the original STRS (composed of 28 items). The STRS-SF was chosen over the original STRS because of the recommendations of other researchers and the creator of the scale (Cook et al., 2018; Stensen et al., 2023).

The STRS-SF consists of 15 items that use a 5-point Likert-type rating scale (1 = *definitely does not apply*, 2 = *does not really apply*, 3 = *neutral/not sure*, 4 = *applies somewhat*, and 5 = *definitely applies*). The STRS-SF measures a teacher's perception of their relationship with a specific student through perceived scores related to the level of closeness and conflict. In the study, each teacher completed the STRS-SF twice for each of their students who were participating (before and after intervention).

The STRS-SF consists of two factor-based subscales that capture perceptions of student–teacher relationships: Closeness and Conflict (Pianta, 2001; Stensen et al., 2023). Closeness is the degree of affection, warmth, and open communication between a teacher and student. Conflict is the teacher's perception that their relationship with the student is negative and characterized by the following behaviors and feelings: the student displays angry and unpredictable behaviors, the teacher feels ineffective teaching or helping the student, and the teacher feels drained by the student. Closeness scores range from 8 to 40, and Conflict scores range from 7 to 35. A higher Closeness score indicates more positive interactions (i.e., positive student–teacher relationship), whereas a higher Conflict score indicates more negative interactions (i.e., negative student–teacher relationship). Thus if a teacher has a higher score on the Closeness subscale, they perceive more closeness in their student–teacher relationship. The inverse is also true: If a teacher has a higher score on the Conflict subscale, they perceive more of a negative student–teacher relationship (Pianta, 2001; Stensen et al., 2023).

The STRS-SF has yielded strong psychometric properties across multiple studies (Pianta, 1992, 2001; Stensen et al., 2023). Internal consistency of the scale ranged from .86 to .89 in the study samples, and the scale is a great predictor of children's classroom behavior, school retention, and academic outcomes (Hamre & Pianta, 2001; Pianta et al., 1995).

## **STFS**

The STFS is a 13-question self-report assessment that measures a student's trust in their teacher. Each question is based on a 4-point Likert scale ranging from 1 (*strongly disagree*) to 4 (*strongly agree*). The higher the score a student indicates on the scale, the higher the level of trust they have in their teacher, and vice versa. The reliability of this scale is strong: It has a Cronbach's alpha value of .90. Factor analysis for the scale provides evidence of both construct and predictive validity (Forsyth et al., in press). Every item on the scale is scored from 1 to 4. The scores for all items are then summed to produce an overall score for each student.

## **Intervention Training Assessment**

Qualtrics is web-based software that allows users to design their own surveys/questionnaires for easy distribution. This software was used to check for understanding of study procedures and requirements among participating teachers and students. After implementation of student and teacher training, both groups completed a Qualtrics survey asking a series of "yes" or "no" questions and short-answer questions on study procedures and their roles within the study. Example questions are "What does TRAD stand for?" and "How many times a week will you journal?" This assessment was used to ensure teachers and students understood the study and felt comfortable with study procedures and expectations.

## **Journal Entries**

DJ was the intervention used to build student-teacher relationships. To ensure that participants completed journals in a way that would foster relationship growth, the mnemonic "TRAD" was taught to both students and teachers. The components of "TRAD" are "T" ("tell the teacher something about yourself"), "R" ("respond to the question or questions your teacher asked you"), "A" ("ask your teacher at least one question"), and "D" ("bring up a new topic";



Jonsson & Svingby, 2007). The journal entries were used to measure frequencies of teacher praise language and student trust language. I independently reviewed each journal entry at the conclusion of the 4-week study. During this time, I coded entries' "TRAD" use and frequencies of trust language. The frequency counts were broken down into weeks. For example, Week 1 correspond to Journals 1–3, Week 2 to Journals 4–6, Week 3 to Journals 7–9, and Week 4 to Journals 10–12. This was done to determine whether trust language increased over the course of the study.

### **Trust Language Rubrics**

The rubric for teacher trust language consisted of two types of teacher praise (contingent teacher praise and positive verbal feedback). An example of a contingent teacher praise statement is "You did a great job at responding to my journal entry using the TRAD mnemonic." An example of a positive verbal statement is "You did a great job describing your favorite movie. I was impressed with how many adjectives you used in your journal response." Each teacher praise statement identified was scored using the teacher praise statement rubric (see Appendix A). The rubric operationally defines each type of teacher trust language and provides an example of what each one looks like. This ensured each instance identified met the requirements for a teacher praise statement.

The same procedure was used for student journal entries. However, instead of teacher praise statements, student trust statements were identified. Student trust statements were defined as statements in which students asked for advice, questioned, shared frustrations, or shared personal information with their teachers. All candidate student trust statements were compared with the student trust statement rubric (see Appendix B) to ensure they fit the requirements. Frequencies were calculated for both teacher praise and student trust statements to determine

whether they increased over the course of the 4-week study. This was done by separating the journaling sessions across the 4-week period and counting the frequency of trust language in each week. For example, Week 1 consist of Journal Sessions 1–3, Week 2 of Journal Sessions 4–6, Week 3 of Journal Sessions 7–9, and Week 4 of Journal Sessions 10–12.

## **Materials**

### **Electronic Devices**

Every participant had their own Google Chromebook that they used to journal for the intervention; these devices were assigned to students by their school. The DJ entries were completed through a Google Docs document shared among me and the participants. This gave me access to the journal entries for review and to ensure participants were completing entries faithfully and not missing journal sessions.

### **Google Docs**

Google Docs is an online, real-time collaboration and word processing application. Google Docs was used as the vehicle for participants to engage in DJ. This application was chosen because it allowed remote access, both I and the participants could access the document, and the school district and university both used Google Workspace software.

### **Qualtrics**

Qualtrics is online software that allows people to create and design surveys. Qualtrics was used in this study to check for teacher and student understanding during the training portion of the study. Teachers and students completed two Qualtrics surveys regarding the study procedures and what was required of them to participate in the study.

## **Procedures**

An exploratory pre-/postintervention design was implemented to test the effects of DJ on two student–teacher relationship scales (i.e., the STRS-SF and STFS). The study also involved investigation of the impact of DJ on the frequency of trust language (student trust language, teacher praise language, and relationship themes). This design allowed me to test whether there were significant changes in relationship scale scores from before the intervention to after the intervention. The design also allowed me to see whether the frequencies of student trust language and teacher praise language increased over the 4 weeks of the study.

Implementation of study activities occurred in the following seven stages: (a) recruitment of participants, (b) collection of preintervention data, (c) teacher training, (d) student training, (e) implementation of the intervention, (f) administration of postintervention scales/assessments, and (g) analysis of data.

### **Recruitment of Participants**

Participants were initially recruited through the principals of middle schools with self-contained programs for students with EBD. Principals were contacted via email asking whether they would like their schools to participate in a relationship-building study for students with EBD and their teachers. If a principal indicated they were interested in having their school participate in the study, the contact information of that school’s EBD teacher was requested for the purpose of scheduling a meeting to discuss the specifics of the study. Of the 40 middle schools contacted, only three principals provided the contact information of their EBD teachers.

Three individual teacher meetings were conducted using Zoom. I thought that having a separate meeting with each teacher would allow deeper training and give each teacher an opportunity to ask deeper questions about the study. Each meeting lasted 90 min; in that time a

PowerPoint presentation addressed the following points: (a) the background of the study and its theoretical framework, (b) how the intervention was relevant to students with EBD, (c) an overview of the study, and (d) activities to allow practice of the intervention with me. At the end of the 90-min session, the teacher was asked whether they felt comfortable with the study procedures and requirements and whether they would like to participate in the study. All three teachers agreed to participate in the study after the meetings. Informed consent forms (found in Appendix A) were then emailed to the three teachers for them to review and sign. All three teachers emailed copies of their consent forms to me. Those forms were then printed and stored in a locked file.

Once teacher consent was obtained, parental permission became the next focus (parental consent forms can be found in Appendix C). Each student in the participating teachers' classrooms was sent home with a letter for their parents asking whether they would like their child to participate in the study. It took about 2 weeks for all parental permission forms to be returned. Students returned their parent permission forms to their teachers. Once a teacher collected all their permission forms, they gave the forms to me. Student assent of individuals whose parents' provided permission was then obtained by me on the day of student training (assent forms can be found in Appendix B). Before the start of student training, each student was asked whether they would like to participate in the study. If the student agreed, they signed the assent form. The form indicated that they were willingly assenting to participate in the study. Students who did not receive parental permission for participation in the study did not engage in the study training or assent process. Their classroom teachers had them do independent activities while study activities took place. All the permission and assent forms were kept in a locked cabinet.

## **Collection of Preintervention Data**

Once consent was obtained from participating teachers and parents of participating students, and assent was obtained from all participating students, the collection of preintervention data began. Teachers completed the STRS-SF (Appendix I) for all participating students in their classrooms (i.e., one completed scale for each individual student). All students took the STFS (Appendix J) before study training began. Once all scales were completed, I went around the room and collected them.

## **Teacher Training**

Teacher training on the intervention (DJ) was conducted over Zoom. The PowerPoint presentation used explained how DJ could enhance a student–teacher relationship, the goals and procedures of DJ, and what DJ looks like when implemented in the classroom. The DJ guidelines used for the study were based on the work of Regan et al. (2005), with some minor adaptations:

1. The journal entries were completed on an electronic device through Google Docs.
2. Students and teachers journaled with each other 3 days/week in 15-min sessions.
3. Each journal entry had to be at least five sentences in length.
4. Journal entries could ask and answer questions or bring up new topics.
5. The focus of student journal entries was on the written content rather than spelling or grammar. The journals were neither corrected nor graded.

After they had reviewed the interactive PowerPoint presentation, each teacher was instructed to open Google Docs on their computer and open the document “teacher training journaling” that had been sent to them. When they opened the document, a journal prompt and the mnemonic “TRAD” appeared. This mnemonic was adapted from the work of Jonsson and Svingby (2007) and Kane (2017), who developed the mnemonic to ensure students would

produce quality responses in their DJ journals. This mnemonic served as a visual reminder of what each journal entry should include and was used to provide structure to the journals in a way that supported ongoing dialogue between teachers and students. The researcher used the “TRAD” mnemonic to check journaling fidelity of both teachers and students. Appendix C includes the fidelity checklist corresponding to how teachers were taught to implement DJ.

Once a participating teacher opened the document in Google Docs, they practiced journaling with the researcher using the “TRAD” mnemonic. After going back and forth for three sessions with me in the role of teacher and the teacher in the role of student, we switched roles. This allowed the teacher to see journaling from both the teacher and student perspectives. This also gave the participating teachers opportunities to practice writing journal prompts and receiving live feedback on them. The training ended with a question-and-answer session that lasted 5 min.

### **Student Training**

Student training was conducted a week after teacher training. Student training took place over 1 day and lasted 45 min. The training took place face to face in the classrooms of participating teachers. I began each training by thanking all the students for choosing to participate in the study and asking whether they had any questions before the training began. Student assent forms were then collected from all students whose parents had consented to participation prior to training. The classroom teacher provided an alternative activity for students who did not have consent forms signed by parents or who did not provide assent.

The training began with an introduction of who I was and why I had chosen to conduct this research in their classroom. Then an interactive PowerPoint presentation was shown to the students. This PowerPoint delineated the same procedures used to teach DJ to teacher

participants. However, I added a discussion regarding what would be appropriate and not appropriate for them to write in their journal entries (e.g., not threatening anyone or using profanity toward another person). There was also a discussion of what would happen if a student wrote about hurting themselves or others in their journal.

Students were then taught the “TRAD” mnemonic. Students were instructed to use this mnemonic to construct their journal entries. After reviewing each component of the “TRAD” mnemonic I assessed student understanding. For example, I had students log in to Qualtrics on their electronic devices and complete an assessment focused on student understanding of the “TRAD” mnemonic. For example, one question on the assessment asked, “What does T stand for?” After giving students a few minutes to answer the questions, I brought everyone together to discuss the questions from the assessment. This helped me check for understanding among the student participants.

Students then practiced DJ using their electronic devices. The students were instructed to open Google Docs and click on the document titled “Dialogue Journaling.” When they opened the document, a prompt appeared in the document: “What is something you like to do for fun during your spare time?” Students had 10 min to respond to the prompt. Students had to respond to the prompt using the “TRAD” mnemonic. To help students remember all the components of the mnemonic, they received a laminated sheet of paper containing the mnemonic and what it stood for, for use as a reference.

Once a student responded to the prompt, I responded via Google Docs. The student then responded back to me using the same procedure they used before. This exercise took place three times. I thought that this activity would give students plenty of time to practice DJ and its procedures. At the end of the training, students took a preference assessment on Qualtrics that I

had designed. The point of this preference assessment was to gather interest information so that teachers could make prompts responsive to their students. The training concluded with me asking students whether they had any questions about the study and what was expected of them.

### **Implementation of the Intervention**

DJ was implemented 3 days/week (i.e., Monday, Wednesday, and Friday). It was up to each teacher to determine the time of day when implementation would occur, because each classroom had its own schedule. DJ was completed on students' and teachers' electronic devices. Each participating teacher wrote a prompt in the Google Docs document. The prompts were different for each journal session and either connected to a past journal entry or asked questions specific to a student. The prompt format created by Regan et al. (2005) was used for this study. These prompts asked questions or presented statements in an open-ended manner; examples are "write about an interesting time from your childhood" or "what do you want most in the world and why?" Teachers were responsible for making their own prompts but were provided with some sample prompts for their reference. Teachers were encouraged to prompt their students using the "TRAD" mnemonic.

Students were encouraged to respond to teacher prompts using the "TRAD" mnemonic. Teachers were asked to reply to students in their journals before the next journaling session. For example, if a student wrote a journal entry on Monday, the teacher was asked to have their response back to the student before the next journaling session on Wednesday. This gave the teacher freedom to respond to the student at any time before that Wednesday journaling session. The purpose of this restriction was to ensure constant conversation between students and teachers. If, for some reason, a teacher was absent for a day or had not replied to a student's



entry, that student's journaling session would be delayed until the teacher could respond. The same procedure was followed for students.

All students' and teachers' journal entries were reviewed to ensure that they were following the "TRAD" mnemonic guidelines. The training fidelity checklist, based on Kane's (2017) checklist, can be found in Appendix D. Journaling occurred on Monday, Wednesday, and Friday in 20-min sessions. The intervention lasted 4 weeks. Researchers have recommended 4–6 weeks for implementation of DJ (Kane, 2017; Mastropieri & Scruggs, 2005).

The study began on the Monday following the student training. On that Monday, students participated in their first DJ session. The first prompts were related to the information students shared on their Qualtrics preference assessments. Students were asked to respond to that prompt using the "TRAD" mnemonic. Participating teachers then had until Wednesday of that week to respond to their students' journal entries. I frequently checked the teachers' DJ prompts to ensure that they met the requirements for DJ prompts and reflected use of the "TRAD" mnemonic. Guidance through email would be given if a teacher or student did not follow the study procedures or missed journal sessions. This same procedure occurred on Monday, Wednesday, and Friday of each week for the 4-week period of the study.

### **Administration of Postintervention Scales/Assessments**

At the conclusion of the 4-week intervention, the two relationship scales (i.e., STRS-SF and STFS) were administered to the participating teachers and students. Both scales were administered in person, in Classroom A on one day and Classroom B on the next day, at the beginning of the school day.

## **Data Collection**

The quantitative data for the study were acquired through the two relationship scales (STRS-SF and STFS). Teacher praise language and student trust language data were collected through teachers' and students' electronic devices. All journal entries were completed via Google Docs. Praise and trust language were coded, identified, and counted to determine a frequency score for each DJ entry. I coded student trust language and teacher praise language for each journal entry.

Faithful use of the "TRAD" mnemonic in students' and teachers' journal entries was evaluated. I reviewed the students' and teachers' journal entries and marked the components of mnemonic included in the entries. This allowed me to see how well the mnemonic was applied and helped to explain the quality of teacher and student journal entries.

## **Analysis of Data**

An exploratory pre-/postintervention design was used to evaluate the data. The scores from the STRS-SF and STFS were compared for each participant. Each teacher's preintervention STRS-SF score for each student was compared with the teacher's postintervention STRS-SF score for that student to determine whether there was a statistical difference between the scores. This was also done for student pre- and postintervention STFS scores. A paired two-tailed *t* test was conducted to determine whether there were statistical differences in STRS-SF and STFS scores within groups. This analysis was chosen because it allowed comparison of the means of two related groups to determine whether the means were statistically different.

Teacher praise language and student trust language were analyzed by using frequencies in journal entries. The mean frequencies were compared between sessions (i.e. week 1, week 2, week 3, & week 4) to assess whether frequencies increased from the start of the intervention to

the end of the intervention. These frequencies were determined through content analysis of teacher and student journal entries. For example, I reviewed the journal entries and highlighted all statements that fit the criteria for teacher praise language (see Appendix F) or trust language (see Appendix G). The frequency of each type of statement was totaled for each journal entry. The mean frequencies for Weeks 1 and 2 were compared with those for Weeks 3 and 4 to determine whether the frequencies of teacher praise language and student trust language increased over the course of the study.

The journal entries were also coded for fidelity to the “TRAD” mnemonic. Analysis focused on identifying the “TRAD” mnemonic components included or not included in each journal session for both teachers and students. This was done to (a) assess the fidelity of the intervention and (b) help explain any variations in journal responses. I coded fidelity to the “TRAD” mnemonic by going through the teachers’ and students’ entries and highlighting the components apparent in those entries.

## **Treatment of the Data**

### **Research Question 1**

Research Question 1 was as follows: Does the implementation of DJ result in an improved score on the STRS-SF and STFS after intervention? Analysis for this research question was as follows: A two-tailed paired *t* test was conducted to determine whether there was a statistical difference between the pre- and posttest STRS-SF scores. The same test was run to determine whether there was a statistical difference between the pre- and posttest STFS scores. The alpha level was set at .05.

## **Research Question 2**

Research Question 2 was as follows: How does the implementation of DJ affect the amount of teacher praise language (i.e., contingent teacher praise and positive verbal feedback) found in participating teachers' DJ entries over the course of the study? Analysis for this research question was as follows: Frequencies were determined for teacher praise language for two different periods (Weeks 1–2 and Weeks 3–4), and the mean was calculated for each period. The means were compared to determine whether they increased over the course of the study.

## **Research Question 3**

Research Question 3 was as follows: How does the implementation of DJ affect the amount of trust language (e.g., asking for advice or guidance and sharing worries and frustrations with a teacher) found in students' DJ entries over the course of the study? Analysis for this research question was as follows: Frequencies were determined for student trust language for two different periods of time (Weeks 1–2 and Weeks 3–4), and the mean was calculated for each period. The means were compared to determine whether they increased over the course of the study.

## CHAPTER 4

### RESULTS

A major hurdle for students with EBD is development and maintenance of positive student–teacher relationships (Bradley et al., 2008; Kauffman & Landrum, 2018; Novak et al., 2020). Such students’ relationships with their teachers have typically been filled with conflict and tension (Kauffman & Landrum, 2018; Regan, 2003; Regan et al., 2005; Roorda & Koomen, 2021). When a negative student–teacher relationship is present, negative outcomes often follow for both teacher and student (e.g., teacher burnout, job frustration, increases in externalizing behaviors, and poor academic performance; McGrath & Van Bergen, 2015; Murray & Zvoch, 2011). When a positive student–teacher relationship is present, positive outcomes tend to follow (e.g., increased student engagement, improvements in academic performance, reductions in externalizing behavior, and lower levels of teacher burnout; Leverett et al., 2022; Pianta & Stuhlman, 2004; Roorda et al., 2011).

The purpose of this study was to examine the effects of DJ on relationships between students with EBD and their teachers. DJ is an effective intervention for students and their teachers in other populations, although research regarding its impact on students with EBD has been limited (D. H. Anderson et al., 2011; Konishi & Park, 2017; Regan, 2003; Regan et al., 2005). I sought in this study to expand the literature related to relationship interventions in this population of students. To that end, the following three research questions guided the activities of the study:

1. Does the implementation of DJ result in an improved score on the STRS-SF and STFS after intervention?

2. How does the implementation of DJ affect the amount of teacher praise language (i.e., contingent teacher praise and positive verbal feedback) found in participating teachers' DJ entries over the course of the study?
3. How does the implementation of DJ affect the amount of trust language (e.g., asking for advice or guidance and sharing worries and frustrations with a teacher) found in students' DJ entries over the course of the study?

To answer these research questions, an exploratory pre-/posttest design was used. The study involved two self-contained classrooms for students with EBD in the southwestern United States. A total of 10 students (eight male and two female) and two teachers (both female) participated in the study. At the time of the study, no specific relationship-based interventions were being implemented in either classroom. The intervention was implemented digitally (i.e., on Chromebooks via Google Docs) over a 4-week period. Data were collected using two relationship scales (the STRS-SF and STFS) and electronic dialogue journals.

### **Impact of DJ on Student–Teacher Relationships**

The descriptive data from responses to the teacher and student relationship scales appear in Table 2. Mean scores for both the Close and Conflict subscales of the STRS-SF increased over the course of the study. The mean score for Closeness on the STRS-SF increased by 3 points across the intervention (pretest  $M = 27.90$ ,  $SD = 8.34$ ; posttest  $M = 30.9$ ,  $SD = 8.04$ ). However, the mean score for Conflict on the STRS-SF also increased by 1 point (pretest  $M = 21.30$ ,  $SD = 9.06$ ; posttest  $M = 22.10$ ,  $SD = 9.68$ ). The increase in mean Closeness score on the STRS-SF was encouraging. This indicated that teachers felt their relationships with their students improved after DJ.

**Table 2***Descriptive Statistics*

Test	<i>M</i>	<i>SD</i>
STRS-SF (teachers)		
Close pretest	27.90	8.34
Close posttest	30.90	8.04
Conflict pretest	21.30	9.06
Conflict posttest	22.10	9.67
STFS (students)		
Pretest	39.80	8.50
Posttest	36.40	9.13

*Note.* STRS-SF = Student Teacher Relationship Scale–Short Form; STFS = Student Trust in Faculty Scale.

The mean score for students on the STFS decreased by 3.4 points during the intervention (pretest  $M = 39.80$ ,  $SD = 8.50$ ; posttest  $M = 36.40$ ,  $SD = 9.13$ ). This indicates that students thought their relationships with their teachers were worse after the intervention (Table 2).

A paired sample  $t$  test was used to determine whether there were statistically significant differences in the mean scores from pretest to posttest for both relationship scales. For teachers, there was no significant difference between the pre- and posttest scores on the STRS-SF for either the Closeness or Conflict subscales ( $p > .05$ ; see Table 3). There was also no statistically significant difference between pre- and posttest scores for students on the STFS ( $p = 0.411$ ; see Table 3).

Analysis of data from each individual classroom revealed a statistically significant change in the Closeness score from before the intervention to after in Classroom A ( $p = .017$ ; see

Table 4). This finding indicates that Teacher A felt her relationship did significantly improve after the intervention. Also, an increase in mean STFS score occurred for students in Classroom A (pretest  $M = 34$ ; posttest  $M = 36$ ). Although this increase for students in Classroom A did not reach statistical significance ( $p = .492$ ; see Table 4), it was encouraging to see an increase in mean scores after the intervention.

**Table 3**

*Whole Sample: Paired Samples Comparison of Means*

Pair	<i>p</i>	
	One sided	Two sided
1. Teacher Closeness: pretest, posttest	.203	.405
2. Teacher Conflict: pretest, posttest	.032	.065
3. Student STFS: pretest, posttest	.137	.274

*Note.*  $df = 4$ . STFS = Student Trust in Faculty Scale.

**Table 4**

*Classroom A: Paired Samples Comparison of Means*

Test	<i>p</i>	
	One sided	Two sided
Teacher		
STRS-SF Closeness pre/post	.008	.017
STRS-SF Conflict pre/post	1.00	.208
Student		
STFS pre/post	.246	.492

*Note.*  $df = 4$ . STRS-SF = Student Teacher Relationship Scale–Short Form; STFS = Student Trust in Faculty Scale.



In Classroom B, no statistically significant differences were found in the Closeness or Conflict STRS-SF scores from before the intervention to after (see Table 5). The descriptive statistics for Classroom B also indicated that students' mean score on the STFS dropped by 8.8 points (pretest  $M = 45.6$ ; posttest  $M = 36.8$ ). These data suggest that students felt worse about their student–teacher relationships after the intervention.

**Table 5**

*Classroom B: Paired Samples Comparison of Means*

Test	<i>p</i>	
	One sided	Two sided
Teacher		
STRS-SF Closeness pre/post	.203	.405
STRS-SF Conflict pre/post	.032	.065
Student		
STFS pre/post	.137	.274

*Note.*  $df = 4$ . STRS-SF = Student Teacher Relationship Scale–Short Form; STFS = Student Trust in Faculty Scale.

The completed analysis indicates that the participating teachers did not report statistically significantly higher scores on the STRS-SF after the intervention. The students overall also rated their relationships with their teachers' as worse after the intervention. It is important to note that although the scores were worse after the intervention, these differences did not reach statistical significance.

However, analysis in individual classrooms indicated that Classroom A had a statistically significant change in mean Closeness score on the STRS-SF after the intervention (see Table 4).

This indicates that the teacher in Classroom A perceived her relationship with her students in a more positive manner after the intervention. An increase in mean STFS score also occurred in Classroom A. This indicates that students in Classroom A rated their student–teacher relationships more positively after the intervention. However, data from Classroom B indicated a drop in mean STFS score (pretest  $M = 45.6$ ; posttest  $M = 36.8$ ) and no significant change in Closeness score on the STRS-SF. This indicates that the teacher in Classroom B felt her relationships with her students did not improve and that students viewed their relationships with their teacher as worse after the intervention. It is important to highlight that although the STFS score was lower after the intervention, this difference did not reach statistical significance.

### **Impact of DJ on Frequency of Use of Trust Language**

Trust language was one of the proxy measures for positive student–teacher relationships. I thought that this type of language would increase over the course of the study, based on findings from existing research indicating that trust language increases with positive student–teacher relationships (Holy & Tschannen-Moran, 1999; Mishra, 1996; Mitchel et al., 2016). Trust language was analyzed separately for teachers and students. Teacher trust language was operationally defined as positive verbal feedback and contingent praise (Appendix F). Student trust language was defined as a student’s willingness to ask for advice or guidance and share worries and frustrations with a teacher (Appendix G). Figure 1 summarizes frequencies of trust language.

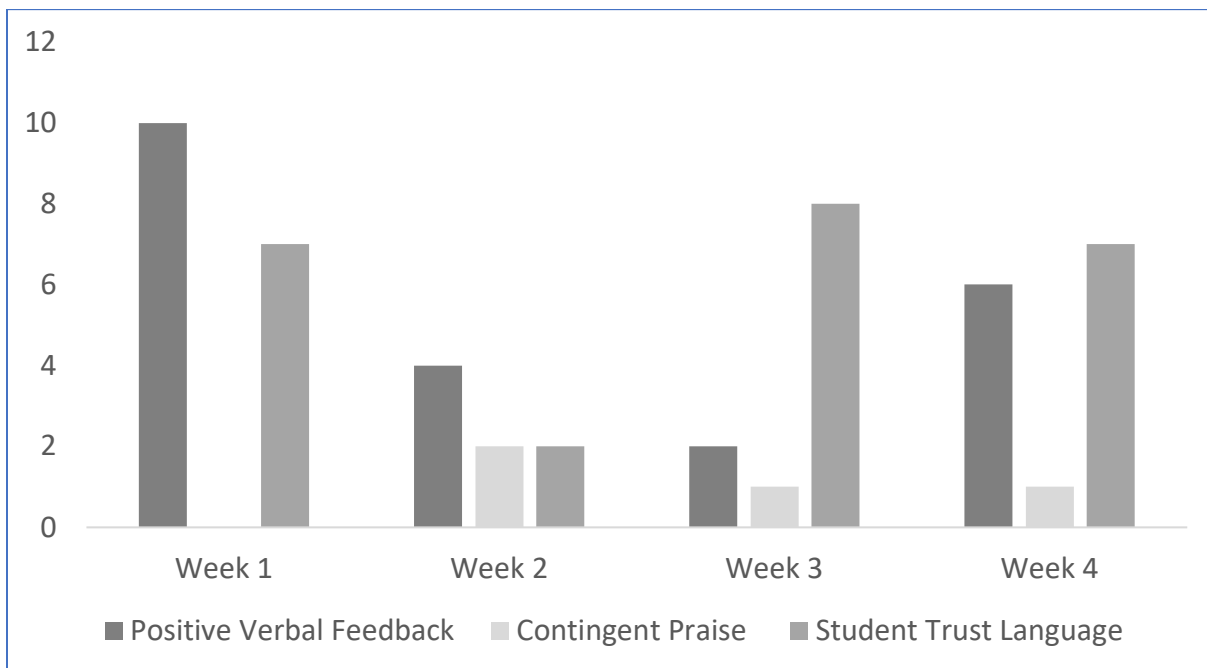
#### **Teacher Trust Language**

Frequencies of trust language did not consistently increase over the course of the study for either participant group (students or teachers). As seen in Figure 1, positive verbal feedback from teachers was more frequent at the beginning of the study (i.e., 10 instances of written

positive verbal praise in Week 1), dropped in frequency in the middle of the study (i.e., two instances in Week 2), and then increased in frequency in the last week of the study (i.e., six instances in Week 4). Some examples of positive verbal feedback in the journal entries appear in Table 6.

**Figure 1**

*Trust Language Frequencies*



**Table 6***Journal Excerpts Illustrating Positive Verbal Feedback*

Pair	Student	Teacher
Student A–Teacher A	First I do 40 pushups after that I took a 20 second break then do 30 situps after I will lift weights for 5 minutes I do this twice a week.	That’s great that you work out. It’s super healthy for you
Student B–Teacher B	I’m 14. I like games and I play for my school basketball team.if i won 100,000.00 i will give half to my mom and dad give some to my brother and sister move out my dad house and get me a house.:I’m 14. Whats your top 5 food to eat.	That is super honorable to help your family out like that.

The teacher in Classroom A was the only participating teacher who used this form of language more than five times over the course of the study. She typically used positive verbal feedback between three and five times with her students during DJ. Students who received positive verbal feedback at least 10 times each had the highest frequencies of student trust language. The teacher in Classroom B used positive verbal feedback less frequently than the teacher in Classroom A. However, the frequency of positive verbal feedback was linked to STRS-SF scores. For example, if the teacher used between four and five instances of positive verbal feedback in her journaling conversations with a student, she reported higher scores on the STRS-SF for that student after the intervention. As discussed above, this highlights a potential link between positive verbal feedback and positive student–teacher relationships.

Contingent praise occurred less frequently than positive verbal feedback in the journal entries. Only four instances appeared in all 10 journals over the 4 weeks of the study. I thought this form of praise would be common in teachers' journal entries and would increase in frequency over the course of the study. However, this form of trust language was found least often in the journal entries. Those three instances appear in Table 7.

What is interesting about these three instances is that two of them took place in the same classroom. However, this form of language occurred so infrequently in the study that it is difficult to draw any conclusions from the associated data.

### **Student Trust Language**

Trust language was used as an indicator of whether relationships improved between teachers and students. As seen above in the quantitative analysis, trust language did not steadily increase in frequency over the course of the study. However, when teachers shared personal information about themselves with their students, this typically led to students using more trust statements in their journal responses. For example, when teachers used the "T" component of "TRAD" they made relatable statements (e.g., a teacher stating something from a student's previous journal response to relate to the student) and shared personal information (e.g., a teacher sharing something private with a student), and deeper conversation occurred between teachers and students.

**Table 7**

*Journal Excerpts Illustrating Contingent Praise*

Pair	Student	Teacher
Student C–Teacher B	I’m 14. I like games and I play for my school basketball team.football because i like to play rough. Wahts your favorite sport and why?	<b>I am glad that you said basketball.</b> I really think you can be a great player because you really do have a lot of potential. I hope you can get yourself together to be able to play basketball in high school. I would really love to come and see you play.i really wish you can come see me play one day. I love football and food.
Student A–Teacher A	what team do you think is going to win for the school game	<b>Great question!</b> I’m hoping the Burkholder boys and girls win today. What do you think will happen at the game? Is there anyone on the team that you know well?
Student A–Teacher A	probably a music artist i don’t know. what would you’ve done if you weren’t a teacher.like what would you want to be.	<b>Good question.</b> If I wasn’t a teacher I would be an artist/writer. One that can be creative in many different ways like painting, drawing and writing poems.

*Note.* Bold indicates instances of contingent praise.

A strong link was also found between the “A” component of “TRAD” and student trust statements. For example, the more questions a student asked their teacher, the more trust statements the student made and the more opportunities there were for the teacher to share both relatable and personal information. The conclusion drawn from this finding is that students were more willing to share personal information through trust language if their teachers were willing to relate to them and correspondingly share information about their lives. By the 10th journal entry, each student typically began to share more personal information with their teacher and ask their teacher more personal questions. This finding agrees with findings from existing research

indicating that teachers seeking to build trust with students must be willing to share personal information about themselves (Ghosh et al., 2001; Hoy, 2002). Table 8 illustrates this finding.

**Table 8**

*Sharing of Personal Information*

Student	School	<i>f</i>			
		Asking	Student trust statements	Teacher relatable statements	Teacher sharing of personal information
A	A	13	14	6	10
B	A	16	12	11	7
C	B	12	5 <sup>a</sup>	0	0
D	A	10	14	8	5
E	A	3	1	1	2
F	B	6	3	5	0
G	B	7	4	2	0
H	B	0	2	0	0
I	B	7	1	2	0
J	A	1	1	5	5

<sup>a</sup> Teacher stopped responding to student.

**The “TRAD” Mnemonic**

The “TRAD” mnemonic (Kane, 2017) was taught in both teacher and student trainings. This mnemonic was designed to facilitate journaling conversations between teachers and students. The components of the mnemonic as taught to participants were “T” (“tell the teacher something about yourself”), “R” (“respond to the question or questions your teacher asked you”), “A” (“ask your teacher at least one question”), and “D” (“bring up a new topic”). The software

Dedoose was used to analyze how often teachers and students engaged components of the “TRAD” mnemonic. The full mnemonic was not used in all journal entries. Instead, only parts of the mnemonic were used in journaling sessions. The frequencies of use of “TRAD” mnemonic components appear in Table 9.

**Table 9**

*“TRAD” Mnemonic Frequency Data*

Component	<i>f</i>
Student	
T	37
R	110
A	75
D	15
Teacher	
T	97
R	71
A	116
D	33

*Note.* T = “tell the teacher something about yourself”; R = “respond to the question or questions your teacher asked you”; A = “ask your teacher at least one question”; D = “bring up a new topic.”

### **Student “TRAD” Use**

Students used Components “R” (“respond to the question or questions your teacher asked you”) and “A” (“ask your teacher at least one question”) of the mnemonic the most. Students



rarely used Components “D” (“bring up a new topic”) or “T” (“tell the teacher something about yourself”) of the mnemonic. This means that students consistently responded to their teachers’ questions and asked their teachers questions; however, they did not often engage components of the mnemonic that would extend or deepen the discourse. The first row of Table 10 shows an example of phenomenon.

**Table 10**

*Journal Excerpts Illustrating Application of the “TRAD” Mnemonic*

Pair	Excerpt
Teacher B–Student C	Teacher: “What is your favorite sport and why?” (Components “A” and “D” of “TRAD”). Student: “football because I like to play rough. What is your favorite sport and why?” (Components “R” and “A” of “TRAD”).
Teacher B–Student C	Teacher: “Would you ever get a tattoo? If yes, what would you get?” Student: “Yes I would probably in 11th grade and would get my moms name on my forearm.” Teacher: “I can see that you are a very loyal son. Would you get anything along with her name like a rose of some kind of symbol that is important to her?” Student: “Yeah I would get a rose and for my other tattoo I would get a tiger on my hand. Like this.”

*Note.* T = “tell the teacher something about yourself”; R = “respond to the question or questions your teacher asked you”; A = “ask your teacher at least one question”; D = “bring up a new topic.”

The low frequency of use of Component “T” (“tell the teacher something about yourself”) of the mnemonic indicates that students overall did not share much personal

information with their teachers, unless prompted. The second row of Table 10 illustrates a back-and-forth conversation between a participating student and their teacher.

As seen in Table 10, the student shares a lot of personal information about himself with his teacher. The student expresses his love for his mother by describing the tattoo he plans to get. The teacher acknowledges that when she states, “I can see that you are a loyal son.” Although the student responds to his teacher’s question, he also shares a lot of personal information with his teacher. Overall, students typically responded to teachers’ questions and asked questions of their teachers. It was interesting to see that students responded to questions more frequently than they asked them. This finding indicates that teachers facilitated the conversations more than students, which makes sense given that teachers are the ones who facilitate classroom instruction and dynamics.

### **Teacher “TRAD” Use**

Teachers used Components “T” (“tell the teacher something about yourself”) and “A” (“ask your teacher at least one question”) of the “TRAD” mnemonic the most. This makes sense when looking at the student “TRAD” data. Teacher participants were more likely to engage these two components of the mnemonic to either foster a conversation or keep one going. This method clearly worked, based on student frequency data related to responses to teacher prompts. For example, students engaged Component “A” (“ask your teacher at least one question”) of the mnemonic frequently, indicating that teachers piqued student interest, leading the students to ask more questions about the teachers. It was interesting to see that teachers also used Component “D” (“bring up a new topic”) of the mnemonic at a lower rate, like the students did. Another interesting finding from the teacher data was that teachers did not use Component “R” (“respond to the question or questions your teacher asked you”) of the mnemonic more frequently than they

used Components “T” (“tell the teacher something about yourself”) and “A” (“ask your teacher at least one question”).

### **Conclusion**

Overall, the data showed mixed results regarding the effect of DJ on student–teacher relationships. At the conclusion of the study, both teachers together had a higher mean score for the STRS-SF Closeness subscale (pretest  $M = 27.9$ ; posttest  $M = 30.9$ ). However, the change in mean score did not reach statistical significance. The increase in mean Closeness score does indicate that teachers reported feeling their relationships with their students were improving. However, students had more negative perceptions of their student–teacher relationships after the intervention, based on a drop in mean STFS score (pretest  $M = 39.8$ ; posttest  $M = 36.4$ ).

Examination of the two studied classrooms individually yielded some interesting conclusions. In Classroom A, a statistically significant difference was found in STRS-SF score from before the intervention to after ( $p = .017$ ). The Classroom A teacher also had a lower mean score for the Conflict subscale of the STRS-SF after the intervention (pretest  $M = 20.8$ ; posttest  $M = 18.4$ ). However, it is important to note that the change in mean Conflict score was not statistically significant. The teacher in Classroom A had a higher score on the Closeness subscale and lower score on the Conflict subscale after the intervention, indicating that she felt her relationships with her students were significantly more positive after the intervention. In addition, students in Classroom A had a higher mean STFS score after the intervention (pretest  $M = 34$ ; posttest  $M = 36$ ).

Classroom B had different outcomes from those of Classroom A. The teacher in Classroom B reported lower Closeness scores after the intervention (pretest  $M = 28.2$ ; posttest  $M = 27.4$ ) and higher Conflict scores after the intervention (pretest  $M = 21.8$ ; posttest  $M = 25.8$ ).

Students in Classroom B also had lower mean score on the STFS after the intervention (pretest  $M = 45.6$ ; posttest  $M = 36.8$ ). These findings indicate that the teacher in Classroom B and her students viewed their relationships as more negative after the intervention.

Counter to the study hypotheses, frequencies of teacher trust language (i.e., positive verbal feedback and contingent praise) did not steadily increase over the course of the study. Instead, they stayed relatively consistent and low throughout the study. Only 45 instances of positive verbal feedback occurred among the journals with the 10 students ( $M = 4.5$ ,  $Mdn = 5$ ; the mode was 5). This is very low, considering that the teachers were journaling 3 days/week with their students for 4 weeks. The teachers used contingent praise even less than they used positive verbal feedback. In all the study journals, only four instances of contingent praise occurred. The teacher in Classroom A used contingent praise three times, all with the same student; the teacher in Classroom B used contingent praise once.

Students did not report significant changes in student–teacher relationships after the intervention, as indicated by the lack of a statistically significant difference in STFS score between the pre- and posttests. Student trust language also did not increase steadily over the course of the study. In the 10 journals, only 57 instances of student trust language occurred. Three students from one classroom were responsible for 40 of those instances. Students had a mean of just six student trust statements in their journals. However, it is important to note that the four students with higher frequencies of trust language greatly affected the mean ( $Mdn = 3$ ; the mode was 1). However, the STFS scores of those four students who used trust language more frequently did not improve after the intervention. Instead, scores for two of those students decreased after the intervention. The STFS score for one of the students did show increase, from 50 on the pretest to 52 on the posttest. This student also received more positive verbal feedback

(10 instances) than the other students did. It is important to note that these three students all came from Classroom B, indicating that something taking place in Classroom B influenced student trust language.

## CHAPTER 5

### DISCUSSION

The purpose of the study was to examine one of the proposed root causes of poor academic and postsecondary outcomes among students with EBD: lack of positive relationships between students with EBD and their teachers (D. H. Anderson et al., 2011; McGrath & Van Bergen, 2015; Sutherland & Oswald, 2005). When a negative student–teacher relationship is present, negative outcomes tend to follow (e.g., negative interactions between teacher and student, increased behavioral problems, poorer social outcomes, and lower academic performance; Pianta, 1999). Those negative outcomes have unfortunately been commonly associated with students with EBD. Current interventions for students with EBD have failed to address these issues globally. Researchers have shown that DJ improves student–teacher relationships (Driscoll et al., 2011; McIntosh et al., 2000) through the creation of an open dialogue between a teacher and their student (D. H. Anderson et al., 2011; Regan et al., 2005; Rodliyah, 2016).

An exploratory pre-/postintervention design was implemented to test the effects of DJ on 10 middle school students with EBD and two of their teachers and to determine whether DJ improved student–teacher relationships. The study took place over 4 weeks and required students and teachers to journal three times a week. The results of the study indicated that DJ had a positive impact on the perceptions of student–teacher relationships. However, these findings were not statistically significant. The results also indicated that intervention fidelity was an indicator of changes in student–teacher relationships. For example, in Classroom A, where the teacher followed the intervention procedures more closely, a significant change in positive student–teacher relationships occurred.

### **Impact of DJ on Relationship Perception for Teachers and Students**

The results of the study indicate that DJ minimally improved teachers' perceptions of their relationships with students with EBD. Teachers' mean scores for the Closeness and Conflict subscales of the STRS-SF both increased from pretest to posttest. For the Closeness subscale, the pretest mean score was 27.90 ( $SD = 8.34$ ), and the posttest mean score was 30 ( $SD = 8.04$ ). For the Conflict subscale, the pretest mean score was 21.30 ( $SD = 9.06$ ), and the posttest mean score was 22.10 ( $SD = 9.67$ ). For neither the Closeness ( $p = .086$ ) nor Conflict ( $p = .608$ ) subscales was the increase statistically significant. However, it is encouraging that the Closeness subscale score on the STRS-SF increased more than the Conflict subscale score. The mean score for students on the STFS decreased by 3.4 points across the intervention (pretest  $M = 39.8$ ,  $SD = 8.5$ ; posttest  $M = 36.40$ ,  $SD = 9.13$ ). This decrease indicates that students rated their perceptions of the relationships with their teachers lower after the intervention. As with the teachers, the difference in the mean score for the students was not statistically significant.

The findings of this study do not support past research findings showing that DJ improves student–teacher relationships (D. H. Anderson et al., 2011; Konishi & Park, 2017). For example, Konishi and Park (2017) found that DJ improved student–teacher relationships through the development of mutual trust. D. H. Anderson et al. (2011) found similar results in their comprehensive case study, reporting that participating teachers and students reported improvements in their student–teacher relationships. Regan (2003) found DJ improved student–teacher relationships among students with EBD and their teachers. The results of my study hinted at a reduction in positive student–teacher relationships after DJ for students and teachers but indicated no statistically significant change in student–teacher relationships following the intervention.

A reason for the unexpected findings may lie in past research on the implementation of DJ. Researchers have found that teacher prompts, journaling frequency, teacher type, and sharing of personal information can impact the effectiveness of DJ (D. H. Anderson et al., 2011; Garmon, 2001; Konishi & Park, 2017; Stillman et al., 2014). For example, Garmon (2001) found that teachers reported DJ as requiring too great a time commitment if done more than once a week. Stillman et al. (2014) found that DJ was difficult for teachers when students shared personal information. This could have taken place in my study. For example, in Classroom B there were instances in which students shared personal information with their teacher and the teacher did not respond to them. That may indicate that the teacher in Classroom B could not emotionally handle the personal information her students were sharing with her or was unsure how to respond to that information. D. H. Anderson et al. (2011) found in their case study that employing fewer teacher prompts resulted in better journal discussions. The overuse of prompts and the journaling commitment required in my study may help explain the lack of positive findings for DJ with respect to improving student–teacher relationships.

### **Change in Relationship Scale Score for Teachers**

Separate examination of the data from each participating classroom revealed some interesting findings. As indicated in Table 3, the teacher in Classroom A had a statistically significant change in their perception of closeness with their students from before the intervention to after ( $p = .017$ ). For the Closeness subscale of the STRS-SF, the pretest mean was 27, and the posttest mean was 34. For the Conflict subscale, the pretest mean was 20, and the posttest mean was 18. This finding indicates that the teacher in Classroom A felt her relationships did significantly improve after the intervention.



However, the teacher in Classroom B reported lower levels of closeness after the intervention (pretest  $M = 28.2$ ; posttest  $M = 27.4$ ) and higher levels of conflict after the intervention (pretest  $M = 21.8$ ; posttest  $M = 25.8$ ). These findings indicate that DJ had a larger impact on the teacher in Classroom A than on the teacher in Classroom B. One reason for this difference could be that the teacher in Classroom B implemented DJ with her students with less fidelity than the teacher in Classroom A. For example, the teacher in Classroom B missed journal sessions, started to copy and paste her responses to multiple students, and did not respond to students' questions as frequently as the teacher in Classroom A did. Overall, the teacher in Classroom A showed much higher intervention fidelity than did the teacher in Classroom B, and the teacher in Classroom A also appeared to engage more actively in DJ sessions. This may help explain the increase in student-teacher relationship scores after the intervention in Classroom A.

### **Change in Relationship Scale Score for Students**

As discussed above and in Chapter 4, participating students scored lower on the STFS after the intervention (pretest  $M = 39.80$ ,  $SD = 8.50$ ; posttest  $M = 36.40$ ,  $SD = 9.13$ ), indicating that students rated their relationships with their teachers lower after the intervention. As with the teachers, differences in students' perceptions of their relationships existed between Classrooms A and B.

In Classroom A, an increase in mean STFS score occurred for students after the intervention (pretest  $M = 34$ ; posttest  $M = 36$ ). Although the increase was not statistically significant ( $p = .492$ ; see Table 3), it indicates that students in Classroom A felt their relationships with their teacher had improved after the intervention. The increase in students' STFS scores corresponds to the increase in the teacher's STRS-SF scores after the intervention in Classroom A.

In Classroom B, students' scores on the STFS were lower after the intervention (pretest  $M = 45.6$ ; posttest  $M = 36.8$ ). This finding indicates that students in Classroom B viewed their relationships with their teacher in a more negative light after the intervention. There was likewise no significant change in the teacher's scores on the Closeness subscale of the STRS-SF from before the intervention to after. Although no statistically significant differences emerged, it is important to note that the teacher in Classroom B reported lower levels of closeness and higher levels of conflict after the intervention. These findings indicate that the teacher in Classroom B felt her relationships with her students did not improve and that her students rated their relationships with her as worse after the intervention.

### **Relationship Scale Score Conclusion**

Overall, these findings extend the findings of existing research on the use of DJ to improve student–teacher relationships (Basch, 2012; Durnford, 2010; Howes & Ritchie, 2002; Russell et al., 2016). The findings from Classroom A support the findings of Regan (2003) and Regan et al. (2005) indicating that DJ is an effective intervention for students with EBD. These researchers found that DJ improved writing and increased one-on-one interactions between teachers and students. DJ also gave students with EBD an alternative way to express their feelings. These studies constitute foundational research showing that DJ can be an effective intervention for improving student–teacher relationships for students with EBD. The findings from Classroom A also support the findings of Denne-Bolton (2013), who found DJ improved student–teacher relationships among secondary students. The findings from Classroom A also support the research of Chan and Aubrey (2021), who found that DJ improved rapport between teachers and students. This conclusion derives from the findings that, after the intervention, the teacher in Classroom A had higher scores on the Closeness subscale of the STRS-SF, and her

students had higher STFS scores; these findings indicate that both groups perceived their relationships as more positive after implementation of DJ.

The scale scores indicate that DJ did not improve student–teacher relationships in Classroom B; taken together with observations about the fidelity of implementation, these findings also seem to extend existing research related to the effective implementation of DJ. The findings for Classroom B contradict existing findings related to the impact of DJ, which indicate that DJ improves student–teacher relationships as measured by pretest and posttest scores (Chan & Aubrey, 2021; Denne-Bolton, 2013; Konishi & Park, 2017). However, the findings in Classroom B do extend previous research related to the proper implementation of DJ if it is to have a positive impact on student–teacher relationships. For example, Young and Crow (1992) provided an overview related to the best practices for implementing DJ in the classroom environment. Recommendations included that teachers should respond to all students’ questions. However, in Classroom B, the teacher did not respond to all students’ questions and even copied and pasted the same response to multiple students. The number of prompts used by the teacher in Classroom B could be another contributing factor. Instead of allowing a conversation to develop by expanding on the topic introduced in the previous journal session, this teacher commonly inserted a prompt on a completely different topic. This could in turn have stifled the development of back-and-forth conversation. D. H. Anderson et al. (2011) found in their comprehensive case study that when teachers used fewer prompts, students tended to write more, and back-and-forth conversations tended to develop between teachers and students. The teacher in Classroom A used fewer prompts in her journaling and allowed more back-and-forth conversations to develop. The overuse of prompts used by the teacher in Classroom B may have been a contributing factor to the negative result there. The findings for Classroom B also

highlight the importance of implementing interventions faithfully. Based on the data relating to the “TRAD” mnemonic, implementation fidelity was lower in Classroom B than in Classroom A. Lack of such fidelity can hinder or negate the effects of an intervention (Smith et al., 2007).

### **Effects of DJ on Trust Language**

Trust language was one of the measures used to assess development of positive student–teacher relationships across the study. I hypothesized that this type of language would increase in frequency over time based on existing research indicating that increases in trust language typify strengthening of student–teacher relationships (Holy & Tschannen-Moran, 1999; Mishra, 1996; Mitchel et al., 2016). However, the frequency data indicated that trust language increased in frequency for neither teachers nor students over the course of the 4-week study (see Table 3). Instead, the frequency of trust language stayed relatively consistent across the course of the study (see Table 3).

### **Effects of DJ on Student Trust Language**

The frequency of student trust language stayed consistent except for in Week 2, when it dropped from seven instances (in Week 1) to two (see Table 3). This finding was unexpected based on existing literature related to student trust language, which suggests that when student–teacher relationships are more positive, student trust language is likely to increase (McCarthy, 2021; Mitchel et al., 2016). However data from this study did not provide evidence extending these existing findings. It should be noted that those researchers measured trust language in oral not written communication, so the medium may make a difference, which deserves exploration. The journaling window may also have been too narrow for teachers and students to develop stronger positive relationships. Other DJ researchers have found that DJ must be implemented

for longer periods of time (i.e., at least 5 weeks) to promote development of trust and meaningful communication between teachers and students (Horton, 2011; Regan et al., 2005; Young & Crow, 1992). It could be that the 4-week study was not long enough for these changes in trust language to occur. The reasons discussed above could help to explain the low frequency of trust language in student journals.

### **Effects of DJ on Teacher Trust Language**

Like student trust language, teacher trust language did not consistently increase during the 4-week study. Instead, it stayed relatively consistent apart from Weeks 2 and 3. For example, the frequency of positive verbal feedback was 10 in Week 1, then dropped in Weeks 2 and 3 to four and two, respectively, before increasing in Week 4 to six. Contingent praise was the least common form of trust language in the journal entries. Only four instances occurred in all 10 journals over the 4-week study period. However, it could be that the operational definitions of trust language used in the study did not capture teacher trust language. Other researchers have found trust language to be a proxy for positive student–teacher relationships (Basch, 2012; Goddard & Goddard, 2001). But trust language in a journaling format may look different from oral trust language. This potential difference could be a reason for the lower observed frequencies of teacher trust language. Fidelity of implementation could also have contributed to the low frequency of teacher trust language. Lack of consistent journaling and failure to follow procedures for ensuring high-quality journaling conversations could have hindered the development of trust language.

The data found from the “TRAD” mnemonic analysis indicated that when teachers used relatable statements and shared personal information, deeper conversations developed between teachers and students in journaling sessions. Students exposed to such language from teachers

were more likely to use trust statements. Relatable statements and sharing of personal information may have been how teachers expressed trust (Krane et al., 2017). As discussed above, the sharing of personal information is key to development of trust between teachers and students (Konishi & Park, 2017).

## **Limitations**

### **Participant Sample**

The small sample of the study (two teachers and 10 students) was one of its biggest limitations. Because of the COVID-19 pandemic, it became increasingly difficult to recruit schools and classrooms to participate in the study. All middle schools in the participating school district that had self-contained programs for students with EBD were contacted. Of the 40 schools contacted, only three responded positively to the recruitment email. Representatives of several schools emailed suggesting that, although they thought the study important, they just did not think their teachers could take on any additional responsibilities. Of the three schools that responded positively, only two followed through with all the procedures required for participation in the study. Between the two classrooms studied, 11 students provided both parental permission and student assent to participate in the study. Of those 11 students, only 10 participated in the journaling sessions. A byproduct of having such a small sample is that conclusions related to the findings of this study should not be generalized to all students with EBD without additional exploration.

### **Intervention Control**

Another limitation of the study was inability to control for all interventions (e.g., social skills interventions and behavior-based interventions) already implemented in the two studied classrooms to improve student–teacher relationships. For that reason, it is not possible to

conclude whether the changes in the relationship scale scores between pretests and posttests were due to DJ, one of the other interventions implemented, or a combination of the two. Interactions outside my control may also have led to the decrease in relationship scale scores in Classroom B; interactions outside the DJ intervention were not controlled for in the study design. All social skills and behavior-based interventions would ideally have been paused or controlled for in both classrooms during the study. However, I deemed it unethical to pause or alter a classroom's existing intervention for the purposes of the study.

### **Teacher Fidelity to Intervention**

Intervention fidelity was another limitation of the current study. Throughout the 4-week study, participating teachers and students did not make full use of the "TRAD" mnemonic. Participants also missed journaling sessions. The lack of fidelity may have impacted the overall power of DJ and the impact it could have had on students and teachers.

I controlled for fidelity by monitoring the journals and checking that teachers and students followed the study procedures and journaled three times a week. If teachers or their students were not following the intervention procedures, an email was sent to the teachers about the situation and how to resolve it. However, this method of controlling for fidelity had limited effectiveness, based on data regarding the use of the "TRAD" mnemonic and the number of missed journal sessions. Having more in-depth procedural training and limiting the number of journaling sessions per week may improve intervention fidelity in future research. Other researchers have found that limiting journaling sessions and using fewer prompts improves journaling dialogue between teachers and students (D. H. Anderson et al., 2011; Garmon, 2001).

## **Remote Implementation of DJ Training**

The remote training posed another potential challenge for the study. Teachers were trained (and their consent to participate was obtained) over Zoom in time-constrained (90-min) sessions. It is possible that the teachers did not fully understand the study procedures after their training, which could have influenced their understanding of the “TRAD” mnemonic and the journaling schedule as specified in the study procedures. For future research, training should be conducted in person and over a longer period. This would provide more time for teachers to practice research procedures and for verification of their full understanding of their roles and study procedures. Future research should also include teacher coaching during DJ for teachers who fall behind schedule to attempt to maintain discourse between teachers and students.

## **Journaling Commitment**

The length of the study and journaling schedule (i.e., 3 days/week) could have also negatively impacted the study. Researchers have shown that 4–6 weeks is enough time to determine whether an intervention is effective or not (D. H. Anderson et al., 2011; Garmon, 2001). However, 4 weeks may have not been enough time to test the effectiveness of DJ for improving student–teacher relationships. This could be because relationships take time to develop, and 4 weeks may not have been enough time for teachers and students to develop or improve their relationships (D. H. Anderson et al., 2011). The 4-week study window also provided little room for teachers or students to make up journaling sessions if they had to miss school. The 4-week window also limited the number of times teachers and students had to journal with one another. This, in turn, could have increased the journaling fatigue in both teachers and students. Examination of the 10 study journals indicates that journaling fatigue took place around Week 2 of the study, when students and teachers missed two to three journaling



sessions on average. It may have been more beneficial to increase the length of the study to 6 weeks or more and have teachers and students journal with each other once or twice per week instead of three times per week. This may have given both parties (teachers and students) more time to reflect on each other's journaling responses and limited the chances of burnout.

### **Comparison Classroom**

The inability to acquire a comparison classroom was another limitation of the study. It would have been beneficial to compare relationship scale scores for classrooms that did not receive the intervention. Time may have influenced relationships more than any intervention in place. Having a control classroom would have helped to control for this variable.

### **Exit Interviews**

Conducting post interviews with teachers and students would have yielded better insight into why certain themes were found among the journals, such as the drop-off in journal sessions in Week 2. It would have also provided context regarding why some students and teachers developed more in-depth conversations than others. Interviews would have also provided more context regarding the relationship scale scores.

### **Future Research**

Findings from this study could lead to multiple strands of future research further exploring the impact of DJ on student-teacher relationships for students with EBD. Suggestions for future research include the following:

1. Replicate the study with a larger sample. The first step in future research should be to replicate the study with a larger sample. A focus of future research should be obtaining a larger sample to test the effects of DJ on students with EBD developing positive student-teacher relationships.

2. Use a control classroom. Future researchers should replicate this study using an experimental classroom and a control classroom. The control classroom would do business as usual, and the experimental classroom would receive the intervention (i.e., DJ). This would allow evaluation of whether DJ has a significant impact on positive student–teacher relationships relative to existing classroom interventions.
3. Take academic achievement into consideration. Researchers should implement writing and reading comprehension measures in conjunction with relationship measures to study the effectiveness of DJ as an academic intervention for students with EBD. Researchers have shown that DJ enhances academic growth in writing mechanics, literacy skills, and conceptual understanding (Holmes & Moulton, 1997; Murad & Rihad, 1998; Peyton & Seyoum, 1989) among a variety of student populations (i.e., students with specific LD, general education students, and English language learners). However, few researchers have studied DJ as an academic intervention for students with EBD. For that reason, future researchers should examine whether DJ can improve academic performance among students with EBD in middle school, in conjunction with relationship building.
4. Take age into consideration. Future researchers should also assess the effects of DJ on a variety of student age groups. It may be that DJ has a larger impact on students at certain ages than others.

### **Conclusion**

Overall, the effects of DJ on student–teacher relationships were mixed in this study. Teachers scores for the Closeness subscale of the STRS-SF did increase after the intervention (pretest  $M = 27.90$ ,  $SD = 8.34$ ; posttest  $M = 30.90$ ,  $SD = 8.04$ ). The mean score for the Conflict

subscale of the STRS-SF also increased 1 point after the intervention (pretest  $M = 21.30$ ,  $SD = 9.06$ ; posttest  $M = 22.10$ ,  $SD = 9.68$ ). These findings suggest that teachers did think their relationships improved after the intervention. However, neither the Conflict nor Closeness subscale changes were statistically significant.

When teachers followed the journaling protocols more closely, a significant increase in positive student–teacher relationships appeared. This was seen in Classroom A, where there was a statistically significant increase in the Closeness score after the intervention (Table 4). By following the study procedures, this teacher was more engaged with her students and did not miss journaling sessions. This allowed for more back-and-forth conversations to take place in which common interests emerged and participants shared personal statements. As discussed earlier, identification of common interests and sharing by teachers of personal information were linked to higher frequency of student trust statements. The increase in STFS scores for students in Classroom A supports this conclusion.

The teacher in Classroom B did not follow the study journaling procedures as well as the teacher in Classroom A did. For example, the teacher in Classroom B missed journaling sessions, did not build on students' previous responses, and (toward the end of the study) began to copy and paste her journal responses across several student journals. This in turn hindered development of back-and-forth conversations between this teacher and her students, which prevented the sharing of common interests, relatable statements, and personal information. Researchers have highlighted that, for DJ to be effective, a back-and-forth conversation is important (Beach & Beauchemin, 2020; Konishi & Park, 2017; Stillman et al., 2014). This finding may help to explain why no significant change appeared in the scores for the Closeness

subscale of the STRS-SF for the teacher in Classroom B and why her students' scores on the STFS were lower after the intervention.

Trust language did not steadily increase over the course of the study for either teachers or students. However, the data relating to application of the “TRAD” mnemonic indicated that teacher and student trust may have been developing but that the operational definitions used for trust language were inappropriate for or unrepresentative of what participants perceived as trust language. For example, students engaged in the “R” component of the mnemonic the most (110 instances). This suggests that students felt comfortable enough with their teachers to engage with them. They were also interested in getting to know their teachers, based on the frequency with which they applied the “A” component of the mnemonic. It could be that the operational definitions of trust language were too rigid to capture teacher and student trust language. Overall, the study provided evidence that DJ may be an effective intervention for developing student–teacher relationships for students with EBD. Future research is needed using a larger sample, greater implementation fidelity, and exit interviews that explore students' and teachers' perspectives of DJ and how they think it affects relationship development.

Overall, DJ has the potential to improve the social–emotional well-being of students with EBD. As discussed in previous sections, others have found DJ to be an effective intervention for improving student–teacher relationships (D. H. Anderson et al., 2011; Konishi & Park, 2017; McGough, 2013). This occurs through increases in interaction time between teachers and students and through sharing of personal information and life experiences (Denne-Bolton, 2013; McGough, 2013; Stillman et al., 2014). This phenomenon becomes increasingly important as students enter middle school, where academic performance and student–teacher relationships tend to worsen (Akos et al., 2015). The decline in student–teacher relationships in middle school

is particularly concerning given existing research regarding academic motivation (Raufelder et al., 2016; Scales et al., 2020). Students who perceive their relationships with their teachers as positive are likely to show academic motivation and perform well academically, and vice versa (Raufelder et al., 2016). However, students who come from backgrounds of low socioeconomic status, exhibit behavioral issues, and have disabilities tend to enter middle school with worse student–teacher relationships than those of other students (Akos et al., 2015; Scales et al., 2020). If these relationships remain unaddressed, these students and their teachers become more likely to experience the unfavorable effects associated with negative student–teacher relationships (McGrath & Van Bergen, 2015; Roorda & Koomen, 2021; Van Bergen et al., 2020).

Students with EBD are at a higher risk of developing negative student–teacher relationships relative to other student populations. This risk is due to their relatively high rates of behavioral issues (Akos et al., 2015; Berchiatti et al., 2022; Scales et al., 2020). DJ could provide an outlet through which students with EBD and their teachers could develop positive student–teacher relationships. The goal of this study was to provide the groundwork for future research into the effects of DJ on student–teacher relationships among students with EBD. The findings suggest that faithful implementation of DJ leads teachers and students to perceive their relationships as more positive.

APPENDIX A

TEACHER CONSENT FORMS



INFORMED CONSENT

Department of Early Childhood, Multilingual, and Special Education

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**TITLE OF STUDY:** Enhancing the Relationships of Students with EBD and their Teachers

**INVESTIGATOR(S):** Joseph Morgan; Jack Watts

For questions or concerns about the study, you may contact Jack Watts at [wattsj2@unlv.nevada.edu](mailto:wattsj2@unlv.nevada.edu) or Joseph Morgan at [joseph.morgan@unlv.edu](mailto:joseph.morgan@unlv.edu).

For questions regarding the rights of research subjects, any complaints or comments regarding the manner in which the study is being conducted, contact **the UNLV Office of Research Integrity – Human Subjects at 702-895-2794, toll free at 888-581-2794 or via email at [IRB@unlv.edu](mailto:IRB@unlv.edu).**

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**Purpose of the Study**

You are invited to participate in a research study. The purpose of the project is to study the effects of a relationship-based intervention to repair poor or damaged relationships between you and one or more of your students. Some students selected for the project will be placed in the experimental group (intervention) and other students will be placed in the control group

(business as usual). Random assignment will take place at the classroom level. This means that some classrooms will get the intervention and other classrooms will not get the intervention. Your classroom will have a 50% chance of getting the intervention (their classroom is selected to be in the experimental condition) during the 4-week study window. However, control condition classrooms will receive the intervention after the study concludes. If you choose not to participate in this study that is completely fine, and it will not affect your employment.

### **Participants**

You are being asked to participate in the study because you fit this criterion: you are a self-contained middle school teacher for students with EBD. This is the population that is being studied for this project. As you likely know, students with EBD typically have a difficult time building and maintaining healthy relationships with both school staff and their peers. The hope is that this project can identify an effective intervention to assist students with EBD and their teachers to repair/build positive relationships with one another.

### **Procedures**

If you volunteer to participate in this study, you will be asked to do the following:

- Fill out the Student Teacher Relationship Scale (STRS) on each one of your students
- Implement the relationship intervention
- Give a preference assessment
- Hold weekly (once a week) 10-minute small group discussions on a student chosen topic

The intervention for this study is called dialogue journaling (DJ). DJ is an ongoing conversation between a student and their teacher where both parties (student/teacher) share information about each other, ask questions, and answer questions or bring up new topics with each other. These conversations would take place over Google docs using your and your student's electronic device. The journal entries will be monitored by the researchers. DJ would be implemented 3-days a week (Monday, Wednesday, and Friday) for 20-minute sessions.

The preference assessments will be done through Survey Monkey and completed on students' electronic devices. The preference assessment will only have to be administered once in the study (at the beginning of the study) and should take 10 minutes to administer. The results of this survey will generate the topics being discussed in the small groups.

The small group discussions are being used as a way to start/generate journaling sessions. It was thought this would make it easier for teachers and students to start journaling with one another. The small group discussions will last 10-minutes and be on a topic your students find interesting. For example, if Minecraft is the chosen topic then the teacher will hold a 10-minute discussion on Minecraft with his or her students. Nonparticipating students are allowed to participate in these small group discussions if you would like.

You will then go through an hour training on the components and procedures related to DJ and how it is implemented. This training will be done in-person at a time that is convenient for you. The training will also cover how the small group discussions will be implemented in your class.

### **Intervention Time**



Dialogue journaling will take place during independent worktime during the writing or social skills period of the day. However, you can implement DJ during a different part of the day if that fits your schedule better. During the independent worktime students will independently respond to your journal prompt. You will not have to respond to the student's journal entry in real-time. Instead, you will have the flexibility to respond to the student's journal response. The only requirement is that you respond before the student has their next journal session. While students are journaling in class nonparticipating students will be doing their normal independent work activity during that time. Below is the breakdown of the time of the intervention activities. The study will also be taking place during the normal school day. Below is the time commitment for the study.

### **Time Breakdown**

- 6 hours and 45 minutes of total participation (Teacher)
  
- Teacher Training (1 hour; we will schedule this at a time that is convenient to you)
  
- Student Journal Response (60 minutes a week; 4 hours of total intervention time that could occur during your prep period or after school)
  
- Small group discussions (10 minutes a week; 40 minutes of total intervention time during the regularly scheduled school day)

- Assessment administration for teachers (pre-study 35 minutes/30 minutes post-study; 1 hour total of intervention time that could occur during your prep period or after school)

### **Assignment**

Random assignment will take place at the classroom level. This means that some classrooms will get the intervention and other classrooms will not get the intervention. You will have a 50% chance of getting the intervention package in your classroom. However, classrooms that are in the control condition will have the ability to receive the intervention after the study concludes.

### **Benefits of Participation**

By allowing us to work with you and your students, you are contributing to an effort to improve the working relationships between yourself and your students. This in turn could help lay the foundation for a new line of interventions that could improve the academic and post-secondary outcomes for students with EBD.

### **Risks of Participation**

There are risks involved in all research studies. This study may include only minimal risks. You may come to learn information that you find uncomfortable during the journaling session. However, the journal entries will be monitored by the research team throughout the study to

make sure students are being appropriate in their entries. However, it is possible that based on information gained from journal entries, may require the researcher or you to report certain information (e.g., information relating to suicide, physical or sexual abuse) to the appropriate authorities. It is possible that loss of confidentiality could happen. However, that is highly unlikely due to the fact that we deidentifying your assessment responses and journal entries when reporting the data from the project. The information you share on the journals will be protected by Google' online security and will only be able to be seen by yourself, your student, and the researcher.

### **Cost /Compensation**

There will be no financial cost to you to participate in this study. You also will not be compensated for your time. All research activities will take place during the normal school day. However, training can take place outside of normal school hours if that is more preferable for teachers' schedules. The study will take a total of 6 hours and 45 minutes (1 hours of intervention training; Student Journal Response= 60 minutes a week; 40 minutes of small group discussions; one hour of pre and post assessments).

### **Confidentiality**

All information gathered in this study will be kept as confidential as possible. No reference will be made in written or oral materials that could link you to this study. All records will be stored in a locked facility at UNLV for 3 years after completion of the study. After the storage time the information gathered will be destroyed. Journal content between yourself and your student will only be able to be seen by you, the student your journaling with, and the researchers. **However, parents can have access to the journal if they choose when your student is at home.**

**Voluntary Participation**

Your participation in this study is voluntary. You may refuse to participate in this study or in any part of this study. You may withdraw at any time without prejudice to your relations with UNLV. You are encouraged to ask questions about this study at the beginning or any time during the research study.

**Participant Consent:**

I have read the above information and agree to participate in this study. I have been able to ask questions about the research study. I am at least 18 years of age. A copy of this form has been given to me.

\_\_\_\_\_  
Signature of Participant

\_\_\_\_\_  
Date

\_\_\_\_\_  
Participant Name (Please Print)

## APPENDIX B

### ASSENT FORM



#### ASSENT TO PARTICIPATE IN RESEARCH

### Enhancing the Relationships of Students with EBD and their Teachers

1. My name is Jack Watts and I'm a 4<sup>th</sup> year doctoral student at the University of Nevada, Las Vegas.
2. We are asking you to take part in a research study because we are trying to learn more about your relationship between you and your teacher. We are hoping to implement a classroom activity that will make coming to school even better for you. However, if you choose not to participate in this study that is completely fine. It will not affect your grade or participation in school.

In the study there are two different conditions, which are the experimental and control condition. In the experimental condition you would be participating in an activity during your school day that may improve your relationship with your teacher. In the control condition you will not be participating in the study activity. Instead, you will be engaging in your normal classroom practices. You have a 50% chance of being in either the experimental or control condition.

3. If you agree to be in this study, you will be participating in an intervention called dialogue journaling (DJ). In DJ you will be engaging in an ongoing back and forth written conversation with your teacher. In the Journal entries you will ask, answer, and talk about many topics with your teacher. These conversations will take place on an electronic device and done through the Google Doc app. You would be doing DJ three days a week for 20-minute sessions for 4-weeks. Only your teacher, you, and researcher will be able to see your journal entries. This activity will take place during the normal school hours.

Participating in this project will require you to go through training on the intervention. The training will take place during your normal school day and last for 45 minutes. In that time, you will learn how to access your online journal on Google Docs and learn the steps and rules of DJ.

In addition to participating in the study activity you also would be taking a survey on your relationship with your teacher. You will complete this survey twice (once at the beginning of the study and once at the end of the study). Your teacher will not see your response on the survey and your name will be removed from your survey so your response on the survey can't be linked to you. You would be taking this survey if you are in either of the study conditions (experimental or control condition).

4. There is little to no risk in participating within this study. Research personnel and your teacher will be the people with access to your online journal. Anything you share in your journal will only be able to be seen by those individuals. However, information from your journal may be shared with your parents and or other personnel if there are concerns about your mental health, physical health, or safety. In addition, you have the right to share your journal entries with your parents if you choose.
5. The benefit of participating in this study is that you may develop a stronger/better relationship with your classroom teacher.

6. Please talk this over with your parents before you decide whether or not to participate. We will also ask your parents to give their permission for you to take part in this study. But even if your parents say “yes” you can still decide not to do this.
  
7. If you don’t want to be in this study, you don’t have to be. Remember, being in this study is up to you and no one will be upset if you don’t want to or even if you change your mind later and want to stop.
  
8. If you have any questions or concerns about the study, you may contact Joseph Morgan at [joseph.morgan@unlv.edu](mailto:joseph.morgan@unlv.edu) or Jack Watts at [wattsj2@unlv.nevada.edu](mailto:wattsj2@unlv.nevada.edu). For questions regarding the rights of research subjects, any complaints or comments regarding the manner in which the study is being conducted you may contact **the UNLV Office of Research Integrity – Human Subjects at 702-895-2794, toll free at 888-581-2794, or via email at IRB@unlv.edu.**
  
9. Signing your name at the bottom means that you agree to be in this study. You and your parents will be given a copy of this form after you have signed it.

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Print your name

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Date

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Sign your name

**APPENDIX C**

**PARENT PERMISSION FORM**



**PARENT PERMISSION FORM**

**Department of Early Childhood, Multilingual, and Special Education**

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**TITLE OF STUDY: Enhancing the Relationship Between Students with EBD and their Teachers**

**INVESTIGATOR(S): Joseph Morgan & Jack Watts**

**CONTACT PHONE NUMBER: Joseph Morgan: 702-985-3329; Jack Watts: 925-286-6350**

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**Purpose of the Study**

Your child is invited to participate in a research study. The purpose of this study is to determine if student-teacher relationships among students labeled with an emotional and behavioral disturbance can be improved. Specifically, I will be studying the effects of a relationship-based intervention to repair poor or damaged relationships between teacher and students across a 4-week period. Some students selected to be in the study will participate in their regular instruction activities and routine classroom-based interventions; where other students will participate in their regular instruction, routine classroom-based interventions, and the relationship-based intervention. However, the students that don't get the relationship intervention during the 4-week study period will get it post-intervention under the direction of their teacher. The study intervention will help teachers and students create positive memories together while engaging in



a back-and-forth dialogue through journaling. This project has the support of the principal and teachers at your child's school.

### **Participants**

Your child is being asked to participate in the study because they are a middle school student that has an educational diagnosis of emotional and behavioral disorder (EBD) and is placed in a self-contained classroom for students with EBD.

### **Procedures**

If you allow your child to volunteer to participate in this study, your child will be asked to participate in journaling sessions with their classroom teacher. These journaling sessions will be done on their school electronic device where they engage in a back-and-forth conversation with his or her teacher. This type of journaling has been shown to improve student teacher relationships within the classroom. The journal entries will be monitored by the researcher and you will be notified if any information is shared that indicated your child is in danger. That information will also be reported to the appropriate authorities following mandated reporting procedures.

Some students selected for the project will be placed in the experimental group (intervention) and other students will be placed in the control group (business as usual). Random assignment will take place at the classroom level. This means that some classrooms will get the intervention and other classrooms will not get the intervention. Your child will have a 50% chance of getting the intervention (their classroom is selected to be in the experimental condition). However, classrooms that are in the control condition will get the intervention after the study concludes. All students participating in this project will complete a relationship assessment. All the assessments will be administered by the researcher and done through their electronic device.

Students in the experimental group will be doing a relationship building intervention online called Dialogue Journaling (DJ). DJ will be done on an electronic device through the Google Doc app. Students and teachers will engage in an ongoing conversation through these journals three days a week for 20-minute sessions. In the Journal entries teachers and students will ask and answer questions or bring up new topics with each other. These conversations will be monitored by the researchers. You will not have access to these journals. However, mandatory reporting might take place if certain information is shared in the journal entries, such as information related to suicide, physical or sexual abuse to the appropriate authorities. In these cases, you will be notified, and the journal entries will be shared with you.

In addition, your child would be taking a survey on their relationship with their teacher. They will complete this survey twice (once at the beginning of the study and once at the end of the study). Your child's teacher will not be able to see your child's response on the survey and their name will be removed from their survey so their response on the survey can't be linked to them.

The intervention training will take place during normal school hours over one day on live video in Google Hangouts. The training will last 45 minutes and go over Dialogue Journaling. During this training your child will learn how to access their Google Docs account and go over the steps of how to dialogue journal with their teacher. The journaling will serve as a back-and-forth conversation between your child and their teacher.

The study will last 4-weeks, and your child will not miss any core instruction during the intervention period. There is little if any risk to your child for participating in the project. All the activities are age and educationally appropriate and participation is voluntary.

### **Benefits of Participation**

There may be direct benefits to your child as a participant in this study. However, we hope to improve the working relationships between your child and their teacher. This in turn could help lay the foundation for a newline of interventions that could improve the academic and post-secondary outcomes of your child and other students with EBD.

### **Risks of Participation**

There are risks involved in all research studies. This study may include only minimal risks. It is possible that information your student shares with their teacher is leaked. However, that is very unlikely due to the fact that all journaling will take place on Google Docs and be protected by Google's security software. In addition, only research personnel will have access to the journal entrees. In addition, your child can only see their journal entries and no other journal entrees. Mandatory reporting might take place if certain information is shared in the journal entrees, such as information related to suicide, physical or sexual abuse to the appropriate authorities.

### **Cost /Compensation**

There *will not* be a financial cost to you to participate in this study. Your child will also not be compensated for their time. The study will take place during the normal school day via a Google Meets classroom; no face-to-face interactions will occur as a component of this study. The breakdown of the time of the intervention during the normal school day can be found below:

Student Training (45 minutes)

DJ (60 minutes a week) 4 hours of total intervention time

Small group discussions (10 minutes a week) 40 minutes of total intervention time

Student assessments (5 minutes pre-study/5 minutes-post-study) is 10 minutes of total time

### **Contact Information**

If you or your child have any questions or concerns about the study, you may contact Joseph Morgan at [joseph.morgan@unlv.edu](mailto:joseph.morgan@unlv.edu) or Jack Watts at [wattsj2@unlv.nevada.edu](mailto:wattsj2@unlv.nevada.edu). For questions regarding the rights of research subjects, any complaints or comments regarding the manner in which the study is being conducted you may contact **the UNLV Office of Research Integrity – Human Subjects at 702-895-2794, toll free at 888-581-2794, or via email at [IRB@unlv.edu](mailto:IRB@unlv.edu).**

### **Voluntary Participation**

Participation in this project is voluntary and you or your child have the right to withdrawal from this project at any time without any effect on his or her academic standing or grade. If your child leaves the study, his/her information will be removed. Your decision to participate or not participate will have no effect on your child's grade or relationship with your child's teacher in any way.

It is possible that your child may be removed from the study if he or she breaks the journal conduct rules of the study. The conduct rules for journaling are the following: no threatening language (i.e. I'm going to hurt) and no profanity directed at the teacher (i.e. I f\*\*\* hate you). Your child will get 3 warnings before they are removed from the study. The warnings will consist of an email and Google Hangout meeting with your child to talk about the situation. Parents are also welcomed to join these meetings if they would like.

**Confidentiality**

All information gathered in this study will be kept as confidential as possible. No reference will be made in written or oral materials that could link your child to this study. All records will be stored in a locked facility at UNLV for 3 years after completion of the study. After the storage time the information gathered will be destroyed.

**Participant Consent:**

I have read the above information and agree to participate in this study. I am at least 18 years of age. A copy of this form has been given to me.

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Signature of Parent

Child's Name (Please print)

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Parent Name (Please Print)

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Date

## APPENDIX D

### TEACHER TRAINING FIDELITY CHECKLIST FOR DJ

**Description:** Below are the activity steps that are going to be used to teach teachers how to implement Banking Time with their students.

**Activity 1:** Teacher will play the role of the student

- **Step 1:**
  - **Teacher:** Will pull out the laminated TRAD mnemonic sheet.
  - **Researcher:** The research will go over the mnemonic by explaining what it stands for and how it is vital for the DJ intervention.
  
- **Step 2:**
  - **Researcher:** Will instruct the teachers to open their Google Doc application on their device and click the document that says Dialogue Journaling.
  - **Teacher:** Turn on their device and open up the Google Doc application and click the Dialogue Journaling document.

- **Step 3:**
  - **Teacher:** The teacher will then respond to the written prompt in the Dialogue Journaling document using the TRAD mnemonic (this will last for **10 minutes**).
    - **Example:** The prompt will say, “What made you want to participate in this study?”.
  
- **Step 4:**
  - **Researcher:** The researcher will call everyone together to go over the teachers journaling entrees.
  
  - **Teacher:** Teachers will be paired up with a data collector and get positive feedback about their response.

**Activity 2:** Researcher will play the role of the student and the teacher will play the role of the teacher. Teachers will follow the same procedures as activity one but will play the role of the researcher and the researcher will play the role of the student.

## APPENDIX E

### STUDENT DJ FIDELITY CHECKLIST

**Description:** This checklist was adapted from Jonsson & Svingby, 2007; Peyton, 2000; and Kane, 2017. This checklist is to ensure that student journal entries contain the necessary components needed for DJ.

**Directions:** You will review the journal entrée and put a plus next to each one of the components of the mnemonic you see in the student's journal response.

	+	
<b>T</b>	<b>Definition:</b> The student shares something about themselves with the teacher.  <b>Example:</b> My favorite movie is Jurassic park	
<b>R</b>	<b>Definition:</b> Student answers all his or her teacher's questions.  <b>Example:</b> Yes. I really enjoyed today's game.	
<b>A</b>	<b>Definition:</b> Student asks the teacher a question about anything.  <b>Example:</b> What made you want to become a teacher?	
<b>D</b>	<b>Definition:</b> Brings up a new topic in their entrée that has not been discussed before.  <b>Example:</b> Have you ever heard of the game Minecraft? It's a lot of fun.	



## APPENDIX F

### TEACHER PRAISE RUBRIC

**Directions:** When you identified a teacher praise statement compare it to the rubrics below.

Mark what applies to the statement.

#### Contingent Praise

**Definition:** The praise occurs directly following the last journal entry and is specific to the student performing a desired behavior.

**Example:** You did a great job at responding to my journal entry using the TRAD mnemonic.

**Explanation:** The example above is an example of contingent praise because the student is being praised for carrying out the expected behavior of using the TRAD mnemonic.

#### Criteria

1. Does the teacher write what specific behavior the student did well? \_\_\_\_
  
2. Is the praise from a behavior that is from the last journal entry? \_\_\_\_

3. Is the praise on a behavior that the student is expected to carry out? \_\_\_\_

### **Positive Verbal Feedback:**

**Definition:** The teacher describes exactly what the student is doing well in a positive manner (i.e. using constructive words).

**Example:** You did a great job describing your favorite movie. I was impressed with how many adjectives you used in your journal response.

1. Is it clear what the teacher is complementing the student on: \_\_\_\_
2. Is the teacher is using a positive statement, such as great job or nice work: \_\_\_\_

## APPENDIX G

### STUDENT TRUST LANGUAGE RUBRIC

**Directions:** When you identified a student trust statement compare it to the rubrics below.

Mark what applies to the statement.

**Definition:** Student asks for advice, questions, or shares frustrations or personnel information to the teacher.

**Example 1:** Do you think I'm doing ok in school?

**Example 2:** I'm really frustrated by my current situation.

**Example 3:** I'm usually tired around this time of the day because I'm up all night worrying about my mom.

1. Does the student ask for advice? \_\_\_
  
  
  
  
  
  
  
  
  
  
2. Is the student talking about something that frustrates him or her? \_\_\_
  
  
  
  
  
  
  
  
  
  
3. Is the student sharing personal information? \_\_\_

## APPENDIX H

### TEACHER DJ FIDELITY CHECKLIST

**Description:** This checklist was adapted from Jonsson & Svingby, 2007; Peyton, 200; and Kane, 2017. This checklist is to ensure that teacher journal entrees are being done with fidelity.

**Directions:** Please put a + next to the components that are found in the journal entry that you are reviewing.

	<b>Teacher DJ Components</b>	+
1	The student is the main focus of the journaling	
2	The teacher response to the student is specific to that student	
3	The teacher shared at least one personal experience with his or her student	
4	The teacher asked at least two questions	

**APPENDIX I**

**STRS-SF**

**Robert C. Pianta**

Child: \_\_\_\_\_ Teacher: \_\_\_\_\_

Grade: \_\_\_\_\_

Please reflect on the degree to which each of the following statements currently applies to your relationship with this child. Using the scale below, circle the appropriate number for each item.

Definitely does not apply 1	Not really 2	Neutral, not sure 3	Applies somewhat 4	Definitely applies 5
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1.	I share an affectionate, warm relationship with this child.	1	2	3	4	5
2.	This child and I always seem to be struggling with each other.	1	2	3	4	5
3.	If upset, this child will seek comfort from me.	1	2	3	4	5
4.	This child is uncomfortable with physical affection or touch from me.	1	2	3	4	5
5.	This child values his/her relationship with me.	1	2	3	4	5
6.	When I praise this child, he/she beams with pride.	1	2	3	4	5

7.	This child spontaneously shares information about himself/herself.	1	2	3	4	5
8.	This child easily becomes angry with me.	1	2	3	4	5
9.	It is easy to be in tune with what this child is feeling.	1	2	3	4	5
10.	This child remains angry or is resistant after being disciplined.	1	2	3	4	5
11.	Dealing with this child drains my energy	1	2	3	4	5
12.	When this child is in a bad mood, I know we're in for a long and difficult day.	1	2	3	4	5
13.	This child's feelings toward me can be unpredictable or can change suddenly.	1	2	3	4	5
14.	This child is sneaky or manipulative with me.	1	2	3	4	5
15.	This child openly shares his/her feelings and experiences with me.	1	2	3	4	5

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## APPENDIX J

### STFS

### STF Scale

**Directions:** Please indicate how much you agree or disagree with each of the following statements. Please choose the answer that is closest to how you feel or what you think by filling in one circled number in each row. Please answer all items, even if you are not sure.

	Strongly Disagree	Disagree	Agree	Strongly Agree
1. Teachers are always ready to help at this school.	1	2	3	4
2. Teachers at this school are easy to talk to.	1	2	3	4
3. Students are well cared for at this school.	1	2	3	4
4. Teachers at this school always do what they are supposed to.	1	2	3	4
5. Teachers at this school really listen to students.	1	2	3	4
6. Teachers at this school are always honest with me.	1	2	3	4
7. Teachers at this school do a terrific job.	1	2	3	4
8. Teachers at this school are good at teaching.	1	2	3	4
9. Teachers at this school have high expectations for all students.	1	2	3	4
10. Teachers at this school DO NOT care about students.	1	2	3	4
11. Students at this school can believe what teachers tell them.	1	2	3	4
12. Students learn a lot from teachers at this school.	1	2	3	4
13. Students at this school can depend on teachers for help.	1	2	3	4

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## CURRICULUM VITAE

**Jack Watts, M.Ed.**

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### Current Position

2016-2022

PhD Graduate Assistant, College of Education, Department of Education and Clinical Studies,  
University of Nevada, Las Vegas

2016-present

Project CULTURED Scholar, **Project CULTURED: College and University Leaders Trained to Understand and Respond to Exceptionalities and Diversity**, U.S. Department of Education, Office of Special Education Programs

2016-2018

Project Coordinator, University of Oregon, Center for Teaching and Learning, **Numbershire: Evaluating the Efficacy of a Mathematics Gaming Intervention for At-Risk First Grade Students**, Institute of Education Sciences, Special Education Research Grant Programs, funded, \$264,291.00.

### Degrees Awarded

Doctor of Philosophy, Special Education, Expected 2021

University of Nevada, Las Vegas  
Disability Areas: Learning Disabilities and Emotional/Behavioral Disorders  
Leadership Area: Statistics

Master of Education, Special Education, 2016

University of Nevada, Las Vegas  
Area of Emphasis: Learning Disabilities  
GPA: 4.0/4.0

Bachelor of Science, Psychology, 2013

Saint Mary's College of California  
Graduated Magna Cum Laude with College Honors and Highest Distinction  
Member of the Honors College  
GPA: 3.34/4.00

## Honors and Awards

Certificate of Distinction, University of Nevada, Las Vegas, 2015

Dean's Honor List, Saint Mary's College of California, California, 2012

Dean's List, Foothill College, Los Altos Hills, California, 2009

## Professional Experience

### University Experience

University of Nevada, Las Vegas, 1/2016-5/2019

Teaching Graduate Assistant, Department of Educational and Clinical Studies

University of Nevada, Las Vegas, 8/2016-present

Project CULTURE Scholar. **Project CULTURED: College and University Leaders Trained to Understand and Respond to Exceptionalities and Diversity**, U.S.

Department of Education, Office of Special Education Programs

University of Nevada, Las Vegas, 5/2016-8-2016

Graduate course development

### Clinical Experience

Clark County School District, Las Vegas, Nevada, 8/2018-2019

- Behavior Consultant

Clark County School District, Las Vegas, Nevada, 8/2015-12/2015

- Behavior Management Team

Baby and Child Rebel Lab, Experimental Psychology Dept., Las Vegas, Nevada, 1/2014-5/2014

- Research Assistant

Behavioral Intervention for Autism, Emeryville, California, 10/2012-12/2012

- Behaviorist Intern

Veterans' Administration Hospital, San Francisco, California, 6/2010-8/2010

- Psychology Intern

### Editorial Boards

Guest Reviewer, *Council for Learning Disabilities*, 2016.

## Research and Scholarship

### Publications

#### *Refereed Articles*

Marsh, R. J., Morgan, J. J., Higgins, K., Pruss, A., & **Watts, J.** (2017). Provision of mental health services to students with emotional and behavioral disorders. *Journal of Disability Policies Studies*.

### Presentations

**Watts, J.** (2020, October). Building Relationships between Teachers and Students with Learning Disabilities. Council for Learning Disabilities, Online

**Watts, J.** (2019, October). The Relationship between adverse childhood experiences (ACE) & emotional and behavioral disorders (EBD). Teacher Educators for Children with Behavioral Disorders, Tempe, Arizona.

**Watts, J.** (2018, October). Impact of game-based social skills intervention for students with LD. Council of Learning Disabilities, Portland, Oregon.

Desnoyer, B., Ewoldt, K. B., Higgins, A. K., Love, M., Morgan, J. J., Murphy, S., Rüdener, H., Spies, T., G., Tetzlaff, D. M., **Watts, J.**, Zirkus, K., (2018, March). *Project CULTURED: Training Doctoral Leaders to be Innovators in Context*. American Association of Colleges for Teacher Education Conference, Baltimore, Maryland.

Marsh, R. J., Morgan, J. J., Higgins, K., Pruss, A., & **Watts, J.** (2017, November). Provision of mental health services to students with emotional and behavioral disorders. Single paper session to be presented at the annual meeting of the Teacher Education Division of the Council for Exceptional Children in Savannah, GA.

Morgan, J. J., **Watts, J.**, & Brown, N. B., (2016, November). Addressing the sever and persistent learning needs of students with EBD/LD through teacher perpetration. Poster session to be presented at the annual meeting of the Teacher Education Division of the Council for Exceptional Children in Lexington, KY.

Morgan, J. J., **Watts, J.**, & Brown, N. B., (2016, November). Implementing a university based alternative route to licenser program; lessons learned. Poster session to be presented at the annual meeting of the Teacher Education Division of the Council for Exceptional Children in Lexington, KY.

## Teaching

### University Courses Developed

#### *Graduate*

ESP 705 Psychological and Sociological Problems of Students with Emotional Disabilities

- Working with a design team to create a class about students with emotional and behavioral disorders through problem-based learning. The class covers the study and interpretation of theories and research concerning learning characteristics and psychological and social aspects of students with emotional disabilities within the school setting.

### University Courses Taught

#### *Undergraduate*

Course Number and Title	Course Description
EDSP 432: Serving Individuals with Disabilities & Their Families	Course covers theories and practices for engaging families from culturally and linguistically diverse backgrounds in the education environment.
EDU 203: Introduction to Special Education	Survey of the characteristics, training, and educational needs of students with disabilities and gifts and talents. Designed for undergraduate students in special education, general education, nursing, counseling, psychology, and related fields.

#### *Graduate*

Course Number and Title	Course Description
ESP 701: Introduction to Special Education and Legal Issues	Survey of the characteristics, training, and educational needs of students with disabilities. Designed for graduate students in special education, general education, nursing, counseling, psychology and related fields.
ESP 730: Parent Involvement in Special Education and General	Course covers theories and practices for engaging families from culturally and linguistically diverse backgrounds in the education environment.
ESP 735: Advanced Behavior Management Techniques	Course provides students with skills to apply behavioral, psycho-educational, and other approaches used to address the behavior of students with disabilities, with an emphasis on functional assessment and positive behavior support.
ESP 763: Seminar in Special Educational Topics	Areas of emphasis are a) mental retardation, b) emotional disturbance, c) learning disabilities, d) autism, e) early childhood, f) gifted education, g) parent education, h) higher education, i) special education administration, j) research, k) consultation, l) curriculum, m) technology, n) ABA, o) diversity, p) professional writing, q) data-based decision making and growth models.

## **Guest Lecture**

EDSP 465 Data-based Decision Making

- Gave a two-hour lecture on the analysis of assessment and student work to drive instruction through data-based decision making.

## **Service**

### **Department of Education**

Doctoral Recruitment, Department of Education and Clinical Studies,  
University of Nevada, Las Vegas, 9/2016

Department Recruitment, Department of Education and Clinical Studies,  
University of Nevada, Las Vegas, 9/2016

### **Professional Organizations**

National Honor Society in Psychology